Polix

OFFICIAL WHITEPAPER

POLX WHITEPAPER

The Economic Layer of the POLIX Prediction Ecosystem

Predict Markets. Trade Insights. Shape Tomorrow.

VERSION 1.0

POLIX / AUGUST 2026

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ABSTRACT

Abstract

Prediction markets can transform dispersed and changing knowledge into observable probability signals. POLIX approaches this category as an information infrastructure rather than a stand-alone trading interface: a governed system in which questions are specified, markets are created and curated, prices are interpreted, evidence is preserved, outcomes are resolved, and learning continues after settlement. The Whitepaper therefore examines both the economic function of prediction markets and the lifecycle controls required for their signals to remain useful.

POLIX is designed around four interconnected growth engines: the Referral Engine for qualified user supply, AI Intelligence for traceable decision support, the Liquidity Hub for market discovery and conditional liquidity coordination, and the Creator Economy for continuous, quality-controlled market supply. Across these engines, the proposed architecture links participation, data provenance, market creation, pricing, resolution, partner interfaces, and user experiences through shared lifecycle states, quality gates, and evidence boundaries. The engines are intended to reinforce one another without erasing the distinct authority, eligibility, custody, execution, or settlement responsibilities of participants and external institutions.

POLX is intended as the economic coordination layer for aligning incentives and participation across the ecosystem. Its confirmed token-economy policy is based on a fixed maximum supply of 400,000,000 POLX, a no-additional-minting policy, disciplined allocation, long-term lock-up and vesting principles, a long-term direction toward revenue-funded ecosystem incentives, and a long-term objective to burn up to 200,000,000 POLX. The Whitepaper also sets out governance and decision rights, reserve management and capital-allocation controls, and the conditions under which distribution, rewards, buyback, burn, or other supply actions may be authorized, recorded, reconciled, and disclosed.

The final chapters place this ecosystem within a security-by-design and responsible-participation framework. They address cybersecurity, operational resilience, integrity controls, user protection, transparent communication, and evidence-gated future development. Throughout, Version 1.0 distinguishes confirmed policy from proposed design and future capability; it does not treat intended features, integrations, liquidity, AI performance, legal availability, deployment timing, or economic outcomes as completed or guaranteed without supporting evidence.

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CONTENTS

Detailed Table of Contents

This detailed table of contents lists all chapter, section, and subsection headings with finalized page references and internal navigation for Version 1.0.

01 Prediction Markets as Information Infrastructure....14
1.1 Defining Prediction Markets....14
1.2 From Questions to Market Probabilities....15
1.3 Collective Intelligence and Price Discovery....16
1.4 Information as a Tradable Signal....18

02 Global Industry and Market Validation....21
2.1 The Emergence of a New Market Category....21
2.2 Structural Drivers of Adoption....23
2.3 Evidence of Real-World Demand....24
2.4 Why the Industry Is Entering a New Phase....26

03 Industry Validation and Competitive Context....29
3.1 The Role of Reference Platforms....29
3.2 What Existing Platforms Have Proven....31
3.2.1 Polymarket: Crypto-Native Market Infrastructure....31
3.2.2 Kalshi: Regulated Event-Contract Exchange....31
3.2.3 PredictIt: Research-Oriented Political Markets....32
3.2.4 Manifold: Open Community Market Creation....32
3.3 Competitive Dimensions in Prediction Markets....33
3.4 The Opportunity for a Next-Generation Model....35

04 Structural Limits of Existing Platforms....39
4.1 Limited Market Supply....39
4.2 Fragmented Liquidity....41
4.3 Complex User Experience....42
4.4 Weak Creator Incentives....43
4.5 Disconnected Growth Systems....44

05 The POLIX Next-Generation Model....48
5.1 From Trading Platform to Growth Ecosystem....48
5.2 A Supply-Engine Approach....50
5.2.1 User Supply....50
5.2.2 Intelligence Supply....50
5.2.3 Liquidity Supply....50
5.2.4 Market Supply....51
5.3 Network Effects by Design....52
5.3.1 A Conditional Complementarity Model....52
5.3.2 Feedback, Bottlenecks, and Observability....52
5.4 The POLIX Value Proposition....53

06 Vision and Global Expansion Strategy....57
6.1 The POLIX Vision....58
6.2 From Platform to Information Economy....59
6.2.1 Probability as an Information Product....59
6.2.2 From Market Output to Reusable Infrastructure....59
6.3 Asia-Pacific as a Strategic Starting Point....60
6.3.1 A Starting Point, Not a Homogeneous Market....60
6.3.2 Localization as System Validation....61
6.4 Building a Global Prediction Ecosystem....61
6.4.1 Global Core, Local Expression....62
6.4.2 Capability-Gated Expansion....62
6.4.3 Conditions for Responsible Scale....63

07 Four-Engine Architecture....66
7.1 Architecture Overview....67
7.1.1 Stable Core, Engines, and Boundary Resources....67
7.1.2 Shared Objects and Lifecycle State....67
7.1.3 Control, Data, and Evidence Planes....68
7.2 User Supply: Referral Engine....69

7.3 Intelligence Supply: AI Intelligence....69
7.4 Liquidity Supply: Liquidity Hub....70
7.5 Market Supply: Creator Economy....71
7.6 Inter-Engine Network Effects....72
7.6.1 Typed Exchanges, Not Shared Everything....72
7.6.2 Feedback Loops and Circuit Breakers....73
7.6.3 Observability and Falsifiability....73

08 Referral Engine....77
8.1 Referral as a Growth Infrastructure....78
8.2 Prediction Master Program....79
8.2.1 Tier-Based Progression....79
8.2.2 Contribution-Based Rewards....80
8.2.3 Long-Term Participation....81
8.3 Referral Dashboard....81
8.4 Referral Growth Flywheel....82
8.5 POLX Alignment....85

09 AI Intelligence....88
9.1 AI as an Intelligence Supply Engine....88
9.2 Market Intelligence Inputs....90
9.2.1 News Data....91
9.2.2 Social Data....91
9.2.3 On-Chain Data....92
9.2.4 Market Data....92
9.3 Probability Forecasting and Signal Generation....93
9.4 AI Trading Copilot....95
9.5 AI Copy & Follow....96
9.6 Limitations and Responsible Use....98

10 Liquidity Hub....102
10.1 The Liquidity Fragmentation Problem....102
10.1.1 Liquidity as a Multidimensional State....103
10.1.2 Sources of Fragmentation....104
10.1.3 Executable Liquidity and False Aggregation....104
10.2 Unified Liquidity Network....105
10.2.1 Federated Network Layers....105
10.2.2 Canonical Market and Liquidity Objects....106
10.2.3 Freshness, Availability, and Failure States....107
10.3 Prediction Market Aggregation....107
10.3.1 Semantic Equivalence and Compatibility....107
10.3.2 Normalization, Comparison, and Route Selection....108
10.4 Prediction Market Alliance Network....109
10.4.1 Partner Admission and Interface Contract....109
10.4.2 Shared Services, Autonomy, and Exit....110
10.5 Partner Platform Benefits....110
10.6 Network Effects and Market Efficiency....111
10.6.1 Positive Feedback and Efficiency Channels....111
10.6.2 Negative Externalities, Concentration, and Measurement....112

11 Creator Economy....115
11.1 Creators as the Source of Market Supply....116
11.1.1 Qualified Supply, Not Market Count....116
11.1.2 Creator Roles and Lifecycle Stewardship....117
11.2 User-Generated Markets....117
11.2.1 Proposal-to-Publication Lifecycle....118
11.2.2 Rights, Responsibilities, and Quality Gates....119
11.3 Creator Dashboard....120
11.3.1 Measurement and Evidence....120
11.3.2 Alerts, Appeals, and Accountability....121
11.4 Revenue Sharing and POLX Rewards....121
11.4.1 Contribution Attribution....122
11.4.2 Sustainable Reward Principles....123
11.5 Creator Incentive Flywheel....123
11.5.1 Positive Feedback and Bottlenecks....124
11.5.2 Gaming, Crowding, and Circuit Breakers....124
11.6 Global and Local Market Diversity....125
11.6.1 Localization as System Validation....126
11.6.2 Diversity, Coverage, and Fragmentation Controls....126

12 Market Creation and Curation....129
12.1 Market Creation Principles....130
12.1.1 Market as a Governed Contract Object....130
12.1.2 Atomicity, Relevance, and Market Dependencies....131
12.2 Question Design and Outcome Definitions....131
12.2.1 Anatomy of a Resolvable Question....132
12.2.2 Outcome Completeness and Mutual Exclusivity....132
12.2.3 Time, Thresholds, Sources, and Edge Cases....133
12.3 Quality and Curation Standards....134
12.3.1 Risk-Sensitive Quality Gates....134
12.3.2 Curation Decisions and Evidence....134
12.3.3 Amendments, Versioning, and Archival Integrity....135
12.4 Market Integrity Considerations....135
12.4.1 Manipulation Surface and Conflict Mapping....136
12.4.2 Duplicate, Dependency, and Fragmentation Controls....136
12.4.3 Monitoring, Escalation, and Protective States....137
12.5 Creator and Community Participation....137
12.5.1 Structured Participation Rights....137
12.5.2 Feedback, Appeals, and Decision Accountability....138
12.5.3 Participation Boundaries....138

13 Trading and Pricing Mechanics....141
13.1 Binary Outcome Markets....142
13.1.1 Contingent Claims and Terminal Payoffs....142
13.1.2 Complementarity and Complete-Set Logic....143
13.1.3 Binary Simplicity and Residual Complexity....143
13.2 Price as Implied Probability....143
13.2.1 Conditions Behind the Probability Interpretation....144
13.2.2 Which Price Should the Interface Display?....144
13.2.3 Calibration, Uncertainty, and Communication....145
13.3 Buying and Selling Positions....145
13.3.1 Entry Price, Quantity, and Terminal Economics....146
13.3.2 Position Lifecycle and Mark-to-Market Value....146
13.3.3 Order Intent and Execution Quality....147
13.3.4 Position Risk and Cross-Market Dependence....147
13.4 Market Activity and Price Discovery....147
13.4.1 The Information-to-Price Loop....148
13.4.2 Liquidity, Depth, Spread, and Price Impact....148
13.4.3 Manipulation, Noise, and Market Resilience....149
13.4.4 POLIX Liquidity Integration and Price Comparability....150
13.5 Settlement Logic....150
13.5.1 Close, Resolution, Finality, and Settlement....150
13.5.2 Terminal Payoff and Exceptional States....151
13.5.3 Settlement Integrity and Reconciliation....151

14 Resolution and Oracle Framework....155
14.1 Why Resolution Integrity Matters....156
14.1.1 The Oracle Problem....156
14.1.2 Contract Truth, Evidence, and Decision....157
14.1.3 Resolution Failure Surfaces....157
14.2 Resolution Sources....158
14.2.1 Source Classes and Hierarchy....158
14.2.2 Source Identity, Time, and Version....159
14.2.3 Machine-Readable Evidence and Human Judgment....159
14.2.4 Source Failure and Substitution....160
14.3 Outcome Verification....160
14.3.1 Evidence Intake and Normalization....160
14.3.2 Proposed Outcome and Review....161
14.3.3 Resolution Record and State Transitions....161
14.3.4 Automation, AI, and Review Boundaries....162
14.4 Disputes and Exceptional Cases....163
14.4.1 Challenge Standing and Evidentiary Burden....163
14.4.2 Independent Review and Escalation....164
14.4.3 Exceptional-State Taxonomy....164
14.4.4 Finality, Correction, and Reopening....165
14.5 Transparency Principles....165
14.5.1 Public Resolution Packet....165
14.5.2 Separation of Roles and Decision Rights....166
14.5.3 Measurement, Incident Learning, and Assurance....166

15 Eight Core Platform Experiences....170
15.1 All Markets....172

15.1.1 Discovery as Ranking Under Constraints....172
15.1.2 Search, Filters, Categories, and Market Families....173
15.1.3 Discovery Integrity and Attention Risk....173
15.2 Market Detail....174
15.2.1 Contract-First Information Hierarchy....174
15.2.2 Probability, Price, Liquidity, and Action....174
15.2.3 Evidence, Activity, and Market Health....174
15.3 Portfolio....175
15.3.1 Position Record and Reconciliation....175
15.3.2 Realized, Unrealized, and Scenario Value....176
15.3.3 Exposure, Concentration, and Cross-Market Dependence....176
15.4 Wallet....177
15.4.1 Balance Semantics and Asset Identity....177
15.4.2 Transaction Lifecycle and Confirmation....177
15.4.3 Security, Recovery, and Privacy Boundaries....177
15.5 Create Market....178
15.5.1 Guided Specification, Not a Title Form....178
15.5.2 Proposal States, Review, and Collaboration....179
15.5.3 Publication Readiness and Handoff....179
15.6 Leaderboard....179
15.6.1 Comparable Cohorts and Score Contracts....179
15.6.2 Risk, Scale, and Survivorship....180
15.6.3 Social Discovery Without Endorsement....180
15.7 Creator Dashboard....181
15.7.1 Pipeline, Work Queue, and State Evidence....181
15.7.2 Analytics, Attribution, and Economic Eligibility....181
15.7.3 Community Growth and Accountability....181
15.8 AI Dashboard....182
15.8.1 Signal Card as an Analytical Contract....182
15.8.2 Performance, Calibration, and Drift....182
15.8.3 Human Control, Action Boundaries, and Feedback....182

16 Partner Network and Ecosystem Integration....186
16.1 Partner Ecosystem Overview....188
16.1.1 Ecosystem Unit of Analysis....188
16.1.2 Federation Without Semantic Drift....189
16.1.3 Network Effects, Bottlenecks, and Externalities....189
16.2 Prediction Market Alliance Network....190
16.2.1 Membership and Capability Tiers....190
16.2.2 Identity, Authority, and Least Privilege....190
16.2.3 Onboarding, Operations, Suspension, and Exit....191
16.3 AI and Analytics Infrastructure....192
16.3.1 Data Contracts and Provenance....192
16.3.2 AI Service Boundary and Model Accountability....192
16.3.3 Cross-Network Evaluation and Learning....193
16.4 Discovery and Growth Tools....194
16.4.1 Discovery Across Heterogeneous Markets....194
16.4.2 Referral, Attribution, and Localization....194
16.4.3 Growth Integrity and Measurement....195
16.5 POLX-Based Partner Alignment....195
16.5.1 Economic Eligibility Is Not Automatic Reward....196
16.5.2 Measurement, Reconciliation, and Dispute....196
16.5.3 Sustainable Alignment and Chapter Boundary....197

17 POLX: The Economic Layer....200
17.1 The Role of POLX....202
17.1.1 Token as a Platform Coordination Instrument....202
17.1.2 Economic Layer, Not a Claim on Platform Value....203
17.1.3 Utility, Demand, and Evidence Boundaries....203
17.2 Connecting Platform Activity....204
17.2.1 From Activity Events to Economic State....204
17.2.2 One Token, Multiple Function Classes....205
17.2.3 Cross-Engine Accounting Without Double Counting....205
17.3 Incentives, Participation, and Growth....205
17.3.1 Bootstrapping and the Coordination Problem....206
17.3.2 Contribution Quality and Incentive Compatibility....206
17.3.3 Transition from Token-Funded to Revenue-Funded Activity....207
17.4 Economic Alignment Across the Ecosystem....208
17.4.1 Stakeholder Roles and Value Exchanges....208
17.4.2 Rights, Obligations, and Conflict Boundaries....209
17.4.3 Measurement, Concentration, and Feedback Control....209
17.5 From Token Distribution to Sustainable Value....210

17.5.1 Fixed Supply and Controlled Deployment....210
17.5.2 Value Creation, Value Capture, and Supply Actions....211
17.5.3 Chapter Boundary and Falsifiable Claims....211

18 POLX Utility Framework....215
18.1 Utility Overview....217
18.1.1 Utility as a Policy-Defined Relationship....217
18.1.2 Utility Families and Non-Equivalence....218
18.1.3 Availability and Evidence States....218
18.2 Trading Rewards....219
18.2.1 Contribution Being Recognized....220
18.2.2 Qualification and Market-Integrity Boundary....220
18.2.3 Reward State, Funding, and Evaluation....221
18.3 Referral Rewards....221
18.3.1 Incremental and Attributable User Supply....222
18.3.2 Quality, Retention, and Tier Evidence....222
18.3.3 Reward Boundaries and Abuse Controls....222
18.4 Creator Rewards....223
18.4.1 Market-Supply Contribution and Attribution....223
18.4.2 Lifecycle Quality and Stewardship....224
18.4.3 POLX Rewards and Revenue-Sharing Boundary....224
18.5 AI Access....225
18.5.1 Access Object and Entitlement Basis....225
18.5.2 Service Delivery, Capacity, and Availability....226
18.5.3 Model Limitations and User Control....226
18.6 Partner Incentives....227
18.6.1 Eligible Partner Contribution....227
18.6.2 Measurement, Conflicts, and Concentration....228
18.6.3 Authorization, Settlement, and Exit....228
18.7 Governance Participation....229
18.7.1 Scope and Excluded Rights....229
18.7.2 Proposal, Voting, Delegation, and Execution Separation....229
18.7.3 Progressive Activation and Evidence....230

19 Token Specification....233
19.1 Token Identity....235
19.1.1 Canonical Token Identifier, Symbol, and Unit....235
19.1.2 Identity Across Interfaces and Records....236
19.1.3 Specification, Deployment, and Availability States....236
19.2 BNB Smart Chain and BEP-20....237
19.2.1 Network and Standard Scope....237
19.2.2 Interface Semantics and Limits....237
19.2.3 Deployment and Integration Evidence....238
19.2.4 Chain, Wrapper, and Migration Boundaries....238
19.3 Fixed Maximum Supply....239
19.3.1 Supply Variables and Non-Equivalence....239
19.3.2 Conservation and Reconciliation Model....240
19.3.3 Maximum Supply and Initialization Evidence....240
19.3.4 Concentration, Liquidity, and Value Boundaries....240
19.4 No Additional Minting....241
19.4.1 Technical Meaning of the No-Mint Rule....241
19.4.2 Privileges, Ownership, and Upgradeability....242
19.4.3 Verification and Continuous Assurance....242
19.4.4 Exceptions, Migration, and Disclosure Discipline....243
19.5 Long-Term Burn Objective....243
19.5.1 Objective, Cap, and Non-Guarantee....244
19.5.2 What Constitutes a Verified Burn....244
19.5.3 Authorization, Funding, and Execution Boundary....244
19.5.4 Supply Reconciliation and Policy Versioning....245

20 Token Allocation....249
20.1 Allocation Architecture and Accounting Identity....251
20.1.1 Category Allocation, Program Assignment, and Distribution....252
20.1.2 Allocation State Vocabulary....252
20.2 Portfolio Logic and Category Boundaries....253
20.2.1 The Seventy-Percent Participation Emphasis....254
20.2.2 Specialized Capacity and Strategic Optionality....254
20.3 POLIX Ecosystem Growth — 40%....255
20.4 Platform Economy — 30%....256
20.5 Liquidity & Market Stability — 15%....257
20.6 Strategic Growth Reserve — 10%....257
20.7 Strategic Partnerships & Listings — 3%....258

20.8 Core Contributors — 2%....259
20.9 Program Authorization and Allocation Controls....260
20.10 Reallocation, Amendments, and Material Change....261
20.11 Reporting, Reconciliation, and Public Disclosure....262
20.12 Allocation Risks and Interpretive Limits....263

21 Confirmed Lock-up and Vesting Principles....267
21.1 Why Lock-up and Vesting Matter....269
21.1.1 State Vocabulary and Non-Equivalence....270
21.1.2 The Authoritative Clock....271
21.2 Strategic Growth Reserve Lock-up....272
21.3 Partnerships & Listings Lock-up....273
21.4 Core Contributors Schedule....274
21.4.1 24-Month Initial Lock-up....275
21.4.2 36-Month Linear Vesting....275
21.4.3 60-Month Total Alignment Period....276
21.5 Unvested Allocation Principles....277
21.6 Administration and Technical Implementation Boundaries....278
21.7 Disclosure, Reconciliation, and Change Control....279
21.8 Risks and Interpretive Limits....280

22 Platform Economy and Rewards....284
22.1 The Platform Economy Allocation....285
22.1.1 Allocation, Program Budget, and Reward-Obligation Boundary....286
22.2 Creator Incentives....286
22.2.1 Contribution Measurement and Attribution....287
22.2.2 Quality, Resolution, and Market-Integrity Gates....287
22.3 User Participation Incentives....288
22.3.1 Incrementality, Retention, and Anti-Farming....288
22.3.2 Market Participation versus Trading Outcome....288
22.4 Referral and Ecosystem Contributions....289
22.4.1 Referral Causality and Multi-Touch Attribution....290
22.4.2 Community, Market, and Partner Contributions....290
22.5 Progressive Distribution....290
22.5.1 Cohorts, Caps, Review, and Appeals....291
22.5.2 Ledger, Reconciliation, and Disclosure....291
22.6 Transition to Revenue-Funded Incentives....292
22.6.1 Portfolio Evaluation and Transition Gates....293

23 POLIX Ecosystem Growth....296
23.1 Allocation Purpose....297
23.1.1 Category Mandate and Program Boundary....298
23.2 Global Community Expansion....299
23.2.1 Community Capabilities and Network Quality....299
23.3 Regional Market Development....300
23.3.1 Market Readiness and Capability Gates....301
23.4 Strategic Ecosystem Programs....302
23.4.1 Program Taxonomy and Funding Attribution....302
23.5 Progressive Distribution....303
23.5.1 Tranches, Milestones, and Portfolio Reconciliation....304
23.6 Governance Principles....305
23.6.1 Decision Rights, Review, and Ecosystem Learning....306

24 Revenue-Based Sustainability....309
24.1 Beyond Continuous Token Emissions....310
24.1.1 Subsidy Dependence and the Economic Boundary....311
24.2 Revenue-Funded Ecosystem Incentives....312
24.2.1 Funding Waterfall and Program Authorization....313
24.3 Controlled Token Distribution....314
24.3.1 Distribution Decision and Reconciliation....315
24.4 Fixed Supply Protection....315
24.4.1 Supply Invariants and Change Control....316
24.5 Value Capture Mechanism....317
24.5.1 Value Linkage and Claim Boundaries....317
24.6 Sustainable Value Cycle....319
24.6.1 Maturity Gates, Reporting, and Correction....319

25 Buyback and Burn Mechanism....322
25.1 Purpose and Long-Term Objective....323

25.1.1 Scarcity, Utility, and the Non-Guarantee Boundary....324
25.2 Revenue-Linked Buyback....325
25.2.1 Execution Routes and Market Integrity....326
25.3 Permanent Token Burn....328
25.3.1 Reconciliation and Supply Accounting....329
25.4 Sustainable Execution Principles....330
25.4.1 Governance, Conflicts, and Operational Controls....331
25.5 Long-Term Supply Reduction Target....331
25.6 Transparency Principles....333
25.6.1 Assurance, Incidents, and Transition to Reserve Controls....334

26 Reserve Management and Capital Allocation Controls....336
26.1 Purpose of Strategic Reserves....337
26.1.1 Time Horizons, Stress, and Minimum Protection....339
26.1.2 Reserve Register and Evidence Ownership....339
26.2 Approved Use Principles....340
26.2.1 Authority, Conflicts, and Decision Records....341
26.2.2 Exclusions, Non-Substitution, and Priority Rules....342
26.3 Progressive Deployment....342
26.3.1 Tranche Gates and Capacity Re-Certification....343
26.3.2 Monitoring, Stop Conditions, and Recovery....344
26.4 Separation from Circulating Supply....345
26.4.1 Wallet, Ledger, and Reconciliation Architecture....346
26.4.2 Circulating-Supply Disclosure and Corrections....347
26.5 Long-Term Ecosystem Alignment....347
26.5.1 Portfolio Limits, Stress, and Replenishment Logic....348
26.5.2 Assurance, Public Reporting, and Transition to Governance....349

27 Governance and Decision Rights....352
27.1 Governance Objectives....354
27.1.1 Governed Objects, States, and Decision Rights....355
27.1.2 Proportionality, Subsidiarity, and Evidence Thresholds....355
27.2 Operational Governance....356
27.2.1 Separation of Functions, Conflicts, and Recusal....357
27.2.2 Delegation, Automation, and Emergency Authority....358
27.2.3 Records, Appeals, and Correction....359
27.3 Allocation and Policy Oversight....360
27.3.1 Policy-to-Program Authorization Chain....361
27.3.2 Portfolio Limits, Amendments, and Reconciliation....362
27.4 Transparency and Public Communication....363
27.4.1 Version Control, Material Updates, and Controlled Transparency....364
27.4.2 Incidents, Corrections, and Communication Integrity....364
27.5 Future Governance Participation....365
27.5.1 Rights Boundaries, Integrity, and Minority Protection....366
27.5.2 Progressive Governance and Transition Discipline....367

28 Security, Integrity and Risk Controls....370
28.1 Security-by-Design Principles....372
28.1.1 Governed Assets, Trust Boundaries, and Control Objectives....373
28.1.2 Secure Development, Change, and Privileged Access....374
28.2 Market and Resolution Integrity....376
28.2.1 Market Admission, Manipulation, and Surveillance....377
28.2.2 Resolution Sources, Disputes, and Corrective Finality....378
28.3 Wallet and Transaction Awareness....379
28.3.1 Authorization, Signing, and User-Safety Boundaries....380
28.3.2 Transaction Lifecycle, Asset Movement, and Recovery....382
28.4 Data and AI Integrity....383
28.4.1 Data Provenance, Quality, and Model Boundaries....384
28.4.2 AI Decision Support, Monitoring, and Human Accountability....385
28.5 Operational Resilience....387
28.5.1 Incident Response, Continuity, and Recovery Objectives....388
28.5.2 Dependencies, Exercises, Assurance, and Public State....389

29 Participation Principles, User Protection and Key Considerations....393
29.1 Purpose and Information Scope....394
29.1.1 Document Function, Audience, and Decision Context....394
29.1.2 Facts, Proposals, Assumptions, and Material Updates....395
29.2 Market Characteristics and Token Considerations....396
29.2.1 Probability Information, Trading States, and Decision Quality....396
29.2.2 POLX Token Utility, Supply States, and Economic Boundaries....397

29.3 Technology, Wallet Safety, and User Protection....398
29.3.1 Connection, Authorization, and Transaction Comprehension....398
29.3.2 Support, Recovery, and Protective Communications....399
29.4 AI Interpretation and Decision Support....400
29.4.1 Source Grounding, Uncertainty, and Model Boundaries....400
29.4.2 Forecasts, Copy/Follow, and Human Judgment....401
29.5 Service Continuity and Ecosystem Dependencies....402
29.5.1 Service State, Dependencies, and Coordinated Protection....402
29.5.2 Incidents, Corrections, and User-Support Continuity....403
29.6 Participation Principles and Support Channels....404
29.6.1 Responsible Participation and Bounded Responsibility....404
29.6.2 Official Channels, Feedback, Disputes, and Learning....405

30 Future Development Direction....408
30.1 Advancing the Four Engines....409
30.1.1 Engine Maturity and Interoperability....409
30.1.2 Evidence-Gated Capability Expansion....410
30.2 Expanding the Partner Network....411
30.2.1 Alliance Capability and Partner Autonomy....411
30.2.2 Progressive Onboarding and Shared Assurance....411
30.3 Deepening the POLX Economic Layer....412
30.3.1 Utility Growth Through Verified Services....412
30.3.2 Revenue, Incentives, Supply, and Governance....413
30.4 Building Global Market Diversity....414
30.4.1 Local Relevance and Global Integrity....414
30.4.2 Category, Language, Community, and Jurisdictional Readiness....415
30.5 Toward a Global Prediction Economy....416
30.5.1 From Isolated Markets to Reusable Intelligence....416
30.5.2 Long-Term Direction, Gates, and Public Evidence....417

References & Sources....420

Glossary & Abbreviations....427

EXECUTIVE OVERVIEW

Executive Overview

POLIX frames prediction markets as emerging information infrastructure rather than as a stand-alone event-trading product. Chapters 1-6 establish the industry thesis, identify structural limits, and define a four-supply model: qualified users, intelligence, liquidity, and markets coordinated through explicit interfaces and accountable lifecycle controls.

Growth Engine	Supply Function	Ecosystem Role
Referral Engine	User Supply	Intended to turn participation and trusted invitations into a network-driven growth loop.
AI Intelligence	Intelligence Supply	Intended to transform news, social, on-chain, and market data into probability intelligence.
Liquidity Hub	Liquidity Supply	Intended to connect partner markets and fragmented liquidity through a unified network strategy.
Creator Economy	Market Supply	Intended to enable creators to introduce markets, build communities, and share in ecosystem value.

Chapters 7-16 translate the thesis into an operating architecture. They define the four engines and the market lifecycle from creation and curation through pricing, evidence, resolution, and settlement, together with participant experiences and partner integration. Market objects, analytical outputs, liquidity views, permissions, and resolution records remain distinct but connected so interoperability does not erase institutional or user boundaries.

Chapters 17-27 define POLX as the intended economic coordination layer. They cover utility, the BNB Smart Chain and BEP-20 specification, the fixed 400,000,000 POLX maximum supply, allocation, lock-up and vesting, ecosystem incentives, revenue-based sustainability, buyback and burn controls, reserve management, capital allocation, governance, and decision rights. Policy approval, distribution, implementation, execution, and public evidence are treated as separate states.

Chapters 28-30 complete the framework through security-by-design, integrity and risk controls, responsible participation, user protection, and evidence-gated future development. The resulting structure connects growth, market quality, economic sustainability, governance, and resilience under one claim boundary.

CORE THESIS **User Supply + Intelligence Supply + Liquidity Supply + Market Supply = a self-reinforcing prediction economy intended to be coordinated through POLX.**

CHAPTER 01

Prediction Markets as Information Infrastructure

How prediction markets convert dispersed knowledge into continuously updated market probabilities.

Chapter Thesis

Prediction markets are best understood not merely as venues for taking positions on uncertain events, but as information systems that convert dispersed, changing, and often conflicting judgments into observable prices. When a market is well specified, sufficiently liquid, and credibly resolved, its price history can serve as a continuously updated signal about the state of collective expectations. The signal is not a guarantee of truth. Its value arises from a transparent mechanism through which participants can express information, disagreement, and conviction under economic consequences.

The central proposition of this chapter is that a prediction market has two outputs. Its participant-level output is a contingent financial or non-cash scored position held by a participant. Its public output is an information signal observed by the market as a whole. This dual-output structure explains why prediction markets can be relevant beyond the immediate group of traders. A price can inform researchers, institutions, media, communities, automated systems, and other decision makers even when they never trade the underlying contract.

This interpretation is consistent with the POLIX project thesis that future information and probability can be organized as a market-based intelligence layer. The purpose of Chapter 1 is to establish the analytical foundation for that thesis. It defines prediction markets, explains how questions become prices, examines the conditions under which prices aggregate information, and clarifies the limits of treating a market price as a literal probability. Subsequent chapters apply this foundation to industry development, platform architecture, and the POLIX ecosystem.

1.1 Defining Prediction Markets

A prediction market is a market for contracts whose settlement value depends on a specified future event, observation, or measurable outcome. In a binary market, one contract may pay one unit if an event occurs and zero if it does not. In a categorical market, the available contracts correspond to mutually exclusive outcomes. In a scalar market, settlement may vary with a continuous quantity such as a vote share, an economic indicator, or another objectively measurable value. The common feature is contingency: the payoff is defined by what ultimately happens.

The term prediction market therefore describes more than a website or a trading interface. It combines three layers. The contract layer defines the question, eligible outcomes, cutoff time, evidence source, and settlement rule. The exchange layer matches or prices positions through an order book, an

automated market maker, or another market-clearing mechanism. The information layer publishes the resulting price, volume, and trading history. If any one of these layers is weak, the informational usefulness of the market may be impaired.

Question design is foundational. A market cannot produce a clear signal if its underlying proposition is ambiguous, if the outcomes are not collectively exhaustive, or if the resolution evidence can support multiple reasonable interpretations. A useful question must specify what will be measured, when it will be measured, which source has authority, and how exceptional cases will be handled. The market is forecasting the contract as written, not a broader narrative that participants may associate with it.

Prediction markets also differ from surveys and polls. A poll records stated responses from a sampled population at a particular time. A prediction market records transactions among self-selected participants who may revise their positions repeatedly. The market price is set at the margin by participants willing and able to trade; it is not a one-person-one-vote average. This distinction is essential. A prediction market may be highly informative even when its traders are not demographically representative, but it may also be biased when participation, capital, or information is systematically concentrated.

The U.S. Commodity Futures Trading Commission describes the products traded on prediction markets as event contracts and notes their potential uses in forecasting, planning, and hedging (CFTC, n.d.). Academic literature emphasizes their information-aggregation function: the market creates an incentive for participants to act on information that they believe is not yet reflected in price (Wolfers and Zitzewitz, 2004). The result is a mechanism that can transform a qualitative disagreement - for example, whether a policy will be adopted - into a quantitative and continuously revisable signal.

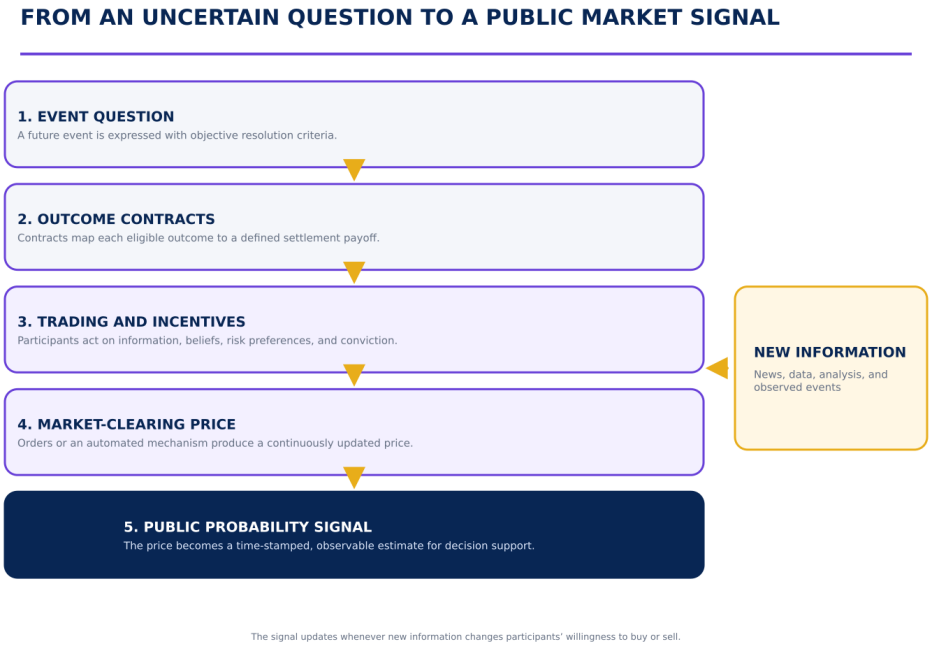

Figure 1.1. Information-production cycle of a prediction market. Source: POLIX editorial synthesis based on Wolfers and Zitzewitz (2004) and official POLIX materials.

1.2 From Questions to Market Probabilities

Consider a binary contract linked to an event E. Let X equal 1 if E occurs under the published resolution rule and 0 otherwise. A unit of the YES contract therefore pays X at settlement. In an idealized market with negligible discounting, no material transaction costs, sufficient liquidity, and participants whose

trading demands do not create large risk distortions, the contract price can be interpreted as an estimate of the event probability conditional on the information reflected in the market.

Binary payoff: X = 1 if E occurs; X = 0 otherwise

Pricing statement: $p_t = E_{Q_t}[X \mid I_t]$

Operational probability interpretation: $p_t \approx Pr(E \mid I_t)$**, subject to limited frictions and risk distortions**

Here, the notation indexes the market price, the information reflected in trading, and the market-implied pricing distribution by time t. The pricing distribution need not be unique or coincide with an objectively observed probability distribution. The second expression is therefore deliberately approximate. It is the operational probability interpretation commonly used in practice, while the first statement makes clear that price also reflects the market's pricing of risk and other frictions.

Suppose a YES contract that pays 1 unit at resolution trades at 0.63. The usual shorthand is that the market assigns a 63 percent probability to the event. This is a useful operational interpretation, especially for short-dated, liquid, fully collateralized contracts. It should not be presented as a metaphysical claim that the true probability has been observed. The figure is a market-implied estimate generated by a particular contract, participant set, market mechanism, and moment in time.

The price is also not a simple arithmetic average of all participant beliefs. Traders differ in wealth, confidence, risk tolerance, information quality, and willingness to act. Some do not trade because their belief is close to the market price or because the expected gain does not justify cost and risk. Others trade aggressively because they perceive a large pricing error. The observed price is an equilibrium outcome at the margin. Wolfers and Zitzewitz (2006b) identify conditions under which this price is close to the mean of participants' beliefs, while Manski (2006) demonstrates that the mapping is not automatic under broader assumptions.

New information changes the signal through trading. If credible evidence increases the perceived likelihood of E, participants who view the existing YES price as too low have an incentive to buy. Their demand moves the price upward until the expected advantage is reduced or countered by opposing orders. A contrary development creates pressure in the opposite direction. The price history therefore records successive states of information, interpretation, and market conviction rather than a single static forecast.

For a set of mutually exclusive and collectively exhaustive outcomes, normalized contract prices can form a probability distribution that sums to one. In practice, the sum of displayed prices may deviate from one because of bid-ask spreads, asynchronous trades, fees, collateral design, or incomplete arbitrage. Analysts should distinguish executable bid and ask prices, last-traded prices, and normalized estimates. The choice can matter materially in a thin or rapidly moving market.

> INTERPRETATION PRINCIPLE **A prediction-market price should be read as a contract-specific, time-specific, market-implied probability signal - not as certainty, a guarantee, or an unqualified average of public belief.**

1.3 Collective Intelligence and Price Discovery

The intellectual case for prediction markets begins with dispersed information. Relevant knowledge is rarely held by one person or produced by one model. It is distributed across specialists, local observers, datasets, institutions, and communities. Some signals are public; others are costly to discover or difficult

to communicate. A market offers a common numerical language through which these heterogeneous inputs can affect a shared price.

Three features distinguish market-based aggregation. First, participation is decentralized: traders can act without waiting for a central forecaster to request or approve an opinion. Second, the mechanism is incentive-compatible in a practical, though not perfect, sense: a participant who identifies a meaningful mispricing can earn a return by correcting it, while persistent error can be costly. Third, the signal is continuous. Beliefs can be revised when evidence changes rather than remaining fixed until the next survey or forecast release.

Price discovery is the process through which orders based on different information and beliefs are reconciled into a tradable price. A trader does not need to disclose a research report or persuade every other participant. The trader can instead buy an underpriced claim or sell an overpriced one. These actions transmit information indirectly. Laboratory evidence has shown that appropriately designed markets can aggregate information that is distributed across participants, although performance depends on market completeness and institutional design (Plott and Sunder, 1988).

Evidence from real prediction markets is encouraging but domain-specific. Berg, Nelson, and Rietz (2008) compared Iowa Electronic Markets forecasts with 964 national polls across five U.S. presidential elections from 1988 through 2004. The market forecast was closer to the eventual two-party vote share in 74 percent of the comparisons. Their study also found strong performance at longer horizons, where raw polls are especially sensitive to transient opinion and sampling conditions. This is significant evidence for market aggregation, but it does not establish that every market in every domain will outperform every alternative forecast.

Broader reviews reach a similarly qualified conclusion. Wolfers and Zitzewitz (2004) document applications across elections, economic indicators, business decisions, and other uncertain events, arguing that market prices frequently provide useful forecasts. Arrow et al. (2008) characterize prediction markets as a powerful tool for aggregating information and call attention to the importance of clear contracts, participation, and well-designed institutions. The common lesson is not that markets are infallible, but that they provide a distinctive aggregation technology.

Table 1.1. Forecasting approaches and their information structures

Approach	Primary input	Update pattern	Principal strength	Characteristic limitation
Opinion poll	Stated responses from a sampled population	Periodic fieldwork	Measures reported preferences or expectations	Sampling, wording, nonresponse, and timing effects
Expert forecast	Structured judgment and domain knowledge	Scheduled or discretionary	Depth, causal interpretation, and accountability	Limited breadth; correlated institutional assumptions
Statistical model	Historical and contemporaneous data	When data and model are refreshed	Consistency, scale, and explicit methodology	Model risk, regime change, and omitted variables
Prediction market	Trades based on heterogeneous information and incentives	Continuous while trading is active	Real-time aggregation and an observable price signal	Liquidity, selection, risk, market design, and resolution risk

Calibration provides a more demanding test than isolated success. A set of forecasts is well calibrated if events assigned a probability near 70 percent occur approximately 70 percent of the time across a

sufficiently large and comparable sample. Page and Clemen (2013) find that prediction-market prices can be reasonably calibrated near expiration while displaying favorite-longshot bias at longer horizons: low-probability events may be overpriced and high-probability events underpriced. This evidence reinforces the need to evaluate probabilities by horizon, contract design, and market structure rather than treating all displayed prices as equally reliable.

Other failure modes are equally important. Thin liquidity can allow small orders to move price without adding meaningful information. Correlated participants may repeat the same source rather than contribute independent signals. Wealth and risk preferences can cause demand to diverge from belief. Transaction costs and capital lock-up can discourage informed participation. Ambiguous resolution criteria can shift trading toward legal or semantic interpretation rather than the intended real-world question. Manipulation can distort a price, particularly where informed counterparties lack the capital or incentive to respond.

Accordingly, collective intelligence should be treated as an emergent property, not an automatic feature. It is most credible when the market combines diverse information, independent incentives, low barriers to correction, adequate liquidity, transparent rules, and objective resolution. The quality of the output is inseparable from the quality of the system that produces it.

1.4 Information as a Tradable Signal

A conventional forecast is usually delivered as a report, a point estimate, or a model output. A prediction market adds an economic interface. Information becomes actionable because a participant can take a position against the prevailing price. The position exposes the participant to gain or loss, while the resulting trade modifies the public signal. This is the sense in which information becomes tradable: the market does not sell truth, but it allows participants to exchange contingent claims whose prices encode competing expectations.

The resulting signal has several infrastructure-like properties. It is explicit because the market publishes a number rather than an unranked set of opinions. It is continuous because the estimate can change whenever trading occurs. It is auditable because the price path and market activity can be recorded. It is comparable because multiple questions can be expressed on a common probability scale, subject to differences in quality and design. It is machine-readable because prices, volume, spreads, and time stamps can be supplied to dashboards, models, alerts, and application interfaces.

These properties expand the potential audience. A policy team may monitor how a market responds to a new announcement. A risk manager may compare event probabilities with portfolio exposure. A researcher may study the timing and persistence of belief updates. A media organization may use the price as one contextual indicator alongside polls and models. An AI system may treat market data as one input among many. None of these uses requires the observer to regard the price as definitive. The value lies in observing a disciplined and continuously updated measure of market expectations.

There is also an economic tension at the core of information markets. If prices perfectly revealed all private information, no participant could earn a return from acquiring that information, and the incentive to produce it would disappear. Grossman and Stiglitz (1980) formalize this paradox for financial markets. Informative prices therefore coexist with noise, costs, and temporary mispricing. Prediction markets do not eliminate this tension; they organize it. The possibility of profit motivates research and correction, while price discovery makes part of that information publicly observable.

For POLIX, the information-infrastructure perspective has a direct architectural implication. A useful prediction economy requires more than outcome contracts. It requires a continuing supply of participants, analytical intelligence, liquidity, and well-formed markets. Official POLIX materials describe

these requirements as four interconnected supply engines: the Referral Engine for user supply, AI Intelligence for decision-support supply, the Liquidity Hub for liquidity supply, and the Creator Economy for market supply (POLIX Presentation v1.0 EN, 2026; POLIX Project Summaries 0, 1, 3, 4, and 6, 2026). Their detailed design is addressed later in this whitepaper. At this stage, the relevant point is conceptual: the reliability and reach of a probability signal depend on the ecosystem that generates it.

This framing also establishes a boundary. POLIX does not need to claim that a market price is always correct in order to treat prediction markets as valuable information infrastructure. A more defensible standard is that the platform should make uncertainty legible, create incentives for informed correction, document how probabilities evolve, and expose the conditions under which the signal should or should not be trusted. Accuracy remains an empirical outcome to be measured, not a promise to be asserted.

Chapter Synthesis

1. Prediction markets trade contracts with settlement values tied to objectively defined future outcomes.
2. A binary contract price can function as an implied probability, but the interpretation depends on liquidity, risk, cost, horizon, and market design.
3. Collective intelligence arises from decentralized information, incentives, and correction; it is not guaranteed by the existence of a market alone.
4. The public value of a prediction market is its continuously updated, auditable, and machine-readable information signal.
5. POLIX adopts this information-infrastructure perspective and connects it to four supply requirements: users, intelligence, liquidity, and markets.

TRANSITION TO CHAPTER 2 **Chapter 2 examines how prediction markets are developing into a distinct global market category and identifies the structural forces supporting broader adoption.**

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CHAPTER 02

Global Industry and Market Validation

Why prediction markets are becoming a distinct financial-information category.

Chapter Thesis

Prediction markets are moving from a specialized forecasting mechanism toward a distinct market category at the intersection of contingent finance, public information, and digital participation. The case for this category does not depend on an unsupported global market-size estimate. It rests on a broader convergence: prediction markets have persisted across research, enterprise, regulated-exchange, and on-chain settings; their prices are increasingly distributed as real-time data; and their institutional design is receiving sustained attention from users, developers, organizations, and public authorities.

The central proposition of this chapter is that industry validation must be evaluated through multiple independent signals. A high-profile event may generate substantial trading activity without establishing durable participation. A large number of listed markets may coexist with weak liquidity or ambiguous resolution. Media attention may demonstrate information demand without proving forecast accuracy or a sustainable business model. Conversely, a small internal market may create measurable decision value even though its activity is not comparable with that of a public exchange. No single metric captures all of these dimensions.

Chapter 2 therefore defines the emerging industry by function rather than by promotional labels. It explains how an information-aggregation mechanism becomes a repeatable market category, identifies the structural forces supporting adoption, evaluates observable evidence of real-world demand, and establishes the criteria for judging whether the category is entering a new phase. Competitive comparison between named platforms is reserved for Chapter 3, while platform constraints are examined in Chapter 4.

2.1 The Emergence of a New Market Category

Prediction markets are not historically new. Organized markets for contingent outcomes predate blockchain and modern web platforms, and the Iowa Electronic Markets have operated as an academic prediction-market program since 1988. Research during the following decades examined whether prices could aggregate dispersed information, how contracts should be designed, and when market forecasts might improve on specified benchmarks (University of Iowa, n.d.; Wolfers and Zitzewitz, 2004). The recent change is therefore not the invention of the mechanism. It is the widening set of institutional forms through which the mechanism can be distributed, governed, and consumed.

A mechanism begins to resemble an industry when it supports recurring production and consumption rather than a single experiment. On the supply side, sponsors or creators must be able to translate new uncertainties into well-specified contracts. Venues must provide execution, collateral, market

surveillance or protocol rules, resolution, and data publication. On the demand side, participants must have a reason to trade, forecast, hedge, or monitor the resulting signal. Supporting roles emerge around liquidity provision, analysis, distribution, software integration, and dispute management. These repeated functions form an economic value chain rather than a stand-alone forecasting exercise.

The category currently appears in at least four institutional forms. Regulated event-contract exchanges list contingent products under formal exchange rules and an applicable regulatory perimeter. Hybrid or on-chain markets represent outcomes through digital assets and may use blockchain-based settlement, while matching, market creation, access controls, or resolution can remain partly operator-managed. Enterprise and internal markets restrict participation to an organization or defined community and use prices or scored forecasts for internal decision support rather than open public trading or cash-settled participation. Public play-money or community forecasting platforms permit open or semi-open participation and social market creation without real-money settlement. This classification is analytical: individual systems can combine elements from more than one form.

The institutional differences matter because the word decentralized can otherwise hide important design choices. Custody, order matching, market creation, settlement, data publication, and outcome resolution can each be centralized, distributed, or hybrid. Current Polymarket documentation, for example, describes operator-matched orders that settle on-chain and a separate optimistic-oracle process for resolution (Polymarket, n.d.-b, n.d.-c). The example demonstrates an industry principle rather than a competitive assessment: technical settlement architecture alone does not determine the governance of the full market lifecycle.

Prediction markets also combine two kinds of value that are usually separated. The first is transactional: a participant acquires exposure to a contingent outcome. The second is informational: the resulting price, order book, and history can be observed by people and systems that never hold the contract. The U.S. Commodity Futures Trading Commission describes event contracts as products that may help the public forecast, plan, hedge, and harness perceptions of future events (CFTC, n.d.). The coexistence of financial positions and public probability signals is what makes the category analytically distinct.

The phrase financial-information category should not be mistaken for a universal legal classification. Economically similar activity may be treated as a derivative, a betting service, a research mechanism, or a restricted activity depending on jurisdiction and institutional structure. Nor does the phrase imply that market prices are objective probabilities. It describes a functional convergence: contingent contracts produce price signals, and those signals can become inputs to financial, analytical, media, and decision systems.

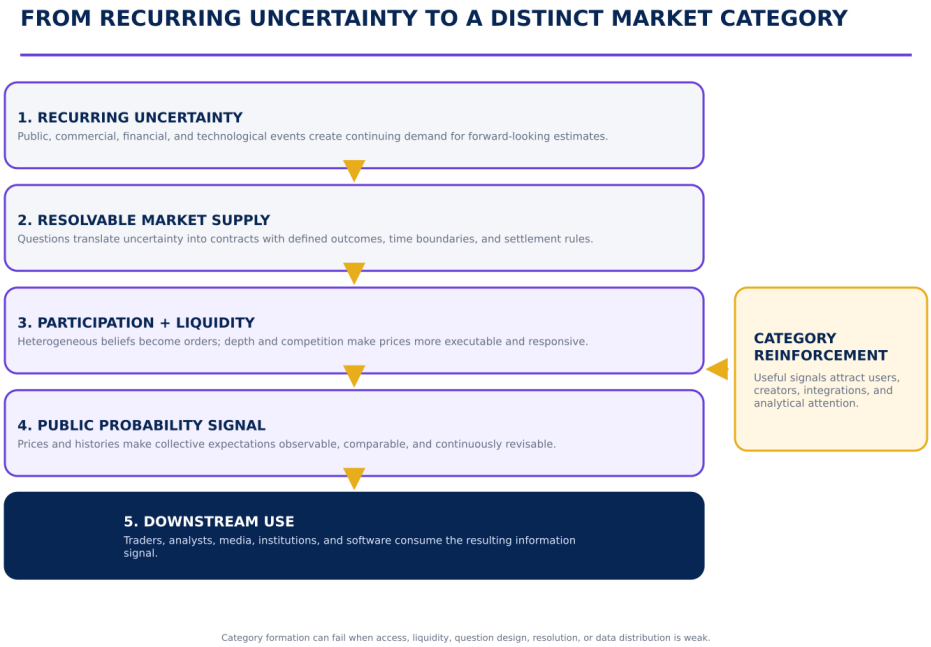

Figure 2.1. Category-formation loop in the prediction-market industry. Source: POLIX editorial synthesis.

2.2 Structural Drivers of Adoption

The first structural driver is persistent demand for interpretable uncertainty. Elections, economic releases, policy decisions, technology milestones, commercial launches, weather events, and cultural outcomes generate questions before authoritative answers exist. Conventional information channels often deliver narratives, expert views, or periodic point estimates. A prediction market offers a common probability scale and a record of how expectations change. Adoption becomes more plausible when users value not only a final forecast, but also the path of revisions and the market reaction to new information.

The second driver is digital distribution. Web and mobile interfaces reduce the cost of discovering questions, monitoring prices, and responding to new evidence. Digital identity, payments, custody, and settlement systems can reduce operational friction, although the effect depends on the venue and the user. Blockchain-based systems add programmable outcome tokens, public settlement records, and composability. Regulated exchanges provide a different infrastructure path through formal trading, surveillance, and operational requirements. These paths are not substitutes in every context; both demonstrate that the mechanism can be implemented as persistent market infrastructure (CFTC, 2020; Polymarket, n.d.-b).

Institutional recognition is a related but distinct signal. The CFTC designated KalshiEX as a contract market in November 2020, providing an official example of a regulated event-contract exchange (CFTC, 2020). In March 2026, CFTC staff described prediction markets as rapidly increasing in popularity and issued an advisory to designated contract markets concerning their obligations (CFTC, 2026). These actions do not validate every contract or business model. They do show that prediction markets have become material enough to require dedicated supervisory attention within a major derivatives jurisdiction.

The third driver is the transformation of market prices into distributable data. A probability becomes more valuable when it can be searched, compared, timestamped, streamed, and integrated with other systems. Public documentation for a current on-chain venue exposes market discovery, order-book data, historical prices, analytics, and real-time feeds through application interfaces (Polymarket, n.d.-a).

This does not prove that every data consumer makes better decisions. It demonstrates that the category is developing a product layer beyond the trading screen: market information can be consumed by dashboards, alerts, research workflows, media products, and software agents.

Artificial intelligence can strengthen this data layer, but its role should be stated carefully. AI systems can lower the cost of discovering relevant markets, summarizing evidence, comparing probability histories, and monitoring inconsistencies across questions. They may also increase the volume of generated content and the risk of repeated or low-quality signals. AI is therefore an enabling technology rather than independent proof of market accuracy. The strongest architecture treats market prices, source evidence, models, and human judgment as distinguishable inputs whose quality can be evaluated.

The fourth driver is broader market supply. A venue limited to a small number of episodic questions will struggle to support recurrent engagement. Coverage across politics, economics, finance, technology, sports, science, and culture can create more frequent reasons to return, provided that each question remains resolvable and economically meaningful. Breadth alone is insufficient: duplicated, inactive, or ambiguous markets can inflate listing counts without increasing useful supply. Scalable creation must therefore be paired with curation, clear evidence sources, dispute procedures, and incentives aligned with market quality.

The fifth driver is a conditional network effect between participation, liquidity, and information quality. More participants can contribute heterogeneous beliefs and more order flow. Greater depth can reduce spreads and price impact, making informed correction less costly. More reliable and responsive prices can attract additional observers and integrations. Yet this loop is not automatic. More markets can fragment liquidity; more accounts do not guarantee independent information; and incentives can amplify popularity rather than expertise. The relevant variables are participant diversity, liquidity density, question quality, and resolution integrity, not raw scale alone.

Finally, digital reach creates a global information audience without creating uniform global access. Probability signals may circulate across borders even when trading eligibility remains territorially conditioned. Similar services are organized under different financial, betting, research, and platform frameworks across jurisdictions. The European Commission, for example, notes that online gambling remains organized through diverse national systems rather than a single sector-specific European Union regime (European Commission, n.d.). A credible global strategy must therefore distinguish technical availability, information distribution, and lawful user access.

> ADOPTION PRINCIPLE **Adoption is most durable when recurring uncertainty is matched by high-quality market supply, sufficient liquidity, credible resolution, accessible data, and a reason for users or institutions to return. None of these conditions can be inferred from headline volume alone.**

2.3 Evidence of Real-World Demand

Real-world demand should be evaluated as a vector rather than a single headline statistic. In this chapter, the validation state at time t is represented conceptually as V(t) = [A(t), U(t), B(t), I(t), F(t)], where A denotes market activity and liquidity, U denotes user breadth and recurrent participation, B denotes the breadth and resolution quality of market supply, I denotes information consumption and downstream integration, and F denotes empirical forecasting performance. POLIX Whitepaper v1.0 does not assign weights or calculate a composite score. Each component requires its own metric, observation window, primary source, and limitation.

VALIDATION PRINCIPLE **Industry validation is the convergence of multiple independent demand and infrastructure signals. Trading volume, account counts, market listings, media attention, forecast accuracy, platform revenue, and private valuation measure different things and must not be substituted for one another.**

Table 2.1. Evidence framework for evaluating real-world prediction-market demand

DIMENSION	OBSERVABLE EVIDENCE	WHAT IT CAN SUPPORT	LIMITATION IF USED ALONE
Market activity and liquidity	Verified volume or open interest, active markets, spread, depth, price impact, and fill quality.	Economic engagement and executable market quality during a defined period.	Activity may be concentrated, incentivized, or event-driven; it does not establish total market size or accuracy.
User breadth and recurrence	Funded accounts or wallets, active traders, participation frequency, retention, and concentration.	Breadth and persistence of participation.	Accounts may not equal unique persons; multiple addresses and incentives can distort counts.
Market supply and resolution	Well-specified active and resolved markets by category, resolution time, dispute frequency, and void rate.	Continuing relevance and operational reliability.	Listing counts can overstate useful supply when markets are inactive, duplicated, or ambiguous.
Information use and integration	Watchlists, alerts, API consumption, price embeds, media citations, and documented integrations.	Information value extending beyond direct trading.	Attention does not prove decision improvement, willingness to pay, or causal impact.
Forecast performance	Calibration, proper scoring rules, benchmark comparisons, sample size, horizon, and domain.	Empirical quality of the probability signal for the evaluated sample.	Results are sample-, horizon-, and domain-specific and cannot be generalized automatically.

Source: POLIX editorial synthesis.

Historical persistence supplies one form of validation. The Iowa Electronic Markets demonstrate that prediction-market use is not confined to the present digital-asset cycle. Their long-running academic program has supported research on elections and economic questions, while Berg, Nelson, and Rietz (2008) documented strong performance relative to contemporaneous polls in a defined sample of U.S. presidential elections. The result is meaningful but bounded: it does not establish universal superiority over every poll, model, or domain.

Organizational deployment provides a second form. Cowgill and Zitzewitz (2015) studied internal prediction markets at Google, Ford, and another firm. Despite thin participation, limited entry, and other conditions that could impair efficiency, the markets were relatively efficient and improved on expert forecasts at all three firms, with reductions in mean-squared error of up to 25 percent in the authors' data. The study also identified optimism bias and other imperfections. Its significance lies in demonstrating decision-support demand outside public speculation, not in providing a measure of the global commercial market.

A more recent Google case study reports that an internal forecasting program collected more than 175,000 forecasts from over 10,000 employees across questions involving engineering milestones, technology trends, and other organizational concerns (Google Cloud, 2021). Because this is a company-reported case rather than a cross-industry dataset, it should not be extrapolated into an industry total. It nevertheless documents recurrent participation in a non-public application of prediction-market methods.

Public-market infrastructure supplies a third form. The existence of a CFTC-designated event-contract exchange shows that the category can operate through a regulated market structure. Separately, on-

chain venues show that outcome positions and market data can be represented through programmable digital infrastructure. These models differ in access, custody, execution, governance, and resolution. Their coexistence is stronger evidence of category formation than the success of any single platform because it demonstrates that demand can be served through multiple institutional designs (CFTC, 2020; Polymarket, n.d.-a, n.d.-b).

Information consumption supplies a fourth form. A market can generate public value even when the observer does not trade. Programmatic access to market discovery, current prices, order books, historical series, and real-time feeds enables probability signals to move into analytical and media workflows. CFTC staff's 2026 advisory refers to prediction markets both as a financial asset class and as a source of information, a description that reflects this dual demand (CFTC, 2026). The information audience may therefore be larger than the funded trader population, although audience size and economic value must be measured separately.

Forecast performance is the most demanding validation dimension. Activity can demonstrate willingness to participate, but it cannot establish that prices are calibrated or decision-useful. Performance should be tested with defined samples, horizons, and benchmarks using measures such as calibration, Brier or logarithmic scores, and error relative to an appropriate alternative. Page and Clemen (2013), for example, find that prediction-market prices can be reasonably calibrated near expiration while displaying favorite-longshot bias at longer horizons. Industry maturity requires measurement of such limitations, not their removal from the narrative.

This evidence supports a restrained conclusion. Prediction markets have demonstrated recurring use across public, organizational, regulated, and on-chain contexts; they can produce data consumed beyond the trading interface; and their performance can be evaluated empirically. The evidence does not support an unqualified claim that all prediction markets are accurate, universally accessible, or already one homogeneous global market. Validation is real, but uneven across activity, liquidity, participation, market supply, information use, and forecast quality.

2.4 Why the Industry Is Entering a New Phase

The first phase of modern prediction markets asked whether contingent-claim markets could aggregate information at all. The accumulated academic record and the persistence of multiple operating models make that question less central than it once was. The next question is systemic: can prediction markets supply enough well-formed questions, participant diversity, liquidity, analytical context, and trustworthy resolution to become a durable information layer rather than an event-driven destination?

The new phase is characterized by institutional diversity and by a clearer separation between the trading product and the information product. Direct participants create positions and price discovery, while a wider audience may consume probabilities, alerts, comparisons, and historical reactions. At the same time, regulated exchanges, on-chain systems, and organizational markets demonstrate different ways to govern participation, execution, settlement, and resolution. Category growth is therefore no longer reducible to the activity of one venue or one implementation model.

Industry maturity should be assessed through the complete market lifecycle without converting that assessment into a premature platform ranking. Recurring high-quality market supply, executable liquidity, transparent resolution, interpretable probability data, and evidence of downstream use are complementary conditions. Weakness in any one can limit the information value of the others. Chapter 3 applies these conditions to the competitive context; Chapter 4 examines the structural constraints that remain across existing models.

POLIX uses the industry analysis to identify four design requirements: users, intelligence, liquidity, and markets. Official materials associate these requirements with the Referral Engine, AI Intelligence, Liquidity Hub, and Creator Economy (POLIX Presentation v1.0 EN, 2026; POLIX Project Summaries 7, 8, 9, and 10, 2026). At this stage they are analytical and architectural objectives, not evidence that adoption or market quality has already been achieved. Their competitive differentiation, implementation, and incentives are evaluated in later chapters.

The industry is therefore entering a new phase in a qualified sense. The underlying mechanism has moved beyond a single academic experiment, and multiple institutional forms now serve financial, informational, and organizational demand. The category remains immature where liquidity is thin, market creation is constrained, resolution is disputed, user experience is complex, or information quality is difficult to evaluate. This combination of demonstrated use and unresolved system conditions is the basis for treating prediction markets as an emerging industry rather than a completed one.

INDUSTRY THRESHOLD **The next phase is not established by listing more event contracts alone. It requires recurring market supply, usable liquidity, credible resolution, interpretable data, and evidence that probability signals are reused beyond the initial trade.**

Chapter Synthesis

1. Prediction markets are becoming a distinct financial-information category because contingent positions and public probability signals are produced through the same market process.
2. The industry spans regulated event-contract exchanges, hybrid or on-chain markets, enterprise or internal forecasting systems, and public play-money or community forecasting platforms; no single model defines the entire category.
3. Adoption is supported by recurring uncertainty, digital market infrastructure, data distribution, broader market supply, and conditional network effects among participation, liquidity, and information quality.
4. Real-world validation is multidimensional and must separate activity, recurring users, market supply, information consumption, and forecast performance.
5. For POLIX, this industry analysis establishes four design requirements - users, intelligence, liquidity, and markets - whose competitive implementation is examined in later chapters.

TRANSITION TO CHAPTER 3 **Chapter 3 examines what current reference platforms have validated, compares their institutional and competitive models, and identifies the dimensions on which a next-generation platform must compete.**

CHAPTER 02 / REFERENCES

References and Source Notes

The references below support the historical, institutional, and empirical claims in Chapter 2. Time-sensitive web sources were retrieved on August 28, 2026. Project-specific statements are limited to official POLIX materials. No global market-size, company-valuation, or unverified platform-user figures are used.

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CHAPTER 03

Industry Validation and Competitive Context

What established platforms validate—and why category leadership remains multidimensional.

Chapter Thesis

Prediction-market industry validation does not arise because one platform dominates every relevant dimension. It arises because distinct operating models have independently demonstrated that users, institutions, developers, researchers, and communities will allocate attention, capital, reputation, and organizational resources to markets about future outcomes. Polymarket, Kalshi, PredictIt, and Manifold are therefore most useful as comparative proofs of different parts of a wider category rather than as interchangeable versions of the same product.

The central proposition of this chapter is that competitive analysis should begin with institutional design. Valuation, aggregate user counts, and headline trading volume are time-sensitive, method-dependent, and often not directly comparable across venues. A real-money exchange, a crypto-native market, a research-oriented political market, and a play-money community platform do not measure activity, participation, liquidity, or economic value in the same way. Treating their promotional metrics as a common league table would create an appearance of precision without a stable analytical basis.

Chapter 3 instead asks four narrower questions. What role do visible reference platforms play in validating the industry? Which capabilities has each model demonstrably implemented? On what dimensions do prediction markets actually compete? And what design opportunity follows from the coexistence of models that are strong in different areas? The chapter identifies competitive axes and integration requirements. It does not yet provide the detailed diagnosis of platform constraints reserved for Chapter 4, nor does it assume that POLIX has already fulfilled the next-generation design described in Chapter 5.

3.1 The Role of Reference Platforms

A visible platform can validate an emerging industry in several ways. It can prove transaction demand by supporting repeated positions in outcome-linked contracts. It can prove institutional demand by operating within a formal exchange, research, or organizational framework. It can prove information demand when market prices are monitored, redistributed, or integrated into other applications. It can also prove participatory demand when users create questions, provide liquidity, comment, follow forecasters, or build communities around uncertain outcomes. These proofs are related, but none is a substitute for the others.

For this reason, the term reference platform is used functionally in this whitepaper. It denotes a platform that serves as a visible reference point for a distinct institutional or product model; it does not denote a verified ranking by enterprise value, lifetime volume, active users, forecast accuracy, or regulatory

reach. The selected reference set follows the official POLIX presentation while replacing its promotional comparisons with claims that can be traced to platform documentation and public regulatory records (POLIX Presentation v1.0 EN, 2026). The reference set is illustrative rather than exhaustive and is not intended to exclude other relevant platforms or institutional models.

Polymarket represents a crypto-native model with hybrid order execution, on-chain settlement, a documented oracle process, and developer-facing market data. Kalshi represents a regulated event-contract exchange model under U.S. designated-contract-market rules. PredictIt represents a domain-focused, not-for-profit research market for political event contracts operating through a CFTC staff no-action framework. Manifold represents a play-money social prediction platform in which users can create markets and participate without converting the platform currency into cash. These are materially different institutional forms.

Their coexistence matters more than any single promotional statistic. It shows that the category can attract crypto-native traders and builders, fit within a regulated exchange structure, support academic and public interest in political forecasting, and sustain community participation without real-money payouts. Industry validation is therefore plural: the reference platforms validate different combinations of access, credibility, market supply, liquidity, data distribution, and social participation.

This plural structure also prevents a category error. A play-money platform may demonstrate scalable market creation and community incentives while providing no evidence of real-money execution quality. A regulated exchange may establish institutional legitimacy while saying little about open creator participation. An on-chain venue may expose programmable settlement and data while operating through a different access and governance model. A research market may produce long-lived political data while remaining intentionally small-scale. Competitive analysis must preserve these distinctions.

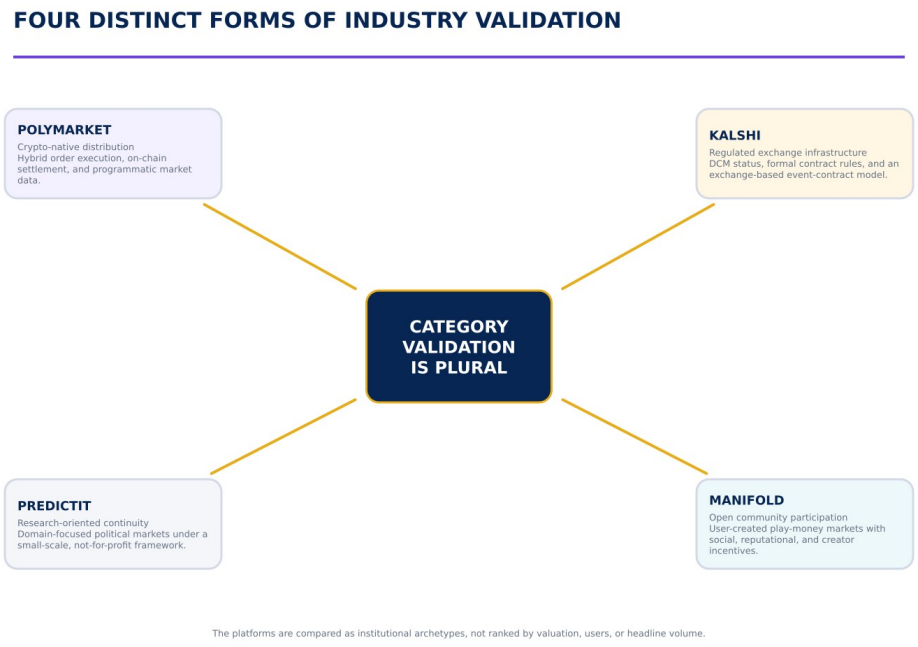

Figure 3.1. Four forms of prediction-market industry validation. Source: POLIX editorial synthesis based on official platform and CFTC materials.

EVIDENCE RULE **A platform validates only the capability that can be observed in its documented institutional design and operation. Visibility, funding, valuation, or episodic volume must not be treated as proof of universal access, forecast accuracy, durable liquidity, or superiority across the entire market lifecycle.**

3.2 What Existing Platforms Have Proven

The four reference platforms are examined as institutional case studies. The purpose is neither endorsement nor a definitive competitor ranking. Each case isolates the capability most clearly supported by official documentation, then states what that evidence does not establish. This method produces a more durable competitive context than a table of current valuations or self-reported user figures.

3.2.1 Polymarket: Crypto-Native Market Infrastructure

Polymarket demonstrates that an outcome market can be delivered through a crypto-native architecture without requiring every part of the lifecycle to occur in the same technical layer. Its official order-lifecycle documentation describes a hybrid model: orders are created off-chain, matched by an operator, and settled on-chain through smart contracts. Orders are signed messages, and the exchange contract is authorized to execute them without taking custody of the user's funds. This design combines a central limit order book with blockchain settlement rather than equating decentralization with a fully on-chain matching process (Polymarket, n.d.-b).

The model validates composable settlement and developer-oriented distribution. Official documentation organizes events into tradable markets, assigns token identifiers to outcomes, and exposes workflows for market discovery, prices, order books, analytics, and real-time data. The resulting probability signal can therefore be consumed outside the first-party trading interface by applications that retrieve or stream market information. This strengthens the interpretation of a prediction market as both a trading venue and a data source (Polymarket, n.d.-a).

Polymarket also documents an explicit resolution layer. Each market has predefined rules specifying the resolution source, end date, and relevant edge cases. The platform uses the UMA Optimistic Oracle: an outcome can be proposed, challenged, and, if necessary, escalated to a dispute process. The specific mechanism may change over time, but the competitive principle is stable. A crypto-native market still requires contract semantics, evidence sources, challenge procedures, and finality; settlement code alone cannot determine what a real-world event means (Polymarket, n.d.-c).

The evidence supports a bounded conclusion. Polymarket proves that hybrid execution, blockchain settlement, oracle-based resolution, and programmatic market data can coexist in a public outcome-market product. It does not, by itself, establish universal geographic access, regulatory equivalence across jurisdictions, stable liquidity in every market, or superior forecasting performance. Those questions require separate access, market-quality, and calibration evidence.

3.2.2 Kalshi: Regulated Event-Contract Exchange

Kalshi validates a different proposition: event contracts can be organized as products on a formally regulated exchange. In November 2020, the U.S. Commodity Futures Trading Commission (CFTC) issued KalshiEX LLC an Order of Designation as a designated contract market after determining that the applicant demonstrated an ability to comply with requirements applicable to DCMs. The designation placed the venue within the Commodity Exchange Act and CFTC regulatory framework for contract markets (CFTC, 2020).

This institutional model changes the basis on which users and organizations evaluate the platform. Contracts are listed within an exchange framework that includes a published rulebook, product filings, market rules, surveillance responsibilities, and compliance obligations. The relevant competitive asset is not a generic claim of safety. It is the presence of formal decision rights and enforceable processes governing who may trade, how contracts are specified, how orders are handled, and how market integrity is supervised (Kalshi, n.d.-a; CFTC, 2020).

Kalshi's own description frames event contracts as direct exposure to economically relevant outcomes that might otherwise be approximated through more complex financial positions. Whether a particular contract is used for forecasting, risk transfer, speculation, or attention depends on the user and the event. What the exchange model proves is that binary or contingent event exposure can be treated as a persistent product category rather than only as an academic experiment or a crypto-native application (Kalshi, n.d.-b).

The conclusion must again remain bounded. DCM designation is institutional validation of the exchange and its regulatory structure; it is not a general legal opinion for every prediction-market model, jurisdiction, or contract category. It also does not prove that all listed markets have equal depth, that every price is well calibrated, or that regulatory status alone creates network effects. It demonstrates one credible route to market legitimacy and formal event-contract infrastructure.

3.2.3 PredictIt: Research-Oriented Political Markets

PredictIt represents a third path: a domain-focused, small-scale, not-for-profit prediction market organized for educational and research purposes. CFTC Staff Letter No. 25-20, issued in July 2025, amended the earlier 2014 no-action framework and states that the market has operated under the trade name PredictIt. The amendment allowed operation to transfer from Victoria University of Wellington to the Prediction Market Research Consortium, a U.S.-based not-for-profit entity, while retaining the conditions of the earlier letter except where amended (CFTC, 2025).

The 2025 letter is important because it clarifies the function of the model rather than simply preserving a brand. Contract-listing decisions are to be made through a board of academics, fees may support operation and prediction-market research, and the market remains subject to the terms of the staff no-action position. The letter removed the prior 5,000-trader limit in a single contract and adjusted the allowable investment framework, while maintaining a small-scale design and clarifying a political-event scope (CFTC, 2025).

This structure validates the continued relevance of domain specialization and research governance. A prediction market does not need to cover every category to produce useful data or attract sustained interest. Political markets can function as an observable laboratory for contract design, public expectations, and comparative forecasting. The not-for-profit and academic decision structure also demonstrates that market data can be treated as a research output rather than only as a proprietary trading by-product.

PredictIt should not be treated as a smaller version of a DCM or an on-chain market. Its no-action framework, subject-matter limits, investment constraints, and research purpose are constitutive features of the model. The evidence supports continuity and institutional specialization; it does not establish that the same framework can scale without limit or apply outside its stated conditions. Comparing PredictIt with other platforms therefore requires normalization by institutional purpose, not raw activity.

3.2.4 Manifold: Open Community Market Creation

Manifold demonstrates how prediction markets can operate as a participatory social product without real-money settlement. Its terms describe a play-money platform for entertainment, education, and informational purposes. Trading uses Mana, a virtual currency with no cash value and no redemption into real money. The absence of cash convertibility makes Manifold institutionally different from Polymarket, Kalshi, and PredictIt, but it does not make the model irrelevant to competitive analysis (Manifold, 2026a).

The platform's principal proof is open market supply. Official documentation states that users can create markets and supports binary, multiple-choice, numeric, poll, and bounty formats. Mana can be used to

create, subsidize, and trade in markets. Users may earn it through successful predictions, market creation, quests, and referrals. These mechanics turn the forecasting venue into a community-production system in which questions, liquidity, commentary, and social reputation can be supplied by participants (Manifold, 2026b).

Resolution reflects the same community orientation. Market creators generally resolve their own questions, with platform moderation available to overrule resolutions or respond to abuse and ambiguity. This allows subjective and niche questions that would be difficult to list through a formal exchange process, while making creator reputation and moderation part of market integrity. The model demonstrates the productive potential of user-generated market supply and the associated need for curation (Manifold, 2026a, 2026b).

The bounded conclusion is that low-friction participation, open creation, social interaction, and reputational incentives can sustain a broad prediction community. The model does not provide evidence of real-money execution, financial-market liquidity, or regulated exchange operation. Manifold is therefore best treated as an adjacent competitive archetype: it competes for attention, forecasting activity, creators, and community formation even though its economic medium and legal posture are different.

Table 3.1. Comparative institutional profiles of selected prediction-market platforms

REFERENCE MODEL	ACCESS AND ECONOMIC MEDIUM	MARKET / RESOLUTION GOVERNANCE	CAPABILITY MOST CLEARLY VALIDATED
Polymarket — crypto-native hybrid market	Digitally signed orders; operator matching; smart-contract settlement; outcome tokens and programmatic market data.	Predefined market rules and source criteria; UMA optimistic-oracle proposal and dispute process.	Crypto-native distribution, hybrid execution, on-chain settlement, and application-facing data.
Kalshi — regulated event-contract exchange	Real-money event contracts on a CFTC-designated contract market under an exchange rule framework.	Formal rulebook, product and market rules, compliance, surveillance, and regulatory oversight.	Institutionalization of event contracts within a regulated exchange model.
PredictIt — research-oriented political market	Small-scale, not-for-profit event-contract market under CFTC staff no-action conditions and investment limits.	Academic board-led listing structure under the 2025 amendment; domain-restricted political and specified indicator markets.	Domain specialization, research governance, and continuity of political prediction-market data.
Manifold — play-money social market	Free-entry social platform using non-redeemable Mana; user-generated markets and community incentives.	Creator-led resolution with platform moderation; community guidelines and play-money terms.	Open market creation, social participation, reputation, and creator-driven market supply.

Source: POLIX editorial synthesis from CFTC (2020, 2025), Polymarket (n.d.-a, n.d.-b, n.d.-c), Kalshi (n.d.-a, n.d.-b), and Manifold (2026a, 2026b). The table compares institutional designs; it does not rank platform size, performance, or legal availability.

3.3 Competitive Dimensions in Prediction Markets

The case studies show why prediction-market competition is multidimensional. A platform competes not only for traders, but also for questions, creators, liquidity providers, trusted resolution, information consumers, integrations, and institutional legitimacy. These resources interact but are not perfectly correlated. A venue can attract attention while offering shallow depth in many markets; it can maintain strong rules while listing only a narrow set of questions; or it can support extensive user creation while relying on reputation and moderation instead of formal contract governance.

Market supply is the first competitive dimension. Top-down listing can concentrate legal, operational, and editorial review, but the rate of new market creation depends on the platform's internal capacity and approval process. User-generated creation can respond quickly to niche uncertainty and distribute topic expertise, but it also transfers specification and curation responsibilities to creators and moderators.

The strategic question is not simply how many markets exist. It is whether relevant, distinct, and resolvable markets can be supplied at a pace that supports recurrent participation.

Access and participation form a second dimension. Wallet-based signing, exchange accounts, research-market conditions, and free play-money entry create different onboarding paths and different user populations. Each model changes the cost of participation, the meaning of a position, and the set of admissible incentives. Geographic availability and eligibility are also platform- and jurisdiction-specific. Global visibility therefore cannot be equated with globally uniform trading access.

Execution and liquidity form a third dimension. Order books, exchange infrastructure, subsidized pools, maker programs, and play-money liquidity mechanisms allocate the task of making probabilities tradable in different ways. The relevant outputs are spreads, depth, price impact, fill quality, resilience, and the distribution of liquidity across markets—not a platform-wide activity total alone. Liquidity is also endogenous: high-quality questions can attract order flow, while executable markets can attract additional information and attention.

Resolution and integrity are a fourth dimension. A formal exchange can rely on rulebooks, market-specific terms, surveillance, and accountable operational procedures. A crypto-native market can combine predefined rules with oracle proposals and disputes. A community market can assign primary responsibility to the creator and use reputation and moderation as backstops. These choices allocate authority differently. Competitive quality depends on whether users can understand the rule before trading and whether disputed outcomes can be resolved predictably and transparently.

Data and distribution constitute a fifth dimension. A probability becomes a reusable information product when current prices, histories, order books, market metadata, and resolution states can be discovered and integrated. First-party interfaces compete for direct attention, while APIs, feeds, embeds, alerts, and analytical tools compete for downstream use. This layer can extend a platform's information reach beyond the number of funded traders, but it also requires consistent identifiers, reliable uptime, clear licensing, and context about what each price represents.

Participation economics and network formation are a sixth dimension. Real-money gains and losses can sharpen incentives to acquire and act on information, but they also introduce collateral, risk, access, and compliance frictions. Play-money systems can reduce entry costs and support experimentation, but must rely more heavily on reputation, competition, entertainment, or non-cash rewards. Referral systems, creator rewards, leaderboards, social following, liquidity incentives, and builder programs can each strengthen a network, but they reward different behaviors and can create different quality risks.

Table 3.2. Competitive dimensions and appropriate evaluation questions

DIMENSION	PRIMARY EVALUATION QUESTION	INDICATORS REQUIRING SEPARATE EVIDENCE
Market supply	Can the system produce relevant, distinct, well-specified, and resolvable markets at a sustainable rate?	Active versus inactive listings, category coverage, duplication, voids, resolution time, and creator concentration.
Access and participation	Who can participate, with what identity, funding, eligibility, custody, and onboarding requirements?	Verified users, recurrence, concentration, geographic availability, onboarding completion, and access restrictions.
Execution and liquidity	Can informed participants enter, correct, and exit positions at observable cost?	Spread, depth, price impact, fill rate, maker concentration, resilience, and market-level—not only platform-level—activity.
Resolution and integrity	Are contract meaning, evidence sources, decision rights, challenge procedures, and finality understandable?	Dispute and void frequency, time to resolution, rule changes, surveillance outcomes, and appeal or moderation records.

DIMENSION	PRIMARY EVALUATION QUESTION	INDICATORS REQUIRING SEPARATE EVIDENCE
Data and distribution	Can probability signals be discovered, interpreted, streamed, and reused outside the trading interface?	API coverage and uptime, data latency, historical continuity, integrations, information audience, and licensing conditions.
Participation economics	Which behaviors are rewarded, and do incentives improve information quality or only activity?	Retention, referral quality, creator outcomes, liquidity efficiency, reward concentration, and evidence of adverse incentives.

Source: POLIX editorial synthesis.

No defensible composite ranking follows from these dimensions without an explicit objective function. A researcher seeking downloadable political time series may value different attributes from a trader seeking deep execution, a creator seeking permissionless question supply, or an institution requiring a defined regulatory perimeter. Any numerical score would require declared weights, normalized metrics, comparable observation windows, and primary data. POLIX Whitepaper v1.0 does not manufacture such a score.

The more useful conclusion is that competitive advantage is architectural and audience-specific. Platforms choose where to place authority, which frictions to accept, what forms of supply to decentralize, and how to connect trading with data and community. Those choices create trade-offs rather than a single linear maturity path. Chapter 4 evaluates where the current archetypes leave structural constraints; this chapter limits itself to identifying the axes on which those constraints and advantages can be measured.

COMPARISON PRINCIPLE **Platforms should be compared within a declared use case and observation period. Institutional form, access, market supply, liquidity, resolution, data distribution, and participation incentives must remain separate dimensions until evidence justifies combining them.**

3.4 The Opportunity for a Next-Generation Model

The opportunity for a next-generation model follows from complementarity, not from the claim that existing platforms have failed. Each reference platform has demonstrated a capability that matters to category development. Crypto-native infrastructure expands programmable settlement and data distribution. A regulated exchange model supplies formal institutional legitimacy. A research-oriented market preserves domain specialization and public-interest data. A play-money community model shows how creators and social participation can expand market supply. The competitive whitespace lies in coordinating more of these capabilities without erasing the safeguards that make each credible.

Integration must be defined precisely. It does not mean placing every market, user, asset, or jurisdiction inside one undifferentiated venue. It means designing interoperable functions so that market discovery, creation, liquidity, intelligence, distribution, and community growth reinforce one another while retaining clear boundaries of authority. A platform may aggregate information from external markets without aggregating custody; connect liquidity sources without pretending that pools are identical; or support creators while applying tiered curation and resolution standards.

The first requirement is scalable market supply with quality control. A next-generation system needs a way to convert distributed topic expertise into well-formed questions, while detecting duplication, ambiguity, weak sources, and unresolved edge cases before they damage trust. Open creation and editorial review are not necessarily opposites. They can be arranged as stages in which anyone may propose a market, but publication, visibility, liquidity support, and resolution authority depend on transparent quality thresholds.

The second requirement is liquidity coordination. More listed questions can reduce information value if capital and order flow fragment across duplicates or isolated venues. Coordination may involve shared discovery, routing, market mapping, incentives, or partner integrations, but each mechanism must preserve price provenance and settlement boundaries. A displayed probability should identify which market, rule, collateral system, time, and liquidity conditions produced it. Aggregation without provenance can obscure rather than improve information.

The third requirement is an intelligence layer that treats prices as inputs rather than answers. Users need question context, source evidence, probability histories, cross-market comparisons, and indicators of liquidity and resolution quality. Artificial intelligence can assist discovery, summarization, monitoring, and explanation, but model output must remain distinguishable from market-implied probability. The system should make uncertainty more interpretable without creating false confidence or concealing the source of a claim.

The fourth requirement is participation architecture. Traders, forecasters, creators, referrers, analysts, liquidity providers, and information consumers contribute different resources. A next-generation system should not reward them as if all activity were equivalent. Incentives should be linked to attributable contributions such as market quality, sustained liquidity, useful analysis, responsible distribution, or demonstrated forecasting performance. Reward volume without quality controls can amplify duplication, noise, and short-term acquisition.

The fifth requirement is integrity across the lifecycle. Question creation, approval, trading, data display, resolution, dispute handling, and post-resolution records must form one auditable chain. Different market types may need different governance mechanisms, but the user should be able to identify the responsible decision maker and the applicable evidence standard at every stage. Integrity is therefore a system property, not a disclaimer attached after trading begins.

POLIX official materials organize the integration hypothesis around four supply domains: users, intelligence, liquidity, and markets. They associate these domains with the Referral Engine, AI Intelligence, Liquidity Hub, and Creator Economy (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 2, 2026). Chapter 3 treats this mapping as a strategic design thesis. It does not imply that every function is currently deployed, that network effects are automatic, or that the four domains can operate without curation, compliance, security, and resolution controls.

The competitive test for POLIX is consequently demanding. The project must show that its four domains reduce coordination costs or improve information quality relative to disconnected tools; that incentives produce useful supply rather than artificial activity; that external integrations preserve provenance and user understanding; and that token functions are tied to real platform activity rather than assumed adoption. These propositions require operational metrics and evidence in later stages. They are not resolved by whitepaper architecture alone.

A next-generation model should therefore be evaluated as an integration system, not merely as another trading interface. Its differentiation would lie in the disciplined connection of market supply, liquidity, intelligence, participation, and integrity. The opportunity is credible because existing platforms have validated these components separately. The opportunity remains conditional because combining them can also combine their risks, governance burdens, and incentive conflicts.

POLIX DESIGN HYPOTHESIS **POLIX seeks to coordinate four forms of supply—users, intelligence, liquidity, and markets—around a shared prediction-market ecosystem. In this whitepaper, that proposition is treated as an architecture to be specified and tested, not as proof of current scale, guaranteed adoption, or superior market performance.**

Chapter Synthesis

1. Prediction-market validation is plural: different platforms have demonstrated transaction, institutional, information, research, creator, and community demand through different operating models.
2. Polymarket most clearly validates crypto-native hybrid execution, on-chain settlement, oracle-based resolution, and programmatic data distribution.
3. Kalshi validates the organization of event contracts within a regulated exchange structure, while PredictIt validates a domain-focused research-market pathway under specified no-action conditions.
4. Manifold validates open market creation, play-money participation, social reputation, and creator-driven community supply; it is an adjacent rather than directly equivalent real-money model.
5. Competition occurs across market supply, access, liquidity, resolution, data distribution, participation economics, and institutional legitimacy; no single headline metric can rank all use cases.
6. POLIX identifies a next-generation opportunity in coordinating users, intelligence, liquidity, and markets, but the integration thesis must be supported by later architecture, controls, and operational evidence.

TRANSITION TO CHAPTER 4 **Chapter 4 examines the structural limits that remain across existing prediction-market models, including market-supply constraints, fragmented liquidity, user-experience friction, creator incentives, and disconnected growth systems.**

CHAPTER 03 / REFERENCES

References and Source Notes

The references below support the institutional and platform-specific claims in Chapter 3. Time-sensitive web sources were retrieved on August 28, 2026. Platform statements are interpreted as descriptions of documented design, not independent proof of scale, accuracy, legal availability, or superiority. No company valuation, unsupported user count, or non-comparable headline volume is used.

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CHAPTER 04

Structural Limits of Existing Platforms

Why category validation does not eliminate lifecycle bottlenecks.

Chapter Thesis

Existing prediction-market platforms have validated meaningful demand, multiple institutional models, and the usefulness of outcome-linked information. Their achievements do not, however, remove the coordination constraints that arise across the full market lifecycle. Relevant questions must be supplied, contracts must be specified, participants must understand and execute positions, liquidity must support price formation, outcomes must be resolved, and useful contributions must be connected to durable participation. A platform can perform strongly at one stage while leaving friction elsewhere.

This chapter uses the term structural limit in a narrow sense. It is not a claim that every platform suffers the same defect, that current operators have failed, or that a single technical feature can replace their institutional safeguards. A structural limit is a recurring constraint produced by how responsibilities, incentives, information, and capital are organized. Its severity varies by market type, user population, jurisdiction, and operating model. The appropriate question is therefore where the constraint appears, how it propagates, and what evidence would show that a proposed design has reduced it.

Five limits are examined: constrained market supply, fragmented liquidity, complex user experience, weak or incompletely aligned creator incentives, and disconnected growth systems. These categories are separated for analysis but coupled in operation. A shortage of relevant markets suppresses repeat participation. Thin participation weakens liquidity. Weak liquidity makes prices harder to interpret and positions more costly to enter or exit. Poor experience reduces retention and contribution. Incentives that reward activity without quality can then multiply low-value markets and fragment liquidity further. The diagnosis is systemic rather than a list of isolated product complaints.

ANALYTICAL BOUNDARY **Chapter 4 diagnoses recurring bottlenecks across prediction-market architectures. It does not re-rank the reference platforms from Chapter 3, infer legal conclusions, or claim that POLIX has already solved the constraints described here.**

4.1 Limited Market Supply

The supply of a prediction market is not equivalent to the number of visible listings. Effective market supply consists of distinct questions that are relevant to an identifiable audience, specified before trading, supported by credible evidence sources, liquid enough to produce an interpretable signal, and capable of reaching a timely and defensible resolution. A large catalogue can therefore coexist with limited effective supply when questions are duplicated, inactive, ambiguous, poorly timed, or inaccessible to the participants who possess useful information.

In a centrally managed listing model, an internal team absorbs much of the work of question selection, legal and policy review, contract drafting, evidence-source assessment, publication, monitoring, and resolution. This concentration can increase consistency and accountability. It also makes supply capacity dependent on staffing, domain expertise, operating hours, language coverage, and the speed of internal approval. The constraint becomes most visible for local, niche, multilingual, or rapidly developing events whose useful trading window may be shorter than the review cycle (POLIX Project Summary 3, 2026).

Open creation redistributes this work. Participants with local knowledge can propose questions without waiting for a central editorial calendar, and the long tail of uncertainty becomes addressable. Yet permission to create does not itself produce usable markets. Creators may choose weak resolution criteria, omit edge cases, copy existing questions, create excessively narrow variants, or publish markets whose informational value is lower than the liquidity they consume. The supply problem changes from scarcity under central control to quality assurance under distributed creation.

Question specification is a design discipline rather than a clerical step. A contract must define the event, measurement rule, observation period, qualifying source, treatment of revisions, cancellation conditions, and boundary cases. These elements determine which beliefs a price can aggregate. If participants trade different interpretations of the same words, the displayed price mixes disagreement about the event with disagreement about the contract. The resulting number may still be tradable, but it is a weaker information product. Market design research accordingly treats the mechanism and its information environment as central to performance, rather than assuming that any contract automatically aggregates beliefs (Chen and Pennock, 2010).

Discovery is part of supply quality. Even a well-formed market is functionally absent if relevant participants cannot find it before the information window closes. Taxonomy, search, language, event mapping, duplicate detection, recommendation, and distribution determine whether a question meets the users capable of informing it. Supply should therefore be measured through the complete path from proposal to discovery and resolution, not only at publication.

A scalable supply architecture must consequently separate permissions and responsibilities. Proposal, validation, publication, visibility, liquidity support, resolution authority, and post-resolution review need not be controlled by the same actor. Staging these functions can preserve distributed topic discovery while applying stronger requirements where ambiguity or financial consequence is higher. The design objective is not maximum openness or maximum control in isolation; it is throughput subject to measurable quality.

Table 4.1. Market-supply layers, recurring constraints, and evidence requirements

SUPPLY LAYER	RECURRING CONSTRAINT	OBSERVABLE SIGNAL	DESIGN OBLIGATION
Topic discovery	Central teams cannot observe every local, niche, or fast-moving uncertainty.	Category gaps, delayed listings, language concentration, and short remaining trading windows.	Distribute proposal rights and measure coverage without assuming every proposal should be published.
Specification	Ambiguous terms and missing edge cases create multiple implicit contracts.	Rule questions, revisions, inconsistent interpretations, cancellations, and disputes.	Use structured templates, source checks, duplicate detection, and pre-publication review.
Discovery	Relevant markets may remain invisible to informed participants.	Low qualified reach, weak search conversion, redundant listings, and isolated communities.	Connect taxonomy, search, translation, event mapping, and provenance-aware recommendation.
Trading support	New listings compete for finite attention and liquidity.	Inactive markets, wide spreads, thin depth, and activity concentrated in a small subset.	Stage visibility and liquidity support according to relevance and demonstrated quality.

SUPPLY LAYER	RECURRING CONSTRAINT	OBSERVABLE SIGNAL	DESIGN OBLIGATION
Resolution	Evidence, authority, and dispute procedures may be unclear or operationally costly.	Delayed finality, voids, reversals, unresolved edge cases, and recurring challenge patterns.	Declare evidence standards and decision rights before trading; preserve an auditable record.

Source: POLIX editorial synthesis. Signals are diagnostic categories, not claims about every existing platform.

SUPPLY PRINCIPLE **Effective market supply should be evaluated as quality-adjusted throughput: the rate at which relevant, distinct, discoverable, executable, and resolvable questions move through the lifecycle.**

4.2 Fragmented Liquidity

Prediction-market liquidity is fragmented at more than one level. It is divided across platforms, but also across topics, contract variants, outcomes, maturities, collateral systems, user groups, and time zones. Even within an active platform, a small number of prominent events may account for most visible depth while the long tail remains costly to trade. Platform-wide activity is therefore an incomplete measure of whether a particular probability can be formed or corrected efficiently.

Liquidity determines more than trading convenience. It affects the cost at which informed participants can move a price, the incentive to search for information, the ability of opposing beliefs to meet, and the confidence with which observers interpret the resulting probability. Wide spreads and low depth can deter participation; absent participation can preserve wide spreads. This feedback makes liquidity endogenous to market design, participant composition, question quality, and the expected value of becoming informed.

Research cautions against assuming that one trading mechanism performs equally well in every environment. Healy et al. (2010) found that the strong large-scale record of double auctions did not automatically carry into laboratory settings with complex information and few traders; alternative mechanisms could perform better under those conditions. The implication is not that order books are generally inferior. It is that liquidity mechanism, trader population, information structure, and market complexity must be evaluated together.

Automated market makers can provide continuous quotes and reduce dependence on coincident orders, but their design allocates cost and risk. A fixed-parameter LMSR does not automatically deepen as activity grows. Liquidity-sensitive designs can adapt market depth to activity, but they introduce trade-offs involving parameterization, translation invariance, and the direct mapping between prices and probabilities (Othman et al., 2013). Incentive programs can attract makers, yet rewards based on nominal volume or quote presence may not produce resilient depth. Mechanism choice redistributes the liquidity problem rather than eliminating it.

Cross-platform aggregation introduces a second-order problem. Two markets with similar titles are not necessarily fungible. They may use different cut-off times, evidence sources, cancellation clauses, collateral, access conditions, fee structures, or resolution authorities. Combining their displayed probabilities without these differences can create false comparability. A liquidity hub should therefore preserve provenance and settlement boundaries even when it improves discovery, maps related contracts, or routes eligible activity.

The correct unit of evaluation is the market, not merely the venue. Spread, quoted depth, price impact, fill rate, maker concentration, cancellation behavior, recovery after a shock, and the share of activity near resolution describe different aspects of execution quality. These measures should be observed

over declared windows and separated by market class. A single peak-volume event cannot establish durable liquidity across the ecosystem.

Table 4.2. Layers of liquidity fragmentation

LAYER	WHY LIQUIDITY SEPARATES	RISK OF OVERSIMPLIFICATION	MORE APPROPRIATE EVIDENCE
Across venues	Access, custody, collateral, fees, rules, and settlement systems differ.	Treating visible probabilities as directly mergeable.	Contract mapping, rule comparison, eligible routing, and source-specific depth.
Across questions	Attention and capital concentrate in prominent events while niche markets remain thin.	Using total venue volume as evidence for every market.	Market-level spread, depth, impact, fills, and concentration over time.
Across variants	Similar titles may encode different dates, thresholds, sources, or cancellation conditions.	Interpreting title similarity as economic fungibility.	Semantic equivalence checks and explicit basis-risk disclosure.
Across outcomes	Multi-outcome contracts and correlated events distribute capital unevenly.	Assuming one active outcome implies balanced price discovery.	Outcome-level depth, cross-outcome consistency, and arbitrage constraints.
Across time	Liquidity can appear near news events or expiry and disappear between them.	Extrapolating from a peak interval.	Time-series resilience, recurrence, and recovery after information shocks.

Source: POLIX editorial synthesis.

Liquidity coordination should therefore be evaluated by whether it improves executable choice without concealing differences. Shared discovery, contract mapping, routing, incentives, or partner integrations may reduce search and execution costs. None of these functions authorizes the system to report a synthetic probability as if it were directly observed unless the aggregation method, source contracts, timing, weights, and liquidity conditions are disclosed. The integrity of the information product depends on retaining the lineage of every input.

> LIQUIDITY PRINCIPLE **Aggregation is useful only when it preserves contract meaning and price provenance. Discovery can be unified while custody, eligibility, execution, and settlement remain source-specific.**

4.3 Complex User Experience

Prediction-market experience is often discussed as an onboarding problem, but onboarding is only the first stage. A participant must discover a relevant market, understand the contract, assess the evidence and current price, select an order or position, evaluate exposure, monitor new information, decide whether to exit, and understand resolution. Friction accumulates across this sequence. A simple account-opening screen does not make the lifecycle simple if contract interpretation and position management remain opaque.

Transactional complexity depends on the institutional model. It may include account eligibility, identity verification, wallet management, network and collateral selection, deposits and withdrawals, order types, fees, partial fills, custody, settlement timing, or play-money mechanics. These are not interchangeable frictions, and some exist to support legitimate safety, legal, or integrity requirements. User-experience design should make the requirement and its consequence understandable rather than treating every control as removable.

Interpretive complexity is more fundamental. A market price is not an unconditional statement of objective truth. It is produced by a specific contract, participant set, mechanism, time, and liquidity environment. Wolfers and Zitzewitz (2004) explain why prediction markets can aggregate dispersed

information effectively, while also emphasizing that design conditions matter. Later convergence analysis shows that prices can depend on beliefs, wealth, risk parameters, and trading sequences before convergence conditions are reached (Gao et al., 2024). Displaying a percentage without this context can make a market appear easier to understand than it actually is.

The interface should distinguish three forms of output. Market-implied probability is the state generated by trading under the contract and mechanism. Source evidence consists of documents, data, and events relevant to the outcome. Analytical or model output is an interpretation derived from market data and external evidence. Combining these visually without labels can create false authority. A user should be able to trace a forecast to the contract, a source summary to its evidence, and an AI-generated explanation to its model status.

Artificial intelligence can lower search and comprehension costs by matching users to relevant markets, summarizing rules, comparing related contracts, organizing source evidence, translating content, and monitoring probability changes. It cannot determine the real-world meaning of an underspecified contract after the fact, create liquidity by explanation alone, or guarantee the accuracy of a generated narrative. The appropriate role is assisted interpretation with provenance, uncertainty, and human-readable controls.

Complexity should be measured by task completion and informed comprehension rather than screen count. Useful measures include time to find a relevant market, rule-comprehension accuracy, abandonment by lifecycle stage, funding and order error rates, cost visibility, position-understanding tests, repeat participation, support requests, and resolution surprises. A faster workflow that produces more misunderstood positions is not an unambiguous improvement.

> EXPERIENCE PRINCIPLE **User assistance should reduce the cost of informed participation, not hide contract rules, source provenance, liquidity conditions, fees, or the distinction between market prices and model-generated analysis.**

4.4 Weak Creator Incentives

Prediction markets require contributions that extend beyond placing trades. Participants identify questions, draft specifications, locate evidence sources, translate local information, seed liquidity, curate duplicates, explain probability changes, distribute markets to relevant communities, monitor edge cases, and support resolution. Conventional platform structures often treat these activities as unpaid externalities or bundle them into a generic user category. As a result, the system can underproduce the work needed to expand useful market supply.

The term weak incentives does not mean that existing platforms offer no rewards. Trading profit, social status, leaderboards, referral payments, market-creation subsidies, liquidity incentives, or community recognition can all motivate participation. The structural issue is alignment and attribution. A reward is useful only if the platform can identify the contribution it intends to encourage, connect the reward to that contribution, and control the predictable ways in which the metric can be gamed.

Creator value is multidimensional. A question originator may contribute topic discovery but not contract quality. An editor may convert a weak idea into a resolvable market. A distributor may bring a qualified community whose information improves the price. A liquidity provider may make the market executable without contributing new evidence. An analyst may make the probability useful to non-traders. Paying only the first actor or the actor who generates the most clicks can misallocate value.

Direct incentives require controls for moral hazard, metric gaming, and post-reward behavior distortion. Paying per market can increase duplicate or low-value listings. Paying per referral can reward low-intent

acquisition or self-referral. Paying per unit of nominal volume can encourage wash-like activity or short-lived liquidity. Paying only for a correct forecast can discourage useful minority views and ignore calibration across repeated predictions. Any creator economy must therefore combine contribution-specific metrics, quality thresholds, delay where outcomes require observation, and rules against self-dealing.

Attribution should be causal where possible and conservative where it is not. A market creator can be assessed through specification quality, uniqueness, qualified reach, liquidity efficiency, dispute rate, resolution timeliness, and subsequent reuse. A referrer can be assessed through retained and eligible participation, not only registration. An analyst can be assessed through attributable engagement with sources and decision support, not merely content volume. These measures still require normalization by market type and observation window; they should not be collapsed into a universal creator score without evidence.

Table 4.3. Creator contributions and incentive-design risks

CONTRIBUTION	USEFUL OUTPUT	SIMPLE METRIC FAILURE	QUALITY-ADJUSTED EVIDENCE
Question sourcing	Timely, relevant, and non-duplicative market ideas.	Pay per proposal increases noise and duplicates.	Coverage, uniqueness, qualified demand, and conversion to resolvable markets.
Specification and curation	Clear rules, sources, taxonomy, and edge-case treatment.	Counting edits rewards activity rather than improved clarity.	Pre-trade comprehension, revision rate, dispute rate, and resolution quality.
Distribution and referral	Relevant participants and information reach.	Registration counts reward low-intent or self-referred traffic.	Eligible activation, retention, contribution quality, and fraud-adjusted cohorts.
Liquidity provision	Executable prices and resilience around information events.	Nominal volume or quote time can be manufactured or economically shallow.	Spread, depth, adverse selection, fill quality, persistence, and capital efficiency.
Analysis and stewardship	Evidence, explanation, monitoring, and responsible resolution support.	Content count rewards repetition and unsupported certainty.	Source quality, attributable use, correction behavior, and post-resolution accuracy.

Source: POLIX editorial synthesis.

The creator economy is consequently a governance system as well as a reward system. It must define who may contribute, which rights accompany a contribution, how conflicts are disclosed, when rewards become final, how disputes are handled, and what happens when a creator abandons stewardship. Economic participation without accountability can scale output while reducing trust. Accountability without meaningful participation can reproduce the supply bottleneck of a fully centralized model.

INCENTIVE PRINCIPLE **Reward attributable quality, not undifferentiated activity. Each incentive needs a named contribution, an observation window, a quality threshold, an anti-gaming rule, and a decision authority.**

4.5 Disconnected Growth Systems

Growth in a prediction-market ecosystem is frequently organized through separate functions: marketing acquires users, an editorial or creator process supplies markets, trading infrastructure manages execution, data tools produce analysis, and community programs seek retention. Each function can optimize its own metric while the system fails to convert activity into information quality. Registrations without relevant markets do not create recurring participation; listings without liquidity do not create useful prices; volume without qualified information can be economically noisy.

The relevant growth unit is a completed value cycle. A participant discovers a question that matters, can understand its contract, contributes information or liquidity, observes an interpretable probability, sees a credible resolution, and has a reason to return or contribute again. Different users may enter as traders, creators, analysts, referrers, liquidity providers, or information consumers, but the cycle must connect their outputs. A break at any stage produces leakage that downstream promotion cannot permanently offset.

Network effects are conditional rather than automatic. More users can increase information diversity and liquidity, but they can also increase noise, support costs, manipulation attempts, and demand for duplicate markets. More markets can improve coverage, but can fragment attention and capital. More data can improve analysis, but can overwhelm users or detach a probability from its contract. A positive feedback loop arises only when added participation improves the quality or accessibility of the system for subsequent participants.

A connected growth system therefore needs shared state and shared measurement. Market identifiers, creator attribution, referral lineage, liquidity conditions, price histories, source records, resolution states, and user-consent boundaries must be interoperable enough to evaluate the lifecycle. This does not require all data to be public or all functions to be centralized. It requires that each decision be traceable to the inputs and permissions on which it depends.

Metric design should distinguish acquisition, activation, contribution, information quality, retention, and economic sustainability. A dashboard that reports only registrations, listings, or aggregate volume cannot show whether the system is compounding value. More informative evidence includes qualified cohort retention, time to first meaningful action, market-level liquidity, creator-quality distribution, probability calibration where measurable, resolution reliability, source reuse, and the cost of sustaining each stage. Metrics must remain disaggregated until a causal relationship is established.

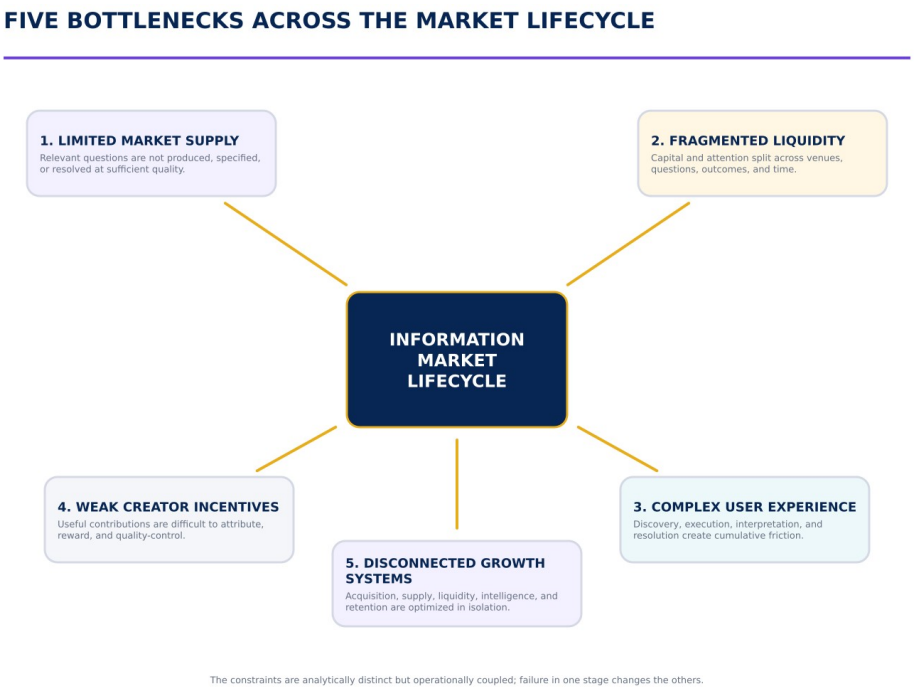

Figure 4.1. Five structural bottlenecks across the prediction-market lifecycle. Source: POLIX editorial synthesis.

The five limits form a coupled constraint system. Limited supply reduces relevance; low relevance reduces qualified participation; low participation fragments liquidity; weak liquidity makes the probability less actionable; poor interpretability and execution reduce retention; weak retention makes creator rewards and referral spending less sustainable. Conversely, incentives that maximize the wrong activity

can intensify every earlier constraint. The correct response is coordinated architecture with explicit quality controls, not a larger acquisition budget attached to the same disconnected flow.

POLIX official materials group the proposed response around four engines: a Referral Engine for user supply, AI Intelligence for information interpretation, a Liquidity Hub for access to liquidity, and a Creator Economy for market supply (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 4, 2026). This mapping is directionally consistent with the diagnosis, but it should be read as a design hypothesis. A four-engine diagram does not prove integration, adoption, liquidity, or information quality. Those propositions require architecture, governance, security, and operational evidence developed in subsequent chapters.

The decisive test is whether the proposed components reduce cross-stage coordination costs while preserving institutional boundaries. Referral activity should lead to qualified participation rather than registration alone. Intelligence should preserve the distinction between evidence, market prices, and model output. Liquidity coordination should preserve provenance and eligibility. Creator rewards should expand quality-adjusted market supply. If each component optimizes an isolated metric, the system will reproduce the structural limit under a new interface.

SYSTEM PRINCIPLE **A growth flywheel exists only when added participation improves market relevance, execution, interpretation, and contribution quality for the next participant. Activity that cannot complete this value cycle should not be counted as evidence of a network effect.**

Chapter Synthesis

1. Structural limits are recurring coordination constraints, not proof that every current platform has failed or that all institutional models face identical problems.
2. Effective market supply is quality-adjusted throughput across proposal, specification, discovery, trading support, and resolution; listing count alone is insufficient.
3. Liquidity fragments across venues, questions, variants, outcomes, and time. Coordination must improve executable access while preserving contract meaning, provenance, eligibility, and settlement boundaries.
4. User experience includes transactional and interpretive work throughout the lifecycle. Assistance should improve informed comprehension without hiding rules, costs, liquidity, or model uncertainty.
5. A creator economy must attribute and reward distinct contributions under quality thresholds and anti-gaming controls; undifferentiated activity incentives can amplify noise and fragmentation.
6. Growth becomes a network effect only when acquisition, relevant market supply, liquidity, intelligence, resolution, retention, and renewed contribution operate as a measurable value cycle.
7. POLIX maps the diagnosis to four proposed engines, but their effectiveness remains a design hypothesis requiring later architectural and operational evidence.

TRANSITION TO CHAPTER 5 **Chapter 5 translates this diagnosis into the POLIX next-generation platform model. It specifies how the proposed system connects users, intelligence, liquidity, and markets without treating the architecture itself as evidence of completed implementation or guaranteed performance.**

CHAPTER 04 / REFERENCES

References and Source Notes

The references below support the market-design principles and POLIX project framing used in Chapter 4. Academic sources are cited for bounded propositions about information aggregation, mechanism dependence, liquidity, and price interpretation. POLIX materials are treated as statements of intended design, not independent proof of deployment, adoption, liquidity, legal availability, or performance. No unverified pricing, token-launch condition, contract address, audit status, roadmap date, company valuation, user count, or headline market-size estimate is introduced.

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CHAPTER 05

The POLIX Next-Generation Model

How users, intelligence, liquidity, and markets reinforce one another.

Chapter Thesis

POLIX proposes that the next generation of prediction markets should be designed as a coordinated growth ecosystem rather than as a trading venue surrounded by disconnected acquisition, content, analytics, and liquidity functions. The proposed model treats qualified users, usable intelligence, executable liquidity, and quality-adjusted market supply as four interdependent productive inputs. Their value does not arise from parallel feature availability alone. It arises when the output of one function becomes a governed input to another and improves the probability that the complete information-market lifecycle can be repeated.

This proposition follows directly from the diagnosis in Chapter 4. A platform can attract users yet lack relevant markets, publish markets yet disperse liquidity, provide data yet leave participants unable to interpret it, or reward contributors without linking payment to quality. Adding a tool to each isolated function does not by itself resolve the coordination problem. The next-generation question is whether the functions can be arranged as a coherent system with explicit interfaces, decision rights, quality gates, and observable feedback.

The POLIX response is expressed through four proposed supply engines. The Referral Engine addresses user supply; AI Intelligence addresses intelligence supply; the Liquidity Hub addresses liquidity supply; and the Creator Economy addresses market supply (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 4, 2026). The word supply is used deliberately. It identifies a recurrent capacity that the ecosystem must produce, qualify, route, and measure. It does not mean that users, forecasts, capital, or markets can be created in unlimited quantity, or that naming an engine establishes its operating performance.

ANALYTICAL BOUNDARY **Chapter 5 defines the integration thesis and value logic of the proposed POLIX model. Detailed architecture begins in Chapter 7, while implementation, adoption, liquidity, legal availability, and commercial performance require separate evidence.**

5.1 From Trading Platform to Growth Ecosystem

A trading platform and a growth ecosystem are not mutually exclusive categories. Every prediction market needs transactional infrastructure: contract publication, account or wallet interaction, order execution or automated pricing, position records, evidence handling, and settlement. The distinction concerns the unit of design. A transaction-centered model primarily optimizes the exchange event. An ecosystem model also designs the upstream production of questions, participants, information, and liquidity and the downstream return of data, attribution, incentives, and learning into the next cycle.

Platform economics explains why this broader unit matters. In a multi-sided setting, the willingness of one participant group to join depends on the presence and behavior of other groups, and the platform must coordinate those interdependencies rather than price or manage each side in isolation (Rochet and Tirole, 2003; Hagiu and Wright, 2015). Prediction markets contain more than a simple buyer-seller pair. Traders, forecasters, market creators, editors, evidence providers, analysts, liquidity providers, distribution partners, and information consumers may contribute different resources at different lifecycle stages. The same person may also move between roles.

The ecosystem concept adds a second requirement: complementary actors and components must collectively produce a value proposition that no component supplies independently. Ecosystem research distinguishes this coordinated complementarity from the loose use of ecosystem as a synonym for a large user community (Jacobides, Cennamo, and Gawer, 2018). Applied to POLIX, the relevant complementarity is not simply that four features appear under one brand. It is that qualified participation improves market formation, market activity produces traceable information, liquidity makes that information executable, and creator capacity expands the range of future questions.

The complete value cycle begins before a trade. A question must be discovered, specified, reviewed, and made visible to participants with relevant knowledge. It continues through comprehension, execution, liquidity, price formation, monitoring, and resolution. It concludes only when the resulting records can support learning, attribution, renewed contribution, and the next market. POLIX therefore frames growth as the repetition of a quality-adjusted lifecycle, not as a sequence of unrelated campaigns and product functions (POLIX Project Summary 0, 2026; POLIX Project Summary 12, 2026).

This framing changes what counts as a platform asset. A registration is not yet user supply if the participant never reaches an informed action. A model output is not yet intelligence supply if its source, uncertainty, and relation to the market contract cannot be understood. Capital is not yet effective liquidity if it cannot support eligible execution in a particular market. A published question is not yet market supply if it is duplicative, ambiguous, undiscoverable, inactive, or difficult to resolve. The ecosystem must qualify inputs before aggregating them into growth metrics.

A broader unit of design also creates broader obligations. Integration can propagate errors as easily as value. Low-intent referrals can crowd discovery; weak markets can fragment capital; ungrounded analysis can amplify false confidence; and poorly designed rewards can scale low-value contributions. The next-generation model should therefore be judged by the quality of its coordination and controls, not by the number of connected modules.

Table 5.1. Transaction-centered venue and growth-ecosystem design

DIMENSION	TRANSACTION-CENTERED EMPHASIS	GROWTH-ECOSYSTEM EMPHASIS	POLIX DESIGN QUESTION
Primary unit	The individual listing, order, trade, or settlement event.	A repeatable information-market lifecycle across multiple contributor roles.	Does each stage create a usable input for the next stage?
Participant model	Users are treated mainly as customers or traders.	Participants may trade, create, analyze, refer, provide liquidity, or consume information.	Are roles, permissions, attribution, and conflicts distinguishable?
Growth model	Acquisition, trading, analytics, and retention are managed as separate functions.	Cross-role outputs are coordinated through shared state and quality-adjusted feedback.	Can growth be traced to completed value cycles rather than gross activity?
Core asset	Transaction flow and venue-specific activity.	A governed network of markets, participants, intelligence, liquidity, and provenance.	Which data and interfaces must be shared, separated, or permissioned?

DIMENSION	TRANSACTION-CENTERED EMPHASIS	GROWTH-ECOSYSTEM EMPHASIS	POLIX DESIGN QUESTION
Main risk	Insufficient activity at the point of trade.	A weak input or misaligned incentive propagates across connected functions.	Which quality gate prevents negative feedback from compounding?
Success evidence	Listings, accounts, orders, volume, and settlement completion.	Qualified activation, market relevance, execution quality, resolution reliability, retention, and renewed contribution.	Are measures disaggregated enough to identify the causal stage?

Source: POLIX editorial synthesis based on official project materials and platform-economics literature.

ECOSYSTEM PRINCIPLE **POLIX should be described as an ecosystem only to the extent that independent roles and complementary components are coordinated into a repeatable, quality-adjusted value cycle.**

5.2 A Supply-Engine Approach

The supply-engine model begins with a bottleneck diagnosis. A prediction market cannot create durable information value from one abundant input while the others remain scarce. Additional users cannot compensate for an absence of relevant markets. Additional markets cannot compensate for the absence of executable liquidity. Additional liquidity cannot determine which questions deserve attention. Additional analysis cannot substitute for credible contracts and resolution. The system requires all four inputs in compatible form.

An engine is therefore defined here as a governed capability that repeatedly transforms identifiable inputs into quality-controlled outputs for use elsewhere in the ecosystem. It has a purpose, an interface, an observation window, a failure mode, and evidence by which its contribution can be evaluated. This definition prevents engine from becoming a promotional label. A module that produces activity but cannot show how the activity improves another lifecycle stage is not yet functioning as a supply engine.

5.2.1 User Supply

User supply is the recurrent arrival and retention of eligible participants who can complete a meaningful action. The Referral Engine is the proposed mechanism for converting trusted distribution relationships into qualified participation. Its output is not raw reach, invitations, or wallet connections. It is a cohort of participants whose activation, comprehension, contribution, and retention can be observed. Detailed referral tiers, dashboards, reward logic, and abuse controls are reserved for Chapter 8.

5.2.2 Intelligence Supply

Intelligence supply is the recurrent production of traceable assistance that helps participants discover, compare, and interpret markets. AI Intelligence is proposed as a layer that organizes heterogeneous evidence and market data into analytical outputs. The output is not truth and should not be conflated with the market price, a guaranteed forecast, or individualized financial advice. Its value depends on provenance, uncertainty, reproducibility, correction behavior, and the user's ability to distinguish observation from inference. Inputs and responsible-use boundaries are developed in Chapter 9.

5.2.3 Liquidity Supply

Liquidity supply is the recurrent provision of executable access under declared market, collateral, custody, eligibility, and settlement conditions. The Liquidity Hub is proposed as a coordination layer for discovery, market mapping, partner access, and eligible liquidity pathways. Its output should not be represented as one undifferentiated pool when contracts or institutional boundaries differ. The relevant

evidence is market-level execution quality and resilience, not an aggregate headline. Partner topology and provenance requirements are developed in Chapter 10.

5.2.4 Market Supply

Market supply is the recurrent production of relevant, distinct, discoverable, executable, and resolvable questions. The Creator Economy is proposed as the mechanism through which distributed topic knowledge can enter the market pipeline and receive attributable recognition or reward. Its output is quality-adjusted throughput, not the number of submissions or listings. Proposal rights, publication authority, visibility, liquidity support, and resolution responsibility may require different thresholds. These controls are developed in Chapter 11.

The four engines require a coordination layer, but coordination does not imply that all data, capital, or authority should be centralized. Shared identifiers and state transitions may connect a referral cohort to its market activity, a creator to a question, a question to related evidence, and a market to its liquidity and resolution record. At the same time, personal data, partner systems, custody arrangements, model inputs, and resolution authority may remain separated by permission and institutional boundary. Interoperability should be purposeful and minimal.

POLX is positioned in official materials as the economic layer that may coordinate access, participation, rewards, and ecosystem alignment (POLIX Presentation v1.0 EN, 2026). Chapter 5 uses that proposition only at a functional level. It does not specify a market price, token-generation condition, circulating-supply schedule, contract address, fee rate, reward rate, buyback threshold, or governance power. Later token-economy chapters must show which activities require a token, which can operate without one, how incentives avoid circular demand, and how economic rights remain distinct from promotional expectations.

Table 5.2. Four proposed supply engines as governed transformations

ENGINE	QUALIFIED INPUT	INTENDED OUTPUT	CONTROL REQUIREMENT	EVIDENCE OF FUNCTION
Referral Engine User supply	Attributed distribution and eligible prospective participants.	Activated, informed, and retained participant cohorts.	Identity and eligibility checks, consent, anti-self-referral rules, and quality-adjusted attribution.	Activation, meaningful-action rate, cohort retention, contribution quality, and fraud adjustment.
AI Intelligence Intelligence supply	Sourceable news, social, on-chain, and market data under declared methods.	Traceable analysis, discovery support, qualified model-generated probability estimates, signals, and explanatory context.	Provenance, uncertainty, model separation, correction logs, user controls, and responsible-use limits.	Coverage, traceability, calibration where appropriate, correction behavior, and attributable utility.
Liquidity Hub Liquidity supply	Mapped markets, eligible routes, partner interfaces, and declared execution conditions.	Improved discovery and executable access without erasing market provenance.	Contract comparability, custody and settlement boundaries, route eligibility, and conflict disclosure.	Spread, depth, fill quality, price impact, resilience, availability, and partner-level provenance.
Creator Economy Market supply	Topic knowledge, structured proposals, evidence sources, and stewardship capacity.	Relevant, distinct, discoverable, executable, and resolvable markets.	Templates, duplicate checks, review, staged permissions, attribution, disputes, and anti-gaming rules.	Quality-adjusted throughput, qualified demand, liquidity efficiency, dispute rate, and resolution quality.

Source: POLIX editorial synthesis. The table defines intended functions and evidence requirements, not current operating results.

SUPPLY PRINCIPLE **Each engine should be measured by the quality-adjusted output it delivers to another lifecycle stage. Gross activity is an input signal, not proof that supply has been produced.**

5.3 Network Effects by Design

Network effects are often invoked as if scale automatically makes a platform better. The more precise claim is that the value or willingness to participate on one side may change with the participation of another side. Two-sided-market theory shows that these cross-group effects shape platform design and cannot be reduced to a single price or user count (Rochet and Tirole, 2003; Parker and Van Alstyne, 2005). In POLIX, the relevant question is not whether the total network is larger, but whether an added qualified contribution improves the next participant's opportunity to discover, understand, execute, create, or evaluate a market.

The proposed positive loop can be stated in operational terms. Qualified participants increase demand for relevant markets and may contribute beliefs, orders, evidence, distribution, or feedback. Stronger demand can improve the case for creator effort and liquidity support. Better market supply and execution can produce richer, more useful market records. Traceable intelligence can make those records easier to discover and interpret, which may improve activation and retention. Renewed participation then supplies the next cycle (POLIX Project Summary 4, 2026; POLIX Project Summary 12, 2026).

This loop is conditional. More users can increase misinformation, manipulation attempts, service costs, and low-intent traffic. More markets can divide attention and capital. More liquidity can concentrate around economically attractive events while leaving information-relevant markets thin. More model output can create false precision or correlated behavior. More rewards can attract participants who optimize the reward metric rather than the underlying contribution. Negative externalities can therefore scale through the same connections that are intended to create positive effects.

5.3.1 A Conditional Complementarity Model

A compact conceptual model clarifies the claim. Let U, I, L, and M denote quality-adjusted user, intelligence, liquidity, and market supply at time t. Let G represent governance and quality controls, and X represent external conditions such as market class, participant composition, and institutional access. Ecosystem value V is represented as a function of these inputs. This is an analytical notation, not an empirical valuation or forecast.

$$V_t = F(U_t, I_t, L_t, M_t \mid G_t, X_t)$$

Conditional complementarity: $\partial^2 V_t / \partial x_i \partial x_j > 0$ for $x_i, x_j \in \{U, I, L, M\}$, $i \neq j$, only where added supply improves the other input's usefulness

Conceptual Equation 5.1. A quality-controlled complementarity model for the four supply engines.

The model has three implications. First, a high quantity of one input cannot establish ecosystem value when another necessary input is unavailable or incompatible. Second, complementarity should be tested at a specific interface: for example, whether a qualified cohort improves liquidity in the markets it reaches, or whether intelligence support improves informed activation without increasing rule misunderstanding. Third, governance and context are part of the function. Removing quality controls can reverse the sign of the interaction.

5.3.2 Feedback, Bottlenecks, and Observability

A supply-engine system should be managed as a bottlenecked process. If market supply expands faster than liquidity and discovery, additional listings may reduce average execution quality. If user supply expands faster than onboarding and intelligence, support burden and misunderstanding may rise. If liquidity access expands faster than contract mapping and provenance, apparent aggregation may conceal non-equivalent markets. Resources should therefore be directed toward the constrained interface rather than distributed evenly across all engines.

Feedback must also be observable. Referral lineage, market identifiers, creator attribution, evidence records, liquidity states, analysis versions, user-consent boundaries, and resolution outcomes should support bounded questions about cause and effect. Did a cohort remain because it found relevant markets, because an incentive was temporarily available, or because a single event dominated attention? Did a creator improve market coverage or duplicate an existing question? Did an analytical tool improve comprehension or merely increase clicks? Without disaggregated records, a flywheel diagram cannot be distinguished from correlated activity.

Time matters. Acquisition can be measured immediately, while resolution quality, retention, calibration, and creator stewardship require longer windows. Rewarding or declaring success before the relevant outcome is observable can bias the ecosystem toward fast, shallow actions. Each feedback link needs a declared latency, countermetric, and point at which attribution becomes sufficiently reliable for operational use.

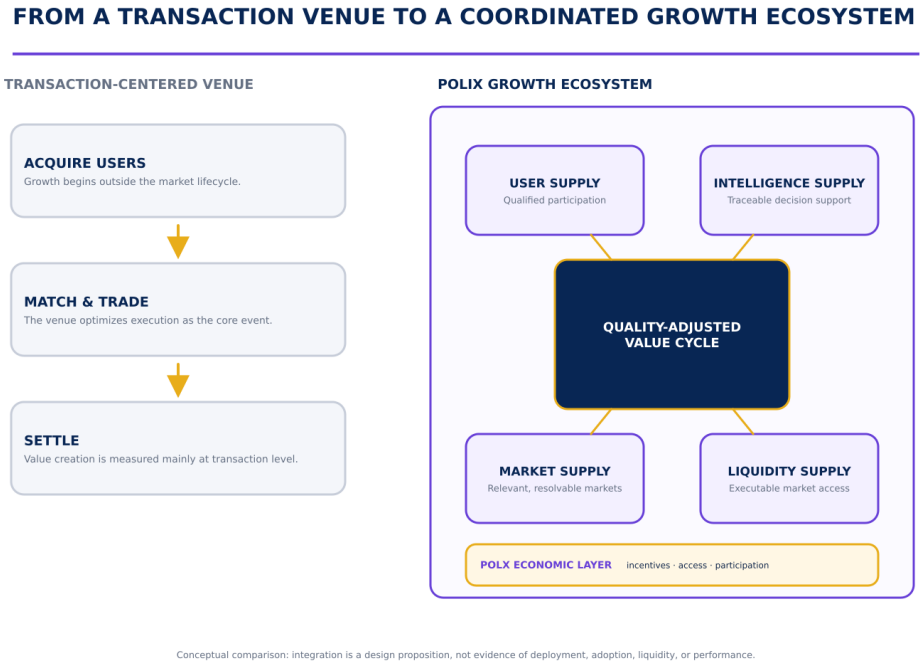

Figure 5.1. From a transaction-centered venue to the proposed POLIX growth ecosystem. Source: POLIX editorial synthesis.

NETWORK-EFFECT PRINCIPLE **A network effect should be claimed only when an added, qualified contribution measurably improves the value or accessibility of the ecosystem for another participant group after quality, incentive, and time effects are considered.**

5.4 The POLIX Value Proposition

The POLIX value proposition is integration with accountability. Individual capabilities such as referrals, AI-assisted analysis, cross-market discovery, liquidity coordination, and user-generated markets can exist independently and are not unique merely because they are listed together. Differentiation would arise if POLIX can coordinate these capabilities so that each reduces a specific lifecycle bottleneck, preserves the institutional boundaries on which trust depends, and produces evidence that the resulting interaction is better than isolated optimization.

For participants, the intended value is continuity across discovery, interpretation, execution, monitoring, and renewed participation. A user should be able to understand what event is being traded, how the market is specified, which evidence and analytical outputs are available, what liquidity conditions apply,

and how the outcome will be determined. Personalization or AI assistance should reduce search and comprehension costs without concealing uncertainty, commercial incentives, or contract rules.

For creators, the intended value is a structured route from topic knowledge to accountable market stewardship. Contributors may propose questions, build communities, curate information, support distribution, or perform other attributable roles. The platform must distinguish these contributions, define permissions, apply quality gates, manage conflicts, and delay final attribution where resolution or retention must be observed. Creator participation becomes an economy only when the contribution and the rule for recognizing it are both explicit.

For partners, the intended value is access to interoperable capabilities without requiring institutional homogeneity. A partner may seek market discovery, analytical tools, distribution support, creator reach, or eligible liquidity pathways. The value of a hub is not that every market becomes one market. It is that related opportunities can be discovered and evaluated through consistent metadata while provenance, custody, access, fees, settlement, and resolution boundaries remain visible. Partner value therefore depends on interface quality and trust, not only network size.

For the ecosystem, the intended value is a measurable allocation of attention and resources. Shared state can show which participant cohorts activate, which questions convert into useful markets, where liquidity is thin, which analysis is used, and which contributions create retained value. This enables bottleneck-aware coordination. It also increases the importance of data governance, permissions, model controls, incentive integrity, and auditability, which are addressed in later chapters.

Table 5.3. POLIX value propositions and falsifiable evidence

BENEFICIARY	PROPOSED VALUE	NECESSARY MECHANISM	EVIDENCE THAT WOULD SUPPORT IT	FAILURE SIGNATURE
Participant	Lower cost of finding, understanding, and acting on relevant markets.	Integrated discovery, clear contracts, traceable intelligence, and visible execution conditions.	Comprehension, meaningful activation, task completion, repeat participation, and fewer resolution surprises.	More clicks or trades accompanied by misunderstanding, abandonment, or concentrated one-event use.
Creator	A governed path from knowledge and community reach to attributable ecosystem contribution.	Structured proposals, staged rights, quality review, attribution, stewardship, and anti-gaming controls.	Distinct useful markets, qualified reach, efficient liquidity, low disputes, and reliable resolution.	Duplicate supply, incentive farming, abandoned markets, disputes, or rewards detached from quality.
Liquidity or platform partner	Discovery and interoperable access to complementary markets and capabilities.	Contract mapping, declared interfaces, eligibility controls, provenance, and preserved settlement boundaries.	Partner availability, route quality, execution evidence, resilient depth, and attributable mutual use.	False contract equivalence, hidden dependencies, concentration, route failure, or opaque conflicts.
Information user	A more usable probability and evidence layer even without direct trading.	Market provenance, analytical separation, historical context, and accessible interpretation.	Source reuse, traceable citations, informed decisions, correction behavior, and post-resolution evaluation.	Probabilities detached from rules, unsupported certainty, stale data, or model output presented as fact.
POLIX ecosystem	Compounding value through coordinated supply rather than isolated activity.	Shared identifiers, quality gates, lifecycle metrics, bottleneck management, and accountable incentives.	Cross-role retention, completed value cycles, quality-adjusted supply, and improving unit sustainability.	Gross activity rises while relevance, liquidity, trust, retention, or economic sustainability deteriorates.

Source: POLIX editorial synthesis. Evidence categories are proposed evaluation criteria, not reported performance.

The model's credibility therefore depends on disciplined non-claims. An architecture can state intended relationships; it cannot establish that the relationships are implemented, secure, liquid, compliant, or economically sustainable. A token may help coordinate certain incentives; it cannot substitute for underlying demand or make every reward productive. AI can assist analysis; it cannot guarantee event probabilities. A hub can improve discovery and eligible routing; it cannot erase contract differences. A creator program can expand supply; it cannot make every created market valuable.

POLIX should consequently present its next-generation status as a testable system proposition. The proposition is supported when defined interfaces connect the four supplies, quality controls prevent

negative feedback, and lifecycle evidence shows that the combined system improves outcomes for distinct participant groups. It should be revised when the evidence shows that an engine produces isolated activity, shifts cost to another stage, or depends on an unverified assumption. This standard is more demanding than a feature comparison, but it is also the basis for a defensible long-term value proposition.

VALUE-PROPOSITION PRINCIPLE **POLIX's defensible differentiation would depend not on claiming four categories of functionality, but on demonstrating that their governed interaction reduces coordination costs and completes more quality-adjusted information-market cycles.**

Chapter Synthesis

1. The POLIX next-generation thesis shifts the unit of design from the transaction to the complete information-market lifecycle.
2. A growth ecosystem requires coordinated complementarities among distinct participant roles; ecosystem is not a synonym for a large community or a broad feature list.
3. User, intelligence, liquidity, and market supply are quality-adjusted productive inputs. Their quantities should not be aggregated before relevance, eligibility, provenance, execution, and resolution are considered.
4. Each proposed engine must transform identifiable inputs into governed outputs that another lifecycle stage can use and must expose evidence by which that contribution can be evaluated.
5. POLX is introduced here only as a proposed economic coordination layer. Detailed token utility, allocation, incentives, governance, buyback, and burn policies belong to later chapters.
6. Network effects are conditional cross-group improvements, not automatic consequences of more users, markets, capital, data, or rewards.
7. Integration can compound negative externalities. Quality gates, bottleneck management, permission boundaries, feedback latency, and disaggregated measurement are part of the model rather than later operational details.
8. The POLIX value proposition is testable: coordination should improve informed participation, quality-adjusted market supply, executable access, interpretable intelligence, retention, and renewed contribution without hiding institutional boundaries.
9. The chapter defines intended architecture and evidence requirements; corresponding capability claims remain contingent on implementation evidence.

TRANSITION TO CHAPTER 6 **Chapter 6 places this integrated model within the broader POLIX vision and global expansion strategy. It examines how a proposed prediction ecosystem can move from a strategically grounded starting point toward a global information economy without converting aspiration into an unverified roadmap commitment.**

CHAPTER 05 / REFERENCES

References and Source Notes

The references below support the platform-economics, network-effects, ecosystem-coordination, and POLIX design propositions used in Chapter 5. Academic sources provide conceptual frameworks; POLIX materials document intended design. The document-wide claim boundary in the Important Notice applies.

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CHAPTER 06

Vision and Global Expansion Strategy

From a strategically grounded starting point to a global probability-information ecosystem.

Chapter Thesis

POLIX envisions prediction markets as an emerging information infrastructure in which well-specified questions, distributed beliefs, market activity, analytical tools, and resolution records can be converted into reusable probability information. The ambition is broader than operating a large trading venue. It is to develop a platform and ecosystem capable of supporting how uncertain events are framed, interpreted, traded, monitored, resolved, and learned from across multiple participant groups. Global expansion follows from that ambition, but it should be treated as a capability-transfer problem rather than a race to list countries. POLIX identifies Asia-Pacific as a strategic starting point because its official materials claim regional familiarity and a strong opportunity for ecosystem formation. This is a strategic hypothesis, not evidence that the region is homogeneous, that market leadership has been achieved, or that services are available in any particular jurisdiction.

Chapter 5 established the POLIX integration thesis: user, intelligence, liquidity, and market supply create value only when their governed interaction completes more quality-adjusted information-market cycles. Chapter 6 changes the level of analysis. It asks what kind of long-term infrastructure those cycles could become, why a regionally grounded start may be strategically useful, and which capabilities would need to remain portable as the ecosystem crosses linguistic, institutional, and market boundaries.

The chapter therefore distinguishes vision, strategy, and evidence. Vision defines a desired future state. Strategy defines a sequence of choices under uncertainty. Evidence determines whether those choices are working. None of the three should be substituted for another. A global aspiration is not a launch schedule; an architecture is not proof of adoption; and a regional thesis is not a verified market-size estimate. The claims below are intentionally bounded to concepts supported by official POLIX materials and cited academic literature.

ANALYTICAL BOUNDARY **Chapter 6 defines the POLIX vision and an undated, capability-based expansion logic. Jurisdiction-specific operating conditions and implementation commitments remain outside this chapter; detailed platform architecture begins in Chapter 7.**

6.1 The POLIX Vision

Official POLIX materials express two connected ambitions: to become a leading global prediction-market platform and to help establish a financial-information ecosystem in which future information and probabilities are more broadly usable (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 6, 2026). The first ambition concerns competitive position. The second concerns institutional function. A platform may become large without becoming infrastructure; it becomes infrastructure only when other participants can repeatedly rely on its rules, records, interfaces, and outputs to perform activities beyond a single transaction.

The intellectual basis for this vision is the economic problem of dispersed knowledge. Information relevant to future events is distributed among people, institutions, datasets, and local contexts. Prices can help coordinate fragments of knowledge that no central actor fully possesses (Hayek, 1945). Prediction markets apply this logic to contingent events by allowing participants to express beliefs through contracts whose prices may summarize market expectations under defined rules (Wolfers and Zitzewitz, 2004). POLIX extends the proposition by treating the surrounding production of questions, evidence, intelligence, liquidity, and participation as part of the information system rather than as peripheral support.

This vision requires restraint. A market price is not a universal truth value. It is an output of a specific contract, participant population, incentive structure, liquidity condition, and point in time. The relationship between price and average belief can be affected by trading behavior, risk preferences, wealth, information distribution, and market design (Manski, 2006). POLIX should therefore present probabilities as traceable signals with context, not as guaranteed forecasts or substitutes for judgment.

The intended infrastructure has three linked layers. The first is question formation: uncertain events must be translated into distinct, understandable, time-bounded, and resolvable contracts. The second is probability formation: participation, orders, liquidity, evidence, and analytical outputs produce evolving signals. The third is decision reuse: market histories, sources, model outputs, and resolution records can support interpretation, evaluation, and future question design. A platform that performs only the second layer may facilitate trading but cannot fully realize the information-infrastructure vision.

POLIX also describes its future as an ecosystem rather than a closed product. In that model, users are not only traders; creators are not only content suppliers; partners are not only distribution channels; and AI is not only an interface feature. Each actor may contribute a complementary capability whose value depends on shared rules and observable boundaries. Platform research characterizes this combination of technical components, participant roles, institutional arrangements, and distributed innovation as a sociotechnical system (Gawer, 2014; de Reuver et al., 2018).

Table 6.1. The POLIX vision as testable infrastructure propositions

VISION DIMENSION	INTENDED FUTURE STATE	OPERATIONAL MEANING	EVIDENCE REQUIREMENT	NON-CLAIM
Probability information	Future-event probabilities become easier to discover, compare, and interpret.	Contracts, prices, evidence, and analytical outputs remain linked through traceable records.	Users can identify the question, rules, source context, uncertainty, and resolution history.	A displayed probability is not guaranteed truth or individualized advice.
Collective intelligence	Distributed beliefs and knowledge contribute to a shared market signal.	Participation is structured so heterogeneous information can enter without erasing contributor differences.	Market behavior, source diversity, revisions, and post-resolution performance can be evaluated.	More participants do not automatically produce a better forecast.
Reusable infrastructure	Market outputs support learning and decisions beyond a single trade.	Historical states, provenance, analysis versions, and outcomes can be retrieved and interpreted.	Records remain accessible, internally consistent, and useful after market resolution.	Infrastructure status is not established by product breadth alone.

VISION DIMENSION	INTENDED FUTURE STATE	OPERATIONAL MEANING	EVIDENCE REQUIREMENT	NON-CLAIM
Open ecosystem	Creators, communities, analysts, liquidity providers, and partners add complementary value.	Roles interact through declared interfaces, permissions, attribution, and quality controls.	Independent contributions improve lifecycle completion without hiding conflicts or dependencies.	Ecosystem is not a synonym for a large audience or feature list.
Global applicability	The system supports relevant markets and information use across contexts.	Portable standards coexist with local language, evidence, access, and institutional requirements.	Capabilities transfer without unacceptable loss of relevance, integrity, or interpretability.	Global ambition does not prove legal availability or adoption in any country.

Source: POLIX editorial synthesis based on official vision materials and information-market literature. These are evaluation propositions, not reported operating results.

VISION PRINCIPLE **POLIX should be evaluated not only by the volume of prediction transactions it may facilitate, but by whether its rules and records make uncertain-event information more traceable, interpretable, and reusable.**

6.2 From Platform to Information Economy

The phrase information economy is often used too broadly. In this chapter it does not mean that every piece of information becomes a token or that information has a single market price. It refers to a system in which the production, qualification, exchange, interpretation, and reuse of information become explicit economic activities. Prediction markets are one mechanism within that system because they convert a bounded uncertain event into a contract, a stream of market states, and an observable resolution record.

6.2.1 Probability as an Information Product

A probability becomes an information product only when its object is defined. The statement that an event has a 60 percent probability is incomplete without the exact event, outcome set, time boundary, evidence rule, market state, and method by which the probability was produced. Prediction markets create a disciplined container for some of these elements. They transform a question into an instrument whose price can be observed and revised as participants act on changing information.

The product is richer than the latest price. It may include the question specification, order or pricing history, volume and liquidity states, linked evidence, analytical commentary, revisions, disputes, and final resolution. These records allow a reader to ask not only what the market believed, but when it believed it, under which conditions, and how the signal changed. They also support post-resolution evaluation: whether questions were clear, whether markets reacted to relevant evidence, and whether analytical outputs were calibrated or misleading.

POLIX positions AI Intelligence as a potential aid to this product, not as its replacement. Models may help collect sources, detect changes, compare market states, produce probabilistic estimates, or explain differences between signals. The market, model, and source record should remain distinguishable. If model output is merged into a price without provenance, the platform loses the ability to evaluate either. If a market price is presented as proof that a model is correct, circular validation results.

6.2.2 From Market Output to Reusable Infrastructure

For probability information to function as infrastructure, it must be reusable by more than the original trader. A researcher may need a historical probability series; a creator may need examples of well-resolved questions; a partner may need consistent market metadata; an analyst may need source and model provenance; and a community may need an intelligible explanation of why a probability moved.

Reuse depends on stable identifiers, documentation, permissions, and context rather than on a single front-end experience.

This requirement changes the source of platform value. Transaction fees or trading activity may be one economic component, but an information infrastructure can also create value by reducing search costs, interpretation costs, coordination costs, and duplication. A creator can discover that a proposed question already exists. A participant can compare related contracts without assuming equivalence. A partner can evaluate whether an interface preserves provenance. A model can be tested against settled outcomes rather than only current attention.

The information economy also creates governance obligations. Information may be wrong, manipulated, stale, duplicative, commercially influenced, or inaccessible to some users. Market design can reward participation without rewarding truth; model design can create precision without reliability; and open contribution can increase both coverage and noise. The platform must therefore disclose the boundaries of each output, preserve correction histories, and avoid converting popularity into epistemic authority.

> INFORMATION-ECONOMY PRINCIPLE **The durable product is not an isolated prediction. It is a traceable chain from question design through probability formation to resolution and post-event learning.**

6.3 Asia-Pacific as a Strategic Starting Point

POLIX official materials identify Asia-Pacific as the strategic starting point for global expansion. They present regional familiarity and perceived opportunity as the strategic rationale for this starting position (POLIX Project Summary 5, 2026). This chapter retains that strategic choice while removing unsupported generalization. No external population, mobile-usage, adoption, market-size, or growth-rate figure is required to explain the logic.

6.3.1 A Starting Point, Not a Homogeneous Market

Asia-Pacific is not one market. Languages, political and media environments, financial systems, digital habits, sports and entertainment calendars, evidence institutions, and access conditions vary substantially. A strategy that treats the region as a uniform demand pool may scale interfaces while failing to scale meaning. For prediction markets, local relevance affects the entire lifecycle: which questions are proposed, how they are understood, who has relevant information, which sources are trusted, and how outcomes can be resolved.

A regional starting point should therefore be interpreted as a learning boundary. It identifies a set of contexts in which POLIX intends to develop and test its operating assumptions before claiming broader transferability. The objective is not to maximize geographic coverage at the earliest stage. It is to discover which parts of the system must adapt locally and which should remain consistent if the platform is to preserve trust and interoperability.

This distinction is especially important for network effects. Platform research shows that network externalities may operate mainly within a country or context, or may cross borders depending on the platform and participant relationship (Stallkamp and Schotter, 2021). A creator community focused on a local election may generate mainly local value. A market about a global asset or sporting event may attract cross-context participation. POLIX should measure the geographic scope of each effect rather than assume that every new participant increases global value equally.

6.3.2 Localization as System Validation

Localization is often reduced to language translation. For an information market it is a deeper validation process. Question templates must produce the same semantic precision after translation. Category taxonomies must support locally relevant discovery without fragmenting global comparison. Evidence rules must point to sources that participants can access and that resolution processes can evaluate. Analytical tools must distinguish language coverage from model competence. Community programs must preserve contribution quality when social norms and distribution channels differ.

A localized implementation should also preserve a common core. Market identifiers, contract states, provenance fields, analytical labels, resolution records, and partner metadata require sufficient consistency for the ecosystem to learn across contexts. The strategic problem is therefore not localization versus standardization. It is deciding which layer belongs to each. Local expression without a common core creates fragmentation; a rigid global core without contextual adaptation creates irrelevance.

Table 6.2. Regional heterogeneity as a prediction-market design constraint

DIMENSION	WHY IT VARIES	STRATEGIC IMPLICATION	PORTABLE CORE	GUARDRAIL
Language and semantics	Event wording, ambiguity, idiom, and user comprehension differ by language and context.	Local editorial competence is required for discovery and contract clarity.	Outcome schema, time boundary, evidence fields, and version history.	Translation must not silently change the economic meaning of a market.
Market relevance	Political, economic, cultural, entertainment, and sports attention is context-specific.	Creator and community knowledge should guide supply while quality gates remain independent.	Category metadata, duplicate detection, demand evidence, and lifecycle states.	Local popularity must not override resolvability or platform integrity.
Evidence and resolution	Authoritative sources, publication practices, and accessibility vary by event type and context.	Resolution design must begin with available evidence rather than be added after trading.	Declared source hierarchy, dispute record, timestamps, and resolution rationale.	A market should not be published when a credible resolution path is absent.
Participation context	Wallet familiarity, payment access, identity expectations, and risk understanding vary.	Onboarding and access paths require context-specific validation.	Permission states, consent records, risk disclosures, and account or wallet linkage.	Access should not be represented as available before institutional conditions are confirmed.
Intelligence coverage	Data availability, language performance, source reliability, and media structure differ.	AI performance and source coverage must be assessed by context and market class.	Provenance, model version, uncertainty label, correction history, and user controls.	Global model availability does not prove local analytical reliability.
Community and partners	Trust networks, creator norms, distribution channels, and partner capabilities differ.	Expansion should use accountable local relationships without delegating core integrity.	Attribution, role definitions, interface standards, conflict disclosure, and performance evidence.	Partner reach is not a substitute for verified operating quality.

Source: POLIX editorial synthesis. The table identifies design questions and does not describe current regional operations or legal availability.

REGIONAL STRATEGY PRINCIPLE **Asia-Pacific is strategically useful only if regional learning improves the portability and integrity of the POLIX system. Geographic breadth without validated local meaning would weaken the global thesis.**

6.4 Building a Global Prediction Ecosystem

The global objective in POLIX materials is not merely to make the same website visible in more countries. It is to connect users, creators, intelligence, liquidity, and partners across contexts while preserving the meaning of markets and the boundaries of participation (POLIX Project Summary 5, 2026; POLIX Project Summary 12, 2026). That objective requires a federated logic: a shared system for identification, provenance, interoperability, and measurement combined with context-specific market supply, language, evidence, and institutional access.

6.4.1 Global Core, Local Expression

The global core should contain the elements whose consistency creates trust and network value. These include the representation of questions and outcomes, market identifiers and state transitions, provenance of sources and analysis, role and permission boundaries, resolution records, and quality-adjusted lifecycle metrics. Consistency at this layer allows markets and information from different contexts to be discovered and evaluated without assuming that they are identical.

Local expression should contain the elements whose relevance depends on context. These may include language, category emphasis, event calendars, explanatory content, creator communities, locally accessible evidence, and the interface through which users understand participation conditions. Local expression must not be a mechanism for bypassing the global core. A market whose meaning changes across interfaces, or an analytical output whose provenance disappears in translation, damages the network it is intended to expand.

This architecture of consistency and variation reflects the broader nature of digital platforms. Their boundaries are distributed across technical components, complementors, institutions, markets, and user practices rather than determined only by software ownership (Gawer, 2014; de Reuver et al., 2018). Global strategy should therefore coordinate relationships and standards, not only replicate code.

6.4.2 Capability-Gated Expansion

POLIX should frame expansion as a sequence of capability gates rather than dated geographic promises. A gate is passed when evidence shows that the next layer can be added without unacceptable loss of relevance, integrity, or observability. The logic begins with a market context in which questions can be sourced and resolved, proceeds through repeatable lifecycle operation, and only then tests whether interfaces and network effects transfer across contexts.

This approach separates scale from readiness. A platform may technically accept traffic from multiple locations while lacking local market supply, source coverage, partner support, or resolution competence. It may also have strong local activity whose network effects do not cross borders. Capability gates make these differences visible. They allow POLIX to treat a context as exploratory, validated, interoperable, or networked without converting every presence signal into a claim of full market entry.

Table 6.3. Undated capability gates for global ecosystem expansion

GATE	CENTRAL QUESTION	MINIMUM EVIDENCE	DECISION ENABLED	FAILURE SIGNATURE
1. Context relevance	Can the ecosystem source meaningful, distinct, and resolvable questions for a defined context?	Qualified creator input, demand signals, accessible evidence, and clear resolution paths.	Proceed to limited lifecycle validation.	Translated but irrelevant markets, duplicates, ambiguous outcomes, or absent evidence.
2. Operating integrity	Can users complete the lifecycle with understandable rules and reliable records?	Comprehension, market-state consistency, execution evidence, issue handling, and resolution quality.	Repeat the model within the context.	Activity rises while confusion, disputes, unresolved markets, or hidden failures accumulate.
3. Portable capability	Can core schemas, provenance, analytics, and measurement transfer without losing meaning?	Comparable metadata, stable identifiers, traceable analysis, and context-aware performance evaluation.	Connect additional contexts through common interfaces.	Local workarounds replace standards or global tools misrepresent local data.
4. Partner interoperability	Can external participants add value while preserving institutional boundaries?	Declared interfaces, role accountability, provenance, eligible access, and partner-level quality evidence.	Expand ecosystem connectivity.	Opaque dependencies, false equivalence, concentration, or responsibility gaps.
5. Cross-context complementarity	Does activity in one context measurably improve value in another?	Cross-context discovery, reusable intelligence, creator reach, liquidity access, or information reuse with quality controls.	Claim a global network effect for the validated relationship.	Country count increases but markets, users, and liquidity remain isolated or lower overall quality.

Source: POLIX editorial synthesis informed by international platform-strategy literature. Gates are analytical criteria, not a dated roadmap or statement of completion.

6.4.3 Conditions for Responsible Scale

Responsible expansion requires each added market, language, partner, data source, and participant channel to preserve meaning, provenance, accountability, and observable cross-context value. These conditions refine rather than reduce global ambition by defining the unit of expansion more carefully.

The first readiness condition is demonstrated portability: a capability must transfer in substance, not only at the interface level. A market-creation workflow should produce locally relevant and resolvable questions; an AI model should have adequate sources and calibration for the language and context; a liquidity connection should preserve contract, access, custody, settlement, and resolution distinctions; and a referral program should maintain participant quality as reach expands.

The second readiness condition is strategic clarity. POLIX should distinguish network effects that genuinely cross borders from those that remain local. This distinction guides resource allocation, partner selection, market supply, measurement, and user expectations. A globally integrated strategy is appropriate where the relevant data, creators, users, liquidity, or information outputs create value across contexts; other functions may require locally differentiated operation (Stallkamp and Schotter, 2021).

The third readiness condition is evidence-based communication. Publishing capability and evidence standards before announcing launch dates, jurisdictions, partnerships, user targets, or market-share objectives preserves strategic ambition while allowing implementation details to be disclosed through current official channels when confirmed.

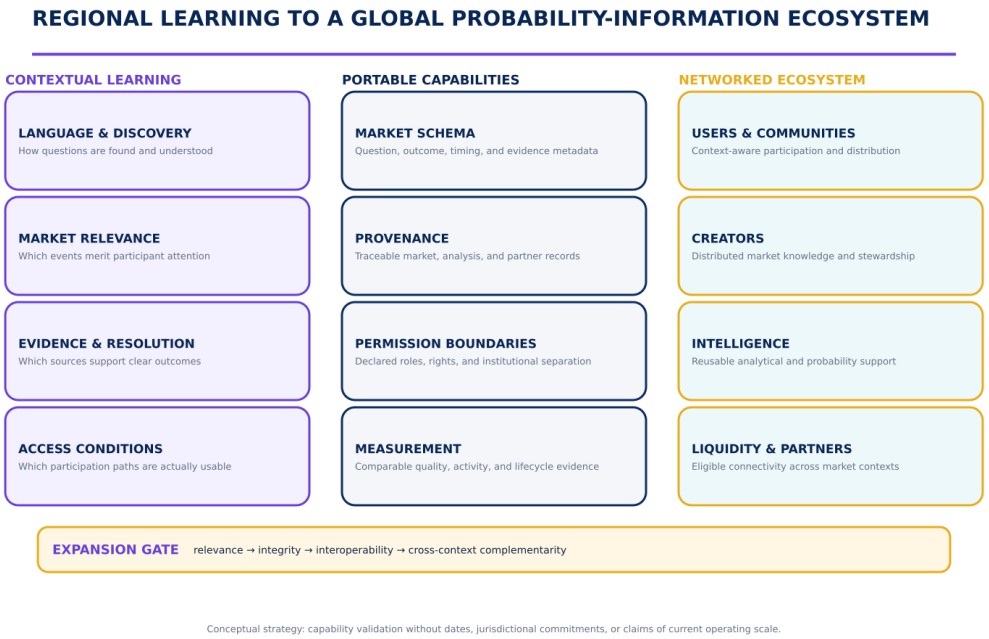

Figure 6.1. From regional learning to a proposed global probability-information ecosystem. Source: POLIX editorial synthesis.

> GLOBAL EXPANSION PRINCIPLE **Global scale should be claimed only where a portable POLIX capability preserves local meaning and creates observable value across contexts. Country coverage alone is not a network effect.**

Chapter Synthesis

1. POLIX envisions prediction markets as an information infrastructure that makes uncertain-event questions, probability signals, evidence, and resolution records more traceable and reusable.

2. The vision is broader than operating a trading venue, but it does not convert market prices or AI estimates into guaranteed truth. Every probability remains conditional on its question, method, participants, incentives, liquidity, and time.
3. The information economy is defined as the explicit production, qualification, exchange, interpretation, and reuse of information, not as the automatic tokenization or monetization of every data point.
4. A complete probability-information product includes question design, market states, evidence, analysis, uncertainty, disputes, resolution, and post-event evaluation.
5. Asia-Pacific is retained as POLIX's strategic starting point because official materials state regional familiarity and opportunity. It is treated as a learning boundary rather than a homogeneous market or verified dominance claim.
6. Localization validates the system at semantic, market, evidence, access, intelligence, community, and partner layers. Translation alone is insufficient.
7. The proposed global model combines a consistent core of identifiers, provenance, permissions, lifecycle states, and measurement with context-specific language, market supply, evidence, and user experience.
8. Expansion is capability-gated and undated: context relevance, operating integrity, portable capability, partner interoperability, and cross-context complementarity must be evidenced before stronger scale claims are made.

TRANSITION TO CHAPTER 7 **Chapter 7 translates the vision and expansion requirements into the Four-Engine Architecture. It defines how the Referral Engine, AI Intelligence, Liquidity Hub, and Creator Economy are intended to interact while preserving provenance, permissions, quality controls, and institutional boundaries.**

CHAPTER 06 / REFERENCES

References and Source Notes

The references below support the information-infrastructure, prediction-market, digital-platform, and international-expansion propositions used in Chapter 6. POLIX materials document vision and intended strategy. The document-wide claim boundary in the Important Notice applies.

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CHAPTER 07

Four-Engine Architecture

Governed exchanges among user, intelligence, liquidity, and market supply.

Chapter Thesis

POLIX is organized around four proposed supply engines: the Referral Engine for user supply, AI Intelligence for intelligence supply, the Liquidity Hub for liquidity supply, and the Creator Economy for market supply. The architecture is not a feature map and does not assume that every module shares all data, authority, or economic resources. It is a governed exchange system in which each engine produces typed, attributable outputs that another part of the prediction-market lifecycle may consume only through declared interfaces, permissions, quality gates, and institutional boundaries. The core architectural proposition is therefore selective interoperability: connect what must be coordinated, preserve what must remain distinct, and retain enough evidence to determine whether an inter-engine relationship creates value or propagates error.

Chapter 5 established the economic logic of complementary supply, and Chapter 6 placed that model within the POLIX vision and global strategy. Chapter 7 moves from those strategic propositions to system structure. It defines the shared objects, boundary resources, state transitions, control decisions, and evidence records through which the four engines are intended to interact. The emphasis is architectural: what each engine may receive, what it may produce, which actor or process retains authority, and which failure must stop or qualify the handoff.

Digital-platform research treats architecture and governance as coevolving rather than separable concerns. Interfaces that enable external contribution also determine how quality, control, and responsibility are distributed; governance rules in turn shape which architectural options remain viable (Tiwana, Konsynski, and Bush, 2010). POLIX therefore cannot establish a credible four-engine model merely by placing referral, AI, liquidity, and creator functions in the same interface. Their connections must encode the boundaries that make their outputs interpretable.

ANALYTICAL BOUNDARY **Chapter 7 defines a conceptual and governance-aware architecture whose capability claims remain subject to implementation and operating evidence. Chapters 8–11 develop the engines individually; Chapters 12–16 develop market, trading, resolution, experience, and partner layers in greater detail.**

7.1 Architecture Overview

A platform architecture specifies more than software components. It defines relatively stable shared resources, variable modules, interfaces through which actors extend or use the system, and governance mechanisms that determine acceptable change. In a prediction-market ecosystem, the architecture also spans institutional objects: market rules, evidence sources, participant permissions, custody and venue conditions, resolution authority, and attribution. These elements cannot be reduced to a single technical stack because their meaning depends on both code and declared responsibility.

The proposed POLIX architecture separates three questions. The first is functional: which engine is responsible for producing which form of supply? The second is representational: which identifiers, schemas, states, and records allow outputs to move between functions without losing meaning? The third is institutional: which decisions remain with POLIX, a creator, a user, an AI service, a liquidity venue, a partner, or a resolution process? A connection is architecturally complete only when all three questions have an answer.

7.1.1 Stable Core, Engines, and Boundary Resources

The shared core should remain smaller than the complete product surface. Its role is to provide the minimum common structure needed for reliable coordination: canonical identifiers, lifecycle states, provenance records, role and permission definitions, quality decisions, and measurement events. A stable core does not mean an immutable system. It means that changes to a shared object are versioned and governed because several engines may depend on its meaning.

Around the core sit the four engines. Each engine is modular in the limited sense that its internal methods may evolve without silently changing the contract presented to other engines. A referral-scoring method may change while continuing to emit a defined cohort and attribution event. An analytical model may change while continuing to publish its version, inputs, timestamp, uncertainty, and correction status. A partner connection may change its technical adapter while preserving the venue, contract, eligibility, custody, settlement, and resolution metadata exposed to the wider system.

Boundary resources connect the core to engines and external actors. They may include APIs, event schemas, dashboards, market templates, permission scopes, review workflows, and documentation. Boundary-resource research shows that platform interfaces are not fixed gateways designed once by a central owner; they may be adjusted through ongoing interaction among the platform and complementors (Eaton et al., 2015). POLIX should therefore treat interface changes as governed product decisions with compatibility, provenance, and responsibility implications.

7.1.2 Shared Objects and Lifecycle State

The architecture requires shared objects because inter-engine coordination cannot depend on ambiguous text or screen-level proximity. A participant or cohort object links a referral source to consented activation and contribution events. A market object links a question to outcomes, timing, category, evidence rules, creator attribution, trading venue, liquidity state, and resolution record. An analysis object links an AI or human interpretation to the market, source set, model or method, timestamp, uncertainty, and revision history. A contribution object links an eligible action to the policy and evidence used for attribution.

Lifecycle states make these objects operationally intelligible. A proposed market is not equivalent to a reviewed market; a published market is not necessarily active; a closed market is not resolved; and a displayed analytical artifact may be current, superseded, corrected, or withdrawn. The architecture should not allow an engine to infer authority from visibility. A creator may submit a candidate without

possessing publication authority, and an AI output may be displayed without acquiring authority to define the contract or determine the outcome.

State transitions should be explicit and attributable. Each transition requires an object identifier, prior state, new state, timestamp, actor or process, governing policy version, and reason or evidence reference. This structure supports later dispute analysis and prevents one engine from treating a provisional state as final. It also enables selective synchronization: an engine receives only the states and fields necessary for its function rather than unrestricted access to every underlying record.

7.1.3 Control, Data, and Evidence Planes

For analytical clarity, POLIX can be represented through three intersecting planes. The data plane carries typed operational representations such as market objects, analysis artifacts, referral events, creator submissions, and liquidity metadata. The control plane applies role permissions, policy versions, quality gates, limits, and suspension decisions. The evidence plane retains the provenance necessary to reconstruct how an output was produced and why a transition or attribution occurred.

The evidence plane is not identical to a public ledger or a single centralized database. Provenance is information about the entities, activities, and agents involved in producing a data item or decision, and it can be represented across heterogeneous systems (Moreau and Missier, 2013). POLIX may therefore preserve provenance through linked records even where personal data, model assets, venue systems, custody, or resolution evidence remain under different controls. Architectural credibility depends on the linkage, not on claiming that all underlying resources are pooled.

Table 7.1. Proposed layers of the POLIX four-engine architecture

LAYER	PRIMARY ROLE	REPRESENTATIVE OBJECTS	GOVERNING QUESTION	BOUNDARY
Experience layer	Presents discovery, trading, creation, portfolio, referral, and analytical experiences.	Views, explanations, controls, alerts, dashboards.	What can this user or partner see and do in this context?	Interface visibility does not create underlying authority.
Engine layer	Transforms inputs into quality-controlled user, intelligence, liquidity, or market supply.	Cohorts, analysis artifacts, liquidity views, market candidate packages.	Which engine owns the transformation and its failure handling?	An engine may not silently redefine another engine's object.
Shared core	Maintains common meaning across engines.	Identifiers, schemas, lifecycle states, policy versions, contribution records.	Which semantics must remain stable for interoperability?	The core is minimal and versioned, not a repository of everything.
Boundary resources	Connects engines, users, creators, partners, and services.	APIs, event schemas, permission scopes, templates, review workflows.	Which capability is exposed, under what contract and compatibility rule?	Openness is selective and revocable.
Control and evidence	Applies policy and preserves the basis for decisions.	Permission decisions, quality outcomes, provenance, audit events, exceptions.	Can a transition or output be reconstructed and challenged?	Evidence may be linked across systems without pooling protected resources.
External institutions	Retains authority outside the shared POLIX core where required.	Venues, custody, evidence publishers, partners, resolution authorities.	Which institution controls access, execution, settlement, or final evidence?	Connectivity must not imply institutional equivalence.

Source: POLIX editorial synthesis informed by platform-architecture, boundary-resource, and provenance literature. The layers are conceptual and do not describe completed implementation.

ARCHITECTURE PRINCIPLE **POLIX should connect engines through minimal, typed, versioned interfaces. Co-location in one platform is not interoperability, and unrestricted sharing is not integration.**

7.2 User Supply: Referral Engine

The Referral Engine is the proposed user-supply function. Official materials position referral as a community-driven growth mechanism supported by tier progression and POLX-aligned incentives (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 7, 2026). At the architectural level, its responsibility is narrower and more testable: receive an eligible invitation or attribution signal, associate it with a consented participant relationship, observe defined activation and contribution events, and emit a qualified cohort record for use by permitted platform functions. Invitations, registrations, wallets, and reward claims are distinct objects and should not be collapsed into one user-count metric.

The Referral Engine requires three interfaces. The acquisition interface records the referral source, campaign or program context, consent, and attribution window. The activation interface receives only those market, learning, wallet, or participation events needed to determine whether a participant completed a defined action. The contribution interface returns quality-adjusted outcomes such as retained participation, market engagement, creator conversion, abuse findings, or later ineligibility. These interfaces allow the engine to learn without giving a referrer unrestricted visibility into the referred participant.

Its principal architectural risk is circular attribution. If the same gross action creates status, reward, and apparent growth without an independent quality outcome, the engine can amplify low-intent traffic or self-dealing. The control plane should therefore separate invitation, activation, eligibility, attribution, and settlement states; retain policy versions; detect duplicate or coordinated identities where permissible; and delay final recognition when retention or downstream contribution requires a longer observation window. Detailed tiers, dashboard logic, reward policies, and abuse controls belong to Chapter 8.

The output supplied to other engines should be bounded. AI Intelligence may use aggregated or permissioned cohort behavior to improve discovery or education, not to expose a participant's private referral lineage. The Creator Economy may observe which topics or communities generate sustained demand, not automatically publish every requested market. The Liquidity Hub may receive demand and execution signals at the market level, not a presumption that every acquired user is eligible for every venue. In each case, the referral relationship informs coordination without becoming a universal access credential.

> USER-SUPPLY PRINCIPLE **The architectural output of the Referral Engine is a qualified, permission-bounded participation record—not raw reach, an invitation count, or a transferable claim over another user's activity.**

7.3 Intelligence Supply: AI Intelligence

AI Intelligence is the proposed intelligence-supply function. Official materials describe market analysis, probability forecasting, signal generation, portfolio assistance, and copy or mirror functions as intended capabilities (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 8, 2026). Chapter 7 does not validate those functions or their accuracy. It defines the architecture necessary to distinguish an analytical artifact from a market contract, market price, source document, user decision, or authorized execution instruction.

The engine may receive market specifications and states, price and liquidity data, public evidence, licensed or permissioned data, creator context, and user preferences within declared scopes. It should emit typed artifacts rather than an undifferentiated AI answer. A descriptive summary, extracted fact, retrieval result, model estimate, probability forecast, alert, recommendation, and execution request

carry different evidentiary and risk properties. The artifact type should therefore be explicit, as should its relation to the market and the action the interface permits.

Every material analytical artifact should retain sufficient provenance for evaluation: market identifier, source references, retrieval or observation time, model or method version, transformation steps where available, uncertainty or confidence label, policy context, and correction status. The W3C PROV data model distinguishes entities, activities, and agents and provides a conceptual basis for linking such records across heterogeneous systems (Moreau and Missier, 2013). The purpose is not to expose protected model assets; it is to prevent a result from becoming detached from how and when it was produced.

AI output should not inherit institutional authority merely because it is useful. It should not silently rewrite a market question, declare two contracts equivalent, decide user eligibility, determine a disputed outcome, or move funds unless a separately authorized process is defined and disclosed. The NIST AI Risk Management Framework emphasizes governance, context mapping, measurement, and risk management across the AI lifecycle (NIST, 2023). Applied to POLIX, this supports explicit human or institutional decision points, monitoring, override, incident handling, and withdrawal of unreliable artifacts.

The engine's downstream value depends on routing. A creator may use source discovery or ambiguity detection while retaining responsibility for the submitted market candidate. A participant may use summaries or probability support while retaining decision responsibility. A liquidity interface may use market matching signals while preserving venue and contract metadata. Detailed data classes, forecasting methods, user controls, automation boundaries, and responsible-use requirements are reserved for Chapter 9.

> INTELLIGENCE-SUPPLY PRINCIPLE **An AI result becomes usable intelligence only when its object, artifact type, provenance, version, uncertainty, and permitted action are visible. Fluency or automation does not create authority.**

7.4 Liquidity Supply: Liquidity Hub

The Liquidity Hub is the proposed liquidity-supply function. Official materials describe a prediction-market aggregator, a unified liquidity network, and a partner alliance as intended components (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 9, 2026). The term hub must be interpreted carefully. Architecturally, it need not mean that all capital is placed in one pool or that every venue exposes equivalent contracts. It may instead coordinate discovery, metadata, market mapping, eligible routing, partner services, and market-level liquidity evidence across distinct institutional environments.

The hub should receive canonical POLIX market objects together with external venue or partner metadata. Relevant fields may include contract wording, outcome structure, timing, collateral or settlement medium, access and eligibility conditions, custody, fees, resolution source, venue status, price, spread, depth, available size, timestamp, and data provenance. The architecture should preserve the source venue and contract identifier at every stage. A related label or event is not sufficient evidence that two instruments are fungible, economically equivalent, or safely routable.

The engine may emit several different outputs: a cross-market discovery view, an equivalence or similarity assessment, a market-level liquidity state, an eligible access path, or a partner-service request. These outputs require different controls. Discovery may show non-equivalent markets if their differences are clear. Aggregation for analysis may normalize selected fields while retaining original terms. Routing or execution requires stronger validation of eligibility, venue availability, price freshness,

fees, custody, and settlement. Architecture should not permit a low-assurance discovery match to become a high-assurance execution instruction without an explicit gate.

The principal failure is false liquidity. Summing venue-level headline volume, displaying stale quotes, or grouping instruments with different outcomes can create an appearance of depth that is not executable. The control plane should therefore preserve freshness, venue status, contract mapping confidence, and failure states. The evidence plane should retain which source produced each liquidity observation and which adapter or rule transformed it. No output should imply live availability when the relevant connection or institutional condition is unconfirmed.

Other engines interact with the hub through market-level signals. Referral cohorts may indicate demand but do not create liquidity. AI may interpret price and depth but should not obscure source quality or market differences. Creators may use liquidity evidence to refine or sequence market candidates but should not receive an automatic promise of support. Detailed aggregation, partner topology, routing, market efficiency, and network effects are developed in Chapter 10.

LIQUIDITY-SUPPLY PRINCIPLE **The Liquidity Hub should connect visibility and eligible access while preserving contract, venue, custody, settlement, and resolution boundaries. A unified interface must not manufacture false equivalence.**

7.5 Market Supply: Creator Economy

The Creator Economy is the proposed market-supply function. Official materials describe user-generated markets, creator dashboards, revenue sharing, and POLX-aligned rewards as intended mechanisms for expanding market diversity (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 10, 2026). At the architectural level, the engine converts distributed topic and community knowledge into reviewable market candidates and attributable stewardship records. It does not equate the right to propose a question with the authority to publish, fund, resolve, or reward it.

A complete market candidate package should contain more than a title. It should include the proposed question and outcomes, event and time boundaries, category, target audience, duplicate or related-market references, evidence and resolution path, creator identity or pseudonymous account under applicable rules, conflicts of interest, supporting context, and anticipated lifecycle risks. AI tools may assist drafting and checks, but the resulting artifact must preserve which elements came from the creator, external sources, automated transformation, or platform review.

The engine requires a staged permission model. Proposal, editing, publication, visibility, liquidity support, promotion, resolution participation, and economic attribution are different rights. Eligibility for one should not imply the others. Quality gates may evaluate semantic clarity, distinctness, relevance, evidence availability, resolvability, manipulation risk, creator history, and conflicts. A rejection or requested revision should remain attributable so the system can improve templates and contributor education without converting moderation into an opaque score.

The output to other engines is a qualified market object and its lifecycle evidence. The Referral Engine may route relevant communities to a published market under applicable permissions. AI Intelligence may attach versioned analysis without taking ownership of the contract. The Liquidity Hub may evaluate market mapping and executable conditions after publication or another defined gate. Post-resolution records may return to creator attribution only after the outcomes needed to evaluate stewardship become observable.

The principal architectural risk is supply inflation. If submissions, listings, attention, and rewards are treated as interchangeable success measures, the engine may generate ambiguous, duplicative,

unresolvable, or thin markets. The system should distinguish gross proposals, accepted candidates, published markets, active markets, resolved markets, disputed or void outcomes, retained demand, and creator concentration. Detailed creation tools, dashboards, revenue-sharing logic, rewards, and incentive flywheels are reserved for Chapter 11.

MARKET-SUPPLY PRINCIPLE **The Creator Economy supplies accountable market candidates and stewardship evidence. Open participation requires differentiated rights and quality gates, not automatic publication or reward.**

Table 7.2. Engine interface contracts and failure boundaries

ENGINE	TYPED INPUT	QUALITY-CONTROLLED OUTPUT	PRIMARY CONSUMER	GATE BEFORE HANDOFF	FAILURE SIGNATURE
Referral Engine	Invitation, attribution context, consent, eligible activity events.	Qualified cohort and attributable contribution record.	Discovery, creator, intelligence, and market-level demand functions.	Eligibility, abuse review, observation window, privacy scope.	Gross referrals rise while activation quality, retention, or integrity falls.
AI Intelligence	Market object, source material, market data, permitted context.	Typed, versioned analytical artifact with provenance and uncertainty.	Participants, creators, discovery, and permitted partner functions.	Source validation, artifact labeling, policy check, monitoring.	Output loses provenance, overstates certainty, or acquires unauthorized decision power.
Liquidity Hub	Market and venue metadata, contract terms, eligible liquidity observations.	Discovery view, mapping assessment, liquidity state, or eligible access path.	Trading experience, analytics, market planning, and partners.	Contract mapping, freshness, venue status, eligibility and execution validation.	Stale or non-equivalent instruments appear as unified executable liquidity.
Creator Economy	Question proposal, creator context, evidence path, community demand.	Qualified market candidate, creator attribution, and stewardship record.	Market review, publication, intelligence, liquidity, and discovery.	Clarity, distinctness, relevance, resolvability, conflicts and risk review.	Listings expand while duplication, disputes, voids, or thin activity accumulate.

Source: POLIX editorial synthesis. Inputs, outputs, and gates define intended architectural contracts; they are not statements of current implementation or performance.

7.6 Inter-Engine Network Effects

The four-engine architecture is intended to generate network effects because qualified output from one engine may improve the productivity of another. However, the connection must be specified at the artifact and decision level. The statement that more users create more liquidity is incomplete unless the system can identify which cohort reached which market, under which access conditions, with what execution quality, and over which observation window. The same requirement applies to claims that AI improves trading, liquidity attracts creators, or creators acquire users.

7.6.1 Typed Exchanges, Not Shared Everything

Inter-engine value is created through typed exchanges. Referral attribution is different from personal identity. A market candidate is different from a tradable market. An analysis artifact is different from the evidence it cites. A liquidity observation is different from executable capacity. A contribution event is different from an approved reward. Maintaining these distinctions allows the architecture to combine information without collapsing responsibility.

Typed exchange also supports minimal disclosure. An engine should receive the least information required to perform its declared function. A creator may need aggregated evidence that a topic has demand but not the identities of referred participants. An AI service may need the market contract and public evidence but not a user's referral lineage. A partner may need a market identifier and eligible routing request but not the complete internal contribution ledger. The architecture should therefore enforce purpose, scope, retention, and revocation at interfaces rather than rely only on organizational promises.

Ecosystem governance must balance desirable variety with the need for standards and control (Wareham, Fox, and Giner, 2014). In POLIX, variety is valuable when creators introduce new topics, AI methods interpret different evidence, referral communities broaden participation, and partners expose complementary markets. Variance becomes harmful when questions lose semantic comparability, analytical artifacts lose provenance, liquidity mappings lose contract fidelity, or attribution rules invite manipulation. Shared schemas and quality gates should reduce harmful variance without eliminating productive difference.

7.6.2 Feedback Loops and Circuit Breakers

A positive loop may begin when a qualified cohort discovers a relevant market. Its participation produces demand, trading, questions, evidence, and feedback. Those signals may inform creator effort, analytical support, and liquidity attention. Better market supply, interpretation, and execution may improve retention and attract further qualified contribution. The loop is complete only when downstream outcomes return as evidence to the engine that initiated or amplified the activity (POLIX Project Summary 12, 2026).

The same topology can transmit negative feedback. An aggressive referral campaign can concentrate uninformed activity in a market; apparent activity can attract liquidity or promotion; AI trained or conditioned on the resulting data can reinforce the signal; and creators can imitate the event format, fragmenting attention further. Because engines are connected, a local quality failure can become a system failure. Architecture therefore needs circuit breakers at the interfaces, not only within each engine.

Illustrative circuit breakers include throttling or invalidating referral attribution, pausing a market candidate or publication state, marking or withdrawing an analytical artifact, suppressing stale liquidity views, suspending routing, delaying contribution recognition, and isolating a partner feed. These are governance capabilities rather than claims about current POLIX operations. Each breaker should identify its trigger, authority, scope, user-visible status, evidence record, review path, and recovery condition.

Circuit breakers should be proportional. Permanent removal is not the only response to uncertainty. The architecture may reduce visibility, attach a warning, request revision, limit automation, require additional evidence, or confine an output to analysis rather than execution. A graded response preserves useful experimentation while preventing a low-confidence artifact from receiving high-confidence treatment.

7.6.3 Observability and Falsifiability

Observability is the ability to determine what happened across the system without assuming that correlation proves causation. The architecture should emit bounded events for object creation, state transition, permission decision, quality result, provenance link, interface handoff, user-visible presentation, correction, exception, and outcome. Events should share identifiers and timestamps while respecting data minimization and institutional separation.

Inter-engine claims should then be tested with explicit denominators and countermetrics. If referral is said to improve liquidity, relevant evidence includes the eligible referred cohort, affected markets, timing, spread, depth, fill quality, concentration, and later retention—not only volume. If AI is said to improve market creation, evidence includes ambiguity reduction, revision rate, resolution quality, creator concentration, and correction behavior—not only the number of generated questions. If creator activity is said to increase user supply, the system should distinguish retained participation from event-driven clicks.

Falsifiability requires predefined failure signatures. An interface should be revised when its downstream consumer cannot use the output, when quality-adjusted outcomes deteriorate, when benefits depend on hidden subsidies or incompatible institutions, or when the control burden exceeds the coordination value. This discipline prevents the four-engine model from becoming self-confirming: every increase cannot be labeled a network effect while every failure is attributed to implementation.

Table 7.3. High-value cross-layer exchanges and required safeguards

EXCHANGE	INTENDED VALUE	MINIMUM SHARED ARTIFACT	REQUIRED SAFEGUARD	COUNTERMETRIC
Referral -> Creator	Reveal sustained topic or community demand.	Aggregated, permission-bounded demand signal linked to market taxonomy.	Privacy scope, concentration check, no automatic publication.	Duplicate proposals, unresolved demand, cohort concentration.
Creator -> AI	Provide structured questions and context for analysis.	Versioned market candidate with source and creator provenance.	Artifact labeling, ambiguity checks, creator/AI attribution separation.	Correction rate, semantic drift, unsupported source use.
AI -> Participant	Reduce discovery and interpretation costs.	Typed analysis linked to exact market, sources, model version and time.	Uncertainty, user control, withdrawal and correction path.	Comprehension errors, automation bias, calibration by context.
Market -> Liquidity	Direct eligible attention and capital to executable opportunities.	Canonical contract plus venue, access, settlement and freshness metadata.	Mapping confidence, eligibility validation, no false pooling.	Spread, depth, price impact, failed routes, concentration.
Liquidity -> Creator	Inform market sequencing and design viability.	Market-level liquidity state and comparable event context.	No guaranteed support, source provenance, avoid popularity-only ranking.	Thin listings, abandoned markets, topic crowding.
Outcome -> All engines	Return long-horizon evidence for quality and attribution.	Resolution record linked to market, analysis, cohort and contributions.	Dispute/void status, latency, policy version, delayed final attribution.	Resolution time, dispute rate, reversals, retention after incentives.

Source: POLIX editorial synthesis. The table defines proposed evidence and safeguards for architectural evaluation; it does not report measured effects.

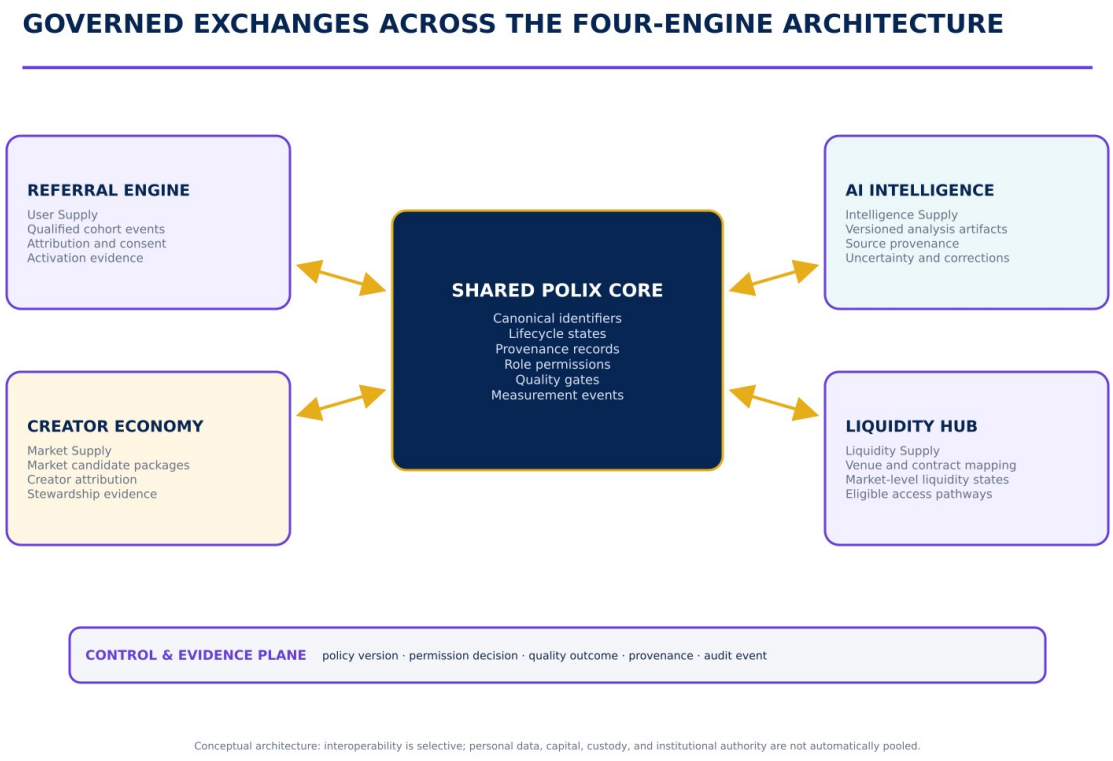

Figure 7.1. Governed exchanges across the proposed POLIX four-engine architecture. Bidirectional arrows represent governed handoffs rather than shared ownership or pooled resources. Source: POLIX editorial synthesis.

INTER-ENGINE PRINCIPLE **A POLIX network effect should be claimed only where a typed, governed output from one engine improves a quality-adjusted outcome in another and the evidence survives privacy, incentive, institutional, and time controls.**

Chapter Synthesis

1. The four-engine architecture is a governed exchange system, not a list of co-located platform features.
2. The shared core should remain minimal and versioned: canonical identifiers, lifecycle states, provenance, permissions, quality decisions, and measurement events.
3. Boundary resources connect engines and external actors through declared schemas, APIs, workflows, scopes, and compatibility rules; openness is selective rather than unrestricted.
4. The Referral Engine supplies qualified participation records, not raw reach or ownership over referred users.
5. AI Intelligence supplies typed, versioned analytical artifacts whose provenance, uncertainty, and permitted action remain visible; it does not automatically acquire decision authority.
6. The Liquidity Hub supplies discovery, mapping, market-level liquidity evidence, and eligible access pathways while preserving venue, contract, custody, settlement, and resolution boundaries.
7. The Creator Economy supplies reviewable market candidates and stewardship evidence; proposal, publication, promotion, liquidity, resolution, and reward are distinct rights.
8. Inter-engine value travels through typed exchanges. Personal data, capital, custody, protected model assets, and institutional authority are not automatically pooled.
9. Because positive and negative feedback share the same topology, interfaces require quality gates, graded circuit breakers, provenance, and observable recovery conditions.
10. The architecture remains a testable design proposition. Its credibility depends on whether defined handoffs improve quality-adjusted lifecycle outcomes without concealing costs, conflicts, or incompatible institutions.

TRANSITION TO CHAPTER 8 **Chapter 8 develops the Referral Engine as a user-supply system. It examines referral as growth infrastructure, the Prediction Master Program, tier progression, contribution-based recognition, dashboard observability, abuse controls, and the conditions under which network-driven acquisition can produce durable participation.**

CHAPTER 07 / REFERENCES

References and Source Notes

The references below support the platform-architecture, boundary-resource, provenance, AI-risk, and technology-ecosystem propositions used in Chapter 7. POLIX materials document intended design. The document-wide claim boundary in the Important Notice applies.

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CHAPTER 08

Referral Engine

From invitation volume to qualified, observable, and durable participation.

Chapter Thesis

The POLIX Referral Engine is designed as a user-supply system rather than a one-time acquisition campaign. Its economic purpose is not merely to generate invitations, registrations, or promotional reach, but to turn trusted social distribution into qualified participation that can be attributed, evaluated, and sustained. The Prediction Master Program, tier progression, referral dashboard, and POLX-aligned recognition together form a proposed growth infrastructure. That infrastructure becomes credible only when gross referrals are separated from eligible activations, contribution quality, retention, integrity findings, and final economic recognition. A referral flywheel is therefore a governed measurement loop: every increase in reach must return evidence about whether it created durable ecosystem value or merely subsidized short-lived activity.

Chapter 7 defined the Referral Engine architecturally as the producer of permission-bounded participation records. Chapter 8 develops the operating logic of that engine. It explains how an invitation becomes an attributed relationship, how a relationship becomes a qualified activation, how contribution is distinguished from raw activity, how tier status and rewards should remain auditable, and how downstream outcomes return to the program as evidence. The focus is the referral system itself; the AI, liquidity, creator, token-allocation, and revenue-sustainability layers are developed in later chapters.

Research supports treating referral as a design problem rather than assuming that social sharing automatically produces growth. A randomized field experiment by Aral and Walker (2011) found that product-integrated viral features can generate identifiable peer influence, while large recommendation-network evidence shows that viral propagation is heterogeneous and often shallow rather than uniformly exponential (Leskovec, Adamic, and Huberman, 2007). Customer-referral studies also show that referred customers can differ in retention and value, but those results arise in specific settings and cannot be transferred to POLIX as a performance forecast (Schmitt, Skiera, and Van den Bulte, 2011). The relevant conclusion is narrower: referral effects must be designed, measured, and tested at the cohort and lifecycle level.

ANALYTICAL BOUNDARY **Chapter 8 describes the intended Referral Engine and the program structure disclosed in current official POLIX materials. Detailed eligibility, calculation, caps, attribution windows, payment schedules, tax treatment, regional conditions, and enforcement procedures require separately published program terms.**

8.1 Referral as a Growth Infrastructure

A conventional referral feature may consist of a code, share link, landing page, and reward. A growth infrastructure must do more. It must preserve the source of the invitation, establish whether the relationship is eligible under the governing policy, identify a meaningful activation event, measure later contribution, apply integrity controls, explain status changes, and settle only the economic recognition supported by the record. These stages are different because each answers a different question: who introduced the participant, whether the participant was eligible, what the participant actually did, whether the activity remained valid, and whether any recognition became payable.

The infrastructure begins with a declared attribution contract. The contract should identify the referrer, the referred participant or privacy-preserving identifier, the invitation channel, the relevant program and policy version, the attribution window, consent or notice state, competing attribution rules, and any disqualifying relationship. A referral link is only an input to that contract. It is not proof that the referrer caused later activity, that the referred participant is a distinct person, or that every downstream action belongs economically to the referrer.

The next requirement is an activation definition. Registration alone is usually too weak because it can be generated with minimal intent and may not establish product comprehension, wallet readiness, or market participation. A stronger activation event is a predefined, observable action that has passed relevant eligibility and integrity checks. POLIX materials do not yet publish a final activation rule, and this chapter does not invent one. The design principle is that the rule must be explicit, versioned, and stable enough for participants to understand before their effort or compensation depends on it.

Contribution extends beyond activation. A referred participant may discover markets, trade, create a market candidate, provide useful evidence, join a community, or become a future referrer. These actions are not economically or operationally equivalent. The engine should therefore retain separate contribution classes and evaluate them over appropriate observation windows. Gross activity can be reported, but it should not silently substitute for retained participation, market quality, eligible revenue, or ecosystem value.

Referral quality also has a temporal dimension. A campaign may appear efficient at the moment of signup and become inefficient after reward cost, reversals, inactivity, support burden, concentration, or abuse is observed. Referral-program research illustrates why acquisition mode and customer value should be evaluated over time rather than inferred from initial conversion alone (Schmitt, Skiera, and Van den Bulte, 2011). For POLIX, this supports cohort-based measurement without assuming that the same empirical result will hold.

Table 8.1. Proposed referral lifecycle and evidence states

STATE	QUESTION ANSWERED	MINIMUM EVIDENCE	NOT YET IMPLIED	ILLUSTRATIVE FAILURE
Invited	Was a traceable invitation issued under a defined program?	Referrer, channel, timestamp, program and policy version.	No registration, causal credit, eligibility, or reward.	Spam, misleading claim, undisclosed incentive, duplicated link event.
Attributed	Can the participant relationship be assigned under the stated rules?	Referral source, participant identifier, attribution window, competing-source decision.	No proof of distinct identity, activation, or contribution.	Last-click override, self-referral, reused account, circular attribution.
Eligible	Does the relationship satisfy the applicable participation conditions?	Eligibility outcome, policy version, reason code, review status.	No promise of future eligibility or payment.	Restricted relationship, duplicate identity, excluded geography or program.
Activated	Did the participant complete the defined meaningful first action?	Qualified event, timestamp, market or product context, integrity state.	No retention, net value, or finalized recognition.	Synthetic activity, immediate reversal, action outside the qualifying scope.
Contributing	Did later activity create observable ecosystem value?	Contribution class, eligible events, quality and concentration indicators.	No automatic revenue share or POLX entitlement.	Wash activity, low-quality concentration, abuse cost exceeding contribution.

STATE	QUESTION ANSWERED	MINIMUM EVIDENCE	NOT YET IMPLIED	ILLUSTRATIVE FAILURE
Recognized	Has the contribution passed the policy and settlement gates?	Final status, eligible basis, rate or rule, deductions, approval and ledger record.	No guaranteed token value, recurring earnings, or irreversible status.	Unresolved reversal, policy mismatch, insufficient evidence, settlement exception.
Retained / Lapsed	Did participation persist through the stated observation window?	Cohort window, retained activity, inactivity or lapse reason, later reactivation.	No permanent quality judgment about the person or referrer.	Short-lived incentive activity misreported as durable acquisition.

Source: POLIX editorial synthesis. States are proposed governance and measurement distinctions, not a statement of current implementation. Actual qualification and settlement conditions require published program rules.

GROWTH-INFRASTRUCTURE PRINCIPLE **A referral relationship should move through explicit states. Invitation, attribution, eligibility, activation, contribution, recognition, payment, and retention are not interchangeable metrics.**

8.2 Prediction Master Program

Official POLIX materials present the Prediction Master Program as a five-tier referral concept intended to support sustainable growth. The source associates referral-count bands with headline percentages from 10% to 40% and labels those figures Revenue Share. This chapter reproduces them solely as source-stated, non-operative design inputs. They are not an offer, current rate, entitlement, or payment promise. Any future program would require separate published terms defining eligibility, calculation base, caps, deductions, timing, tax treatment, geography, suspension, reversal, and dispute handling.

Table 8.2. Prediction Master tier structure disclosed in official POLIX materials

TIER	REFERRAL BAND	SOURCE-STATED HEADLINE PERCENTAGE (NON-OPERATIVE)	PROGRAM POSITIONING	INTERPRETIVE BOUNDARY
Explorer	0-10 referrals	10%	Build Network	The source does not define whether the count is gross, eligible, activated, or retained.
Analyst	11-30 referrals	15%	Expand Influence	Progression conditions beyond the referral band are not fully specified.
Strategist	31-100 referrals	20%	Drive Growth	The eligible revenue base, exclusions, caps, and calculation period are not specified.
Expert	101-300 referrals	30%	Maximize Rewards	A stated rate is not a guarantee of earnings, payment, or continuing eligibility.
Oracle	301+ referrals	40%	Lead Ecosystem	Status does not by itself confer governance, employment, agency, or resolution authority.

Source: POLIX Presentation v1.0 EN (2026), Prediction Master Program slide. The slide specifies tier names, referral bands, positioning, and revenue-share percentages. It does not specify eligible revenue, attribution windows, exclusions, caps, deductions, payment timing, tax treatment, settlement asset, regional availability, or dispute procedures.

8.2.1 Tier-Based Progression

Tiering can make a referral system legible by translating cumulative contribution into a visible progression path. It can also create threshold effects. Participants near a boundary may optimize for the counted event rather than the underlying quality objective, and a permanent lifetime tier can continue to signal influence after the supporting cohort has become inactive or ineligible. The program should therefore distinguish the headline tier map from the evidence needed to enter, maintain, suspend, or regain a tier.

The referral bands in Table 8.2 should be interpreted through a qualified denominator before operational activation. The program terms should specify whether a referral is counted at attribution, eligibility, activation, contribution, or retention; whether reversals reduce the count; whether one

participant can be reattributed; whether only direct referrals are eligible and how repeated invitations or re-attribution are treated; and which time window governs status. Without these definitions, two Prediction Masters can display the same tier while representing materially different growth quality.

A transparent state model may include provisional, confirmed, maintained, lapsed, suspended, and reinstated status. Provisional progression can acknowledge recent activity while preserving an observation window. Confirmed status can require the defined evidence threshold. Maintenance rules can evaluate continued eligibility without turning normal inactivity into misconduct. Suspension can isolate integrity concerns while retaining an appeal or review path. These are design recommendations, not claims about the current POLIX implementation.

Tier status should remain scoped. It may determine a published program rate or access to defined referral tools, but it should not imply investment expertise, prediction accuracy, official representation of POLIX, authority over referred users, market-publication authority, or guaranteed access to other platform functions. The title Prediction Master is a program designation; its privileges and limits should be stated wherever the title is displayed.

8.2.2 Contribution-Based Rewards

Referral incentives can increase referral likelihood, but their effects depend on relationship strength, brand context, and which party receives the reward (Ryu and Feick, 2007). The existence of a reward therefore does not prove that the resulting participant will activate or remain. In POLIX, economic recognition should be attached to a defined eligible basis and final integrity state rather than to the mere transmission of a link.

The official presentation labels the tier percentages as Revenue Share. In this chapter, those figures remain source-stated, non-operative design inputs. A complete operating policy would therefore need to identify the revenue or economic base to which each percentage applies. Possible bases—gross fees, net eligible revenue, campaign budgets, token incentives, or another measure—are not interchangeable, and the current source materials do not select among them with sufficient precision for this whitepaper to do so. Chapter 8 consequently preserves the source-stated percentages while explicitly deferring the calculation base, deductions, caps, currency or token, timing, settlement conditions, and all other operative terms to separate published program terms.

Contribution quality should be evaluated separately from the headline rate. A qualified referred participant may contribute through sustained market activity, responsible creation, useful community participation, or future acquisition, but each contribution class requires its own evidence and countermetrics. Trading volume alone may be distorted by reversals, self-dealing, concentrated markets, or economically circular activity. Creator activity alone may produce ambiguous or thin markets. Community reach alone may reward spam. The engine should recognize only the classes that the published policy defines and can verify.

Status and economic balances should be decomposed. Estimated, pending, eligible, confirmed, claimable, paid, reversed, and expired amounts represent different stages. A dashboard that combines them into a single earnings number may overstate certainty and conceal why balances change. Every adjustment should retain the governing policy version and a reason code that is intelligible to the participant without exposing protected integrity methods.

> REWARD-DEFINITION PRINCIPLE **The disclosed revenue-share percentage is only one parameter. A complete reward requires an eligible base, qualification state, observation window, deductions, caps, settlement rule, and explainable ledger event. None should be inferred where official program terms are silent.**

8.2.3 Long-Term Participation

Long-term participation is not created by increasing the immediate reward alone. A durable program aligns the referrer with the referred participant's ability to understand the platform, find relevant markets, maintain autonomy, and contribute without artificial activity. It also gives the referrer useful feedback without turning the referral relationship into surveillance or control. Referral lineage may support attribution; it should not create ownership over another participant's account, portfolio, trading choices, data, or future economic activity beyond the defined program scope.

Observation windows should match the proposition being evaluated. Activation may be measured soon after attribution; retention needs a longer window; creator stewardship may not be observable until a market is resolved; and integrity findings may require later reversal. The system should therefore avoid one universal instantaneous score. A cohort can be active but not yet mature, productive but concentrated, retained but economically costly, or high-volume but integrity-qualified.

Progression should also support education and responsible communication. A Prediction Master may receive program explanations, referral materials, market-literacy content, and notices about claims that cannot be made. Incentivized participants should not be encouraged to present uncertain outcomes, token prices, rewards, or platform capabilities as guaranteed. The goal is not merely brand control; it is to preserve the trust advantage that makes social acquisition potentially valuable.

Long-term design requires an exit path. A participant should be able to stop referring without losing access to ordinary platform functions solely because program activity ended, subject to applicable rules. Referred participants should remain free to participate independently. Program changes should be versioned and communicated before they govern new effort, while previously accrued states should be handled under disclosed transition rules. These boundaries prevent the growth mechanism from becoming an indefinite dependency relationship.

8.3 Referral Dashboard

The Referral Dashboard is the observability and explanation interface for the engine. Official POLIX materials describe it as a unified view for referrals, rewards, performance, and network growth (POLIX Presentation v1.0 EN, 2026). A credible dashboard should not function only as a motivational display. It should allow a Prediction Master to reconstruct how invitations moved through the lifecycle, which counts are provisional or confirmed, which policy governs each status, and why a balance or tier changed.

The primary view should distinguish the referral funnel. Useful states include sent or shared where observable, visited, attributed, eligible, activated, contributing, retained, ineligible, reversed, and lapsed. Because different channels may not expose every upstream event, the dashboard should identify unavailable data rather than converting absence into zero. Counts should also expose their denominators and time windows. A 40% activation rate means little unless the user can determine which attributed and eligible cohort produced it.

The tier view should display the current tier, supporting qualified count, contribution state if applicable, next threshold, observation window, pending adjustments, and governing program version. Progress graphics should not imply that crossing a raw count automatically confirms a tier when other conditions remain. Where manual or automated review is pending, the interface should show that status and provide the permissible review path.

The economic view should operate as a ledger, not a single cumulative number. Each line should identify the period, underlying eligible basis, tier or rate used, adjustment, resulting status, and transaction or payment reference when one exists. Where POLX is involved, the dashboard should

distinguish a token-denominated amount from any fiat estimate and avoid presenting market value as fixed or guaranteed. Pending recognition should remain visibly separate from claimable or paid amounts.

The network view must balance utility with data minimization. Prediction Masters may need aggregated cohort information—activation by period, category affinity, retention distribution, or contribution classes—without receiving another user's portfolio, identity attributes, wallet history, or complete activity trail. The engine should expose the minimum detail required to understand program performance and disputes, with more sensitive integrity signals represented through status and reason categories rather than raw detection data.

Table 8.3. Referral Dashboard information architecture

MODULE	PRIMARY USER QUESTION	MINIMUM CONTENT	EXPLANATION REQUIREMENT	MISLEADING PRESENTATION TO AVOID
Referral funnel	Where are referred participants in the lifecycle?	Counts by state, cohort date, channel where available, denominator and window.	Define each state and identify unavailable upstream data.	Treating clicks, registrations, activations, and retained users as one number.
Tier progress	Why do I hold this tier and what remains for the next?	Current/provisional tier, qualified count, contribution condition, next threshold, policy version.	Show pending review, reversals, maintenance period, and status reason.	A progress bar that implies automatic confirmation from gross count alone.
Reward ledger	How was each amount derived and what can be acted on?	Eligible basis, rate/rule, deductions, status, period, payment or claim reference.	Separate estimated, pending, confirmed, claimable, paid, reversed, and expired.	Combining every state into guaranteed lifetime earnings.
Cohort quality	Did referred activity persist and contribute?	Activation, retention, contribution class, concentration and integrity-qualified outcomes.	State observation windows and distinguish gross from quality-adjusted measures.	Ranking referrers only by volume or signup count.
Network overview	How is my community developing without exposing individuals?	Aggregated cohort and category patterns within permission and privacy scope.	Explain aggregation, thresholds, suppression, and unavailable detail.	Exposing referred users' wallets, portfolios, identities, or full activity histories.
Notices and review	What changed and how can I understand or challenge it?	Policy change, reason code, affected period, evidence category, review path and outcome.	Provide enough explanation without disclosing abuse-detection methods that enable evasion.	Silent deductions, retroactive ambiguity, or unsupported irreversible decisions.

Source: POLIX editorial synthesis. The proposed modules translate the official dashboard concept into an auditable information architecture; they do not represent completed product screens.

DASHBOARD PRINCIPLE **A referral dashboard should explain lifecycle state, denominator, time window, policy version, and economic status. Motivation without reconciliation is not transparency.**

8.4 Referral Growth Flywheel

Official POLIX materials express the referral loop as invitations leading to new traders, higher trading volume, higher rewards, and more referring users (POLIX Presentation v1.0 EN, 2026). That sequence captures the intended direction but requires quality and integrity layers before it can function as an operating model. Volume can increase without liquidity quality, participant retention, or net ecosystem value; rewards can increase acquisition while weakening unit economics; and visible network growth can result from one actor controlling multiple accounts.

The quality-adjusted flywheel begins with a clear invitation. An eligible relationship produces a qualified activation. Activation produces observable market, creator, learning, or community contribution. Downstream outcomes—retention, market quality, reversals, concentration, support cost, and integrity findings—return to the referral record. Only then can recognition reinforce the behavior that generated durable value. The next invitation cycle should inherit the resulting evidence through revised targeting, education, thresholds, or program rules.

Network effects should be evaluated as conditional, not automatic. Leskovec, Adamic, and Huberman (2007) found that person-to-person recommendation networks can be highly uneven, with many cascades ending quickly. Aral and Walker (2011) separately showed that specific viral-product features can produce experimentally identifiable contagion. Together these findings support two design decisions: instrument the referral mechanism at the feature and cohort level, and do not extrapolate a small number of successful referrers into an assumption of uniform exponential growth.

Causal measurement matters because referrers select whom to invite and highly motivated participants may join through referral precisely because they were already likely to participate. Raw differences between referred and non-referred users therefore combine program effect with selection. Where operationally and ethically appropriate, a future evaluation framework may use staged rollouts, randomized invitation features, holdout groups, threshold analysis, or matched cohorts to estimate incremental effects. The measurement design should specify the treatment, eligible population, outcome, observation window, interference risk, and stopping rule before results are interpreted.

Every flywheel also has a cost side. Quality-adjusted acquisition cost includes incentives, revenue share, creative and operational expense, fraud loss, support burden, reversal exposure, and the cost of capital or tokens used. Incremental value should be evaluated after these costs and over a comparable period. A program that reduces paid-media spending but replaces it with larger unmeasured subsidies has not necessarily reduced acquisition cost.

Integrity controls must address identity and activity manipulation. The classical Sybil problem describes a single entity presenting multiple identities to gain influence or rewards (Douceur, 2002). In a referral context, related risks include self-referral, duplicate or coordinated accounts, circular funding, wash or synthetic trading, account transfer, collusive threshold crossing, misleading promotion, and repeated re-entry after exclusion. No one signal is sufficient. Controls should combine eligibility, graph and event patterns, velocity, economic reversals, device or account evidence where lawfully permitted, manual review, proportional response, and an explainable appeal path.

Anti-abuse design should not convert every dense community into presumed misconduct. Families, professional groups, regional communities, and event cohorts may naturally share devices, funding pathways, timing, or interests. The engine should distinguish detection from adjudication, apply risk-based friction, record the evidence basis, and monitor false positives. A circuit breaker may hold recognition or limit propagation while review occurs; it should not silently erase an otherwise legitimate participant relationship.

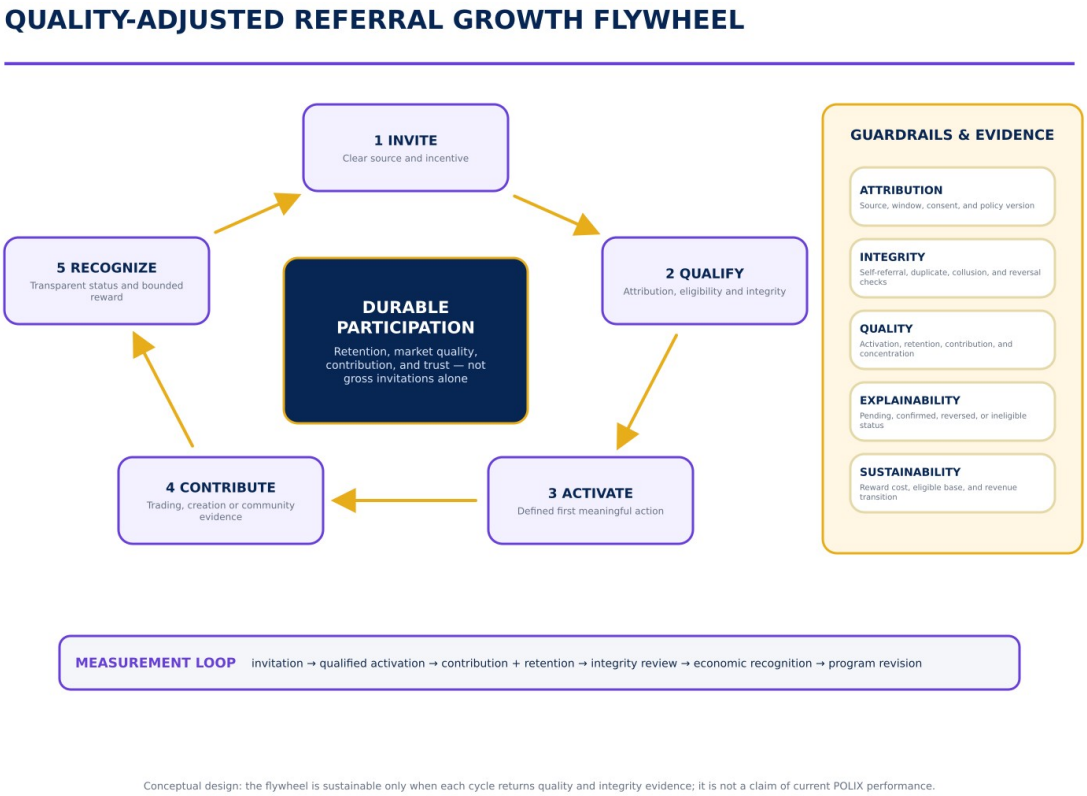

Figure 8.1. Quality-adjusted Referral Growth Flywheel. Each cycle must return retention, contribution, integrity, and economic evidence before recognition reinforces further invitations. Source: POLIX editorial synthesis.

Table 8.4. Flywheel measurement and falsification framework

PROPOSITION	PRIMARY METRIC	REQUIRED DENOMINATOR / WINDOW	COUNTERMETRIC	FAILURE CONDITION
Referral increases qualified acquisition	Incremental eligible activations attributable to the program.	Eligible invited or exposed population; predefined attribution and activation window.	Duplicate, ineligible, reversed, and organic conversions that would have occurred anyway.	Gross signups rise but incremental qualified activation does not.
Referral improves durable participation	Quality-adjusted retention and contribution by cohort.	Activated cohort observed over comparable maturity windows.	Inactivity, support burden, concentration, adverse integrity events.	Retention advantage disappears after incentives or cohort adjustment.
Referral deepens market activity	Eligible activity across relevant markets with execution-quality context.	Qualified cohort and affected markets during a defined period.	Wash activity, price impact, spread, failed execution, topic concentration.	Volume rises while executable quality or market diversity deteriorates.
Tiering improves contributor productivity	Incremental qualified outcomes after tier transition.	Participants near thresholds or comparable pre/post windows.	Threshold gaming, reversal rate, concentration among a few accounts.	Tier advancement changes counted behavior but not downstream value.
Rewards create sustainable growth	Incremental value net of full referral-program cost.	Comparable cohort horizon and complete incentive/revenue-share cost.	Fraud loss, operations, support, subsidy, capital and token-distribution cost.	Apparent CAC falls only because costs move outside the measurement boundary.
The network becomes self-reinforcing	Share of retained contributors who later generate qualified referrals.	Mature retained cohort and complete downstream observation window.	Cascade depth, concentration, spam reports, inactive descendants.	Propagation remains shallow or depends continuously on escalating subsidy.

Source: POLIX editorial synthesis informed by referral, viral-marketing, and network-security research. Metrics are evaluation requirements, not reported POLIX results.

FLYWHEEL PRINCIPLE **A referral loop is self-reinforcing only when new cohorts generate quality-adjusted contribution sufficient to support the next cycle after incentives, integrity losses, operations, concentration, and time are accounted for.**

8.5 POLX Alignment

POLX is intended to connect referral contribution with the broader platform economy. Official token-economy materials identify referral and ecosystem contributions among potential uses of the Platform Economy allocation, while also stating that distribution should be progressive and based on actual platform activity and sustainable growth (POLIX Token Economy v1.0 EN, 2026). Chapter 8 does not assign a token amount, emission schedule, conversion rate, or entitlement to the Referral Engine because those details are not established in the reviewed materials.

The economic design should separate revenue share from POLX incentives. Revenue share is a program-defined calculation linked to an eligible revenue base and rate. A POLX incentive is a token-denominated recognition governed by an allocation and distribution policy. One may complement the other, but they should not be combined into an ambiguous earnings percentage or counted twice as the same contribution. The dashboard and public terms should identify the source, unit, state, and conditions of each economic item.

POLX alignment should reward verified contribution rather than the transfer of token-price risk to newly referred participants. Referral recognition should not depend on promises that POLX will appreciate, that a market outcome is certain, or that a participant will recover costs. Token-denominated balances should be presented as quantities of POLX, with any market-value display clearly variable and separated from eligibility or claim status. A higher tier should not create authority to provide investment, legal, or outcome guarantees on behalf of POLIX.

The fixed-supply model imposes an additional discipline. Referral incentives funded from reserved allocations cannot be treated as costless simply because they are not paid in fiat. They consume a finite economic resource and may affect circulation, participant expectations, and future program capacity. The relevant unit economics should therefore recognize the quantity and policy source of tokens distributed, not only their accounting cost at issuance.

Official materials state that, as the platform matures, ecosystem incentives are intended to transition progressively toward revenue-funded incentives (POLIX Token Economy v1.0 EN, 2026). Applied to referral, this means that early growth support should be evaluated against a path to recurring platform economics rather than continuous token release. Chapter 22 will address the Platform Economy allocation, and Chapter 24 will develop the revenue-based sustainability framework. Chapter 8 establishes only the interface: verified referral contribution may become eligible for recognition under a disclosed policy, subject to economic and integrity controls.

POLX also creates a governance-record requirement. Material referral distributions should be attributable to a program version, eligible contribution class, period, approval or automated policy decision, and settlement record. Aggregate reporting can show how much POLX was authorized, confirmed, claimed, distributed, reversed where possible, and retained as reserved allocation without exposing individual participant data. This supports transparent supply management while keeping referral operations distinct from token-price promotion.

Table 8.5. POLX alignment boundaries for the Referral Engine

ECONOMIC OBJECT	ROLE IN REFERRAL	REQUIRED DISCLOSURE	BOUNDARY	EVIDENCE FOR OVERSIGHT
Revenue share	Applies a disclosed tier rate to an eligible revenue basis.	Basis, rate, period, exclusions, deductions, caps, status and payment rule.	Not defined by the percentage alone; not guaranteed income.	Program version, calculation ledger, approvals, reversals and payment reference.

ECONOMIC OBJECT	ROLE IN REFERRAL	REQUIRED DISCLOSURE	BOUNDARY	EVIDENCE FOR OVERSIGHT
POLX incentive	Recognizes an eligible referral or ecosystem contribution under allocation policy.	Token quantity, source allocation, condition, status, claim or distribution rule.	Not the same object as revenue share; no guaranteed fiat value.	Allocation decision, contribution record, distribution and supply reporting.
Tier status	Selects the applicable program level or referral tools.	Qualified denominator, maintenance period, pending state, suspension and review path.	No governance, employment, agency, prediction, or investment authority unless separately granted.	State history, policy version, qualification evidence and reason codes.
Referral contribution	Links eligible downstream activity to the referral relationship.	Contribution class, observation window, quality and integrity conditions.	No ownership over the referred participant or every future action.	Attribution, lifecycle events, integrity outcome and retention evidence.
Program reserve	Provides a finite resource for approved platform-economy incentives.	Authorized amount, purpose, period, distributed amount and remaining reserved amount.	Reserved tokens are not automatically circulating or costless.	Governance record, allocation source, public aggregate reporting and supply reconciliation.
Revenue-funded transition	Moves mature incentives toward recurring platform economics.	Funding source, sustainability test, transition policy and material changes.	No fixed date, ratio, or automatic conversion is asserted in this chapter.	Program unit economics, funding mix, contribution outcomes and policy updates.

Source: POLIX editorial synthesis based on POLIX Token Economy v1.0 EN and POLIX referral materials. The table defines accounting and governance boundaries; it does not create a distribution entitlement or execution schedule.

POLX-ALIGNMENT PRINCIPLE **POLX may recognize verified referral contribution under a disclosed allocation policy. It should not blur revenue share, token incentives, tier status, future token value, or ownership over another participant.**

Chapter Synthesis

1. The Referral Engine is a user-supply infrastructure, not a code-distribution campaign. Its output is qualified participation supported by attribution, eligibility, activation, contribution, integrity, and retention evidence.
2. Invitation, attribution, eligibility, activation, contribution, recognition, payment, reversal, and retention are separate lifecycle states and must not be collapsed into one growth metric.
3. The source-stated Prediction Master concept contains five tiers and headline percentages from 10% to 40%. These figures are non-operative design inputs and do not establish a current rate, entitlement, payment promise, or continuing eligibility.
4. The official materials do not yet define the eligible revenue base, attribution windows, exclusions, caps, deductions, payment timing, settlement asset, regional availability, or dispute procedures; this chapter does not invent them.
5. Tier progression should use a qualified denominator and explicit maintenance, review, lapse, suspension, and reinstatement rules before operational activation.
6. Contribution-based recognition must distinguish gross activity from quality-adjusted and integrity-cleared outcomes. Volume, signups, or reach alone are insufficient.
7. The Referral Dashboard should function as an auditable lifecycle and economic ledger, showing denominators, windows, policy versions, reasons, and the difference among pending, confirmed, claimable, paid, reversed, and expired states.
8. A referral flywheel is sustainable only when downstream retention, contribution, market quality, integrity losses, concentration, and full program cost return to the next acquisition cycle as evidence.

9. Anti-abuse controls should address self-referral, duplicate identities, circular funding, synthetic activity, collusion, and threshold gaming while separating detection from adjudication and monitoring false positives.
10. Revenue share and POLX incentives are different economic objects. Each requires its own source, unit, calculation or allocation rule, status, ledger, and disclosure.
11. POLX incentives consume a finite fixed-supply resource and should be governed as an economic cost, progressively distributed for verified contribution rather than treated as free acquisition.
12. The Referral Engine remains a testable design proposition. Its success depends on incremental, quality-adjusted participation and sustainable economics, not on gross referral counts or unverified network-effect claims.

TRANSITION TO CHAPTER 9 **Chapter 9 develops AI Intelligence as the intelligence-supply engine. It examines data inputs, source and artifact provenance, probability forecasting, signal generation, the AI Trading Copilot, AI Copy & Follow, uncertainty, automation boundaries, evaluation, and responsible use without assuming model accuracy or live deployment.**

CHAPTER 08 / REFERENCES

References and Source Notes

The references below support the referral-program, social-contagion, viral-network, customer-value, and identity-integrity propositions used in Chapter 8. POLIX materials document intended design and the currently disclosed program structure. The document-wide claim boundary in the Important Notice applies.

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Douceur, J. R. (2002). The Sybil Attack. In Peer-to-Peer Systems: First International Workshop, IPTPS 2002, Revised Papers, 251-260. Springer. https://www.microsoft.com/en-us/research/publication/the-sybil-attack/

Leskovec, J., Adamic, L. A., and Huberman, B. A. (2007). The Dynamics of Viral Marketing. ACM Transactions on the Web, 1(1), Article 5. https://doi.org/10.1145/1232722.1232727

Ryu, G., and Feick, L. (2007). A Penny for Your Thoughts: Referral Reward Programs and Referral Likelihood. Journal of Marketing, 71(1), 84-94. https://doi.org/10.1509/jmkg.71.1.084

Schmitt, P., Skiera, B., and Van den Bulte, C. (2011). Referral Programs and Customer Value. Journal of Marketing, 75(1), 46-59. https://doi.org/10.1509/jm.75.1.46

POLIX. (2026). POLIX Presentation v1.0 EN. Official project presentation, June 2026. Referral Engine, Referral Dashboard, Prediction Master Program, and Referral Growth Flywheel sections.

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CHAPTER 09

AI Intelligence

From heterogeneous market data to traceable, calibrated, and decision-bounded prediction intelligence.

Chapter Thesis

POLIX AI Intelligence is conceived as an intelligence-supply engine: a governed process that converts time-bounded news, social, on-chain, and market observations into traceable analytical artifacts. Its credible output is not an assertion of truth or a substitute for market resolution. It is a versioned forecast, signal, or explanation, or a candidate record for user-controlled following of a predictor or strategy; in each case, the sources, target event, horizon, uncertainty, calibration state, and permitted use can be inspected. The value of the engine therefore depends less on whether an interface displays an "AI probability" than on whether the full chain from source observation to resolved outcome can be reconstructed, scored, challenged, corrected, and withdrawn when evidence is insufficient.

Official POLIX materials identify market analysis, probability forecasting, signal generation, portfolio support, and AI Copy & Follow as intended AI functions. They also describe four input classes—news, social, on-chain, and market data—and present the AI Trading Copilot and AI Copy & Follow as future-facing user experiences. Chapter 9 translates those product propositions into research, engineering, and governance requirements. It does not infer the existence of a trained model, licensed data feed, live service, continuous learning process, real-time latency, automated execution, measured accuracy, or commercial availability from presentation language alone.

Chapter 7 established the shared platform architecture and provenance boundary. Chapter 8 addressed referral-led user supply. This chapter does not repeat those systems. It focuses on the epistemic problem: what an AI artifact means, which evidence supports it, how probabilistic quality is measured, how a user interface should preserve uncertainty, and where assistance must stop before becoming an unbounded recommendation or execution mechanism. Liquidity, creator incentives, token allocation, revenue sustainability, and jurisdiction-specific availability remain subjects of later chapters.

> ANALYTICAL BOUNDARY **Chapter 9 defines an intended AI Intelligence design and evaluation protocol. All illustrated workflows and metrics are requirements to be tested before corresponding capability claims are made; operating scope, data rights, advice or execution authority, and jurisdictional availability require separate evidence and authorization.**

9.1 AI as an Intelligence Supply Engine

An intelligence-supply engine is different from a generic prediction model. A model maps inputs to outputs; an operational intelligence system must also determine which observation is admissible, which

market question it addresses, when it was knowable, how it was transformed, which version produced the output, how the output is calibrated, whether it remains fresh, and how it may be presented or acted upon. The model is therefore one component in a longer evidence chain rather than the sole source of authority.

The chain begins with an observation object. Each object should preserve a source identity, retrieval or event time, publication and update time where relevant, content or payload version, applicable rights or access basis, collection method, normalization history, and quality state. Provenance is not decorative metadata. The W3C PROV data model distinguishes entities, activities, and agents so that how an artifact came to exist can be represented and assessed. In POLIX, an intelligence artifact should be able to point backward to its admissible inputs and transformations and forward to the decisions, displays, and evaluations that used it.

The second operation is market alignment. A piece of evidence does not become relevant merely because it mentions a named entity or topic. It must be mapped to the exact market definition: the event, mutually exclusive outcomes, cutoff, forecast horizon, resolution source, and exceptional clauses. A report published after the cutoff, a social post referring to a different time window, or an on-chain transfer unrelated to the specified outcome can create apparent predictive power through semantic or temporal leakage. Alignment must therefore precede feature construction and model inference.

The third operation produces a forecast distribution or another analytical artifact. A binary market may be represented by a probability p for the defined affirmative outcome and 1 − p for the alternative. A multi-outcome market requires a probability vector whose elements correspond exactly to the contract outcomes and sum to one. In either case, the output must specify the as-of time, prediction horizon, model or ensemble version, input snapshot, and uncertainty or abstention state. A single percentage without this envelope is not a reproducible forecast.

The fourth operation is calibration and policy gating. Calibration asks whether events assigned similar probabilities occur at corresponding frequencies under a stated evaluation design. Policy gating asks whether the artifact is fresh, sufficiently supported, permitted for the requested use, and explainable at the required level. A model may emit a number while the system withholds it because inputs are stale, the market definition changed, sources conflict, uncertainty is excessive, the model is outside its validated domain, or the requested action exceeds the user's authorization.

The final operation is outcome-linked evaluation. Once the market is resolved under its governing rules, the system should preserve the resolution, score the forecast against the outcome, evaluate reliability and drift, record any incident or correction, and update the model documentation. "Continuous learning" should not mean that every new behavior silently changes a production model. Training data selection, retraining, validation, approval, deployment, rollback, and monitoring are separate controlled activities. This separation reduces hidden feedback loops and technical debt in machine-learning systems.

Table 9.1. Intelligence-artifact lifecycle and minimum evidence

STATE	PRIMARY QUESTION	MINIMUM EVIDENCE	PERMITTED INTERPRETATION	WITHHOLD / REVIEW TRIGGER
Observed	What was available, from where, and when?	Source, event/retrieval/publication/update time, version, rights or access basis, integrity state.	A versioned observation exists; relevance is not yet established.	Unknown source, inaccessible content, disputed timestamp, policy or rights conflict.
Aligned	Which exact market proposition can the observation inform?	Market ID, event and outcome mapping, cutoff, horizon, resolution rule, alignment confidence.	The evidence is admissible for a defined question and time window.	Ambiguous entity, incompatible horizon, post-cutoff data, changed contract semantics.

STATE	PRIMARY QUESTION	MINIMUM EVIDENCE	PERMITTED INTERPRETATION	WITHHOLD / REVIEW TRIGGER
Inferred	What did a specified model produce from the frozen input set?	Model/ensemble version, feature version, input snapshot, output distribution, as-of time.	A reproducible model output, not verified truth or advice.	Out-of-domain input, missing feature, model failure, non-normalized probabilities.
Calibrated	How should the raw output be interpreted against prior resolved outcomes?	Calibration method/version, validation window, sample support, score, reliability and drift state.	A probability adjusted under a documented evaluation design.	Insufficient sample, decayed calibration, material subgroup or horizon failure.
Qualified	May the artifact be shown or used in the requested context?	Freshness, source coverage, uncertainty, policy decision, intended-use and limitation labels.	Use within a bounded display or workflow.	Stale data, severe conflict, prohibited use, unresolved incident, low confidence.
Published / Superseded	What did the user see, and is it still current?	Artifact ID, publication time, audience/use, explanation, successor or withdrawal reason.	A historical or current analytical record with visible status.	New material evidence, model rollback, market amendment, correction or withdrawal.
Resolved / Evaluated	How did the forecast perform under the actual resolution?	Resolution record, outcome, scoring rule, benchmark, calibration bucket, incident notes.	One evaluated observation within an aggregate performance record.	Ambiguous or disputed resolution, invalid evaluation window, data leakage finding.

Source: POLIX editorial synthesis informed by W3C PROV-DM, NIST AI RMF 1.0, model-documentation research, and probabilistic-forecast evaluation literature. These are proposed evidence states, not current implementation claims.

INTELLIGENCE-SUPPLY PRINCIPLE **The minimum accountable unit is not an AI percentage. It is a versioned artifact linking admissible observations, an exact market definition, a model and calibration state, a permitted use, and an eventual resolution-based evaluation.**

9.2 Market Intelligence Inputs

The four input classes disclosed by POLIX—news, social, on-chain, and market data—describe different observation processes. They are not interchangeable votes about the outcome. News can supply attributable claims and official events; social data can reveal attention and narrative propagation; on-chain data can record ledger activity; market data can express the prices and liquidity available under a specific contract. Each class has a distinct temporal structure, sampling mechanism, manipulation surface, and uncertainty. Combining them without preserving those distinctions can multiply confidence without adding independent evidence.

Input quality should be evaluated at both source and feature levels. Source quality concerns identity, authority, availability, rights, completeness, latency, corrections, and adversarial risk. Feature quality concerns how the observation was transformed, aggregated, classified, embedded, or linked to a market. A reliable source can yield a poor feature through incorrect extraction; a noisy source class can yield a useful aggregate if its limitations are understood and tested. The pipeline must preserve both judgments rather than assigning one universal credibility score.

Table 9.2. Input classes, epistemic roles, and dominant failure modes

INPUT CLASS	PRIMARY CONTRIBUTION	TIME FIELDS	DOMINANT FAILURE MODES	MINIMUM PROVENANCE
News data	Attributable reports, official statements, filings, schedules, corrections and event evidence.	Event, publication, update, retrieval and market-cutoff time.	Syndicated duplicates, false report, extraction error, update loss, paywall truncation, post-event leakage.	Publisher/source, document/version, URL or stable identifier, timestamps, extraction span and transformation.
Social data	Attention, narrative velocity, public reaction, topic emergence and disagreement patterns.	Creation, edit, collection, burst window and aggregation period.	Bots, coordinated campaigns, selection bias, deleted content, demographic/platform bias, sentiment error.	Platform/source scope, query, sample and collection method, timestamps, aggregation and privacy treatment.
On-chain data	Observable ledger events, asset movements, contract calls and network conditions.	Block, confirmation/finality, indexing and cross-chain alignment time.	Address-entity error, internal transfer, bridge/custody ambiguity, reorganization, labeling and intent inference.	Chain, block/transaction/contract identifier, finality, indexer, label source and transformation version.

INPUT CLASS	PRIMARY CONTRIBUTION	TIME FIELDS	DOMINANT FAILURE MODES	MINIMUM PROVENANCE
Market data	Contract prices, order-book state, volume, spread, depth, liquidity and resolution metadata.	Exchange, event, snapshot, trade, quote and ingestion time.	Stale quote, thin market, incompatible contract, fee/spread omission, wash activity, survivorship or look-ahead.	Venue and market ID, contract text/version, outcome mapping, timestamp, currency/collateral and quote method.

Source: POLIX editorial synthesis. The four classes follow official POLIX AI materials; the evidence requirements and failure modes are proposed controls.

9.2.1 News Data

News data should be represented as versioned claims and events rather than undifferentiated text. For every item, the pipeline should distinguish when the underlying event occurred, when the publisher first reported it, when the report was corrected or updated, and when POLIX retrieved it. These times answer different questions. A late article about an early event may be admissible for historical training but unavailable to a forecast made before publication. An updated headline may reverse or qualify the original claim while the URL remains unchanged.

Source authority is contextual. A primary filing, election authority, court docket, company notice, or sports league record may be authoritative for one fact but silent about its probability implications. A reputable news organization may add verified reporting, while syndication can make one report appear as many independent sources. The ingestion layer should identify primary versus secondary material, cluster near-duplicate stories, retain correction history, and prevent repeated copies from being counted as independent corroboration.

Extraction must remain grounded. If a model derives an entity, date, claim, or stance from a document, the artifact should retain the supporting span or structured field and the extraction version. Summaries should not erase material qualifiers such as “proposed,” “subject to approval,” or “according to an unnamed source.” When evidence conflicts, the output should surface the disagreement or abstain rather than producing a synthetic certainty that none of the sources supports.

Market alignment is the final gate. A political candidacy report does not automatically answer whether the candidate will win under a specified date and jurisdiction. A product announcement may not satisfy a market requiring public availability. News features should be linked to the precise outcome definition and cutoff, with human review for high-impact semantic ambiguity. This protects both forecasting integrity and the separation between analytical evidence and the market’s formal resolution authority.

9.2.2 Social Data

Social data measures a platform-mediated sample of expression, not a direct probability distribution over outcomes. Post volume may reflect attention, campaigning, controversy, or coordinated amplification. Sentiment can be misclassified by irony, multilingual usage, quotation, memes, and domain-specific vocabulary. Account counts do not equal independent people, and visible engagement is shaped by platform ranking, moderation, regional access, and collection interfaces.

The system should decompose social evidence into observable dimensions instead of one sentiment score. Potential features include reach within the sampled universe, author or community diversity, temporal burst, novelty, disagreement, link provenance, language, topic continuity, and indicators of coordinated behavior. Each feature requires its own baseline and manipulation analysis. A sudden increase may be informative about attention while providing little evidence about the event outcome.

Adversarial incentives are material because prediction markets make narratives economically relevant. Actors may attempt to generate content, imitate organic discussion, or target the features believed to influence an AI signal. The pipeline should monitor duplication, timing synchrony, network concentration, account history, and cross-source corroboration where lawfully and ethically available.

Detection should not become automatic adjudication: real communities can also move together, and false-positive rates must be measured.

Privacy and data rights impose a separate boundary. Collection should use the minimum content and identifiers necessary for the stated analytical purpose, document retention and deletion behavior, and avoid reconstructing sensitive personal attributes that are not needed for a market-level forecast. Aggregate signals should identify platform and sampling coverage. Missing access or deleted content should be represented as a coverage limitation, not silently treated as neutral sentiment.

9.2.3 On-Chain Data

On-chain data offers cryptographically verifiable ledger events, but the meaning of those events remains an inference. A transfer can represent a purchase, internal treasury movement, exchange rebalancing, custody migration, bridge operation, collateral change, contract automation, or an attempt to influence observers. The transaction is observable; the actor identity, intent, beneficial ownership, and economic significance may not be.

Every on-chain feature should retain chain, block, transaction, contract, token, log index, block time, confirmation or finality state, and indexer version. Cross-chain analysis must also state how clocks, wrapped assets, bridges, and reorganization risk are aligned. A feature computed before sufficient finality may later change; a feature derived from one indexing service may omit or classify an event differently from another.

Address attribution deserves explicit uncertainty. Labels for exchanges, custodians, protocols, funds, or known actors may come from public declarations, contract registries, analytics vendors, or heuristic clustering. Those sources have different evidentiary strength. The artifact should retain the label source, confidence, effective date, and any conflicting labels. A cluster should not be presented as a verified person unless the evidence supports that conclusion and the use is lawful.

On-chain relevance must again be tied to the market proposition. A large token transfer may affect short-term attention but may not inform an election, weather, sports, or corporate-resolution market. Conversely, a governance vote or contract state change may be directly relevant if the market definition refers to it. The system should test whether the feature adds out-of-sample forecast value after controlling for market data, rather than assuming that ledger visibility creates predictive superiority.

9.2.4 Market Data

Market data is the closest input to the forecast target but still requires semantic and microstructural interpretation. A contract price may be described as market-implied probability only after identifying the contract text, outcome mapping, collateral and payout structure, fees, bid-ask spread, liquidity, execution quantity, venue rules, and timestamp. The last traded price, midpoint, best executable quote, and model-derived fair value are different objects.

The market definition is part of the data. Two venues can host apparently similar questions with different cutoffs, resolution sources, voiding rules, geography, candidate sets, or payout conditions. Cross-market aggregation should therefore use a semantic compatibility record, not title similarity alone. Where contracts are not fungible, the system may compare them analytically but should not collapse them into one canonical price without visible qualification.

Liquidity conditions determine how much information can be inferred from a quote. A thin market with a wide spread may display a dramatic midpoint change without meaningful executable depth. Volume can include repeated transfers or concentrated activity and is not a direct measure of independent information. Market features should therefore include spread, depth at stated quantities, recency, concentration, volatility, open interest where defined, and known data-quality exceptions.

Market prices are also essential baselines. If an AI system uses market data and later claims to outperform the market, the evaluation must freeze the comparator available at forecast time and prevent the later price path or resolution from leaking into inputs. The comparison should distinguish calibration improvement, ranking skill, timeliness, and economic usefulness after spread, fees, delay, and capacity. A visual gap between two probabilities is not itself evidence of tradable alpha.

INPUT-INTEGRITY PRINCIPLE **News is not a vote, social attention is not population probability, a ledger event is not actor intent, and a quoted market price is not automatically executable probability. Each input must retain its observation process, temporal envelope, semantic alignment, and failure modes.**

9.3 Probability Forecasting and Signal Generation

Probability forecasting begins with the target definition, not the model. For a binary event, the target record should specify the affirmative outcome y = 1, alternative y = 0, forecast as-of time t, horizon h, cutoff, market text and version, and resolution source. A forecast p(t,h) is meaningful only relative to that record. If the contract is amended, delayed, voided, or resolved under an exception, the evaluation protocol must state whether and how the observation remains valid.

The model should be evaluated against declared baselines. Relevant baselines may include a historical base rate, a simple statistical model, the market-implied probability under a specified quote method, and a hybrid model combining non-market evidence with the market baseline. The objective is not to prove that a more complex model always wins. It is to determine whether additional data and complexity produce stable out-of-sample value across topics, horizons, liquidity regimes, and time.

Official POLIX materials illustrate a difference between an AI Probability and Market Odds. Let $p_{\mathrm{AI},t}$ denote the qualified AI forecast and $p_{\mathrm{M},t}$ the specified market comparator at the same as-of time. The displayed difference may be written $e_t = p_{\mathrm{AI},t} - p_{\mathrm{M},t}$. This “edge” is a screening quantity, not expected profit and not proof that the market is wrong. It may reflect model error, stale data, different contract interpretation, spread, fees, execution delay, or insufficient depth. Any signal based on e_t should therefore include the comparator method, threshold, uncertainty, freshness, and execution assumptions.

Probabilistic quality requires proper scoring. For a binary outcome, the Brier loss for one forecast is $BS = (p - y)^2$; an aggregate Brier score averages this quantity over a predefined evaluation set, with lower values indicating smaller squared probability error. Log loss, $-[y \ln(p) + (1 - y) \ln(1 - p)]$, more strongly penalizes confident forecasts assigned low probability to the observed outcome. Proper scoring rules encourage honest probability reporting under their assumptions, but a score remains dependent on dataset construction, outcome prevalence, horizon, sample size, and comparison design.

Calibration and sharpness should be reported together. A calibrated system assigning approximately 70% to many comparable events should observe the defined outcome in roughly 70% of those cases, subject to sampling uncertainty. Sharpness describes whether forecasts move meaningfully away from uninformative probabilities. A system can appear calibrated by remaining close to the base rate while offering little discrimination; it can also be sharp but dangerously overconfident. Reliability diagrams, calibration intercept and slope, bucket support, and uncertainty intervals help reveal this distinction. Modern neural networks can be poorly calibrated even when classification accuracy appears strong, which is why post-hoc calibration and monitoring must be treated as explicit model components.

Backtesting must preserve the information set available at each historical forecast time. Time-based splits, frozen feature snapshots, publication and update timestamps, delisted or voided markets, and

model-version history are necessary to reduce look-ahead and survivorship bias. Hyperparameters, calibration, and signal thresholds should not be selected on the same resolved sample used for final performance reporting. A predefined evaluation protocol should state exclusions, missing-data handling, benchmark construction, multiple-testing controls where applicable, and uncertainty around reported differences.

Signals require a lifecycle distinct from forecasts. A candidate signal may be generated when the model-market difference exceeds a threshold. It becomes qualified only after freshness, source coverage, uncertainty, semantic consistency, liquidity context, and policy checks. A published signal may later be superseded, withdrawn, or resolved. The system should retain every state and reason so that only information genuinely available at publication contributes to evaluation. Quietly replacing a failed forecast with a newer one would destroy the audit trail.

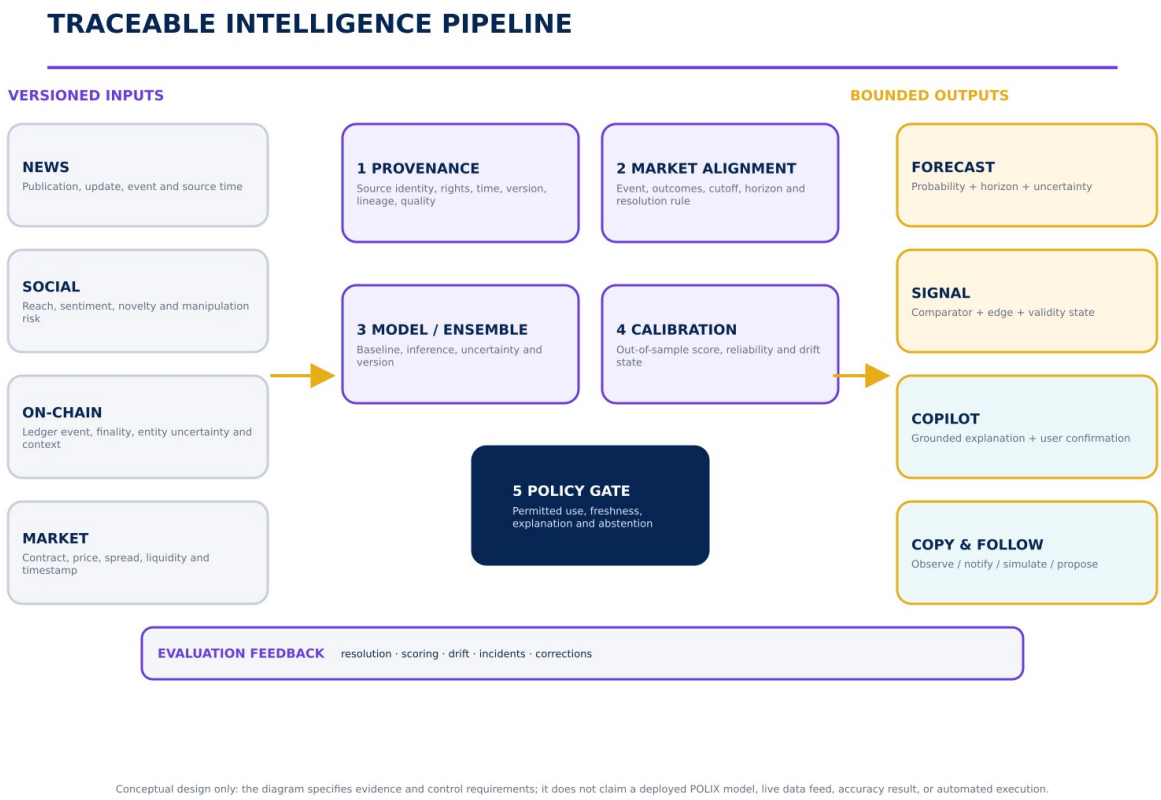

Figure 9.1. Traceable Intelligence Pipeline. Versioned inputs pass through provenance, market alignment, model inference, calibration, and a policy gate before any bounded output is published; resolved outcomes return scoring, drift, incident, and correction evidence. Source: POLIX editorial synthesis.

Table 9.3. Forecast and signal evaluation framework

DIMENSION	QUESTION	ILLUSTRATIVE MEASURE	REQUIRED SEGMENTATION	MISLEADING SHORTCUT
Calibration	Do stated probabilities correspond to observed frequencies?	Reliability curve, calibration intercept/slope, expected calibration error with bucket support.	Topic, horizon, probability range, model version and time period.	Reporting one global accuracy percentage.
Proper score	How large are probability errors under a declared scoring rule?	Mean Brier score and log loss with confidence or bootstrap interval.	Baseline, market comparator, resolved/voided status and sample construction.	Selecting only favorable markets or one scoring rule after seeing results.
Discrimination	Can the system rank higher- and lower-probability outcomes?	ROC-AUC where appropriate, rank correlation, resolution component or lift.	Outcome balance, category and horizon.	Treating ranking skill as calibration or profit.
Sharpness	Does the forecast move away from the base rate while staying calibrated?	Distribution of probabilities and conditional variance.	Comparable event sets and market regimes.	Rewarding confidence without reliability.

DIMENSION	QUESTION	ILLUSTRATIVE MEASURE	REQUIRED SEGMENTATION	MISLEADING SHORTCUT
Timeliness	Was useful information produced before the comparator incorporated it?	Timestamped lead/lag analysis and decay curve.	Source latency, market snapshot, publication time and action window.	Using the best later price as the earlier comparator.
Economic usefulness	Would a stated decision rule survive trading frictions and capacity?	Net simulated result after spread, fees, delay, depth and limits; turnover and drawdown context.	Signal threshold, venue, size, execution rule and eligible universe.	Calling probability difference expected profit.
Robustness and drift	Does performance persist under changing data and adversarial conditions?	Rolling score, population/feature shift, stress tests, abstention and incident rate.	Data source, language, geography, category, liquidity and model version.	Assuming historical performance is stationary.

Source: POLIX editorial synthesis based on Brier (1950), Gneiting and Raftery (2007), Guo et al. (2017), and standard out-of-sample evaluation practice. Measures are proposed requirements, not POLIX results.

SIGNAL-GENERATION PRINCIPLE **A signal is a qualified, timestamped difference under a declared comparator and decision rule. It is not a guarantee, a verified outcome, an accuracy claim, or a promise of profit. A responsible system can abstain, withdraw, or show that sources disagree.**

9.4 AI Trading Copilot

The AI Trading Copilot is intended as a decision-support interface, not an autonomous decision maker. Its legitimate role is to help users discover relevant markets, interpret contract language, compare evidence and probabilities, inspect uncertainty, test scenarios, identify portfolio concentration, and formulate questions before a user acts. The interface should preserve the separation between describing available information, making a statistical inference, expressing a recommendation-like judgment, and submitting an executable instruction.

A Copilot response should be grounded in an artifact package. At minimum, the package identifies the market and contract version, as-of time, source set, model and calibration version, market comparator, probability or range, uncertainty and limitations, and whether the response contains descriptive, inferential, or action-oriented content. A natural-language explanation may summarize this package, but the generated prose cannot become the evidence itself. Material claims should link to their sources or structured records.

Freshness must be visible. A response assembled from current market data and an older news snapshot should not carry one “real-time” label. Each material input can have its own timestamp, and the artifact should show a stale, partial, conflicting, or unavailable state when appropriate. If the market definition changes, the Copilot should invalidate or requalify prior analysis rather than silently applying it to the amended contract.

The Copilot should support contestability. Users need to see why a forecast differs from the market, which sources contribute to the explanation, which assumptions drive a scenario, and what information would alter the conclusion. The system should allow a user to report a source error, semantic mismatch, or inappropriate output. Corrections should preserve the original artifact and show the successor or withdrawal reason rather than overwriting history.

Generative interfaces create additional risks. A fluent explanation can overstate weak evidence, invent a citation, collapse source disagreement, or turn a bounded statistical output into personalized advice. The Copilot should use retrieval and structured grounding, restrict unsupported claims, label hypothetical scenarios, refuse requests outside validated or permitted scope, and avoid presenting confidence in prose as outcome certainty. Prompt injection or malicious content embedded in external sources should be treated as an input-security problem, not as user instruction.

Execution requires a separate authorization layer. If a future workflow allows an order proposal, the proposed market, outcome, quantity, limit or price condition, maximum cost, fees, expiry, and relevant risk controls should be shown for explicit confirmation. A conversational statement of interest should not be silently converted into a trade. Any automated or recurring authority would require separate opt-in, bounded limits, revocation, eligibility, monitoring, and jurisdiction-specific controls not established by this chapter.

Table 9.4. Proposed Copilot response contract

FIELD / CONTROL	REQUIRED DISPLAY OR BEHAVIOR	USER QUESTION ANSWERED	PROHIBITED IMPLICATION
Market identity	Market ID, exact contract text/version, outcomes, cutoff and resolution source.	Which proposition is being analyzed?	A similar title means an identical contract.
As-of and freshness	Artifact time plus material input and comparator timestamps; stale/partial status.	What information was available, and how current is it?	One current input makes the whole response real-time.
Forecast	Probability or range, horizon, model and calibration version, sample/domain limitations.	What does the qualified model estimate?	The outcome is true, guaranteed, or certain.
Comparator and edge	Specified market quote method, spread/depth context and $p_{AI} - p_{M}$ difference.	Why does the model differ from the selected market reference?	The difference is expected profit or executable value.
Evidence and explanation	Source-linked material claims, conflict, assumptions, counterevidence and abstention reason.	What supports or weakens the estimate?	Fluent generated text is an independent source.
Risk and scenario	Concentration, horizon, sensitivity, liquidity and hypothetical assumptions where available.	How might the decision change under stated scenarios?	A scenario is a prediction or personalized suitability determination.
Action boundary	Clear separation among view, watch, simulate, propose and explicitly confirm.	What, if anything, will the system do?	Conversation alone authorizes an order or recurring automation.
Correction and review	Artifact ID, report path, status, successor/withdrawal link and reason category.	How can an error be challenged and corrected?	Published output is immutable or unreviewable.

Source: POLIX editorial synthesis informed by NIST AI RMF 1.0 and model-card principles. The contract is a proposed interface requirement, not a representation of an existing POLIX screen.

COPILOT PRINCIPLE **The Copilot may organize evidence and support deliberation. It should not conceal uncertainty, substitute generated language for sources, infer authorization from conversation, or collapse analysis, advice, and execution into one irreversible action.**

9.5 AI Copy & Follow

AI Copy & Follow is intended to help users evaluate and follow predictors or strategies. The design problem is not simply to rank accounts by returns or popularity. A predictor's record is conditional on the markets selected, forecast times, entry prices, horizons, unresolved positions, capital at risk, liquidity, and survival in the sample. The system must distinguish forecasting skill from risk exposure, favorable selection, or one concentrated outcome.

Predictor evaluation should use the same resolved, timestamped forecast records required of the AI engine. Relevant measures include sample size, Brier or log score, calibration, benchmark-relative skill, category and horizon coverage, confidence distribution, update behavior, unresolved exposure, concentration, drawdown context, and data completeness. A global score can conceal a predictor who is skilled only in one domain or who changes forecasts after prices move. Performance should therefore be segmented and accompanied by uncertainty rather than expressed as a universal quality rank.

Selection and survivorship bias require explicit treatment. Users may discover predictors after a strong outcome, while inactive or failed accounts disappear from the visible universe. Multiple accounts and strategies can also increase the chance that one record appears exceptional by luck. The evaluation set

should define inclusion, preserve historical membership, account for unresolved and voided markets, and avoid backfilling only successful signals into a public record.

Following should be decomposed into modes. Observation displays a public, permissioned record. Notification alerts a user to a new artifact. Simulation applies a hypothetical rule without transmitting an order. Proposal prepares a bounded action for review. Execution, if ever offered, sends an authorized instruction under separate eligibility and control requirements. These modes should never be represented by one generic “copy” toggle because their operational, legal, and financial consequences differ.

Copying cannot guarantee equivalent outcomes. Followers act at later times and may face different prices, spread, depth, capacity, fees, network conditions, market access, portfolio constraints, or cancellation rights. The source predictor may reduce or reverse a position before the follower can respond. A copy system should disclose the follower’s actual execution conditions and resulting divergence, not attribute the source account’s historical outcome to the follower.

Risk controls should be follower-specific and revocable. Minimum controls may include a total budget or exposure cap, per-market and per-category limits, price or slippage limits, concentration thresholds, notification preferences, pause, expiry, and explicit reauthorization after material strategy or policy change. Controls must fail safely when data are stale, the market changes, the predictor becomes ineligible, or the system cannot determine whether the instruction remains within scope.

The predictor also requires rights and boundaries. Public performance data should be used under applicable terms and permissions. Private portfolios or identities should not be inferred or exposed. A predictor title does not create fiduciary, employment, agency, resolution, or governance authority unless separately and lawfully established. Compensation, conflicts of interest, sponsored visibility, self-following, and relationships to listed markets should be disclosed where relevant to the evaluation or ranking.

Table 9.5. Copy & Follow modes and control boundaries

MODE	SYSTEM ACTION	MINIMUM USER CONTROL	REQUIRED EVIDENCE	MUST NOT BE IMPLIED
Observe	Displays a permissioned, timestamped predictor or strategy record.	Select/unselect source; choose view and comparison window.	Historical membership, sample support, segmentation, unresolved positions and disclosures.	Visibility equals endorsement, identity verification or future skill.
Notify	Sends notice when a defined public artifact or state change occurs.	Opt-in, channel, frequency, topic and quiet/pause controls.	Artifact ID, time, source status, market and freshness.	A notification is a recommendation or execution.
Simulate	Applies a stated hypothetical rule to frozen historical or current data.	Assumptions, notional amount, date range, fees, spread, delay and benchmark.	Complete universe, methodology, exclusions, capacity and uncertainty.	Backtest is live performance, suitability or guaranteed replication.
Propose	Creates an action candidate without submitting it.	Review, modify, reject, expiry and explicit confirmation.	Market/outcome, quantity, price condition, fees, risk limits and reason.	Generation of a proposal authorizes an order.
Execute (conditional design boundary)	Transmits a separately authorized instruction if offered and permitted.	Explicit opt-in, bounded authority, caps, pause/revoke, confirmation policy and logs.	Eligibility, current market state, actual execution, divergence and error record.	Same outcome as the source, unlimited discretion or current availability.
Suspend / Withdraw	Stops alerts, proposals or execution and preserves the audit trail.	Immediate user pause plus system risk stop and review path.	Reason, effective time, affected instructions and reinstatement condition.	A silent stop, deletion of history or automatic permanent misconduct finding.

Source: POLIX editorial synthesis. “Execute” is shown only to define the additional boundary a future feature would require; it is not a claim of current availability or authorization.

COPY & FOLLOW PRINCIPLE **Following a predictor should begin with a complete, segmented, uncertainty-aware record. Observation, notification, simulation, proposal, and execution are separate authorities. Past performance and an AI rank do not guarantee skill, access, execution quality, or equivalent outcomes.**

9.6 Limitations and Responsible Use

AI Intelligence operates under irreducible uncertainty. Inputs may be unavailable, delayed, incorrect, manipulated, contractually restricted, or semantically irrelevant. Market definitions may change or contain exceptions. Models may fail under distribution shift, become miscalibrated, amplify historical bias, or learn from feedback influenced by their own prior outputs. Generative components may hallucinate, over-summarize, or obey malicious instructions embedded in retrieved content. No architecture removes these risks; responsible design makes them observable, bounded, and correctable.

The NIST AI Risk Management Framework organizes risk work through Govern, Map, Measure, and Manage. Applied to POLIX, Govern establishes roles, policies, documentation, accountability, and incident authority. Map defines the market context, users, data, intended use, affected parties, and potential harms. Measure evaluates data quality, performance, calibration, robustness, privacy, security, bias, explanation, and human interaction. Manage prioritizes controls, deployment conditions, monitoring, response, rollback, and retirement. The functions are iterative: measurement findings must be able to change governance and operating decisions.

Documentation should exist at both dataset and model levels. Dataset records can describe motivation, composition, collection process, temporal and geographic coverage, transformations, recommended uses, limitations, rights, and maintenance. Model cards can record intended use, architecture or method at an appropriate level, training and evaluation data, benchmarks, calibration, segmented results, ethical considerations, limitations, and change history. These records should be versioned and linked to production artifacts rather than published once and allowed to drift away from the deployed system.

Human oversight must be substantive. A nominal review checkbox is ineffective if the user cannot see the evidence, interpret uncertainty, change the proposed action, or stop the process. Operators need authority to quarantine a source, withdraw an artifact, disable a model or feature, roll back a version, and investigate an incident. Users need an understandable report and correction path. High-impact or anomalous outputs should receive proportionate review before they propagate through signals, rankings, or copy workflows.

Responsible use also requires monitoring human behavior around the system. Automation bias can cause users to accept an AI output even when contradictory evidence is visible; aversion can cause users to ignore a useful system after one error. Interface experiments should measure comprehension, source inspection, calibration of trust, confirmation behavior, and recovery from warnings—not only click-through or trading volume. A more persuasive interface is not necessarily a safer or more informative one.

Performance claims must remain scoped to the evaluated evidence. Any future claim should identify the task, market universe, time period, horizon, outcome and exclusion rules, comparator, scoring method, uncertainty, model version, and known limitations. Results on historical data do not prove future performance. Results for one category, language, jurisdiction, or liquidity regime should not be generalized without further validation. Confidence is a property of an estimate under assumptions; it is not certainty about the outcome.

Finally, AI Intelligence must remain subordinate to the applicable market, platform, and legal controls. It does not determine the formal resolution merely because it predicted an outcome; it does not create data rights; it does not establish participant eligibility; and it does not transform an unsupported output into advice or authority. Where a use cannot be made sufficiently transparent, secure, calibrated, or controllable, abstention, restricted display, simulation-only operation, or non-deployment is a valid design outcome.

Table 9.6. Responsible-AI risk, control, and evidence matrix

RISK	CONTROL OBJECTIVE	ILLUSTRATIVE CONTROL	OPERATING EVIDENCE	ESCALATION CONDITION
Source and rights failure	Use admissible, attributable and maintainable data.	Source registry, access/right basis, versioning, correction and deletion handling.	Coverage report, provenance lineage, rights review, removal and reprocessing log.	Unknown origin, material license conflict, correction loss or unlawful retention.
Semantic / temporal error	Align evidence to the exact market and information set.	Contract parser plus human review, cutoff and horizon validation, leakage tests.	Alignment record, reviewer decision, frozen snapshot and exception register.	Ambiguous outcome, amended contract, post-cutoff input or disputed resolution.
Model error and calibration decay	Keep probability meaning within validated bounds.	Time-split validation, proper scores, recalibration, drift monitor and abstention.	Rolling score, reliability diagram, version comparison and deployment decision.	Material score deterioration, subgroup/horizon failure or insufficient support.
Manipulation and security	Resist poisoned data, coordinated behavior and malicious content.	Source isolation, anomaly detection, prompt/content boundaries, adversarial tests and rate limits.	Alert, quarantine, incident record, false-positive review and recovery test.	Confirmed poisoning, prompt injection, unauthorized access or uncontrolled propagation.
Human over-reliance	Support calibrated trust and meaningful control.	Uncertainty display, source links, counterevidence, confirmation, limits and comprehension testing.	User-study results, warning response, override and cancellation logs.	Systematic misunderstanding, blind confirmation or material warning bypass.
Privacy and unfair impact	Minimize personal data and monitor disproportionate effects.	Purpose limitation, aggregation, retention controls, access review and segmented assessment.	Dataset record, privacy review, access log, impact and complaint analysis.	Sensitive inference outside purpose, reidentification risk or harmful performance disparity.
Operational and technical debt	Keep data, model and interface dependencies observable and reversible.	Versioned pipelines, dependency registry, canary/release gates, rollback and retirement plan.	Change approval, lineage diff, service-level and incident metrics, rollback test.	Unowned dependency, undocumented change, unreproducible output or failed rollback.
Unsupported capability claim	Ensure public statements match verified evidence and deployment state.	Claim review tied to model card, evaluation report, product state and permitted geography.	Approved claim record, cited test, version and expiry/review date.	Unqualified “real-time,” “accurate,” “automated,” “guaranteed,” or “available” language.

Source: POLIX editorial synthesis aligned with NIST AI RMF 1.0, W3C provenance principles, datasheets, model cards, and machine-learning systems research. Controls are proposed requirements, not certifications or completed audits.

RESPONSIBLE-USE PRINCIPLE **An AI system is credible when it can show what it knew, what it estimated, how well similar estimates were calibrated, what use was authorized, what changed, and how an error can be corrected. Abstention and rollback are capabilities, not failures of ambition.**

Chapter Synthesis

1. POLIX AI Intelligence is defined as an intelligence-supply engine: a governed evidence chain from versioned observations to bounded, evaluable analytical artifacts.
2. Official POLIX materials disclose intended AI functions and four input classes; corresponding operating claims require implementation, data-rights, performance, and authorization evidence.
3. Every artifact should preserve source provenance, market and contract identity, as-of time, horizon, model and calibration version, uncertainty, permitted use, publication status, and eventual resolution-based evaluation.

4. News, social, on-chain, and market data represent different observation processes. Their timing, sampling, semantics, manipulation surfaces, and evidentiary limits must remain visible after aggregation.
5. Market alignment precedes inference: evidence must correspond to the exact event, outcomes, cutoff, horizon, resolution rule, and information set before it is used.
6. An AI probability is meaningful only as part of a reproducible forecast record. A model-market difference $e_t = p_{AI,t} - p_{M,t}$ is a screening quantity, not expected profit or proof of tradable advantage.
7. Evaluation should combine proper scoring, calibration, discrimination, sharpness, timeliness, robustness, and economic usefulness under frozen out-of-sample information sets and declared baselines.
8. Forecasts and signals require explicit candidate, qualified, published, superseded, withdrawn, resolved, and evaluated states so failed or stale artifacts cannot disappear from the audit trail.
9. The AI Trading Copilot should ground claims in source-linked artifacts, show freshness and uncertainty, preserve contestability, and separate description, inference, proposal, authorization, and execution.
10. AI Copy & Follow should evaluate complete and segmented predictor records, address survivorship and selection bias, and separate observe, notify, simulate, propose, and withdraw authorities from any future execution authority that may be offered and separately authorized.
11. Copying cannot guarantee equivalent outcomes because followers face different time, price, spread, depth, capacity, fees, access, and portfolio conditions; follower-specific limits and revocation are essential.
12. Responsible AI requires iterative governance, context mapping, measurement, and management; versioned datasets and models; security and privacy controls; meaningful human oversight; incident response; abstention; rollback; and claim discipline.

TRANSITION TO CHAPTER 10 **Chapter 10 develops the Liquidity Hub. AI Intelligence may improve discovery, comparison, and the timing of market attention, but it cannot manufacture executable depth, eliminate spread or price impact, harmonize incompatible contracts, or erase venue, collateral, custody, settlement, and regulatory boundaries. The next chapter therefore evaluates liquidity as a distinct market-quality and routing problem.**

CHAPTER 09 / REFERENCES

References and Source Notes

The references below support the provenance, probabilistic-forecasting, calibration, documentation, machine-learning-systems, and risk-management propositions used in Chapter 9. POLIX materials document intended product direction. The document-wide claim boundary in the Important Notice applies.

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CHAPTER 10

Liquidity Hub

A federated architecture for market discovery, contract-aware comparison, qualified liquidity visibility, and eligible access across distinct prediction-market environments.

Chapter Thesis

POLIX Liquidity Hub is conceived as a liquidity-supply and coordination engine, not as a claim that every prediction market can be collapsed into one pool. Its purpose is to make fragmented markets more intelligible and, where institutional and technical conditions permit, more accessible through a governed sequence of source identification, contract matching, liquidity measurement, eligibility assessment, and route proposal. A unified network is credible only when it preserves the venue, contract, collateral, custody, settlement, resolution, and regulatory boundaries that determine whether displayed liquidity is actually executable.

Official POLIX materials describe an intended Prediction Market Aggregator, Unified Liquidity Network, Liquidity Hub, and Prediction Market Alliance Network. They also present partner-facing AI intelligence, analytics, discovery, and growth tools, with POLX-aligned incentives contemplated for ecosystem participation. Chapter 10 translates those propositions into a bounded market-structure model. It does not infer that any named venue has joined the network, that capital has been pooled, that live quotes or order books are connected, that best execution is available, or that a particular chain, custody model, settlement asset, fee schedule, service level, or jurisdiction has been selected.

Chapter 7 established the architectural boundary: discovery, market mapping, liquidity evidence, and eligible access are different outputs. Chapter 9 established that AI can support comparison but cannot manufacture depth or erase contract differences. This chapter therefore concentrates on the distinct economic and operational problem of liquidity. It defines what liquidity means for outcome contracts, explains why market fragmentation can create both costs and useful diversity, specifies the conditions for aggregation and routing, and identifies the evidence required before a network effect or partner benefit can be claimed.

> DESIGN BOUNDARY **Chapter 10 describes a proposed federated network and its evaluation standard. Partner, liquidity, routing, custody, settlement, security, legal, and launch capabilities require separate technical, institutional, policy, and user authorization.**

10.1 The Liquidity Fragmentation Problem

Liquidity is the capacity to express or unwind a position of a specified size, at an observable time, under known rules, without an excessive adverse change in executable price. This definition is deliberately conditional. A market can show a recent trade while offering little current depth; it can show a narrow

top-of-book spread for a very small quantity while becoming expensive at a larger size; or it can display substantial historical volume even though the relevant venue is unavailable to a particular user. Liquidity is therefore an action-dependent state, not a permanent label attached to a market.

Market microstructure research separates several channels through which trading conditions affect price formation. Glosten and Milgrom (1985) show how asymmetric information can contribute to bid-ask spreads, while Kyle (1985) formalizes price impact as the response of price to order flow. These models do not describe prediction markets in full, but they establish a useful discipline: spread, depth, and price impact reflect different constraints and should not be replaced by one headline volume number. For outcome contracts, the interpretation must also incorporate resolution and payout semantics.

10.1.1 Liquidity as a Multidimensional State

For analytical purposes, the liquidity state of market m at time t for a target quantity q can be represented as a vector L(m,t,q) = [s, d(q), i(q), f(q), r, c, a]. Here s denotes the executable bid-ask spread; d(q) the visible or validated depth available near the current price for quantity q; i(q) the expected price impact or slippage from completing q; f(q) an estimated fill probability under a specified order mechanism and horizon; r the resilience with which liquidity replenishes after a shock; c the concentration of available liquidity among actors or venues; and a the availability and eligibility of the path to the user. Realized fill ratio and completion state belong to post-submission evaluation and should be recorded separately. The vector is conceptual and does not assign weights or report a measured POLIX score.

The quantity and horizon must accompany every liquidity statement. “Deep” at one unit may be thin at ten thousand units. A quote available for milliseconds may not remain available during user review, wallet confirmation, or cross-system communication. A maker commitment may support one market state but withdraw when volatility or event risk rises. Consequently, a useful interface should state the quote time, target size, price levels consumed, known fees, venue status, and whether the view is indicative, firm, simulated, delayed, or historical.

Table 10.1. Liquidity dimensions and the evidence needed to interpret them

DIMENSION	WHAT IT MEASURES	MINIMUM CONTEXT	COMMON MISREADING	USEFUL EVIDENCE
Spread	Difference between executable buy and sell prices at a stated size.	Bid, ask, quantity, timestamp, venue, fee treatment and quote state.	A midpoint or last price is treated as executable.	Time-weighted spread distribution and valid quote observations.
Depth	Quantity available across specified price levels.	Side, price ladder or curve, target size, venue state and hidden-liquidity limitation.	Top-of-book size or collateral balance is treated as total capacity.	Depth at standard quantities and percentage price bands.
Price impact	Adverse movement caused by completing a target order.	Order side, quantity, mechanism, starting state, latency and replenishment assumption.	A small test trade is generalized to all sizes.	Average execution price, slippage curve and realized shortfall.
Fill quality	Whether and how much of the requested quantity completes.	Order type, time-in-force, cancellations, partial fills, latency and route.	A submitted order is counted as executed liquidity.	Fill ratio, completion time, rejection and cancellation reason.
Resilience	Speed and quality of replenishment after activity or shock.	Observation window, event regime and comparable pre/post state.	One static snapshot is treated as persistent depth.	Recovery of spread and depth after standardized shocks.
Concentration	Dependence on a limited number of liquidity sources.	Provider, account or venue grouping subject to privacy and data limits.	Gross depth is assumed to be independent and durable.	Concentration bands, correlated withdrawal and stress results.
Availability	Whether a valid path exists for the specific user and market.	Eligibility, venue status, geography, custody, collateral, settlement and policy.	Visible liquidity is assumed to be universally reachable.	Eligible-path status, reason code, timestamp and expiration.

Source: POLIX editorial synthesis informed by market-microstructure literature. The dimensions are an evaluation framework, not reported POLIX performance.

10.1.2 Sources of Fragmentation

Fragmentation begins with venue separation, but venue count is only the visible layer. Prediction markets can differ across at least six domains: contract semantics, trading mechanism, collateral and custody, access and legal conditions, settlement and resolution, and time. Two contracts may refer to the same public event yet define different cutoffs, candidates, geographies, source authorities, voiding rules, payout units, or exceptional cases. They are related information objects, but they may not be economically equivalent claims.

Trading mechanisms can also create non-comparable liquidity. A central limit order book exposes resting bids and asks; an automated market maker exposes a state-dependent pricing curve; a market-scoring rule may provide continuous prices under a defined cost function; and a request-for-quote or designated-maker arrangement may provide conditional capacity. Hanson (2003) and Othman et al. (2013) illustrate how automated or scoring-rule approaches can address thin-market problems under specific assumptions. POLIX does not disclose a single mechanism for every connected environment, so the hub should translate mechanism-specific observations into qualified metrics without pretending that the underlying capacities are identical.

Fragmentation is not automatically a market failure. O'Hara and Ye (2011) find that fragmentation in the studied U.S. equity environment did not harm market quality and was consistent with a virtual market offering multiple points of entry. That result should not be transferred mechanically to prediction markets, whose contracts and resolution rules can vary. It instead shows that the outcome depends on linkages, transparency, comparability, and routing. Diversity of venues may support innovation and access; unmanaged incompatibility may produce search costs, stale price gaps, duplicated collateral, and false impressions of liquidity.

Table 10.2. Fragmentation domains and the boundary that must remain visible

DOMAIN	EXAMPLES OF DIFFERENCE	WHY IT MATTERS	NORMALIZABLE?	BOUNDARY TO RETAIN
Contract semantics	Question wording, outcomes, cutoff, geography, candidate set, exception and void rules.	Determines what claim is purchased and whether apparent arbitrage is real.	Selected fields; equivalence requires stronger review.	Original contract text, version and venue identifier.
Trading mechanism	Order book, automated curve, scoring rule, quote request or designated maker.	Changes observable depth, price response, fill behavior and maker risk.	Metrics can be mapped; capacity is not fungible by default.	Mechanism, state, order type and execution assumptions.
Collateral and custody	Asset, chain, wallet, account, custodian, margin or pre-funding model.	Affects capital mobility, delay, risk, fees and user control.	Currency display may be normalized for analysis.	Actual asset, custody path and transfer condition.
Access and policy	User eligibility, geography, account status, market restriction and venue availability.	Visible quotes may not be reachable by the requesting user.	No universal normalization.	Eligibility decision, policy version and reason.
Resolution and settlement	Source authority, dispute path, finality, payout time and cancellation treatment.	Creates basis risk even when event labels look similar.	Comparable descriptions; not automatic equivalence.	Resolution rule, resolver, dispute and settlement state.
Time and status	Quote time, delay, maintenance, suspension, close, resolution and data outage.	Liquidity can disappear or become irrelevant before action.	Timestamps and states can be standardized.	Source time, receipt time, freshness and failure state.

Source: POLIX editorial synthesis. Normalization supports comparison; it does not transfer legal, economic, custody, or resolution responsibility between venues.

10.1.3 Executable Liquidity and False Aggregation

The most consequential aggregation error is false liquidity: a displayed quantity or price relationship that cannot be executed under the stated conditions. False liquidity can arise when stale quotes are combined with current quotes, bids and asks on opposite economic definitions are netted, the same provider is counted through multiple interfaces, historical volume is represented as available depth, or venue-level liquidity is shown to a user who cannot access the venue. It can also arise from double counting when one underlying order or pool is redistributed through several data channels.

The hub should therefore distinguish observed, validated, comparable, eligible, routable, submitted, filled, and settled states. Each transition needs its own evidence. A quote may be observed but fail freshness validation. Two markets may be comparable for analytical display but not equivalent for cross-venue routing. A proposed route may be eligible when calculated but unavailable when submitted. A fill may be reported but remain unsettled or reversible under venue rules. The interface should show the highest state actually supported, not the state the user hopes to reach.

LIQUIDITY INTEGRITY PRINCIPLE **POLIX should describe liquidity only at the quantity, time, contract, venue, and access conditions for which evidence exists. Historical activity, indicative quotes, related contracts, and inaccessible capacity must not be presented as one executable pool.**

10.2 Unified Liquidity Network

A Unified Liquidity Network should be understood as a federated coordination architecture. Federation allows distinct venues or partner platforms to retain their own contracts, trading mechanisms, users, custody, settlement, and institutional responsibilities while exchanging a bounded set of market, liquidity, status, and service records. The network can create a coherent discovery and comparison layer without asserting common ownership of capital or universal fungibility of claims.

This interpretation is consistent with the official POLIX ambition to turn fragmented liquidity into one network, but it imposes a stricter meaning on “one.” One network means that market objects can be identified, compared, monitored, and conditionally routed through governed interfaces. It does not mean that every order is internalized by POLIX, every partner balance is transferable, every settlement asset can be moved instantly, or every venue accepts the same user. The network is unified at the level of controlled coordination before it is unified at the level of economic execution.

10.2.1 Federated Network Layers

The proposed network contains four functional layers. The source layer receives venue and contract records together with prices, quantities, status, timestamps, and provenance. The semantic layer maps event relationships and assigns a compatibility state. The liquidity layer calculates qualified market-quality observations for stated sizes while preserving mechanism and source. The policy layer determines whether the requested output may be shown, compared, proposed as a route, or submitted under the user’s current permissions and the partner’s current conditions.

The layers produce bounded outputs. Discovery can expose related markets even when they are not equivalent, provided the differences are visible. Comparison can normalize probability scale, currency display, quantity, or time basis while retaining original terms. Routing can propose an eligible path only after contract, price, freshness, fee, capacity, access, custody, and settlement checks. Execution, if ever offered, is a separate authorized capability with stronger controls and cannot be inferred from the existence of discovery or routing interfaces.

Table 10.3. Proposed Unified Liquidity Network layers and decision rights

LAYER	PRIMARY INPUT	CORE OPERATION	OUTPUT	MUST NOT INFER
Source and provenance	Venue, contract, quote, depth, status, timestamp and source identity.	Validate schema, source, sequence, freshness and transformation lineage.	Versioned source observation.	That the observation is comparable, eligible or executable.
Semantic compatibility	Contract text, outcomes, cutoff, payout, resolution and exception rules.	Classify identical, equivalent, comparable, related or incompatible.	Compatibility record with reason and confidence state.	That title similarity creates fungibility.
Liquidity state	Validated quotes, depth or curve, target size, mechanism, fees and availability.	Estimate spread, depth, price impact, capacity, resilience and concentration.	Qualified liquidity observation for a stated condition.	That displayed capacity will remain or fill.

LAYER	PRIMARY INPUT	CORE OPERATION	OUTPUT	MUST NOT INFER
Eligibility and policy	User scope, venue status, geography, custody, collateral, limits and authorization.	Determine permitted display, comparison, proposal or action.	Eligible-path or denial record with expiry and reason.	That one successful check authorizes future activity.
Network output	Qualified objects from preceding layers.	Compose discovery, comparison, route proposal or partner-service request.	User- or partner-visible artifact with provenance.	That a proposal is an execution or settlement guarantee.

Source: POLIX editorial synthesis. The layers define proposed information and control responsibilities; they do not describe completed implementation.

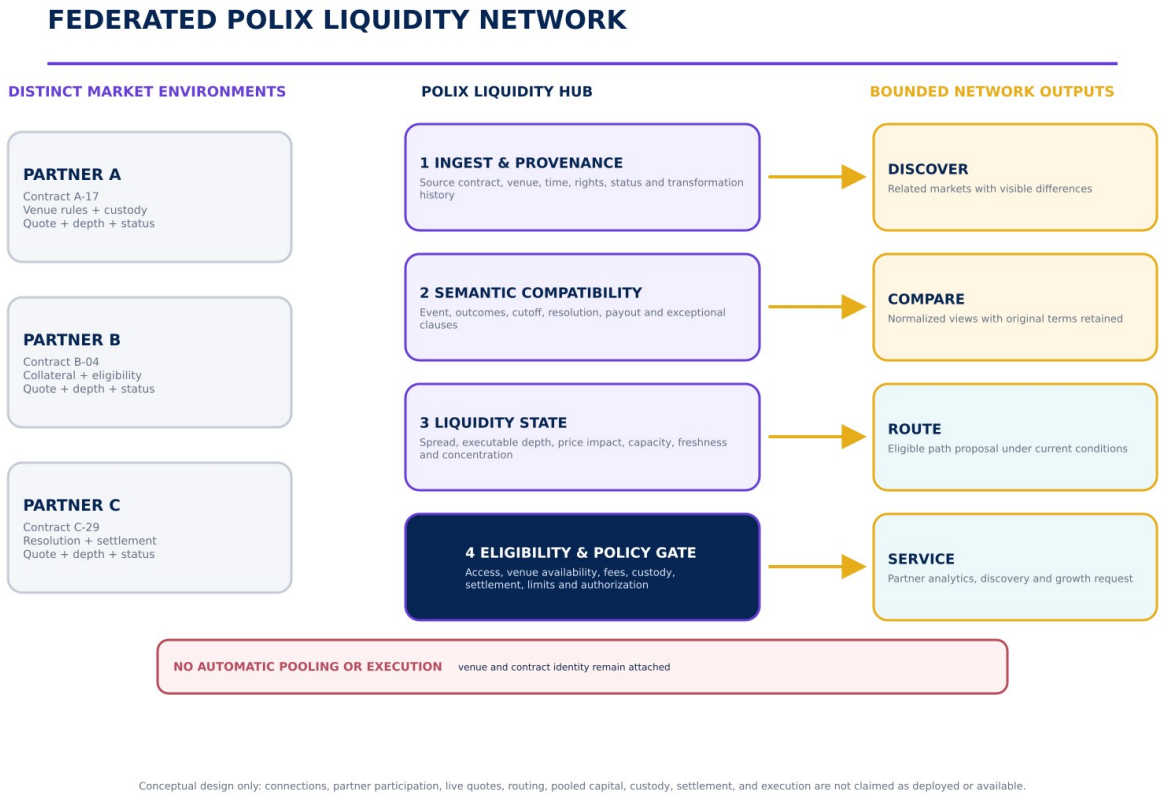

Figure 10.1. Federated POLIX Liquidity Network. Distinct market environments retain venue and contract identity while a governed hub performs provenance, semantic compatibility, liquidity-state, and eligibility checks before producing bounded network outputs. Source: POLIX editorial synthesis.

10.2.2 Canonical Market and Liquidity Objects

Coordination requires canonical objects, but canonical does not mean stripped of source identity. A canonical market object should reference the underlying event and its related contracts while each source contract retains its own wording, outcomes, cutoff, version, venue, payout, resolution, and lifecycle state. The canonical event is a comparison anchor; it is not a new security or claim that replaces the source contracts.

A liquidity observation should be a time-bounded child of a specific source contract and mechanism. At minimum it should contain the side, price levels or curve state, quantities, target size, quote and receipt times, venue status, fee assumptions, known capacity limits, source identifier, adapter or transformation version, and freshness state. Derived measures should point to the observations used in the calculation. A new quote should supersede an earlier state without deleting the earlier evidence.

The same object model supports correction. If a contract mapping changes, the system can identify which comparisons, alerts, route proposals, analytics, and partner reports depended on the prior mapping. If a venue publishes a correction or reverses a fill, the affected records can move to corrected or disputed states. This is more important than forcing every partner into the same database.

Interoperability depends on shared meaning and traceable state transitions, not unrestricted data centralization.

10.2.3 Freshness, Availability, and Failure States

Liquidity systems fail in time. A data feed can remain connected while its values stop advancing; an adapter can receive messages out of sequence; a venue can accept reads while rejecting orders; a contract can be suspended even though its last quote remains cached. Freshness should therefore be evaluated with source time, receipt time, sequence continuity, expected update pattern, and market status. One universal time threshold is unlikely to fit every mechanism or event regime.

Failure states should be explicit and user-visible at the level necessary for the requested action. Examples include delayed, stale, partial, inconsistent, unmapped, suspended, read-only, capacity unavailable, eligibility unknown, route expired, submission rejected, partially filled, settlement pending, corrected, and disputed. A graceful failure returns the last valid state, its time, the reason current confidence is lower, and the action that is disabled. A silent fallback from live to delayed data would create a misleading appearance of continuity.

UNIFIED-NETWORK PRINCIPLE **The network is unified by canonical identifiers, compatibility records, qualified liquidity states, policy decisions, and traceable handoffs. Capital, custody, settlement, legal responsibility, and contract risk remain with the institutions and processes that actually control them unless a separately disclosed arrangement changes that boundary.**

10.3 Prediction Market Aggregation

Prediction-market aggregation begins with semantic matching, not price ranking. A price difference is meaningful only after establishing what each contract pays under each possible state. Title similarity can support discovery, but route eligibility requires a stronger relation. The aggregator should therefore operate on a compatibility ladder that distinguishes identity, economic equivalence, analytical comparability, thematic relation, and incompatibility.

10.3.1 Semantic Equivalence and Compatibility

Contracts are identical only when they are the same source instrument and version. They may be economically equivalent when outcomes, cutoff, payout, resolution, exceptions, settlement treatment, and relevant institutional conditions produce the same contingent claim for the intended action. They may be analytically comparable when they estimate closely related events but retain basis risk. They may be merely related when one event informs another. An incompatible relation means that normalization would materially mislead the user.

Compatibility is not a permanent attribute. A contract amendment, candidate withdrawal, court decision, event postponement, resolution-source change, or venue suspension can change the relationship between markets. The record should therefore include the mapping version, effective time, evidence, reviewer or process, confidence state, permitted uses, and revocation condition. High-assurance routing should require a higher compatibility threshold than discovery or research display.

Table 10.4. Contract-compatibility ladder and permitted use

CLASS	DEFINITION	PERMITTED DEFAULT USE	REQUIRED DISCLOSURE	ROUTING STATUS
Identical	Same venue contract, identifier and effective version.	Display source state and history.	Venue, contract, version and time.	Eligible only after all non-semantic checks.
Equivalent	Separate contracts assessed to create the same relevant contingent payoff under reviewed terms.	Consolidated analytical view and route consideration.	Source terms, mapping evidence, residual basis risk and review time.	Conditional; requires current policy, capacity and institutional checks.

CLASS	DEFINITION	PERMITTED DEFAULT USE	REQUIRED DISCLOSURE	ROUTING STATUS
Comparable	Closely aligned event exposure with a material difference or uncertainty.	Side-by-side comparison and divergence analysis.	Difference in cutoff, payout, resolution, exception or access.	Not treated as fungible by default.
Related	Informationally connected but not the same event claim.	Discovery, research and contextual analytics.	Nature and direction of the relationship.	No cross-contract route substitution.
Incompatible / unknown	Meaningfully different or insufficient evidence for classification.	Separate display or suppression.	Reason for incompatibility or missing evidence.	Blocked.

Source: POLIX editorial synthesis. Compatibility supports bounded use decisions and does not constitute legal characterization or a guarantee of payoff equivalence.

10.3.2 Normalization, Comparison, and Route Selection

Normalization should preserve enough source information to reverse the transformation. A YES price and a quoted probability may be comparable only after fees, payout unit, quote side, timestamp, and contract state are identified. Currency conversion can support display but introduces rate, time, transfer, and settlement assumptions. An order-book depth ladder and an automated pricing curve can both be converted into an average execution-price estimate for a target quantity, but their fill behavior and state-transition risks remain different.

For an eligible venue v and target quantity q, the all-in route cost can be represented conceptually as $C(v,q) = E(v,q) + F(v,q) + T(v,q) + R(v,q)$, where E is expected execution cost from the venue's price path, F is the disclosed venue or platform fee, T is transfer, collateral, settlement, or network cost when applicable, and R is a quantified risk-cost adjustment expressed in the same unit as C. Non-monetary latency, failure, and settlement conditions are assessed separately as eligibility constraints. This is not a POLIX pricing formula. It demonstrates why "best displayed price" and "best eligible outcome" can differ.

A split route across venues can be represented as choosing quantities q(v) that sum to the target quantity while remaining within validated capacity and eligibility constraints. The objective may minimize expected all-in cost, maximize expected proceeds, reduce completion risk, or balance several factors under a declared policy. The choice must be reproducible from the market snapshot, route policy, user authorization, and assumptions available at the decision time. Ex post favorable prices cannot be used to rewrite the quality of an earlier route.

Routing and execution must remain separate. A route proposal states what the system would attempt under a short-lived snapshot. Authorization confirms the user's instruction and applicable limits. Submission records what was sent to which venue. Execution records partial or complete fills. Settlement records the final economic transfer under the venue's rules. Each stage can fail independently. The interface should not use a single "completed" label for this lifecycle.

Table 10.5. Aggregator output modes and assurance boundaries

MODE	USER QUESTION	MINIMUM CHECKS	OUTPUT	EXCLUDED CLAIM
Discover	Which markets may relate to this event?	Source identity, market status, basic semantic relation and freshness label.	Ranked related-market view with differences.	Equivalence, availability or best price.
Compare	How do qualified market states differ?	Contract mapping, quote method, time, fees, liquidity context and normalization record.	Side-by-side or normalized analytical view.	Fungibility or executable arbitrage.
Simulate	What might a target-size action cost under this snapshot?	Eligible data sources, depth or curve, target size, fee and failure assumptions.	Indicative cost, slippage and capacity range.	Guaranteed fill or future price.
Route proposal	Which current eligible path satisfies the declared policy?	High-assurance mapping, user scope, venue status, capacity, fees, limits and expiry.	Short-lived route plan and reason.	Submission, execution or settlement.

MODE	USER QUESTION	MINIMUM CHECKS	OUTPUT	EXCLUDED CLAIM
Execute (conditional design boundary)	Should an authorized instruction be submitted?	Separate product authority, user confirmation, security, compliance, venue and risk controls.	Submission and subsequent lifecycle records.	Guaranteed completion, identical follower outcome or universal availability.

Source: POLIX editorial synthesis. Execution is a conditional future boundary, not a statement that POLIX currently accepts, routes, executes, custodies, or settles orders.

AGGREGATION PRINCIPLE **The aggregator may unify discovery and analysis before it unifies execution. Every stronger output requires stronger evidence, shorter validity, narrower permissions, and a clearer record of who controls the next action.**

10.4 Prediction Market Alliance Network

The Prediction Market Alliance Network is the proposed institutional layer through which partner platforms may exchange bounded capabilities and participate in ecosystem growth. Official POLIX materials position the alliance as a collaborative network supported by shared AI and growth tools. A credible alliance should not be described only by the number of logos or connected endpoints. Its quality depends on whether partners can enter, operate, change, suspend, and exit through explicit interface and responsibility contracts.

Alliance participation should be modular. A partner may provide market discovery data without offering routing; consume analytics without exposing user-level information; use growth tools under an approved campaign without sharing custody; or support an eligible access path for selected contracts and users. Roles should be separately authorized because data access, promotion, liquidity provision, order handling, custody, resolution, and token eligibility create different risks and evidence requirements.

10.4.1 Partner Admission and Interface Contract

Partner admission should begin with institutional and technical due diligence appropriate to the proposed role. The assessment may cover legal identity, service ownership, market and resolution rules, data rights, security controls, incident history, custody and settlement boundaries where relevant, user restrictions, support contacts, and change-management capability. A successful integration test proves only the tested interface and state; it does not validate every market, user, or future partner release.

The interface contract should specify schemas, identifiers, timestamps, update and correction behavior, authentication, scopes, rate and capacity limits, service states, error semantics, versioning, deprecation, audit evidence, incident escalation, and revocation. It should also specify which party is authoritative for contract terms, venue status, user eligibility, execution, custody, settlement, resolution, and dispute handling. Ambiguous responsibility is a liquidity risk because users may act on data without knowing which institution can correct or honor it.

Table 10.6. Minimum partner-interface contract

CONTROL AREA	PARTNER DECLARATION	PROPOSED POLIX RESPONSIBILITY	SHARED EVIDENCE	SUSPEND / REVIEW TRIGGER
Identity and role	Legal or accountable operator, service owner and authorized capabilities.	Verify role scope and expose only approved functions.	Agreement version, contacts, role and effective dates.	Ownership uncertainty, unauthorized expansion or material status change.
Market semantics	Authoritative contract, outcomes, lifecycle, resolution and correction source.	Map without altering source meaning; retain versions.	Contract identifiers, mapping record and corrections.	Unresolved ambiguity, incompatible amendment or stale terms.
Data and service	Schema, timing, rights, update behavior, capacity and outage states.	Validate ingestion, provenance, freshness and failure presentation.	Sequence, latency, quality, incident and reconciliation logs.	Stale or inconsistent data, rights conflict or service degradation.

CONTROL AREA	PARTNER DECLARATION	PROPOSED POLIX RESPONSIBILITY	SHARED EVIDENCE	SUSPEND / REVIEW TRIGGER
Access and action	Eligibility, order or service rules, limits, fees and rejection semantics.	Apply user and product gates; keep proposal distinct from action.	Policy version, decision, request, response and expiry.	Unknown eligibility, mismatched fee, repeated rejection or unauthorized action.
Custody and settlement	Who controls assets, settlement path, finality and reversal conditions.	Display the boundary; do not imply control not possessed.	Transfer, fill, settlement and exception references.	Asset mismatch, delayed settlement, reconciliation failure or disputed finality.
Change, incident and exit	Notice, emergency contacts, deprecation, recovery and termination duties.	Isolate affected functions, notify users and preserve evidence.	Change approval, incident timeline, recovery test and exit record.	Uncoordinated change, security event, unresolved breach or failed recovery.

Source: POLIX editorial synthesis. The table defines proposed alliance controls and does not confirm any partner, agreement, certification, integration, or service level.

10.4.2 Shared Services, Autonomy, and Exit

Shared services may include market discovery, qualified market intelligence, analytics, campaign and referral tooling, documentation, dashboards, and selected liquidity or routing interfaces where separately approved. The partner should be able to understand which POLIX artifact is descriptive, model-derived, simulated, or action-capable. AI output should retain its provenance and limitations; growth tools should retain attribution and consent boundaries; liquidity output should retain contract and venue identity.

Institutional autonomy is not an obstacle to the alliance; it is a condition that makes responsibility legible. Partners may retain their own users, interfaces, market policies, compliance decisions, custody, and resolution processes while adopting shared schemas or services. POLIX should not imply that alliance membership transfers those responsibilities. Conversely, a partner should not represent a POLIX analytical or growth service as a guarantee of market quality, forecast accuracy, liquidity, access, or token value.

Exit and isolation are first-class capabilities. A partner feed may need to move to read-only, delayed, quarantined, or disconnected states without breaking the rest of the network. Market mappings and route proposals that depend on the partner should expire or be withdrawn. Historical evidence should remain sufficient to explain prior user-visible outputs, subject to data rights and retention policy. Recovery should require reconciliation and controlled re-entry rather than silent reconnection.

> ALLIANCE PRINCIPLE **A partner network is strong when shared interfaces expand useful capability while authority, data rights, user eligibility, custody, settlement, resolution, incident handling, and exit remain explicit. Connection is not transfer of responsibility.**

10.5 Partner Platform Benefits

Official POLIX materials identify AI trading support, market analytics, discovery, and growth tools as intended partner benefits. These are capability propositions, not guaranteed outcomes. A service is beneficial only if it improves a defined quality-adjusted result for the partner without creating greater integration cost, user harm, dependency, security exposure, adverse selection, or institutional ambiguity. Benefit claims should therefore specify the partner role, eligible market scope, baseline, observation window, denominator, cost, and countermetric.

Discovery can broaden the visible opportunity set, but more listings can also fragment attention or expose low-quality markets. Analytics can reduce search and interpretation cost, but a model can propagate stale or correlated errors. Growth tools can support acquisition and activation, but volume without retention or liquidity quality can increase operational burden. Liquidity visibility can help a

partner identify market gaps, but it does not create executable depth. Route participation may attract order flow, yet it can also concentrate adverse selection or increase withdrawal during volatile periods.

POLX-aligned partner incentives are contemplated in official token-economy materials as one form of ecosystem participation. Chapter 10 does not define an amount, schedule, fee share, reward rate, eligibility formula, vesting rule, or distribution event. Any future incentive should follow verified contribution rather than connection alone, remain attributable to an approved policy and evidence period, and avoid paying twice for the same underlying liquidity or activity distributed through multiple interfaces. Token allocation and economic controls are developed in later chapters.

Table 10.7. Partner benefit propositions and proof requirements

PROPOSITION	POTENTIAL VALUE	PRIMARY METRIC	COUNTERMETRIC / COST	EVIDENCE STANDARD
Market discovery	Expose relevant markets and categories beyond the partner's current surface.	Qualified discovery-to-engagement and retained use.	Duplicate exposure, low-quality clicks, confusion and support burden.	Controlled comparison by market type, cohort and period.
AI and analytics	Support interpretation, monitoring and opportunity detection.	Usefulness, calibration or decision-quality measure appropriate to the artifact.	Error, staleness, correlated sources, override and incident rate.	Versioned model/data record and declared baseline.
Growth tools	Improve eligible acquisition, activation and community reach.	Quality-adjusted activation and later retention.	Incentive cost, abuse, concentration and unprofitable volume.	Attribution policy, holdout or comparable baseline and net contribution.
Liquidity visibility	Identify spreads, depth gaps and market states across qualified sources.	Freshness, mapping coverage and reduction in search cost.	False aggregation, stale views and inaccessible capacity.	Replayable snapshots, mapping audit and exception record.
Eligible routing	Offer a qualified path to complementary capacity where permitted.	Fill quality, all-in cost, completion time and settlement outcome.	Rejection, slippage, failure, concentration and dependency.	Decision-time snapshot, route policy and full lifecycle evidence.
POLX-aligned participation	Recognize verified ecosystem contribution under an approved program.	Eligible net contribution and policy-compliant distribution.	Dilution, circular activity, double counting and unsustainable subsidy.	Governance record, allocation authority, claim and distribution reconciliation.

Source: POLIX editorial synthesis. Benefits are hypotheses to be evaluated; the table reports no measured partner result or confirmed POLX distribution.

10.6 Network Effects and Market Efficiency

The intended POLIX loop is straightforward: more qualified partner and market connections can broaden discovery; broader eligible access can attract activity; activity can improve observable liquidity and information; better market quality can attract users, creators, and further partners. Network economics explains why compatibility and participation can increase the value of a system as its installed base and complementary activity grow (Katz and Shapiro, 1985). Two-sided-platform research also emphasizes that value and pricing depend on participation across interacting groups rather than on one side alone (Rochet and Tirole, 2003).

The loop is conditional rather than self-executing. A new partner can add only duplicate or inaccessible markets. More users can increase noise, congestion, manipulation, and adverse selection without adding durable depth. More market supply can split attention across nearly identical contracts. An aggregator can centralize discovery while also increasing dependency on one mapping or routing layer. A token incentive can accelerate participation while obscuring whether the underlying service is economically useful after subsidy.

10.6.1 Positive Feedback and Efficiency Channels

Efficiency improvements should be assigned to specific channels. Search efficiency improves when users find relevant markets with fewer steps and understand material differences. Price-discovery efficiency improves when qualified order flow can reach the market where it is informative and executable. Execution efficiency improves when all-in cost, fill quality, and completion time improve at a declared size. Capital efficiency improves when the network reduces avoidable duplication or idle

collateral without introducing greater transfer, custody, settlement, or basis risk. Innovation efficiency improves when partners can adopt shared tools without rebuilding every capability.

These channels can conflict. Routing more flow to the deepest venue may improve immediate execution while weakening alternative venues and increasing concentration. Showing every related market may improve coverage while raising cognitive cost. Standardizing interfaces may reduce integration expense while discouraging a useful mechanism or local contract design. The network should therefore optimize quality-adjusted outcomes rather than one metric such as gross volume, number of partners, or number of markets.

10.6.2 Negative Externalities, Concentration, and Measurement

Negative feedback can propagate across the same links as positive feedback. A bad contract mapping can distribute a false arbitrage signal; a stale source can influence analytics and routing; concentrated liquidity can disappear across several displayed channels at once; a partner outage can create network-wide blind spots; and aggressive incentives can generate circular activity that appears as growth. Circuit breakers should therefore operate at source, contract, mapping, liquidity, partner, user-scope, route, and service levels.

A network-effect claim should use a before/after or comparable design with explicit denominators and observation windows. The evidence should distinguish gross and unique liquidity, observed and eligible capacity, indicative and realized execution, new and retained partner use, subsidized and unsubsidized activity, and correlated and independent sources. It should also report failure states, concentration, user complaints or disputes, settlement exceptions, and the operational cost of maintaining the network.

Table 10.8. Network-effect claims, metrics, and falsification conditions

CLAIM	SUPPORTING METRICS	REQUIRED DENOMINATOR	COUNTERMETRICS	FALSIFICATION CONDITION
Connections improve discovery	Qualified coverage, time to relevant market and engagement with disclosed differences.	Eligible markets and sessions in the measured scope.	Duplicate results, abandonment, correction and confusion rate.	Coverage rises while qualified discovery or comprehension deteriorates.
Aggregation improves liquidity visibility	Fresh mapped depth, spread coverage and target-size state availability.	Contracts and time intervals with valid source data.	Staleness, double counting, inaccessible capacity and mapping errors.	Displayed improvement disappears after freshness, uniqueness and eligibility filters.
Routing improves execution	All-in cost, fill ratio, completion time and settlement success at stated sizes.	Eligible route opportunities and submitted instructions.	Rejections, slippage, partial fills, failures and concentration.	Quality does not exceed the declared baseline after costs and failures.
Alliance expands partner value	Retained service use, integration reuse and quality-adjusted contribution.	Active eligible partners by role and observation period.	Integration cost, incidents, dependency, exit and support burden.	Benefits require hidden subsidy or exceed the partner's net operational value.
Network growth is sustainable	Unsubsidized retained activity, diverse liquidity sources and resilient service.	Eligible activity after related-party and duplicate controls.	Token subsidy, circular flow, concentration, downtime and unresolved disputes.	Growth reverses when incentives end or depends on a small correlated base.

Source: POLIX editorial synthesis. The table defines a future evaluation protocol and does not report a measured POLIX network effect.

NETWORK-EFFECT PRINCIPLE **POLIX should claim a liquidity network effect only when additional qualified connections improve a quality-adjusted outcome after freshness, semantic compatibility, eligibility, cost, concentration, subsidy, failure, and settlement controls. Scale alone is not proof of efficiency.**

Chapter Synthesis

1. POLIX Liquidity Hub is defined as a federated liquidity-supply and coordination engine, not as an assertion that all prediction-market capital or contracts form one pool.

2. Official POLIX materials disclose an intended aggregator, unified network, liquidity hub, partner alliance, and partner tools; they do not prove a live connection, committed liquidity, route, execution, custody, settlement, measured benefit, or token distribution.
3. Liquidity is a multidimensional, quantity- and time-dependent state involving spread, depth, price impact, fill quality, resilience, concentration, and user-specific availability.
4. Fragmentation occurs across venue, contract semantics, mechanism, collateral, custody, access, settlement, resolution, time, and service state. Some diversity may be useful; unmanaged incompatibility produces search cost and false comparison.
5. Executable liquidity must be distinguished from historical volume, indicative or stale quotes, duplicated sources, related but non-equivalent contracts, and capacity unavailable to the requesting user.
6. A Unified Liquidity Network can coordinate distinct institutions through source, semantic, liquidity-state, and policy layers while retaining source venue and contract identity.
7. Canonical event objects support comparison but do not replace source contracts. Liquidity observations remain time-bounded children of a specific source contract and mechanism.
8. The aggregator should classify contracts as identical, equivalent, comparable, related, incompatible, or unknown; stronger uses require higher assurance and current evidence.
9. Normalization may support discovery, comparison, and simulation, but routing requires contract, freshness, price, fee, capacity, access, custody, settlement, and authorization checks.
10. Route proposal, user authorization, submission, fill, and settlement are separate lifecycle states. Any future execution function is a separately governed capability.
11. The Prediction Market Alliance Network should use modular partner roles, explicit interface contracts, bounded data and authority, observable service states, incident isolation, controlled recovery, and reversible exit.
12. Partner benefits in AI, analytics, discovery, growth, liquidity visibility, routing, or POLX-aligned participation are hypotheses that require baselines, denominators, costs, countermetrics, and attribution evidence.
13. Positive and negative network effects share the same topology. Scale can improve search, price discovery, execution, capital use, and innovation, but can also amplify mapping errors, concentration, adverse selection, outages, and circular incentives.
14. A POLIX liquidity network effect should be claimed only after quality-adjusted improvement survives semantic, freshness, eligibility, cost, concentration, subsidy, failure, and settlement controls.

TRANSITION TO CHAPTER 11 **Chapter 11 develops the Creator Economy as the market-supply engine. The Liquidity Hub can reveal demand, comparability, and execution conditions, but it cannot create a well-formed question or guarantee that a new market deserves publication, promotion, liquidity support, resolution authority, revenue sharing, or POLX rewards. The next chapter therefore examines how creators propose and steward markets under differentiated rights, quality gates, attribution, and incentive controls.**

CHAPTER 10 / REFERENCES

References and Source Notes

The references below support the market-microstructure, fragmentation, automated-market-making, compatibility, platform-network, and provenance propositions used in Chapter 10. Evidence from adjacent markets supplies analytical principles; POLIX materials document intended product direction. The document-wide claim boundary in the Important Notice applies.

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CHAPTER 11

Creator Economy

A governed market-supply system in which distributed expertise, community knowledge, and local context can become attributable, reviewable, and sustainably incentivized prediction markets.

Chapter Thesis

POLIX Creator Economy is conceived as the market-supply engine of the ecosystem. Its purpose is to expand the range, relevance, language, and continuity of prediction markets by allowing qualified participants to propose and steward markets that a centralized operator could not identify or maintain alone. The design is not equivalent to unrestricted publishing. A creator contribution becomes useful market supply only when the proposed question is sufficiently clear, resolvable, attributable, policy-compatible, and supported through its lifecycle.

Official POLIX materials describe an intended user-generated market model in which anyone may create prediction markets, use subject expertise or community reach to grow them, review activity through a Creator Dashboard, and potentially receive revenue sharing or POLX rewards according to contribution to trading activation. They also place Creator Economy beside Referral Engine, AI Intelligence, and Liquidity Hub as one of four reinforcing ecosystem engines. Chapter 11 translates those propositions into a bounded creator-governance model. It does not infer that market creation is currently open, that every submission is published, that a dashboard or reward program is live, or that a particular creator has an enforceable payment right.

Chapter 10 examined how a Liquidity Hub can make fragmented markets more intelligible and conditionally accessible. Liquidity coordination cannot determine which questions deserve to exist, who is responsible for their wording, or whether a local event has a reliable resolution source. This chapter therefore concentrates on the supply side: creator roles, proposal and publication states, rights and responsibilities, contribution evidence, bounded economic eligibility, incentive feedback, and global-local diversity. Chapter 12 will develop the detailed market-creation and curation standard, including question construction and resolution design.

DESIGN BOUNDARY **Chapter 11 describes an intended creator-economy architecture. It makes no claim of open enrollment, permissionless publication, completed identity or reputation systems, live dashboards, existing creator revenue, a POLX reward rate, an allocation schedule, an eligibility formula, a payment date, a vesting rule, a fee source, guaranteed income, legal availability, or launch timing. Any future program requires disclosed policies, operational controls, evidence, and jurisdiction-appropriate implementation.**

11.1 Creators as the Source of Market Supply

A prediction market requires a continuing supply of questions before it can generate prices, participation, or collective intelligence. When only a platform operator may create markets, the supply process is constrained by the operator's staff, language coverage, topic knowledge, editorial attention, and risk tolerance. Important local events, specialized industries, cultural contexts, or rapidly emerging questions may remain invisible even when an informed community is prepared to evaluate them.

Creator-led media platforms such as YouTube and TikTok illustrate this general supply-side logic: the platform provides infrastructure, distribution, and governance while distributed creators continuously expand content across topics, languages, and communities. POLIX adopts the analogy only at the level of supply dynamics. Prediction markets create outcome-dependent contracts rather than ordinary media content and therefore require stronger question, resolution, integrity, attribution, and economic controls before creator output can become qualified market supply.

Distributed creators can widen that search boundary. Research on broadcast search finds that participants outside the focal domain can contribute distinct perspectives and effective solutions, while work on crowd systems emphasizes the importance of task design, feedback, reputation, and worker development rather than treating participants as interchangeable inputs (Jeppesen and Lakhani, 2010; Kittur et al., 2013). The application to POLIX is limited but useful: a broader creator base can reveal non-obvious market opportunities, provided the platform converts heterogeneous proposals into governed market objects rather than publishing them indiscriminately.

11.1.1 Qualified Supply, Not Market Count

The relevant output is qualified market supply, not the number of submitted or published pages. A proposed market adds supply when it expands useful coverage or improves the timing, specificity, accessibility, or local relevance of an existing category. It subtracts value when it duplicates an existing contract without justification, uses ambiguous wording, cannot be resolved from an identified source, fragments attention, invites manipulation, or imposes review and support costs greater than its information value.

For analytical purposes, the quality of market supply can be considered across six dimensions: relevance to a plausible information need; decidability of the question and outcomes; resolution readiness; integrity and policy compatibility; differentiation from existing markets; and lifecycle stewardship. These dimensions form an evaluation vector rather than a disclosed POLIX score. A market may be strong on topical demand yet fail resolution readiness, or be perfectly resolvable while adding no useful coverage. Publication should depend on the combined evidence appropriate to the market's risk and context.

Table 11.1. Qualified market-supply dimensions

DIMENSION	CORE QUESTION	POSITIVE EVIDENCE	FAILURE MODE	BOUNDARY
Relevance	Does the market address a meaningful uncertainty for an identifiable audience?	Search or community demand, event significance, timely rationale and target audience.	Engagement bait, trivial churn or a question with no plausible use.	Demand evidence does not guarantee publication or liquidity.
Decidability	Can the outcome be determined from explicit terms?	Unambiguous outcomes, cutoff, scope, exceptions and measurable condition.	Subjective wording, overlapping outcomes or undefined edge cases.	Detailed drafting rules are developed in Chapter 12.
Resolution readiness	Is there a credible way to determine and record the outcome?	Named source hierarchy, availability check, fallback and dispute concept.	Unavailable, alterable or circular source; no treatment for cancellation.	A source link alone is not proof of finality.
Integrity and policy	Can the market operate without unacceptable manipulation, rights or policy risk?	Conflict disclosure, evidence rights, risk review and approved scope.	Self-dealing, prohibited content, private information abuse or rights conflict.	Approval is contextual and may be revised or withdrawn.

DIMENSION	CORE QUESTION	POSITIVE EVIDENCE	FAILURE MODE	BOUNDARY
Differentiation	What useful coverage does this market add?	Novel event, distinct horizon, local relevance or justified contract variation.	Near-duplicate markets that split discovery and liquidity.	Related markets may coexist when differences are explicit.
Stewardship	Can the creator support the market through change, close, and review?	Source monitoring, update readiness, incident response and complete attribution.	Abandonment, misleading promotion or delayed disclosure of material change.	Stewardship does not confer resolution authority by default.

Source: POLIX editorial synthesis. The dimensions define a proposed evaluation framework and are not a published score, threshold, or measured POLIX result.

11.1.2 Creator Roles and Lifecycle Stewardship

“Creator” should be a role attached to documented contribution, not a permanent status with unlimited authority. One person may originate a question, another may supply domain evidence, a local contributor may adapt it for a language or jurisdiction, and a community steward may explain changes or collect correction requests. A resolution function may need to remain institutionally separate. Role separation makes credit more accurate and reduces the risk that market ownership is confused with unilateral control over active terms or outcomes.

Creator rights and responsibilities should change with lifecycle state. Before publication, a proposer may revise or withdraw a draft, subject to collaboration and evidence rules. After users have relied on a published market, material terms should not be silently rewritten. A creator may request a correction, add contextual evidence, or respond to an incident, but any change should follow the versioning, notice, and decision rights assigned to that market. Attribution may persist even when operational authority changes.

Table 11.2. Illustrative creator roles, rights, and responsibilities

ROLE	PRIMARY CONTRIBUTION	BOUNDED RIGHT	RESPONSIBILITY	EVIDENCE
Originator	Identifies uncertainty and submits the initial market thesis.	Draft, revise, withdraw before controlled publication, and request attribution.	Disclose sources, conflicts, intended audience and material assumptions.	Proposal version, timestamp, source record and conflict declaration.
Domain contributor	Improves wording, outcomes, evidence or exception treatment.	Receive shared attribution when contribution is accepted.	Represent expertise accurately and identify uncertainty or limits.	Change comparison, reviewer record and accepted contribution.
Localizer	Adapts language, context, source access or market scope.	Request localization credit and maintain a linked local version.	Preserve economic meaning and disclose substantive local differences.	Source/target text, semantic mapping and local-source validation.
Community steward	Explains the market, gathers feedback and surfaces incidents.	Access approved engagement and stewardship tools.	Avoid misleading promotion, manipulation or suppression of criticism.	Posts, update notices, feedback and incident-response record.
Collaborative creator	Coordinates several accepted contributions into one proposal.	Share attribution under a declared collaboration record.	Resolve authorship claims and prevent duplicate reward claims.	Contributor graph, acceptance record and allocation basis if applicable.
Resolution contributor	Provides evidence relevant to close or dispute review.	Submit evidence and receive attribution where policy permits.	Remain separate from unauthorized outcome control and disclose conflicts.	Evidence provenance, review decision and final resolution record.

Source: POLIX editorial synthesis. Roles are conceptual and do not confirm current permissions, compensation, employment, governance authority, or platform availability.

MARKET-SUPPLY PRINCIPLE **A creator economy succeeds when distributed knowledge increases qualified market coverage faster than it increases ambiguity, duplication, manipulation, review cost, and abandonment. The controlled unit is a versioned contribution to a market lifecycle—not an unrestricted publishing account.**

11.2 User-Generated Markets

A user-generated market is a market whose proposal or meaningful design contribution originates outside a centralized editorial queue and enters a documented review and lifecycle process. “User-

generated” describes the source of initiative; it does not determine the trading mechanism, resolution authority, custody model, regulatory treatment, or publication threshold. A market can be community-originated while remaining subject to platform and partner controls.

The central design problem is progressive commitment. Early ideas should be inexpensive to express and refine. Publication should require stronger evidence because other users may rely on the question and its terms. Promotion, liquidity support, economic eligibility, and resolution participation create still higher externalities and should require distinct decisions. Treating these stages as one “create” button would obscure both creator rights and platform responsibility.

11.2.1 Proposal-to-Publication Lifecycle

The proposed lifecycle contains seven distinguishable states: idea, draft, submitted, under review, revision requested, qualified for publication, and published. Active markets can later become limited, suspended, closed, resolved, disputed, corrected, or archived. Each transition should record who initiated it, the governing policy version, the evidence considered, the reason, the effective time, and any action available to the creator. A state model prevents a submission from being mistaken for acceptance and a published market from being mistaken for a permanent entitlement.

Review intensity should be risk-sensitive. A low-impact educational or community question may require a different path from a market involving sensitive individuals, private information, legal restrictions, ambiguous rights, or a resolution source controlled by the proposer. The principle is not that every market must pass an identical checklist; it is that the basis for a lighter or stronger process must be explicit and reviewable. Automated support may detect duplicates, missing fields, conflicting dates, or unavailable sources, but consequential decisions remain attributable to the process that authorizes them.

Table 11.3. Proposed user-generated market lifecycle and evidence

STATE	CREATOR ACTION	PLATFORM / REVIEW ACTION	REQUIRED RECORD	NOT YET IMPLIED
Idea / draft	Describe the uncertainty, audience, terms and initial sources.	Provide templates, validation prompts and related-market discovery.	Private version, owner or collaborators, sources and edit history.	Submission, publication, reward or public visibility.
Submitted	Attest to completeness, rights and conflicts; request review.	Freeze the submitted version and acknowledge scope.	Submission time, policy version and attestations.	Approval, queue position, completion time or payment.
Review / revise	Answer questions, supply evidence and accept or contest changes.	Assess quality, duplication, policy, rights and risk; issue reasons.	Review trail, comments, evidence and revision comparison.	That automated or human review guarantees correctness.
Qualified / publish	Confirm the approved version and stewardship obligations.	Assign identity, version, labels, attribution and effective terms.	Publication decision, contract or market identifier and visible source terms.	Liquidity, demand, promotion, trading access or compensation.
Active stewardship	Monitor sources, disclose changes and respond to feedback.	Observe integrity, status, corrections, limits and incidents.	Notices, source updates, moderation and incident states.	Creator control of trading, resolution or user funds.
Close / resolve / dispute	Submit relevant evidence and disclose conflicts.	Apply the designated close, resolution and dispute process.	Outcome evidence, decision authority, timestamps and exceptions.	That the creator determines the result or receives a reward.
Post-market review	Review quality and contribution evidence; appeal where permitted.	Finalize attribution, incidents, eligibility and archive state.	Quality report, contribution record and decision reason.	Guaranteed revenue share, POLX distribution or future approval.

Source: POLIX editorial synthesis. States and controls are proposed design requirements, not evidence of a deployed workflow or a commitment to review timing.

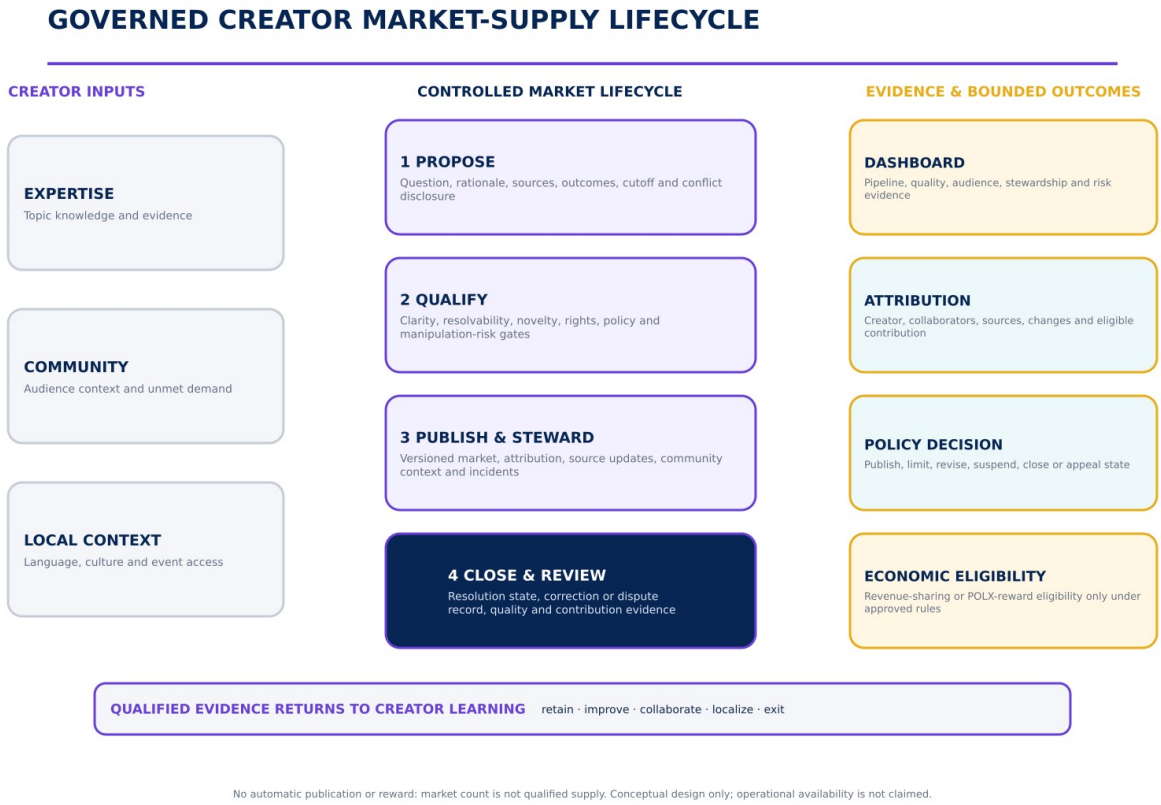

Figure 11.1. Governed Creator Market-Supply Lifecycle. Creator inputs become qualified supply only through versioned proposal, quality and policy gates, stewardship, and evidence. Dashboard and economic outcomes remain bounded by approved rules. Source: POLIX editorial synthesis.

11.2.2 Rights, Responsibilities, and Quality Gates

A creator charter should make at least four categories of rights legible: authorship and attribution; procedural notice and reasons; access to the evidence used to evaluate the contribution, subject to privacy and security limits; and correction or appeal channels appropriate to the state. These are governance rights, not ownership of user activity or a guarantee that the market remains listed. Collaboration rules should distinguish original contribution, accepted improvement, localization, curation, and operational stewardship so that attribution reflects actual work.

Responsibilities should include truthful identity or accountability appropriate to the role; source and rights disclosure; conflict disclosure; preservation of market meaning; timely notice of known material changes; non-manipulative promotion; respect for participant privacy; and cooperation with correction, suspension, close, or dispute processes. A creator should not be able to alter an active contract, resolve a market, remove criticism, or claim exclusive control merely because the initial idea was accepted.

Quality gates should be separable and reason-coded. A market may fail the formulation gate but pass policy review; it may be clearly written yet duplicate an existing market; or it may be novel and relevant but lack a reliable resolution path. Separable decisions allow targeted revision and better measurement. They also reduce the temptation to use a single opaque score that conceals why a proposal was limited or rejected. Chapter 12 specifies the underlying question and curation rules in greater depth.

Table 11.4. Creator charter and quality-gate boundaries

AREA	CREATOR EXPECTATION	CREATOR DUTY	PLATFORM DUTY	CONTROLLED EXCEPTION
Authorship and attribution	Accepted contribution is linked to the relevant market version.	Disclose collaborators, reused material and competing claims.	Maintain provenance and resolve attribution disputes under policy.	Credit may be corrected, shared, withheld, or removed for invalid contribution.

AREA	CREATOR EXPECTATION	CREATOR DUTY	PLATFORM DUTY	CONTROLLED EXCEPTION
Notice and reasons	Material review or status decisions provide an interpretable reason.	Respond with relevant evidence rather than repeated or abusive submission.	Use reason codes, policy versions and effective times.	Security, privacy or legal constraints may limit disclosed detail.
Revision and correction	A draft can be improved; a published market has a controlled correction path.	Preserve meaning and disclose material changes promptly.	Version terms, notify affected users and separate clarification from amendment.	Emergency suspension may precede full review.
Appeal and review	Eligible decisions can be contested through a defined channel.	State the disputed fact, policy or attribution basis.	Separate initial and review records where appropriate.	Not every editorial preference or risk limit requires the same appeal scope.
Economic eligibility	Contribution can be evaluated under the policy effective for the program.	Avoid self-dealing, duplicate claims and manufactured activity.	Disclose eligibility basis, evidence period and decision state.	Eligibility may be denied, adjusted or invalidated under disclosed rules.

Source: POLIX editorial synthesis. The charter is a proposed governance standard and does not establish current legal rights, compensation, employment, ownership, or appeal availability.

USER-GENERATED-MARKET PRINCIPLE **Open proposal and controlled publication are compatible. The system can lower the cost of expressing a market idea while increasing the evidence required before that idea receives public status, promotion, liquidity support, economic eligibility, or resolution influence.**

11.3 Creator Dashboard

The Creator Dashboard is conceived as an operating and accountability interface rather than a popularity leaderboard. Its primary function is to help a creator understand the state of proposals and markets, the evidence behind quality decisions, the composition of audience and activity, outstanding stewardship duties, incident or correction states, and any policy-defined contribution or economic-eligibility record. A dashboard that shows only views, volume, and rewards would encourage optimization for visible activity while hiding quality and risk.

The interface should distinguish raw events from qualified metrics and decisions. A page view is not a participant; a participant is not necessarily a trader; submitted orders are not fills; gross activity is not unique or non-manipulative activity; and a calculated contribution is not an approved distribution. Data freshness, scope, exclusions, and revision state should accompany consequential metrics. Creator-facing data should remain subject to privacy, security, and aggregation limits.

11.3.1 Measurement and Evidence

A complete dashboard can be organized around five panels. The pipeline panel shows proposal and review states. The supply-quality panel shows differentiation, correction, resolution readiness, and incident evidence. The audience panel shows qualified discovery and repeat engagement without exposing unnecessary personal data. The market-state panel shows applicable liquidity or trading observations while preserving venue and contract context. The contribution panel shows attribution and eligibility states under the relevant policy, including whether a value is preliminary, under review, approved, adjusted, invalidated, or distributed.

Every positive metric should have a countermetric. Approval count should be paired with rejection, revision, duplicate, and abandonment rates. Reach should be paired with low-quality traffic and complaint signals. Activity should be paired with concentration, self-related or suspicious patterns, and downstream disputes. Revenue or reward eligibility should be paired with policy version, evidence period, deductions or exclusions, and final decision state. This paired design reduces metric gaming and supports creator learning.

Table 11.5. Creator Dashboard metric families and countermetrics

PANEL	PRIMARY QUESTIONS	ILLUSTRATIVE METRICS	COUNTERMETRICS	DECISION USE
Pipeline	Where is each contribution and what action is required?	Drafts, submissions, review states, revision requests and age by state.	Repeated submission, inactivity, unresolved evidence and withdrawn drafts.	Prioritize revision, collaboration, withdrawal or appeal.
Supply quality	Does the market add reliable and differentiated coverage?	Novelty relation, completeness, source readiness, correction and resolution state.	Duplicate cluster, ambiguity, policy incident, dispute and abandonment.	Improve design, limit promotion, suspend, correct or archive.
Audience and community	Who discovers and returns to the market?	Qualified impressions, unique eligible users, repeat engagement and feedback.	Bounce, complaint, concentration, incentive-only traffic and moderation events.	Improve context, audience fit and community stewardship.
Market state	How is the market functioning under current conditions?	Applicable spread, depth, volume, participation and status observations.	Staleness, ineligible activity, failed action, concentration and unresolved settlement.	Contextualize performance; not promise liquidity or returns.
Contribution and eligibility	What accepted work is attributed and what policy state applies?	Creator and collaborator records, eligible contribution units and decision status.	Duplicate claim, self-dealing, adjustment, invalidation and unresolved appeal.	Explain provisional, approved or final outcomes without implying payment.
Risk and stewardship	What requires attention now?	Source change, incident, correction request, dispute, policy update and response time.	Overdue response, repeated issue, severity and recurrence.	Escalate, disclose, remediate, transfer stewardship or close.

Source: POLIX editorial synthesis. Metrics are illustrative design candidates; no dashboard, threshold, service level, dataset, or performance result is claimed as live.

11.3.2 Alerts, Appeals, and Accountability

Alerts should be tied to actionable states rather than generic urgency. Examples include a source becoming unavailable, a deadline conflict, a material event change, a correction request, a related market creating possible duplication, an unusual activity pattern, a status limitation, or an attribution dispute. The alert should state what changed, which market version is affected, whether publication or trading status changed, the required or available action, and the evidence deadline if one exists. The system should not imply a response time that has not been formally adopted.

Appeal and accountability records should distinguish disagreement with editorial judgment from a factual, procedural, policy, or attribution error. The dashboard can expose the relevant decision, reason, policy version, evidence submitted, review state, and outcome. It should also retain a trace of creator actions that affect users: promotional statements, source updates, accepted revisions, incident responses, and conflict disclosures. Accountability is reciprocal—the platform's reasons and changes should be as traceable as the creator's submissions.

Access to metrics must be bounded. A creator may need aggregate audience patterns but not individual identities; a collaborator may need an attribution record but not economic information outside the shared contribution; a reviewer may need the submitted evidence but not unrelated account history. Role- and purpose-limited access reduces the risk that creator tooling becomes a channel for targeting, manipulation, or unauthorized disclosure.

> DASHBOARD PRINCIPLE **The Creator Dashboard should make proposal state, market quality, stewardship duty, contribution evidence, and policy decisions legible. It should never collapse submission into approval, engagement into value, calculated eligibility into payment, or creator attribution into control of participants, funds, or outcomes.**

11.4 Revenue Sharing and POLX Rewards

Official POLIX materials contemplate two creator-facing economic mechanisms: revenue sharing and POLX rewards. They should remain conceptually and operationally distinct. Revenue sharing would represent policy-defined creator participation in eligible revenue associated with an accepted market or contribution, if such a program is adopted. POLX rewards would represent a policy-defined ecosystem

incentive funded and authorized under the token economy. Neither mechanism exists merely because a creator submitted a market, attracted attention, or observed trading activity.

The official POLIX Token Economy assigns a Platform Economy allocation intended to support market creation, user participation, creator engagement, ecosystem contribution, and continuing platform utilization. It also states that specific allocation and distribution may evolve with platform development, activity, market conditions, and strategy, and that long-run incentives are intended to transition toward revenue-funded ecosystem incentives. Chapter 11 therefore defines contribution and control principles without inventing a reward rate, score weight, eligibility threshold, distribution schedule, vesting term, revenue percentage, or payment promise.

11.4.1 Contribution Attribution

Attribution should begin with an auditable contribution graph. The graph links a market version to originators, accepted editors, localizers, evidence contributors, community stewards, and other approved roles. It should also link reused templates, related markets, external sources, and platform-generated transformations. W3C PROV provides a general model for associating entities, activities, and agents; POLIX can use the underlying principle without adopting any undisclosed technical implementation. The critical requirement is that a later claim can be traced to the contribution and decision that created it.

Contribution is not identical to correlation. A creator may have published a market before activity increased, but the increase may result from a public event, referral campaign, liquidity partner, placement decision, or another creator's localization. Likewise, a market may generate high gross activity while producing disputes, manipulation risk, or support cost. Attribution should therefore separate direct authorship, shared influence, platform distribution, referral input, liquidity input, and external-event effects to the extent evidence permits. Uncertainty should be represented rather than hidden behind false precision.

A conceptual eligible-contribution measure can be expressed as positive verified contribution minus quality, integrity, duplication, and cost adjustments for a declared evidence period. This is not a disclosed POLIX formula and assigns no weight. Its purpose is to show why gross volume, views, or market count cannot stand alone. A sustainable system recognizes market quality and durable participation while discounting activity that is duplicated, self-related, incentive-only, reversed, disputed, or generated through policy violations.

Table 11.6. Contribution units and attribution risks

CONTRIBUTION UNIT	POSITIVE EVIDENCE	ATTRIBUTION CHALLENGE	QUALITY ADJUSTMENT	DOUBLE-COUNT CONTROL
Accepted market origin	Novel, qualified proposal linked to the published version.	Idea overlap, prior public source or collaborative development.	Clarity, resolvability, policy and later correction record.	Canonical event and contribution graph.
Accepted improvement	Versioned change that materially improves terms or evidence.	Cosmetic edits or changes generated from existing templates.	Reviewer acceptance and effect on market quality.	Change-level rather than market-level credit.
Localization	Meaning-preserving adaptation with validated local context or sources.	Translation reuse, substantive divergence or duplicate local markets.	Semantic review, local resolution readiness and incident record.	Linked source/target versions and locale identity.
Community stewardship	Documented context, feedback, updates and incident response.	Attention caused by external events or platform placement.	Complaint, manipulation, response and retention evidence.	Separate creator, referral and distribution channels.
Trading activation	Qualified unique activity plausibly connected to the market contribution.	Circular, self-related, incentivized, ineligible or venue-derived activity.	Concentration, reversal, dispute, cost and integrity filters.	Unique event IDs, related-party controls and channel attribution.
Lifecycle completion	Timely source monitoring, close support and complete evidence.	Resolution authority may sit with another institution.	Correction, dispute and abandonment outcome.	Separate stewardship from final resolution decision.

Source: POLIX editorial synthesis. Contribution units are analytical candidates and do not establish a live score, contractual entitlement, payment amount, or POLX distribution.

11.4.2 Sustainable Reward Principles

Economic incentives should reward the behavior the ecosystem actually needs. Multitask incentive theory warns that strong rewards on easily measured outputs can draw effort away from less observable but important work (Holmstrom and Milgrom, 1991). Experimental and field research also shows that monetary incentives can interact with social or image motivations in non-linear ways (Ariely, Bracha, and Meier, 2009). For POLIX, a reward based only on gross trading activity could favor sensational topics, duplicate markets, short-term promotion, or self-generated flow while under-rewarding research, precise drafting, correction, and stewardship.

A sustainable program should therefore be contribution-based, quality-adjusted, attributable, and time-bounded, and should remain subject to validation, adjustment, or invalidation before final distribution under disclosed rules. Any post-distribution recovery would require a separately adopted and disclosed policy. It should distinguish provisional calculation from approved eligibility and final distribution. It should avoid promising future token value and should make the funding authority and allocation boundary visible. Where a revenue-funded mechanism is intended, the program should define what constitutes eligible net revenue and how direct costs, refunds, reversals, disputes, partner obligations, and prohibited activity affect the calculation before any percentage is announced.

Creator reputation and economic eligibility should also remain separate. A strong history may reduce review friction or support additional roles, but it should not exempt a new market from necessary controls. Conversely, a market can be approved without generating economic eligibility. Separating reputation, publication, promotion, liquidity support, revenue sharing, and POLX rewards prevents one success metric from becoming an all-purpose privilege.

Table 11.7. Sustainable creator-incentive controls

CONTROL	DESIGN PURPOSE	MINIMUM DISCLOSURE	RISK ADDRESSED	STATUS BOUNDARY
Policy authority	Connect eligibility to an approved program and funding source.	Program owner, scope, effective version and allocation boundary.	Unauthorized promise or expenditure.	Program description is not an individual entitlement.
Contribution evidence	Link the claim to accepted work and a declared period.	Contribution unit, market version, evidence window and source data.	False attribution, retroactive rules and unverifiable claims.	Calculated evidence is not approved eligibility.
Quality adjustment	Prevent volume or reach from overpowering integrity and stewardship.	Included quality, dispute, duplication, cost and risk factors.	Goodhart effects, sensationalism, abandonment and low-quality churn.	No weights or thresholds are asserted in this chapter.
Related-party and uniqueness control	Remove self-dealing, circular activity and duplicate channels.	Identity or relationship basis, event uniqueness and exclusion reason.	Wash activity, collusion and double counting.	A flagged state is not necessarily a final finding.
Decision and review state	Separate estimate, review, approval, adjustment, invalidation and distribution.	Reason, authority, time, policy and appeal state where applicable.	Premature expectation and opaque change.	Approval does not guarantee token price, liquidity or future eligibility.
Reconciliation and reporting	Ensure aggregate allocations match authorized distributions and exceptions.	Program totals, outstanding states, corrections and audit trail.	Over-allocation, duplicate payment and unresolved liability.	Reporting scope depends on privacy, security and policy.

Source: POLIX editorial synthesis. The controls define conditions for a future program and do not disclose current rates, schedules, allocations to individuals, payment rails, vesting, or tax treatment.

ECONOMIC-DESIGN PRINCIPLE **Revenue sharing and POLX rewards should recognize verified, quality-adjusted contribution under separate approved policies. Market count, views, gross volume, creator reputation, and token allocation are not interchangeable and must not be presented as guaranteed income or value.**

11.5 Creator Incentive Flywheel

The intended flywheel is: more qualified creators produce more relevant markets; better market coverage attracts users and communities; participation generates information, trading, feedback, and

service demand; verified contribution can support creator learning, reputation, revenue-sharing eligibility, or POLX-reward eligibility; and successful creators may return, collaborate, or localize further markets. The loop is economically meaningful only when each arrow is measured after quality and integrity controls.

The flywheel can stall at several points. Creators may submit but not complete revisions. Markets may publish without differentiated demand. Audience may arrive without durable participation. Activity may not produce sufficient liquidity or revenue. Contribution may be difficult to attribute, or reward processing may cost more than the value created. A professional creator economy should expose these bottlenecks rather than interpret every increase in submissions as ecosystem growth.

11.5.1 Positive Feedback and Bottlenecks

Social and community effects can be part of contribution motivation. Zhang and Zhu (2011) find, in the context of Chinese Wikipedia, that a reduction in group size reduced contribution, consistent with contributors deriving social benefits from a larger community. This result is not a forecast of POLIX behavior, but it supports a broader design point: creator retention may depend on visible audience, peer recognition, collaboration, and useful feedback as well as economic incentives. The dashboard and governance process should therefore make legitimate impact legible without turning the system into a winner-take-all popularity contest.

Crowding also creates attention costs. Piezunka and Dahlander (2015) show that as suggestion volume increases, each suggestion becomes less likely to receive organizational attention. POLIX should not assume that a larger submission queue automatically increases innovation. Templates, duplicate detection, topic routing, collaborator matching, creator self-screening, triage, and transparent states can reduce review congestion. Quality-adjusted throughput—the capacity to convert useful proposals into well-governed markets—is more important than raw submission volume.

Table 11.8. Creator flywheel stages, evidence, and bottlenecks

STAGE	INTENDED EFFECT	MINIMUM EVIDENCE	BOTTLENECK	RESPONSE
Creator entry	Broaden expertise, language and community coverage.	Qualified unique creators and accepted role contributions.	Low-quality sign-up, identity abuse or concentrated recruitment.	Progressive rights, onboarding, provenance and cohort review.
Market proposal	Increase timely and differentiated market ideas.	Complete submissions, novelty relation and audience rationale.	Duplicate flood, weak sources or abandoned drafts.	Templates, related-market search, validation and collaboration.
Publication and discovery	Turn qualified ideas into findable market supply.	Approved versions, coverage and qualified discovery.	Review congestion, poor ranking or attention fragmentation.	Risk-based triage, labels, canonical grouping and curation.
Participation and market state	Generate useful engagement, information and trading activity.	Unique eligible participation, market-quality and retention evidence.	Thin activity, manipulation, ineligible traffic or liquidity gaps.	Integrity monitoring, partner context and bounded promotion.
Contribution recognition	Provide learning, attribution and policy-defined eligibility.	Contribution graph, quality adjustment and decision record.	False attribution, opaque rules or delayed disputes.	Reasoned status, review, reconciliation and correction.
Creator retention and reinvestment	Encourage repeat quality, collaboration and localization.	Return rate, quality trajectory and diversified contributions.	Subsidy dependence, burnout or winner concentration.	Non-economic recognition, tooling, collaboration and sustainable funding.

Source: POLIX editorial synthesis informed by open-contribution research. The flywheel is a causal hypothesis requiring measurement, not a reported growth result.

11.5.2 Gaming, Crowding, and Circuit Breakers

The same incentives that increase supply can increase adversarial supply. Creators may submit near-duplicate markets to capture attribution, choose sensational wording to maximize attention, split one contribution across accounts, coordinate referral and trading activity, copy localizations, conceal conflicts, delay negative updates, or optimize visible metrics while transferring moderation and dispute

cost to the platform. The threat is not limited to deliberate fraud; poorly specified incentives can make locally rational behavior harmful at ecosystem scale.

Controls should operate before and after publication. Pre-publication controls include identity or accountability appropriate to the role, duplicate and rights checks, source validation, conflict disclosure, and risk-based review. Active-market controls include unique-activity analysis, related-party and concentration signals, promotional conduct records, source-change alerts, and correction pathways. Post-market controls include contribution reconciliation, incident adjustment, duplicate-claim resolution, and policy-defined invalidation or recovery where legally and operationally appropriate. No specific enforcement or recovery mechanism is claimed as live.

Circuit breakers should be scoped. A suspicious activity pattern may pause reward eligibility without suppressing a valid market. An unavailable resolution source may limit or suspend the market without removing creator attribution. A compromised account may restrict creator actions while preserving public evidence. A repeated duplicate pattern may narrow submission rights without determining the merits of an unrelated existing market. Scoped responses reduce unnecessary collateral harm and make decisions easier to review.

Table 11.9. Creator-economy abuse patterns and scoped controls

PATTERN	DISTORTED METRIC	DETECTION EVIDENCE	SCOPED CONTROL	FALSE-POSITIVE RISK
Duplicate or novelty farming	Market and creator count.	Semantic cluster, timing, source overlap and accepted differences.	Merge, link, revise, limit submission or adjust attribution.	Legitimate horizon, locale or contract variation may look similar.
Self-related or circular activity	Volume, activation and contribution.	Relationship, timing, funding path, reversal and concentration patterns.	Exclude from eligibility, review the program claim or limit action.	Shared households, communities or liquidity sources may correlate.
Engagement bait	Views, clicks and short-term participation.	Wording, bounce, complaint, correction and downstream quality.	Revise title/context, limit promotion or review publication.	Urgent legitimate events can generate unusual attention.
Localization copying	Language and geographic coverage.	Text similarity, semantic mapping, local evidence and contribution history.	Share attribution, consolidate or require substantive validation.	Accurate translation necessarily preserves much source text.
Conflict concealment	Trust, quality and reward eligibility.	Role, source control, related activity and later disclosure.	Require disclosure, separate authority, review eligibility or suspend role.	A topic expert may have legitimate professional proximity.
Metric optimization / abandonment	Early reach, volume or approval.	Weak stewardship, overdue alerts, unresolved corrections and repeat pattern.	Transfer stewardship, reduce privileges, adjust eligibility or archive.	Temporary absence or external disruption may be remediable.

Source: POLIX editorial synthesis. Signals require contextual review; they are not automatic findings of misconduct or evidence of a deployed monitoring system.

FLYWHEEL PRINCIPLE **A creator flywheel should be evaluated as a chain of quality-adjusted causal claims. If submissions rise but qualified coverage, retention, market integrity, attribution quality, or sustainable funding does not improve, the flywheel has not been demonstrated.**

11.6 Global and Local Market Diversity

Creator-led supply can expand prediction markets beyond globally visible politics, sports, or macroeconomic events into local governance, regional industries, cultural events, specialized technologies, and community-specific questions. Local creators may recognize relevant uncertainties earlier, understand the meaning of local institutions, access primary-language sources, and know which distinctions matter to participants. This information advantage is a central reason to decentralize proposal generation.

Diversity is not achieved by translating a title or multiplying country labels. A local market must be understandable, resolvable, discoverable, and governed in its own context. Dates, offices, competitions, organizations, geographic boundaries, evidence sources, privacy expectations, rights, and prohibited

categories can differ across locations. The system should preserve those differences while enabling related-market discovery and comparative analysis where the underlying claims are genuinely comparable.

11.6.1 Localization as System Validation

Localization should be treated as a versioned transformation. The record should identify the source market or template, translator or localizer, language, substantive adaptations, local evidence sources, effective time, and semantic relationship between versions. A translated market can be equivalent, comparable, related, or incompatible with the source depending on whether its event, outcomes, cutoff, resolution, or institutional context changed. The same compatibility ladder introduced in Chapter 10 can support discovery without erasing local meaning.

A local source should be evaluated for authority, stability, public accessibility, language, time zone, correction practices, and conflict risk. Where users or reviewers cannot readily inspect the source, the interface may need a translation, explanation, or secondary verification path without falsely presenting that aid as the authoritative record. A creator's local knowledge is valuable evidence, but it should not make the creator the sole uncontrolled source or final resolver.

Polycentric-governance research emphasizes that complex systems can be governed through multiple centers of authority operating under shared rules and mutual monitoring rather than through one universal center (Ostrom, 2010). Applied cautiously, this supports a POLIX model in which local creators and communities contribute context and evidence while shared platform standards preserve attribution, quality gates, status, and accountability. It does not establish a specific legal or organizational structure for POLIX.

11.6.2 Diversity, Coverage, and Fragmentation Controls

Diversity measurement should examine distribution, not only totals. Topic coverage, language coverage, geographic scope, creator concentration, collaborator diversity, local-source quality, qualified participation, correction, dispute, and resolution outcomes should be analyzed together. One dominant creator producing many near-identical markets does not constitute a diverse creator economy. Nor does a long tail of abandoned markets establish useful inclusion.

Fragmentation controls should preserve legitimate difference while reducing redundant competition for attention and liquidity. Canonical event clusters can group related markets; equivalence records can link language versions; explicit labels can identify distinct cutoff, geography, or resolution rules; discovery can prioritize qualified local relevance; and curation can consolidate unsupported duplicates. Global comparison should always allow users to return to the original terms and source context.

Table 11.10. Global-local diversity dimensions and controls

DIMENSION	VALUE CREATED	VALIDATION NEED	FRAGMENTATION RISK	GOVERNANCE RESPONSE
Language	Primary-language access, interpretation and community participation.	Meaning preservation, terminology, source language and review capability.	Literal translations or multiple versions with hidden differences.	Versioned localization, semantic relation and original-term access.
Geography and institution	Coverage of local offices, organizations, industries and events.	Boundary, authority, time zone, identity and local-source credibility.	Overlapping jurisdictions or ambiguous institutional names.	Canonical identifiers, scope labels and local evidence review.
Topic and expertise	Specialized markets that centralized editors may miss.	Domain evidence, rights, conflicts and audience rationale.	Niche spam, unverifiable claims or excessive micro-segmentation.	Expert collaboration, risk-based review and demand evidence.
Creator and community distribution	Multiple perspectives and resilient supply.	Unique accountable contributors, accepted work and participation quality.	Winner concentration, coordinated accounts or subsidy-only entry.	Concentration reporting, progressive rights and diverse discovery.
Resolution infrastructure	Use of authoritative local facts and processes.	Source stability, public access, corrections, fallback and dispute path.	Creator-controlled source or inaccessible local evidence.	Source hierarchy, independent review and explicit uncertainty.

DIMENSION	VALUE CREATED	VALIDATION NEED	FRAGMENTATION RISK	GOVERNANCE RESPONSE
Cross-market comparability	Global discovery and analysis across related events.	Contract mapping, time, outcomes, payout, resolution and exceptions.	False equivalence and apparent arbitrage between different claims.	Compatibility class, difference disclosure and source preservation.

Source: POLIX editorial synthesis. Diversity controls are proposed principles and do not confirm geographic access, language support, local reviewers, source coverage, or jurisdictional availability.

DIVERSITY PRINCIPLE **Global scale should emerge from many well-governed local contexts, not from stripping those contexts away. POLIX should count a local market as useful diversity only when meaning, sources, attribution, access conditions, and lifecycle responsibility remain legible.**

Chapter Synthesis

1. POLIX Creator Economy is defined as the ecosystem's market-supply engine: a governed method for converting distributed expertise, community knowledge, and local context into attributable prediction markets.
2. Official POLIX materials disclose an intended user-generated market model, Creator Dashboard, revenue sharing, POLX rewards, and creator flywheel; they do not prove deployment, open access, income, eligibility, or a fixed economic program.
3. The correct output measure is qualified market supply, not proposal, publication, view, creator, or market count.
4. Qualified supply combines relevance, decidability, resolution readiness, integrity and policy compatibility, differentiation, and lifecycle stewardship without implying one opaque score.
5. Creator is a contribution-linked role. Originators, domain contributors, localizers, community stewards, collaborators, and resolution contributors may have different rights, responsibilities, evidence, and authority.
6. User-generated describes the source of initiative, not permissionless publication, creator control of active terms, resolution authority, custody, trading access, or legal status.
7. Proposal, review, publication, active stewardship, close, resolution, dispute, and post-market review require separate states and evidence.
8. A creator charter should make attribution, notice, reasons, revision, correction, and appropriate appeal legible while preserving the platform's ability to limit, suspend, correct, close, or archive under disclosed rules.
9. The Creator Dashboard should operate as an evidence and accountability interface, pairing pipeline, quality, audience, market-state, contribution, and risk metrics with countermetrics and decision states.
10. Raw events, qualified metrics, contribution calculations, approved eligibility, and final distributions are different objects and should never share one ambiguous status.
11. Revenue sharing and POLX rewards are distinct contemplated mechanisms. Each requires separate policy authority, funding boundary, attribution evidence, quality adjustment, review, and reconciliation.
12. Contribution should be linked to market versions and collaborator roles while discounting duplication, self-related or circular activity, policy violations, disputes, reversals, and support costs.

13. The creator flywheel is a quality-adjusted causal hypothesis. Submission growth alone does not demonstrate creator retention, market quality, liquidity, sustainable revenue, or ecosystem value.
14. Gaming and crowding require scoped controls before and after publication so that a reward concern, account concern, market concern, or source concern does not automatically contaminate unrelated rights and records.
15. Global-local diversity requires versioned localization, authoritative local sources, visible semantic differences, distributed creators, and fragmentation controls—not title translation or country count alone.
16. Creator-led scale is credible only when the system expands useful coverage faster than it expands ambiguity, duplication, manipulation, review cost, concentration, and abandoned markets.

TRANSITION TO CHAPTER 12 **Chapter 12 develops Market Creation and Curation Architecture. Chapter 11 established who may contribute, how roles and evidence should be recorded, and why publication and rewards require bounded decisions. The next chapter specifies how a proposed question becomes a well-formed market: event and outcome design, resolution sources, duplicate and dependency analysis, review tiers, curation states, amendments, close, and archival integrity.**

CHAPTER 11 / REFERENCES

References and Source Notes

The references below support the bounded open-contribution, incentive, governance, provenance, and creator-economy propositions used in Chapter 11. Findings from scientific crowds, online public-good production, organizational suggestion systems, incentive research, and polycentric governance are used as analytical principles and are not treated as direct forecasts of POLIX participation or performance. POLIX materials are treated as statements of intended product and token-economy direction, not independent evidence of deployment, open market creation, creator identity, dashboard availability, market quality, activity, revenue, reward eligibility, token value, payment, legal rights, security, or geographic availability. No unconfirmed creator count, market count, review time, approval rate, revenue percentage, POLX rate, score, threshold, distribution schedule, vesting rule, fee source, launch date, contract address, jurisdiction, or measured outcome is introduced.

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CHAPTER 12

Market Creation and Curation

A governed architecture for converting an uncertain proposition into a clear, reviewable, and lifecycle-consistent prediction market.

Chapter Thesis

POLIX Market Creation and Curation Architecture is conceived as the system that converts creator initiative into qualified market objects. A prediction market is not merely a title, page, or topic. It is a versioned specification that connects a defined event, a complete outcome set, explicit temporal boundaries, resolution-ready evidence, exceptional-case treatment, and governed lifecycle states.

Market quality is therefore established before trading begins. If a question is ambiguous, its outcomes overlap, its cutoff is unclear, or its evidence source can be manipulated, subsequent trading cannot repair the underlying contract. Prices may still move and activity may still grow, but those signals will refer to a claim that participants do not necessarily interpret in the same way. Conversely, a well-formed market gives participants a shared informational object: they can disagree about probability while agreeing on what occurrence is being priced.

Chapter 11 established how distributed creators may contribute proposals, evidence, localization, and stewardship under bounded roles. Chapter 12 addresses the next institutional problem: how those contributions become publication-ready markets without allowing creator status, popularity, expected volume, or incentive eligibility to substitute for clarity and integrity. The chapter defines the market object, question anatomy, outcome design, quality gates, curation decisions, integrity review, amendment principles, and community-feedback boundaries required for that conversion.

The chapter does not define the trading engine, price formation, position management, or final settlement procedure. Those subjects are developed in Chapters 13 and 14. Resolution sources are considered here only to determine whether a proposed market is sufficiently resolvable to be created. Final verification, oracle design, disputes, and settlement authority remain separate governance functions.

DESIGN BOUNDARY **Chapter 12 presents a proposed market-creation and curation architecture. It does not confirm permissionless publication, automated approval, a deployed review system, a fixed quality score, a review deadline, an approval rate, a specific oracle, a market-creation fee, a liquidity commitment, creator compensation, legal availability, supported categories, or launch timing. Any operating implementation requires disclosed policies, technical controls, evidence, and jurisdiction-appropriate review.**

12.1 Market Creation Principles

Market creation begins with a useful uncertainty, but uncertainty alone does not constitute a market. The proposition must be transformed into a contract whose meaning remains stable across discovery, participation, trading, close, resolution, dispute, and archive.

This transformation should be guided by six principles. First, the market must have informational purpose. It should address an uncertainty that an identifiable audience may reasonably wish to evaluate. Popularity can demonstrate attention, but attention alone does not establish decision utility. Second, the market must be atomic enough to interpret. Participants should not be required to guess how several independent conditions interact unless those dependencies are deliberately represented in the contract.

Third, the market must be ex ante legible. A reasonable participant should be able to determine, before acting, what event is being evaluated, when the evaluation period ends, what outcomes are possible, and what evidence is expected to govern the result. Fourth, material terms must be versioned. Once participants may rely on a published specification, changes cannot be treated as ordinary text editing. Amendments require classification, attribution, notice, and lifecycle control.

Fifth, publication must remain distinct from proposal. A creator may originate a valuable question without obtaining unilateral authority to publish, promote, amend, close, or resolve the resulting market. Sixth, review intensity should be proportional to risk. A straightforward public event with stable evidence may require less intervention than a market involving sensitive individuals, subjective terminology, thin underlying markets, creator-controlled evidence, or unclear legal and policy boundaries.

12.1.1 Market as a Governed Contract Object

For analytical purposes, a proposed market can be represented as M = (E, O, T, R, X, V, S, G), where E represents event identity and scope; O the permitted outcome set; T the opening, cutoff, observation, and relevant time boundaries; R the anticipated resolution sources and their hierarchy; X the exceptions, cancellations, postponements, and unavailable-evidence treatment; V the version and provenance records; S the lifecycle state; and G the decision rights and governance controls attached to that state.

This notation is not a disclosed POLIX data schema. It is a conceptual model illustrating why a prediction market cannot be reduced to its question title. Two markets with similar titles may represent different contracts if their cutoff dates, geographic scope, source hierarchy, exceptions, or outcome definitions differ.

Table 12.1. Canonical dimensions of a market object

DIMENSION	CORE QUESTION	REQUIRED CLARITY	TYPICAL FAILURE
Event identity	What real-world occurrence is being evaluated?	Named subject, predicate, scope and relevant venue or context.	Similar entities, undefined action or disputed event identity.
Outcome set	What distinguishable results can occur?	Complete, non-overlapping definitions and exceptional-state treatment.	Overlapping outcomes, omitted possibility or hidden catch-all.
Temporal boundary	When must the event occur or be observed?	Date, time, time zone, inclusivity and observation window.	Unspecified time zone, deadline ambiguity or retroactive interpretation.
Resolution readiness	What evidence is expected to determine the result?	Source class, authority, availability and fallback concept.	Creator-controlled source, unstable page or circular evidence.
Exception treatment	What if the event is delayed, cancelled or unobservable?	Predefined treatment or governed escalation path.	Improvised settlement after positions have been taken.

DIMENSION	CORE QUESTION	REQUIRED CLARITY	TYPICAL FAILURE
Version and provenance	Which terms did participants rely upon?	Timestamped version, authorship, changes, reason and effective state.	Silent edits or inability to reconstruct the operative contract.
Lifecycle state	What may currently happen to the market?	Draft, review, published, limited, closed, disputed or archived status.	Submission confused with approval or close confused with resolution.
Governance boundary	Who may propose, review, publish, amend or resolve?	Distinct authorities and attributable decisions.	Creator ownership interpreted as unilateral control.

Source: POLIX editorial synthesis. The dimensions are proposed design concepts and do not confirm a deployed data model or workflow.

A well-formed market should minimize invisible terms. Material conditions should not depend on unpublished customs, private understandings, promotional statements, or assumptions known only to a creator or reviewer. Supporting explanations can add context, but they should not contradict or silently expand the operative specification.

12.1.2 Atomicity, Relevance, and Market Dependencies

An atomic market evaluates one economically interpretable claim. Atomicity does not require every contract to be short. It requires the relationship among its conditions to be explicit. For example, a question asking whether a company will release a product and achieve a user threshold combines at least two events. A No result would not reveal whether the product was not released, was released late, or failed to reach the threshold. Such a contract may be valid if the conjunction itself is the intended claim, but its informational meaning differs from two separate markets or a conditional structure.

Compound questions should therefore be justified by purpose rather than convenience. The design process should ask whether splitting a proposition would improve interpretation, whether splitting would create excessive fragmentation, and whether dependencies among resulting markets can be represented clearly.

Markets may also have semantic relationships with existing markets. They may be equivalent, related, subset or superset, conditional, mutually exclusive, jointly exhaustive, or incompatible. These relationships should support discovery and curation, but they should not be inferred solely from title similarity. Two contracts may use different language but be economically equivalent, while two nearly identical titles may refer to different cutoff times or resolution authorities.

> MARKET-OBJECT PRINCIPLE **POLIX should treat a market as a versioned and governed contract object. A title creates discoverability; the complete specification creates the claim that participants evaluate.**

12.2 Question Design and Outcome Definitions

Question design establishes the semantic boundary of the market. Participants may hold different information and beliefs, but they must be able to apply those differences to the same proposition.

Prediction-market prices can be informative without being literal or universally unbiased measures of average belief. Their interpretation depends on contract payoff, trader beliefs, risk preferences, information, participation, and market structure. Manski showed that heterogeneous beliefs and preferences complicate a direct equivalence between market price and mean subjective probability. This reinforces the need to separate uncertainty about the event from uncertainty about the contract itself.

12.2.1 Anatomy of a Resolvable Question

A prediction-market question should contain or reference sufficient information to determine the subject; predicate; geographic, institutional, product, venue, or category scope; temporal condition; outcome structure; resolution basis; foreseeable exceptions; close logic; and exact version authorized for publication.

A concise title should serve discovery, not carry every contractual term. The title, summary, detailed rules, outcome labels, dates, and source notes should operate as one consistent specification. If the title suggests one meaning while the detailed rules define another, the market invites asymmetric interpretation.

Questions should avoid subjective predicates such as successful, major, official, significant, or widely adopted unless those terms are connected to observable criteria. When a term cannot be reduced to a single measure, the contract should identify the authority or procedure permitted to interpret it. Discretion should be visible rather than concealed behind apparently objective language.

Named entities should be sufficiently specific to survive rebranding, office changes, mergers, team relocations, product renaming, or similarly named organizations. Where practical, canonical identifiers or institutional descriptions can accompany public-facing names.

Table 12.2. Question-construction test

COMPONENT	DESIGN TEST	ACCEPTABLE EVIDENCE	FAILURE CONDITION
Subject	Can the subject be uniquely identified?	Official name, role, identifier or contextual definition.	Multiple plausible subjects.
Predicate	Is occurrence observable rather than merely arguable?	Published action, measurable status or defined decision.	Subjective characterization without an authority.
Scope	Are geographic and institutional boundaries visible?	Named body, venue, product class or contextual boundary.	Scope inferred from audience assumptions.
Time	Are date, time zone and inclusivity explicit?	Unambiguous timestamp or calendar rule.	Year-end or same-day wording without boundary treatment.
Outcomes	Can every permitted result map to one state?	Non-overlapping labels and exceptional-case rule.	Two outcomes can simultaneously apply.
Source	Is relevant evidence expected to remain available?	Authoritative publication, data feed or disclosed hierarchy.	Unstable, inaccessible or creator-controlled evidence.
Edge cases	Are foreseeable disruptions addressed?	Postponement, cancellation, correction and fallback language.	Resolution must be invented after trading.
Version	Can operative terms be reconstructed?	Approved version, effective time and change record.	Silent replacement of active terms.

Source: POLIX editorial synthesis. The table is a drafting standard, not a guarantee that any particular market will be approved or resolved without dispute.

12.2.2 Outcome Completeness and Mutual Exclusivity

An outcome set should aim for two properties. Mutual exclusivity means that the same observed state should not satisfy more than one outcome under the operative rules. Collective completeness means that every state permitted by the market scope can be assigned either to an outcome or to an explicitly governed exceptional state.

Binary Yes/No markets appear simple but can conceal incomplete definitions. Yes must identify the condition that must occur, while No should not become an undefined collection of all other possibilities unless that is deliberately intended. If the underlying event can be cancelled, postponed beyond the

horizon, replaced, partially completed, or rendered unobservable, the specification should explain whether those circumstances map to No, an exceptional state, or a separate decision process.

Multiple-choice markets introduce additional risks. Candidate or category lists may become incomplete, two named outcomes may merge, a participant may withdraw and later return, and an Other outcome may overlap with a named category. Ties may be possible even when not expected. The outcome set should therefore be tested against plausible states, not only the base-case narrative.

Outcome labels also determine what information the market can aggregate. A broad binary contract may produce a useful headline probability while hiding differences among several causal paths. More granular outcomes may reveal additional information but divide attention and liquidity. The design question is not whether more outcomes are always better; it is whether the selected outcome structure matches the uncertainty the market is intended to measure.

Research on dynamic information markets demonstrates that information aggregation depends partly on the structure of the securities being traded. Ostrovsky identifies conditions under which separable securities can aggregate dispersed information, while Galanis, Ioannou, and Kotronis show that ambiguity and imprecise beliefs can weaken those results. No outcome structure should therefore be assumed to aggregate all information under every environment.

12.2.3 Time, Thresholds, Sources, and Edge Cases

Temporal language should distinguish opening time, trading cutoff, event deadline, and observation or resolution time. These moments need not be identical. An event may occur before the deadline but be confirmed later. An official source may publish preliminary data and revise it. A competition may end before its governing body certifies the result. If the distinction is material, it should be visible in the contract.

Threshold contracts require units, data precision, comparison logic, and observation rules. Above differs from at or above. A daily closing price differs from an intraday trade. A single venue differs from a composite index. A nominal amount differs from an inflation-adjusted value. A value displayed momentarily may differ from a finalized data release.

The source named during market creation should be evaluated for institutional authority, public accessibility, expected persistence, publication cadence, correction policy, time-zone convention, susceptibility to temporary or strategic influence, relationship to the measured event, and availability of credible fallback evidence.

A URL alone is insufficient. Pages can move, content can be revised, APIs can fail, and organizations can publish conflicting figures. The contract should identify what property makes the source authoritative and how source changes will be handled. Chapter 14 will define the broader resolution and oracle framework.

Foreseeable edge cases should be addressed before publication when they could change participant interpretation. However, no specification can enumerate every future state. The objective is not infinite drafting. It is to eliminate material ambiguity and define a governed process for residual uncertainty. A useful counterfactual test asks whether two independent reviewers observing the same permitted evidence could ordinarily apply the published terms and reach the same outcome.

> RESOLVABILITY PRINCIPLE **A market is resolution-ready when its terms convert future evidence into a bounded outcome decision without requiring reviewers to invent material rules after participants have relied on the contract.**

12.3 Quality and Curation Standards

Curation is the process of deciding whether, how, and in what relationship a proposed market should enter the ecosystem. It is not merely a content-selection function. It allocates platform attention, review capacity, discovery prominence, integrity risk, and possible downstream liquidity.

A market can be technically resolvable yet provide little incremental value. It can be topically important yet impossible to resolve reliably. It can be clear in one language but misleading when localized. It can also be individually valid while contributing to harmful fragmentation when numerous equivalent markets already exist. Quality should therefore be assessed as a vector rather than reduced automatically to one opaque score.

12.3.1 Risk-Sensitive Quality Gates

A proposed curation process may include submission completeness, semantic clarity, resolution readiness, differentiation, integrity review, operational readiness, and publication decision gates. The gates need not be applied with identical intensity to every market. A risk-sensitive approach may consider event sensitivity, source quality, creator conflict, underlying-market manipulability, geographic complexity, evidence accessibility, and potential harm.

Automation may assist with missing fields, date conflicts, semantic similarity, duplicate discovery, source availability, prohibited terms, named-entity matching, and edge-case prompts. Such assistance should remain distinguishable from the accountable decision that authorizes publication. An algorithmic flag is evidence for review, not proof of misconduct or automatic grounds for rejection.

Table 12.3. Proposed quality-gate architecture

GATE	PRIMARY QUESTION	POSSIBLE DECISION	REQUIRED RECORD
Completeness	Is the submission reviewable?	Advance, return for completion or close as incomplete.	Submitted version, missing elements and notification.
Clarity	Do the terms define one coherent claim?	Accept wording, request revision or split proposal.	Review notes, change comparison and accepted wording.
Resolution readiness	Can expected evidence support a bounded decision?	Accept source design, require fallback or defer.	Source analysis, exceptions and unresolved risk.
Differentiation	Does the market add useful information?	Publish separately, link, merge or reject duplicate.	Related markets and material differences.
Integrity	Is the market reasonably resistant to abuse?	Approve, restrict, redesign, escalate or decline.	Conflict map, risk rationale and conditions.
Operational readiness	Can it be stewarded through its lifecycle?	Assign roles, limit scope or defer.	Responsible roles and incident pathway.
Publication	Is this exact version authorized?	Publish, schedule, limit visibility or decline.	Version, authority, reason and effective time.

Source: POLIX editorial synthesis. The gate sequence is conceptual and does not establish a current POLIX approval workflow, service level or reviewer organization.

12.3.2 Curation Decisions and Evidence

Curation should support more decisions than approve or reject. A proposal may retain its market thesis while being revised, split into several linked markets, combined with an overlapping proposal, linked as a distinct contract, localized, deferred pending better evidence, limited under applicable policy, declined, or archived without being presented as active.

A curation decision should identify the proposal version reviewed, the evidence considered, the reason, the responsible authority, the effective state, and any permitted next action. Standardized reason codes can improve consistency, while narrative explanations can capture context that a code cannot.

Approval should not imply a guarantee of liquidity, accuracy, promotion, creator rewards, uninterrupted availability, or final resolution in a particular direction. It indicates only that the authorized version satisfied the applicable publication standard at the time of decision.

12.3.3 Amendments, Versioning, and Archival Integrity

A draft may change freely within the rights assigned to its collaborators. A published market is different because users may already have relied on its terms. Amendments should be classified as clerical, clarifying, material, or emergency protective actions according to their effect on economic meaning and participant reliance.

The classification, prior version, new version, reason, authority, effective time, and user notice should be preserved. Material terms should not be silently overwritten. For an active market, some material changes may be incompatible with continued reliance on the original contract. Depending on adopted policy, the response may involve limitation, suspension, closure, a separately listed replacement market, or another governed state. Chapter 12 does not prescribe a universal remedy.

Archival integrity requires preserving the operative final specification, earlier material versions, source records and snapshots where permitted, curation and amendment decisions, close and dispute status, related-market mappings, and attribution and governance records. An archive is the evidence required to interpret historical prices and reconstruct decisions; it is not merely inactive content.

CURATION PRINCIPLE **Curation should optimize qualified information coverage, not publication count. Every decision should remain attributable to a market version, evidence set, reason, authority, and lifecycle state.**

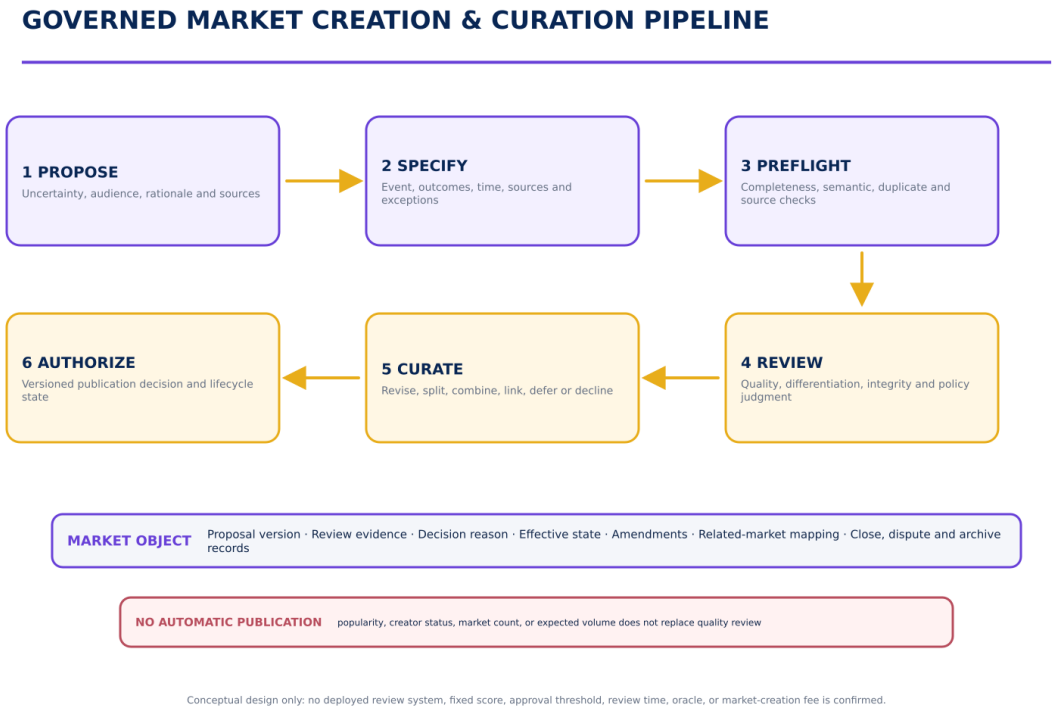

Figure 12.1. Governed Market Creation and Curation Pipeline. Source: POLIX editorial synthesis.

12.4 Market Integrity Considerations

Market integrity begins before trading. A clearly written question may still create incentives to influence the event, evidence source, measurement window, or public interpretation on which settlement

depends. Integrity review should examine the full causal path from participant action to the underlying event or data, then to resolution evidence and the outcome decision. Risk increases when one actor can influence multiple stages of this path.

12.4.1 Manipulation Surface and Conflict Mapping

The creation process should assess event manipulation, measurement manipulation, source manipulation, interpretive manipulation, and curation manipulation. Influence over an event is not automatically improper; many real-world participants naturally affect outcomes. The risk depends on cost, detectability, concentration, participant rights, and whether market incentives could materially alter behavior.

Measurement manipulation exists when the metric used for settlement can be moved around the observation window. Thin underlying markets, short snapshots, self-reported counts, editable web pages, or administrator-controlled metrics require particular caution. Source manipulation exists when an interested party controls decisive evidence or can delay, revise, suppress, or selectively publish it. Interpretive manipulation exists when ambiguous wording permits one understanding before trading and another after the outcome becomes known.

Experimental research has found that some prediction markets can remain informative despite attempts to manipulate price, but those findings do not establish universal immunity. They depend on market structure, information distribution, and arbitrage incentives. A recent working paper also reports evidence consistent with settlement-window manipulation in short-horizon crypto-asset contracts. Because that research is emerging, it is used here only as a design warning rather than a universal empirical conclusion.

Table 12.4. Market-integrity review matrix

RISK SURFACE	REVIEW QUESTION	POSSIBLE EVIDENCE	DESIGN RESPONSE
Event control	Who can materially influence occurrence?	Actor roles, economic incentives and control concentration.	Disclosure, scope change, restrictions or decline.
Measurement window	Can the observed value be moved temporarily?	Venue depth, observation duration and correction behavior.	Longer window, robust reference, multiple observations or redesign.
Source control	Who publishes or edits decisive evidence?	Ownership, access rights, audit trail and publication practice.	Independent source, hierarchy, fallback or escalation.
Interpretive ambiguity	Could reasonable users understand terms differently?	Reviewer testing, feedback and edge-case simulation.	Rewrite, examples, explicit authority or defer.
Conflict of interest	Does a contributor have economic or operational influence?	Role graph, affiliations and source relationships.	Disclosure, recusal, independent review or role limitation.
Duplicate coordination	Are proposals creating artificial prominence?	Semantic similarity, timing and contributor relationships.	Consolidation, attribution review or discovery control.
Promotion conduct	Are certainty, approval or reward claims misleading?	Public statements, campaign records and disclosed terms.	Correction, notice, visibility restriction or role review.

Source: POLIX editorial synthesis. Risk signals require contextual assessment and do not constitute automatic findings of manipulation.

12.4.2 Duplicate, Dependency, and Fragmentation Controls

Duplicate markets impose costs beyond visual clutter. They can divide discovery, evidence, liquidity, creator attribution, and historical interpretation. They may also create apparent price differences that reflect different wording rather than genuine disagreement.

Duplicate analysis should compare event identity, outcome logic, time horizon, geographic and institutional scope, resolution source, exception treatment, active lifecycle state, and economic

equivalence. Curation should not eliminate legitimate variation. Markets may reasonably differ by threshold, time horizon, source, local institution, or conditional structure. The goal is to make those differences explicit and preserve a relationship graph that supports navigation and comparison.

A canonical event cluster can connect multiple contracts without declaring them interchangeable. Within that cluster, compatibility labels can identify equivalent, related, subset, conditional, mutually exclusive, or incompatible markets. Fragmentation should also be evaluated dynamically because an older market may later become inactive, obsolete, poorly sourced, or tied to a different institutional context.

12.4.3 Monitoring, Escalation, and Protective States

Pre-publication review cannot eliminate every risk. Events, institutions, sources, and legal conditions change. Potential triggers include source disappearance or material correction, event cancellation, previously undisclosed conflicts, credible manipulation evidence, duplicate publication, rights or safety concerns, technical failure, misleading creator promotion, or a defect in the operative specification.

Protective responses should be scoped to the affected market, function, and evidence. A source concern does not automatically invalidate unrelated creator contributions. A creator-account concern does not necessarily contaminate every market to which that person contributed. A market-level defect does not automatically determine how existing positions should be treated.

Possible states may include notice, review, limited visibility, restricted action, suspension, closure, dispute, correction, replacement, or archive. The availability and effect of each state must be defined by adopted policy and cannot be inferred from this whitepaper. The key principle is traceability: who initiated the action, which version and evidence were affected, why the response was selected, when it became effective, and what review path remained available.

> INTEGRITY PRINCIPLE **POLIX should evaluate integrity as a chain connecting event control, measurement, evidence, interpretation, publication, and lifecycle response. No single clear title can compensate for a manipulable event or captured source.**

12.5 Creator and Community Participation

Chapter 11 defined creators as contribution-linked roles rather than unrestricted publishers. Chapter 12 applies that principle to market design and curation. Community participation can improve question quality by supplying local knowledge, domain expertise, source verification, edge cases, alternative wording, duplicate identification, and early warning of changing circumstances. It can also introduce popularity bias, coordinated pressure, undisclosed conflicts, harassment, and attempts to obtain publication through volume rather than quality.

Participation should therefore expand evidence without transferring unbounded decision authority.

12.5.1 Structured Participation Rights

A market-creation process may distinguish proposer, collaborator, domain reviewer, local reviewer, source verifier, integrity reviewer, curator, community participant, publication authority, and resolution authority. One person may perform several roles when policy permits, but the role combination should be visible. High-risk markets may require greater separation.

Community support should not operate as automatic approval. Votes, comments, followers, creator reputation, and anticipated trading demand can be informative, but they cannot prove resolvability or integrity. A popular ambiguous market remains ambiguous.

Table 12.5. Participation inputs and bounded effects

INPUT	POTENTIAL VALUE	REQUIRED CONTROL	NOT YET IMPLIED
Proposal	Reveals a relevant uncertainty.	Version, sources, conflict disclosure and completeness.	Publication or reward.
Suggested edit	Improves wording or outcome logic.	Change comparison and accepted-contribution record.	Ownership of all market rights.
Domain evidence	Identifies technical meaning or edge cases.	Expertise context, provenance and uncertainty.	Final authority over the outcome.
Community support	Demonstrates audience interest.	Unique-participant and manipulation review.	Quality, legality, liquidity or approval.
Duplicate report	Protects discovery and market coherence.	Semantic comparison and reviewer confirmation.	Automatic removal.
Source warning	Identifies availability or credibility risk.	Evidence, timing and affected version.	Immediate settlement decision.
Integrity alert	Surfaces conflict or manipulation concerns.	Confidentiality and contextual review.	Presumption of wrongdoing.
Appeal	Challenges a reason, classification or process.	Standing, evidence, record and review.	Guaranteed reversal.

Source: POLIX editorial synthesis. Participation rights and review mechanisms are conceptual and do not confirm current platform functions.

12.5.2 Feedback, Appeals, and Decision Accountability

Feedback should be connected to the relevant market version and lifecycle state. A comment about a draft can support revision. The same comment after publication may constitute a correction request, source alert, integrity report, or dispute-related submission. Treating all feedback as one undifferentiated discussion stream would obscure its operational meaning.

A structured record should distinguish general commentary, wording revision, evidence submission, source challenge, duplicate notice, conflict disclosure, integrity alert, amendment request, curation appeal, and resolution-related evidence. Where an appeal is permitted, it should identify the challenged decision, standing of the appellant, supporting evidence, applicable policy version, reviewer, outcome, and reason. Appeals should review whether the relevant standard was applied appropriately; they should not become popularity contests.

Not every decision requires the same appeal architecture. Returning an incomplete draft, declining an ineligible proposal, limiting an active market, and deciding a settlement dispute create different interests and risks. The applicable path should be proportionate and disclosed. Decision records should permit later evaluation of false approvals, false rejections, revision cycles, source failures, amendment frequency, dispute patterns, and creator abandonment.

12.5.3 Participation Boundaries

Open proposal generation does not require unrestricted subject matter, data use, promotion, or publication. Participation may need boundaries involving private or unlawfully obtained information, personal safety, harassment, rights to names or data, creator and reviewer conflicts, manipulation of underlying events or evidence, misleading claims about certainty or endorsement, automated submission volume, coordinated duplicate creation, and jurisdiction-specific restrictions.

This chapter does not define the final permitted-market policy. It establishes that category eligibility and question clarity are separate tests. A clear question can still be ineligible, and an eligible topic can still be drafted poorly. Community participation is most valuable when it makes hidden assumptions visible.

The objective is not to replace institutional review with crowd approval, but to use distributed knowledge as attributable evidence within a governed decision process.

> PARTICIPATION PRINCIPLE **Community participation should expand the evidence available to market creation and curation. It should not allow popularity, submission volume, creator influence, or coordinated voting to substitute for a resolvable specification and accountable publication decision.**

Chapter Synthesis

1. POLIX Market Creation and Curation Architecture converts uncertain propositions into governed, versioned, and reviewable market objects.
2. A prediction market connects event identity, outcomes, temporal boundaries, resolution readiness, exceptions, version, lifecycle state, and governance; it is not merely a title or page.
3. Market quality must be established before trading. Activity and liquidity cannot repair an ambiguous underlying contract.
4. Participants may disagree about probability, but they should be able to identify the same event, evidence boundary, and outcome structure.
5. Market creation should follow informational purpose, atomicity, ex ante legibility, version integrity, separated authority, and risk-sensitive review.
6. Compound questions are not automatically invalid, but their informational meaning and dependencies must be deliberate.
7. Equivalent, related, subset, conditional, mutually exclusive, and incompatible markets require visible semantic relationships rather than title-only comparison.
8. A resolvable question should define subject, predicate, scope, time, outcomes, evidence, exceptions, close logic, and operative version.
9. Outcome sets should be mutually exclusive and collectively complete within the permitted contract scope or identify an exceptional-state process.
10. Opening, trading cutoff, event deadline, and observation or resolution time are different concepts and should not be collapsed when the distinction is material.
11. Resolution readiness requires more than a source URL. Source authority, accessibility, persistence, correction practice, time convention, control, and fallback must be considered.
12. Quality should be evaluated as a vector. Relevance, clarity, resolvability, differentiation, integrity, and operational readiness cannot safely be replaced by one unexplained score.
13. Curation should support revision, splitting, combination, linking, localization, deferral, limitation, decline, and archive - not merely approval or rejection.
14. Published specifications require amendment classification, version comparison, authority, reason, effective time, and notice. Material terms should not be silently rewritten.
15. Integrity review should examine event manipulation, measurement manipulation, source capture, interpretive ambiguity, conflicts, duplicate coordination, and misleading promotion.
16. Duplicate controls should reduce fragmentation while preserving legitimate differences in horizon, threshold, geography, source, and conditional structure.
17. Post-publication controls should be scoped to the affected market, evidence, function, and role.

18. Creator and community participation can improve market design through distributed knowledge, but popularity and volume do not prove quality.
19. Feedback, evidence, alerts, amendments, curation appeals, and resolution submissions should remain distinguishable and attributable to the relevant version and state.
20. Market creation is credible when each published market preserves a clear relationship among the event, outcome set, temporal boundary, evidence basis, operative version, and accountable lifecycle decision.

TRANSITION TO CHAPTER 13 **Chapter 12 establishes the contract object that may become a prediction market. Once a qualified specification is published, the next question is how participants express beliefs through positions and how market activity produces interpretable prices. Chapter 13 therefore develops binary outcome markets, implied probability, buying and selling positions, price discovery, and the boundary between trading activity and settlement.**

CHAPTER 12 / REFERENCES

References and Source Notes

The references below support the information-market, contract-interpretation, ambiguity, manipulation, forecasting-question, and provenance principles applied in Chapter 12. Evidence from experimental and theoretical markets is used to identify general design conditions and is not treated as proof of POLIX market quality, deployment, manipulation resistance, or performance. POLIX materials are treated as statements of intended platform direction, not independent evidence of an active Create Market function, permissionless publication, reviewer organization, source coverage, moderation system, oracle, market-creation fee, quality threshold, review time, approval rate, creator payment, supported jurisdiction, or launch date.

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CHAPTER 13

Trading and Pricing Mechanics

How contingent claims convert heterogeneous beliefs into tradable positions, evolving market prices, and bounded settlement payoffs.

Chapter Thesis

A prediction market becomes economically meaningful when a clear event contract can be expressed as positions whose values change with information and whose final payoffs depend on a governed outcome. Chapter 12 established the market object: event, outcome set, time boundary, evidence basis, exceptions, version, lifecycle state, and decision rights. Chapter 13 develops the next layer - the mechanics through which participants take positions in that object and through which market activity produces an interpretable, time-varying price signal.

The central analytical distinction is between contract, price, belief, trade, position, and settlement. The contract defines what will pay. A quote states a possible exchange ratio at a moment in time. A trade records an executed transfer. A position records contingent exposure. A market price summarizes the marginal terms at which some participants are willing or able to transact. Settlement converts the final governed resolution into the payoff defined by the contract. Treating these objects as interchangeable would obscure both user risk and the information content of the market.

Official POLIX materials describe an intended product in which users buy or sell outcome positions, observe live probabilities and market activity, and benefit from deeper liquidity through an integrated ecosystem. Those materials establish product direction, not a deployed microstructure. They do not determine whether a specific market uses an order book, automated market maker, request-for-quote process, hybrid model, external venue, or another execution design. This chapter is therefore mechanism-neutral: it defines the minimum economic semantics that any implementation should disclose and preserve.

The chapter also separates prediction-market positions from POLX. An outcome claim, the asset used to fund or settle a trade, and the POLX ecosystem token are distinct economic objects. A market price describing the probability of an event is not the market price of POLX; holding an outcome position does not by itself create a POLX entitlement; and any future relationship among trading activity, platform services, incentives, or POLX requires separately adopted terms. This separation is essential for accurate accounting and user communication.

Chapter 13 does not determine whether a real-world event occurred. It uses an abstract final outcome only to explain contingent payoffs. Chapter 14 develops resolution sources, verification, disputes, exceptional cases, transparency, and finality. The boundary is deliberate: trading can aggregate beliefs only when participants know that later resolution will apply the same contract they traded.

DESIGN BOUNDARY **Chapter 13 presents a conceptual trading and pricing framework. It does not confirm a deployed POLIX trading engine, order-book or automated-market-maker design, supported funding or settlement asset, custody model, chain, order type, tick size, leverage, margin, short selling, market-maker obligation, liquidity guarantee, spread, fee, rebate, slippage limit, trading hour, close rule, payout time, tax treatment, legal classification, or geographic availability. Any operating implementation requires separate technical, economic, policy, risk, and jurisdiction-appropriate disclosure.**

13.1 Binary Outcome Markets

A binary outcome market represents one bounded proposition with two mutually exclusive terminal states. Let Y equal 1 when the contract resolves Yes and 0 when it resolves No. A normalized Yes claim pays one settlement unit when Y = 1 and zero when Y = 0; a normalized No claim pays one settlement unit when Y = 0 and zero when Y = 1. The unit is an analytical numeraire. It does not identify a token, stablecoin, fiat currency, custody arrangement, or POLIX settlement policy.

Binary form compresses a complex future into a tradable state-contingent claim. That compression is useful only because the market specification has already defined the proposition. A price cannot correct an outcome definition that overlaps, a deadline that changes after trading, or an exception that is decided retroactively. In economic terms, the trading layer prices the contract it receives; it does not repair its semantics.

13.1.1 Contingent Claims and Terminal Payoffs

For a settlement scale B greater than zero, the terminal gross payoff of one Yes claim can be written as B × Y, while the terminal gross payoff of one No claim is B × (1 − Y). For q claims, the payoff is multiplied by q. This representation defines the state dependency and the maximum gross terminal payment; it does not define entry cost, transaction cost, collateral treatment, or the time at which a platform makes funds available.

The claim should be interpreted as a conditional receipt, not as ownership of the underlying event, company, candidate, team, asset, or data source. A Yes position on a price threshold does not own the referenced asset. A No position on an election result does not short a candidate. The traded object is the contractually defined payoff conditional on the resolved state.

Table 13.1. Economic primitives of a binary outcome market

PRIMITIVE	ANALYTICAL MEANING	REQUIRED DISCLOSURE	COMMON CONFUSION
Market specification	The versioned proposition whose state will be determined.	Question, outcomes, time, source basis, exceptions and version.	A short title treated as the complete contract.
Yes claim	Pays B when Y = 1 and zero when Y = 0.	Payoff scale, quantity unit and applicable exceptional-state treatment.	Ownership of the real-world subject.
No claim	Pays B when Y = 0 and zero when Y = 1.	Payoff scale, quantity unit and relationship to the Yes claim.	A universal right to short without constraints.
Quote	A stated price and quantity that may be available under defined conditions.	Side, quantity, timestamp, venue or mechanism, and validity.	A guaranteed execution price for any size.
Trade	An executed transfer at a recorded price and quantity.	Execution time, side, filled quantity, price and identifier.	The current probability after conditions have changed.
Position	Net contingent exposure after executed activity.	Quantity, average entry, realized changes and current state.	Cash already earned or lost before exit or settlement.

PRIMITIVE	ANALYTICAL MEANING	REQUIRED DISCLOSURE	COMMON CONFUSION
Settlement	Accounting transformation after final governed resolution.	Final state, applicable position record and payoff computation.	The evidence or authority that decides the event.

Source: POLIX editorial synthesis. B and Y are normalized analytical variables and do not disclose a live POLIX contract, asset, payout, or trading mechanism.

13.1.2 Complementarity and Complete-Set Logic

When a Yes claim and a No claim are created as a complete pair with the same settlement scale, contract version, close rule, and resolution state, their terminal gross payoffs sum to B in either outcome. Under frictionless creation and redemption, common settlement, enforceable finality, and no material timing difference, this complete-set relationship supports the benchmark $P_Y + P_N = B$, where P_Y and P_N denote the Yes-claim and No-claim prices. With B normalized to one, the corresponding prices sum to one.

This relation is a structural benchmark, not a promise that every displayed quote will add exactly to one. Bid-ask spreads, fees or other costs, limited inventory, latency, venue differences, minimum quantities, capital constraints, settlement risk, incompatible market versions, and temporary dislocations can create observable deviations. A No quote inferred mechanically as one minus a Yes quote can mislead if the two sides are not simultaneously executable for the same quantity and under the same rules.

Complete-set accounting also clarifies supply. In some mechanisms, paired claims may be created against collateral and later redeemed together; in others, a market maker or counterparty provides inventory. The economic identity can be described without claiming which implementation POLIX uses. What matters for users is that the source of claim supply, collateral boundary, redemption logic, and treatment of unmatched or exceptional states be visible before participation.

13.1.3 Binary Simplicity and Residual Complexity

Binary labels reduce the number of terminal outcomes, but they do not eliminate complexity. A market can be binary while its event definition contains thresholds, time windows, source hierarchies, replacement events, cancellations, data corrections, or composite conditions. The trading interface should therefore preserve a direct path from every price and position to the operative specification.

A binary price is also not a statement that the world itself has only two meaningful futures. It is a price on one deliberately bounded claim. Other markets may ask about causes, timing, magnitude, conditional outcomes, or alternative thresholds. Related markets can reveal a richer probability structure, but only when their contracts and dependencies are explicit. Chapter 12 established those semantic relationships; Chapter 13 requires the trading layer not to erase them.

BINARY-CONTRACT PRINCIPLE **A Yes/No market is simple at the payoff boundary, not necessarily simple in meaning. Trading should price one stable contract version, and every visible position should remain traceable to that version.**

13.2 Price as Implied Probability

If a binary Yes claim pays B when the event resolves Yes, a price P between zero and B can be normalized as $p = P / B$. This produces a number between zero and one that can be displayed as an implied probability between 0% and 100%. The transformation is mathematically straightforward; the economic interpretation requires more care.

Official POLIX materials use the accessible formulation that continuous buying and selling produces a market probability and that market price reflects collective consensus. This is a useful interface

description. Academic interpretation is narrower: a prediction-market price is the marginal exchange term generated by a particular contract, participants, mechanism, information environment, risk distribution, and moment in time. Under suitable conditions it can provide a useful estimate of beliefs about event probability, but it is neither literal truth nor necessarily the arithmetic mean of participant beliefs.

13.2.1 Conditions Behind the Probability Interpretation

A clean probability interpretation becomes more defensible when the payoff is known and bounded; the contract is unambiguous; the price and payoff use a common reliable numeraire; traders understand the rules; positions are adequately collateralized; participants can act on different information; market access is not dominated by one constrained actor; quotes are executable; frictions are limited or visible; and resolution is credible. The conditions do not need to be perfect, but departures affect what the number means.

Manski demonstrates that heterogeneous beliefs can prevent a prediction-market price from identifying the mean subjective probability without additional assumptions. Wolfers and Zitzewitz develop conditions under which prices can approximate average beliefs and show that risk aversion and the belief distribution are central. The appropriate conclusion is neither that prices equal probabilities by definition nor that prices are uninformative. The conclusion is that probability is an interpretation supported by contract and market conditions.

The distinction between subjective and risk-neutral probability is also important. A participant may require compensation for risk, capital use, illiquidity, ambiguity, settlement uncertainty, or inability to diversify. Consequently, the price can reflect both beliefs and the marginal value of bearing exposure. In a small-stakes, well-collateralized, diversified environment this wedge may be limited; in a concentrated or constrained environment it may be material.

Table 13.2. Layers of a probability-price interpretation

LAYER	QUESTION ANSWERED	WHAT CAN BE SAID	WHAT CANNOT BE ASSUMED
Contract layer	What does one claim pay in each final state?	The mapping from final outcome to gross payoff.	That the event or evidence is unambiguous.
Quote layer	At what price and size might a trade occur?	A time-stamped conditional trading opportunity.	That all displayed quantity can execute without movement.
Execution layer	What actually traded?	Recorded price, quantity, side and time.	That the last trade remains currently executable.
Market-state layer	What does the venue currently report?	Bid, ask, depth, last price, volume, status and freshness as defined.	That one field alone is the correct probability.
Belief layer	What expectations may be embedded?	A marginal market signal shaped by participating beliefs and constraints.	The unweighted mean belief of all users or the public.
Forecast layer	How useful is the signal?	An empirical question assessed across comparable resolved markets.	Certainty, causal truth, or accuracy inferred from one outcome.

Source: POLIX editorial synthesis informed by Manski (2006) and Wolfers and Zitzewitz (2004, 2006a).

13.2.2 Which Price Should the Interface Display?

A market can have several legitimate price fields. The best bid is the highest currently available purchase offer under an order-book interpretation. The best ask is the lowest currently available sale offer. The midpoint averages those two quotes but may not itself be executable. The last-traded price records history but may be stale. A mechanism quote can depend on trade direction and size. A calculated mark may apply smoothing, venue aggregation, or other rules. Each field answers a different question.

A probability display should therefore identify its methodology and timestamp. If it uses a midpoint, it should not be labeled last trade. If it uses a last trade, the interface should expose freshness. If it aggregates venues, it should define market compatibility, quote normalization, stale-data treatment, executable size, and weighting. If a displayed percentage is only indicative, the order preview should show the executable terms for the requested quantity.

This distinction becomes critical in thin markets. A 60% last trade may coexist with a 45% bid and a 72% ask. Reporting only 60% implies precision that the available liquidity does not support. A more informative interface pairs the headline probability with market state: spread, depth, update time, recent range, and status. The purpose is not to burden users with professional trading screens, but to prevent a clean percentage from concealing poor executability.

13.2.3 Calibration, Uncertainty, and Communication

A 70% market probability does not predict that the event must occur. It states that the market signal assigns materially more weight to Yes than No under the applicable interpretation. If many comparable events are priced near 70%, a calibrated forecasting system would expect approximately 70% of them to resolve Yes. Calibration is therefore a property of a set of forecasts, not a verdict on one market.

Forecast quality should be evaluated after resolution using pre-specified observations and comparable samples. Possible measures include calibration curves, Brier scores, logarithmic scores, absolute or squared error, and benchmark comparison. Each measure has limitations. Long-run historical comparisons can inform benchmark design, but their results do not transfer mechanically to POLIX or any single category (Berg, Nelson, and Rietz, 2008). A platform should not select only favorable markets, observation times, categories, or horizons after outcomes are known. Nor should it present historical accuracy as a guarantee of future performance.

Price paths can also communicate uncertainty. A stable price may reflect consensus, inactivity, or insufficient liquidity; high volatility may reflect information arrival, disagreement, low depth, or strategic trading. Confidence should not be inferred from low volatility alone. POLIX should distinguish market probability from model probability, AI signal, analyst estimate, poll, and official forecast so that users can compare sources without confusing their methodologies.

> PROBABILITY PRINCIPLE **Normalized price can be an implied probability when the contract, payoff, market state, and resolution boundary are clear. It is a conditional market signal - not certainty, universal consensus, the average opinion of all users, or proof of forecast accuracy.**

13.3 Buying and Selling Positions

Trading converts a view into contingent exposure. A participant who believes the event is more likely than the executable Yes price may seek a Yes position; a participant with the opposite assessment may seek a No position, sell an existing Yes position, or take another permitted action. The available action depends on the mechanism and risk rules. The general economic requirement is that the interface state direction, quantity, entry terms, maximum loss, possible gross payoff, and conditions for exit or settlement before commitment.

Buying and selling are not symmetric labels in every design. Selling may mean transferring claims already held, reducing a long position, redeeming a complete set, or establishing negative exposure where explicit shorting and collateral rules permit it. POLIX materials describe buy-or-sell functionality at a product level; this whitepaper does not infer permissionless shorting, borrowing, leverage, or uncapped liability.

13.3.1 Entry Price, Quantity, and Terminal Economics

Let a denote the normalized average entry price of q Yes claims and let costs be excluded for illustration. If the position is held to final settlement, gross profit or loss is q × B × (Y − a). For q No claims entered at normalized price n, gross profit or loss is q × B × ((1 − Y) − n). The maximum gross loss of a fully paid long claim is its entry amount, while the maximum gross gain is the difference between the terminal payoff and entry amount. Actual net results depend on disclosed costs, taxes, funding, settlement, and risk policies.

Under a participant's own probability assessment π, the expected terminal value of a Yes position is q × B × π, while expected gross profit or loss before costs and risk adjustment is q × B × (π − a). The distinction separates the expected claim payoff from the result after entry cost. These expressions explain trading motivation but do not identify a correct probability or recommend a trade. Two rational participants may assign different values because they hold different information, use different models, face different constraints, or value risk differently.

Table 13.3. Illustrative normalized position economics

POSITION	ENTRY	IF YES RESOLVES	IF NO RESOLVES	INTERPRETATION
10 Yes claims	0.35 each	Gross payoff 10.00; gross P/L +6.50.	Gross payoff 0.00; gross P/L -3.50.	Pays when the defined Yes state is final.
10 No claims	0.65 each	Gross payoff 0.00; gross P/L -6.50.	Gross payoff 10.00; gross P/L +3.50.	Complementary payoff under the same binary contract.
8 Yes claims	0.62 each	Gross payoff 8.00; gross P/L +3.04.	Gross payoff 0.00; gross P/L -4.96.	Higher entry implies less upside and more capital at risk.
5 Yes claims sold before resolution	Bought 0.40; sold 0.58	Terminal outcome no longer determines this closed example.	Terminal outcome no longer determines this closed example.	Gross realized P/L +0.90 before costs if the entire quantity executed.

Source: POLIX editorial examples. B is normalized to 1.00; figures exclude fees, funding, taxes, partial fills, slippage, exceptional states and settlement timing, and do not represent POLIX product terms.

13.3.2 Position Lifecycle and Mark-to-Market Value

A position can change before resolution. New information may shift quotes; additional fills may change quantity and average entry; a partial sale may realize part of the gain or loss; cancellation affects only unfilled intent; a market suspension may prevent new execution without changing the existing claim; and close may lock the position while evidence remains pending. These states should be reflected separately in order, trade, position, balance, and market records.

Mark-to-market value estimates what an open position is worth under a defined current price. It is not the same as realizable proceeds. A last price may be stale; a midpoint may not execute; a visible bid may cover only part of the position; and a large exit may move the market. A responsible interface should identify the mark methodology and, where practical, distinguish indicative value from estimated executable value for the user's quantity.

Realized and unrealized results should not be mixed. Realized result arises from completed disposal, redemption, or settlement under the applicable accounting policy. Unrealized result reflects a current valuation of remaining exposure. Deposits, withdrawals, incentives, corrections, reversals, and settlement receipts should remain separate ledger categories so that performance cannot be overstated by cash flows unrelated to trading outcome.

13.3.3 Order Intent and Execution Quality

An order expresses intent; it is not a trade. At minimum, the record should identify market version, outcome side, action, quantity, price instruction, time, validity, account authority, and status. The execution record should identify filled quantity, execution price or prices, time, counterparty or mechanism reference where appropriate, and resulting position effect. Rejected, expired, cancelled, partially filled, replaced, and fully filled states should be distinguishable.

Execution quality is the relationship between the decision shown to the user and the transaction actually completed. Relevant dimensions include quoted versus executed price, filled quantity, speed, spread, price impact, slippage, rejection, cancellation effectiveness, data freshness, and total disclosed cost. No single metric is sufficient. A fast execution at an unexpectedly poor price is not necessarily high quality; a favorable price on negligible quantity may not be useful.

Market orders, limit orders, immediate-or-cancel instructions, resting liquidity, mechanism-priced trades, and routed orders create different execution risks. Because POLIX has not confirmed the live order set, this chapter does not prescribe one interface. It establishes an invariant: the user should see the economically material instruction before authorization and the complete result afterward. Confirmation should not rely on the headline probability alone.

13.3.4 Position Risk and Cross-Market Dependence

The bounded payoff of a fully paid binary claim does not eliminate portfolio risk. Several markets can depend on the same event, source, asset, election, company, candidate, jurisdiction, or macroeconomic factor. Positions that appear diversified by title may be economically concentrated. Conditional and overlapping contracts can also create nonlinear exposure around one threshold or date.

Risk communication should therefore include net exposure by outcome, market and related-event cluster; maximum defined loss under ordinary resolution; unresolved and disputed exposure; concentration; available collateral or balance; and any restriction affecting exit. Scenario analysis can show how several related markets behave under a consistent event state. Such analysis is informational and depends on contract relationships established in Chapter 12.

Participant protection also requires separation between ability to place an order and suitability, legality, or financial capacity. The whitepaper does not establish a user classification or KYC/AML policy. It states only that execution permission, applicable access controls, risk limits, and disclosures must be defined by adopted policies rather than inferred from a wallet connection or token holding.

> POSITION PRINCIPLE **A position is contingent exposure created by executed activity. POLIX should make order intent, fill result, average entry, remaining quantity, maximum bounded loss under ordinary settlement, mark methodology, and lifecycle state separately legible.**

13.4 Market Activity and Price Discovery

Price discovery is the process through which information, beliefs, constraints, and liquidity become observable trading terms. The process is dynamic rather than instantaneous. Information arrives; participants interpret it differently; some choose to trade; available counterparties or a pricing mechanism absorb the order; inventory and quotes change; and the new market state becomes a public signal that can influence subsequent beliefs and orders.

The broader economic case for prediction markets emphasizes their potential to aggregate dispersed information when incentives, contract design, and market structure are appropriate (Arrow et al., 2008). Laboratory research supports that potential but also shows that performance depends on the

distribution of information and trading mechanism. Plott and Sunder find information aggregation under controlled market conditions. Jian and Sami report that aggregation speed and accuracy can vary with trading sequence and whether information is complementary. These results support market design and measurement; they do not guarantee that every active market reveals all relevant information.

13.4.1 The Information-to-Price Loop

A trade can convey information because the participant is willing to accept contingent risk at a given price. Yet the same trade can arise from hedging, liquidity need, portfolio rebalancing, experimentation, incentive design, error, or strategic intent. Observers cannot identify motive from direction alone. Price discovery emerges from the interaction of many orders and responses, not from treating every buyer as informed and every seller as pessimistic.

Public prices may improve information sharing by creating a common reference point. They can also create feedback. Participants may anchor on the existing percentage, infer information from activity that reflects non-informational demand, or follow visible leaders. The platform should therefore preserve provenance for market data and distinguish market-generated signals from AI estimates, editorial commentary, social sentiment, and sponsored content.

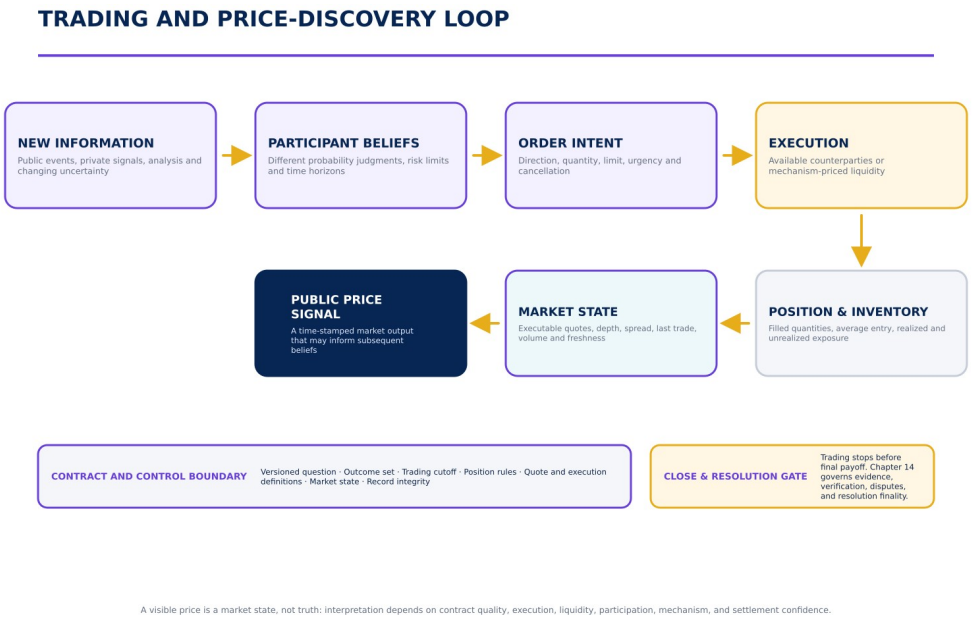

Figure 13.1. Trading and price-discovery loop. Source: POLIX editorial synthesis informed by information-market and market-microstructure literature.

13.4.2 Liquidity, Depth, Spread, and Price Impact

Liquidity is the capacity to trade a meaningful quantity promptly and at a price close to the pre-trade market state. It is multidimensional. A market can display frequent trades but offer little depth; a narrow spread can exist only for small size; substantial depth can be stale; and aggregate volume can be concentrated in a short episode or a small set of related accounts. Liquidity should not be represented by volume alone.

Depth describes available quantity across price levels or the equivalent sensitivity of a pricing mechanism. Spread describes the gap between immediately available buy and sell terms. Price impact measures how the expected execution price changes with order size. Slippage compares a reference or expected price with the completed execution. Resiliency describes how quickly the market state recovers after an order or information shock. Freshness identifies whether the data still describes current conditions.

Liquidity provision is not free of risk. Passive orders can face informed counterparties, inventory imbalance, event jumps, cancellation latency, and settlement uncertainty. Automated market makers trade continuous availability against parameterized price sensitivity and bounded-loss design. Chen and Pennock formalize tradeoffs between liquidity and worst-case loss for bounded-loss market makers; Hanson's market-scoring-rule work shows how a mechanism can continuously update consensus estimates. These are design references, not evidence that POLIX has selected either model.

Table 13.4. Market-state and price-discovery metrics

METRIC	WHAT IT MEASURES	WHY IT MATTERS	INTERPRETIVE LIMIT
Best bid and ask	Immediately displayed two-sided terms for specified sizes.	Indicates executable boundary and spread.	May be stale, cancelled, too small or venue-specific.
Depth	Quantity available across price levels or equivalent curve.	Shows capacity beyond the headline quote.	Displayed depth may not equal completed liquidity.
Spread	Difference between immediate buy and sell terms.	Approximates round-trip friction for small size.	Does not include all costs, impact or latency.
Price impact	Change in expected price as quantity increases.	Connects order size to execution risk.	Depends on route, timing and hidden or external liquidity.
Volume	Executed quantity over a defined period.	Shows activity and supports turnover analysis.	Does not prove unique demand, depth or accuracy.
Open exposure	Outstanding contingent positions as defined.	Shows unresolved economic interest.	Definition varies with complete-set and accounting design.
Volatility	Magnitude and frequency of price changes.	May reveal information arrival or instability.	Can reflect thin liquidity, noise or manipulation.
Concentration	Share of activity or exposure attributable to leading actors.	Identifies dependence and possible fragility.	Requires privacy-preserving identity and related-party analysis.
Freshness	Age of quote, trade, source and market status.	Prevents stale values from appearing current.	A recent timestamp does not guarantee useful size.

Source: POLIX editorial synthesis. Metrics require disclosed definitions and do not confirm current POLIX data fields, thresholds, surveillance, or venue coverage.

13.4.3 Manipulation, Noise, and Market Resilience

A participant may trade to move a visible price, influence attention, create a misleading track record, trigger external behavior, or affect an incentive. Manipulation risk is greatest when the cost of moving the displayed signal is low relative to the external benefit, when liquidity is thin, when identity can be fragmented, or when other systems consume the price without quality metadata. Activity surveillance should therefore examine behavior and context rather than price direction alone.

Manipulative trades do not necessarily create durable mispricing. Other participants may trade against a distorted price when they can identify value and bear the risk. Experimental evidence shows that some market structures can aggregate information despite strategic behavior, while other conditions slow aggregation. Resilience is an empirical property of the market: how quickly prices, depth and participation normalize after an attempted distortion or information shock.

Potential indicators include abrupt movement without corresponding information, self-related or circular activity, repeated small trades designed to set a last price, concentration near display thresholds, wash-like turnover, coordinated account timing, quote stuffing, unusual cancellation, and divergence across compatible markets. These are signals for contextual review, not automatic findings. Controls may affect display methodology, reward eligibility, routing, account action, or market status separately.

13.4.4 POLIX Liquidity Integration and Price Comparability

Chapter 10 described POLIX Liquidity Hub as a federated network rather than a claim that all external markets form one pool. Chapter 13 identifies the price-mechanics requirement behind that architecture: a quote is comparable only when the underlying contract, outcome mapping, unit, settlement basis, lifecycle state, timing, and access conditions are compatible.

An aggregated interface should distinguish discovery from execution. Discovery may show related prices from several sources. Execution requires current authorization, executable quantity, routing logic, cost information, expected price impact, venue state, and post-trade confirmation. A displayed best price that cannot be accessed by the user, applies to a different contract version, or covers insufficient size should not be presented as a guaranteed outcome.

Cross-market divergence can be informative. It may reflect different beliefs, participant bases, collateral costs, regulatory access, resolution sources, close times, fees, latency, or contract semantics. POLIX should preserve the reason for difference where known rather than forcing every related market into one probability. The normalized market object and compatibility ladder developed in Chapters 10 and 12 provide the prerequisite for responsible comparison.

> PRICE-DISCOVERY PRINCIPLE **Market activity becomes an information signal only through a defined contract and measurable market state. POLIX should pair headline probability with executability, liquidity, freshness, concentration, mechanism, and lifecycle context rather than treating volume or the last trade as self-validating truth.**

13.5 Settlement Logic

Settlement is the accounting consequence of a final governed resolution. It is not the procedure that determines the resolution. This chapter assumes an authorized final state produced under the resolution framework developed in Chapter 14, then asks how the trading record should be transformed consistently into terminal claims and balances.

The separation protects both information quality and ledger integrity. Traders should not be able to change the contract after the outcome is known; reviewers should not alter executed quantities; and the settlement process should not reinterpret evidence independently. Contract terms, resolution decision, position ledger, and payout computation are distinct records connected by identifiers and version history.

13.5.1 Close, Resolution, Finality, and Settlement

Trading close prevents new market exposure under the applicable rules. It does not necessarily mean that the event has occurred, that evidence is available, or that the result is final. A market may pass from open to closed, awaiting evidence, proposed resolution, disputed, final resolution, and settled states. Some implementations may use different labels or omit intermediate states, but the economic distinctions should remain visible.

A suspension is also different from close. Suspension can be temporary and may restrict some actions while preserving others. A disputed state indicates that a proposed outcome has not reached finality. Settlement should not be described as complete while positions remain subject to an active dispute or reversible decision, unless adopted rules define a provisional process and its consequences.

Table 13.5. Conceptual market-to-settlement state model

STATE	TRADING EFFECT	POSITION EFFECT	REQUIRED RECORD
Open	Permitted actions may be submitted and executed.	Exposure changes with completed trades.	Operative version, quotes, orders, fills and balances.
Suspended or limited	Some or all new actions are restricted under policy.	Existing claims remain recorded unless policy states otherwise.	Reason, authority, scope, time and permitted actions.
Closed	No new ordinary exposure after the effective cutoff.	Final open quantities are preserved.	Cutoff, cancelled or expired intent, and close snapshot.
Awaiting evidence	Trading remains closed.	No terminal payout is implied.	Expected sources, evidence status and notices.
Proposed resolution	Trading remains closed.	Payout remains pending finality.	Proposed outcome, evidence, authority and challenge window if any.
Disputed	Trading remains closed unless adopted rules provide otherwise.	Claims remain unresolved.	Challenge, counterevidence, procedure and status.
Final resolution	No trading in the completed market.	Terminal payoff mapping becomes authoritative.	Final outcome, version, evidence record and decision authority.
Settled or exceptional terminal state	Lifecycle ends or moves to correction policy.	Balances reflect the applicable terminal rule.	Position snapshot, computation, transfer record and reconciliation.

Source: POLIX editorial synthesis. State names and transitions are conceptual and do not disclose a live POLIX close, dispute, void, refund, correction, or payout policy.

13.5.2 Terminal Payoff and Exceptional States

Under ordinary binary settlement, final Y = 1 gives each valid Yes claim the payoff B and each valid No claim zero; final Y = 0 reverses the mapping. The settlement system should apply the same unit scale and quantity definition used by the trading record. It should not use a current market price after finality, because the terminal contract payoff - not the pre-resolution quote - governs the result.

Exceptional states require prior policy. A market may become unresolvable because the event is cancelled, the evidence source fails, the specification is defective, a technical incident corrupts records, or governing rules require another treatment. Possible industry responses can include voiding, refunding, substituting an authorized source, delaying resolution, or applying a pre-defined fallback. This chapter does not select among them. Any treatment changes economic value and must be disclosed before reliance whenever foreseeable.

A simple refund is not economically neutral in every circumstance. Participants may have incurred opportunity cost, funding cost, transaction cost, hedging changes, or cross-market exposure. Nor is a fallback outcome neutral when one side expected a different resolution hierarchy. Exceptional-state policy should therefore be visible at market creation, linked to the operative version, and applied through the Chapter 14 governance process rather than improvised by the ledger.

13.5.3 Settlement Integrity and Reconciliation

Settlement integrity requires reproducibility. An independent reviewer with authorized access should be able to reconstruct the result from the final market version, resolution record, complete executed-trade ledger, position snapshot at close, applicable terminal rule, corrections, and transfer records. The computation should identify how each account’s eligible quantity produced its final balance effect.

Reconciliation should test conservation and uniqueness. Every valid claim should be counted once; cancelled intent should not appear as a position; duplicate settlements should be prevented; partial fills should be reflected accurately; reversals or corrections should be attributable; and aggregate terminal

obligations should agree with the mechanism's claim and collateral records. Any discrepancy should enter a defined exception process rather than be hidden by a balance adjustment.

User-facing transparency need not expose private counterparties or sensitive controls. It should expose the market version, final status, final outcome, effective time, resolution reference, position quantity used, payoff rule, gross terminal amount, separately identified adjustments, and settlement identifier. The record should distinguish an economic loss on a correctly settled claim from a technical or accounting incident.

Settlement finality also determines data quality. Historical prices, calibration analysis, creator performance, AI evaluation, market-quality metrics, and incentive calculations should use the authoritative terminal state rather than an early headline result. If a final result is later corrected under an adopted policy, dependent records should preserve both prior and corrected versions instead of silently overwriting history.

SETTLEMENT PRINCIPLE **Settlement should be a deterministic accounting transformation from final governed outcome and verified position record to terminal balance effect. Evidence selection, outcome verification, dispute authority, and exceptional-case judgment belong to Chapter 14, not to the settlement ledger.**

Chapter Synthesis

1. Chapter 13 defines the economic layer between a qualified market specification and a final governed resolution: quotes, trades, positions, market state, price discovery, close, and settlement accounting.
2. Contract, quote, trade, position, belief, probability display, resolution, and settlement are distinct objects and should remain separately identifiable.
3. A binary Yes claim pays $B \times Y$ and a binary No claim pays $B \times (1 - Y)$ in the normalized analytical model; B does not identify a live POLIX settlement asset.
4. Outcome claims are contingent contracts, not ownership of the real-world subject referenced by the question.
5. When compatible Yes and No claims form a complete set, their terminal payoffs sum to B; observed prices may deviate from that benchmark because of frictions, liquidity, timing, risk, or incompatible terms.
6. Binary payoff simplicity does not eliminate semantic complexity. Every price and position must remain linked to the operative market version.
7. Normalized price $p = P / B$ can be displayed as implied probability, but interpretation depends on payoff, contract clarity, liquidity, participants, risk, market mechanism, costs, and resolution credibility.
8. Prediction-market price is a marginal market signal, not certainty, truth, the unweighted average belief of all users, or automatic evidence of forecast accuracy.
9. Bid, ask, midpoint, last trade, mechanism quote, venue aggregate, and calculated mark answer different questions and should not share an ambiguous price label.
10. A probability display should be time-stamped and paired with enough market-state information to prevent stale or non-executable values from appearing precise.

11. Calibration is evaluated across comparable resolved forecasts. One 70% market resolving No does not by itself show that the 70% forecast was wrong.
12. An order expresses intent; a trade records execution; a position records contingent exposure; a balance records accounting value.
13. Buying Yes, buying No, selling an existing claim, reducing exposure, and shorting are not interchangeable actions and depend on disclosed mechanism and collateral rules.
14. Position economics should disclose direction, quantity, average entry, maximum ordinary-settlement loss, possible gross payoff, current state, and separately identified costs or adjustments.
15. Mark-to-market value is method-dependent and may differ from executable proceeds, especially in thin or concentrated markets.
16. Execution quality includes price, quantity, spread, impact, slippage, latency, rejection, cancellation, freshness, and total disclosed cost; speed or headline price alone is insufficient.
17. Related markets can create concentrated portfolio exposure even when their titles differ. Risk analysis should use market relationships and event clusters.
18. Price discovery is a loop in which information, heterogeneous beliefs, order intent, execution, liquidity, and public market state influence one another.
19. Volume is activity, not proof of unique participation, depth, forecast accuracy, or durable liquidity.
20. Liquidity should be evaluated through executable size, depth, spread, impact, resiliency, freshness, and concentration under disclosed definitions.
21. Strategic or manipulative behavior should be assessed through contextual signals; a suspicious trade is not automatically a finding, and a temporary price move is not necessarily durable distortion.
22. POLIX liquidity integration requires contract compatibility, outcome mapping, common units, current lifecycle state, access, executable quantity, and provenance before prices can be compared or routed.
23. Close, suspension, proposed resolution, dispute, final resolution, and settlement are distinct lifecycle states.
24. Settlement applies the final authorized outcome to the verified position record; it does not independently decide what occurred.
25. Exceptional states are economically material and require disclosed, version-linked policy rather than improvised accounting treatment.
26. A reproducible settlement record connects market version, final outcome, evidence reference, position quantity, payoff rule, adjustments, and final balance effect.
27. Outcome positions, funding or settlement assets, and POLX are separate economic objects. Any future relationship among them requires separately adopted terms.
28. The architecture is credible only when the same contract meaning is preserved from publication through trading, close, resolution, settlement, and historical analysis.

TRANSITION TO CHAPTER 14 **Chapter 13 explains how a stable contract becomes positions, how trading activity produces an implied-probability signal, and how a final outcome would transform claims into terminal payoffs. It deliberately assumes rather than determines the final outcome. Chapter 14 now develops the Resolution and Oracle Framework: why resolution integrity matters, how sources are selected, how outcomes are verified, how disputes and exceptional cases are governed, and how transparency supports finality.**

CHAPTER 13 / REFERENCES

References and Source Notes

The references below support the contingent-claim, probability-interpretation, information-aggregation, market-making, manipulation, liquidity, and forecast-evaluation principles applied in Chapter 13. Mathematical examples use normalized units and exclude costs unless stated. Academic findings identify general conditions and tradeoffs; they are not treated as evidence of POLIX deployment, forecast accuracy, liquidity, manipulation resistance, or user outcomes. POLIX materials are treated as statements of intended product direction, not independent evidence of a live trading engine, order types, supported assets, custody, fees, collateral, leverage, market makers, routing, settlement timing, oracle, legal availability, or geographic access.

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CHAPTER 14

Resolution and Oracle Framework

How a versioned event contract, attributable evidence, challengeable verification, and governed finality become one authorized market outcome.

Chapter Thesis

A prediction market cannot settle merely because an event appears to have occurred. It must determine which evidence is authorized, how that evidence maps to the operative contract, who may propose or challenge an outcome, how exceptional conditions are treated, and when the decision becomes final. Resolution integrity is therefore not a final administrative step. It is the institutional and technical bridge between the external world and the terminal payoff described in Chapter 13.

Chapter 12 defined the market specification and Chapter 13 separated trading close, proposed resolution, final resolution, and settlement. Chapter 14 develops the missing decision layer. It treats an oracle broadly as the governed function that converts external evidence into a state the platform can use. That function may involve a named publication, authenticated data feed, human reviewer, decentralized proposal-and-dispute process, committee, or hybrid workflow. The word oracle should not be read as proof that one particular technology, chain, vendor, voting system, or governance body has been selected.

The framework rests on a second distinction: world truth and contract truth are related but not identical. World truth refers to what actually happened, which may be complex, contested, revised, or only partly observable. Contract truth is the outcome produced by applying the published market version to the evidence and decision rules that version authorizes. A valid resolution should seek factual accuracy, but it must also remain faithful to the contract participants traded. Replacing the governing source or reinterpreting a threshold after the event can produce a factually plausible answer that is contractually wrong.

Oracle research identifies a general problem: deterministic systems cannot independently verify arbitrary off-system facts, while external inputs can reintroduce trust, availability, provenance, and incentive risks (Al-Breiki et al., 2020; Pasdar, Lee, and Dong, 2023). An authenticated transport can show that data came from a particular publisher without proving that the publisher measured the right event, that the market cited the correct version, or that the contract language maps unambiguously to the value. Resolution governance must therefore cover semantics and authority as well as data delivery.

Official POLIX materials describe intended prediction-market experiences, AI-assisted information, creator participation, liquidity integration, and a broader ecosystem. They do not establish a deployed resolution oracle, source registry, bond, challenge duration, voter set, arbitration procedure, smart-contract address, audit status, or exceptional-state schedule. This chapter specifies the minimum

properties a credible resolution framework should preserve while leaving those implementation choices open for later, separately authorized documentation.

DESIGN BOUNDARY **Chapter 14 is a normative design framework, not a declaration of deployed POLIX infrastructure. It does not confirm an oracle provider, data vendor, chain, contract, signer, reviewer, committee, token vote, staking or bonding mechanism, dispute fee, challenge window, quorum, evidentiary threshold, fallback source, void rule, refund rule, correction period, settlement time, legal authority, or geographic policy. Operational parameters must be published only after technical, policy, security, economic, and jurisdiction-appropriate review.**

14.1 Why Resolution Integrity Matters

Resolution determines which contingent claim acquires terminal value. A trading mechanism may be transparent, liquid, and internally consistent yet still fail users if the final state is selected from the wrong source, under a changed interpretation, before evidence is final, or without an effective challenge path. Because the payout boundary is discrete, a small interpretive error can transfer the full difference between winning and losing claims. The importance of resolution is therefore nonlinear: it is both an information-quality problem and an allocation-of-value problem.

Resolution credibility also affects markets before the event. Participants price the probability of the event and the probability that the contract will be administered as written. If they expect source substitution, inconsistent review, censorship, manipulation, indefinite delay, or unrecoverable technical failure, that governance risk can enter spreads, position limits, participation decisions, and prices. The apparent probability signal may then combine event belief with distrust of the resolution process.

14.1.1 The Oracle Problem

A ledger can verify signatures, balances, and state transitions that occur within its own rules. It cannot infer by consensus alone whether a candidate won an election, a statistical agency published a value, a sports event was abandoned, a company released a product, or a court issued a specified decision. Those facts originate outside the system. The oracle problem is the problem of importing them without silently assuming that availability, identity, accuracy, meaning, and authority are the same thing.

The risk chain contains at least four layers. The observation layer concerns whether the external event was measured correctly. The publication layer concerns which organization issued the record and whether it is preliminary, corrected, or final. The transport layer concerns whether the retrieved data is authentic, complete, timely, and unaltered. The interpretation layer concerns whether the evidence satisfies the contract. Cryptographic attestation can strengthen the transport layer; Town Crier, for example, demonstrates how authenticated data can be delivered from a website to a smart contract (Zhang et al., 2016). It does not eliminate errors in the source or ambiguity in the market specification.

Decentralization addresses some concentration risks but creates its own governance questions. A voting oracle must define who may vote, what information voters evaluate, how incentives operate, how collusion or apathy is controlled, and how the result relates to the contract. Astraea illustrates one research design that separates voter roles and uses economic incentives (Adler et al., 2018). Optimistic systems illustrate another design: a proposed value becomes accepted unless challenged, with disputes escalated to an adjudication process. These are architectural examples, not default POLIX choices.

14.1.2 Contract Truth, Evidence, and Decision

The market title is an index to the contract, not the whole adjudicative rule. A reasonable observer may believe one outcome occurred while the named source reports another value; two sources may use different cutoffs; a publication may correct its data; or an event may satisfy ordinary language but not the threshold in the detailed rules. The resolution function should ask a disciplined question: what outcome follows when the operative market version is applied to the authorized evidence available under its timing and exception rules?

This formulation avoids two opposite errors. Literalism without context can apply a drafting defect in a way that defeats the disclosed market meaning. Discretion without constraint can rewrite the contract after participants have taken positions. A credible framework should minimize both by requiring precise ex ante terms, narrow clarification authority, explicit exceptional states, reasoned decisions, and preservation of the original and any authorized clarification.

A resolution is consequently a decision record, not merely a value. The record must connect one contract version, one evidence set, one decision procedure, and one final state. If any element changes, the derivation should remain visible. The W3C PROV Data Model provides a general vocabulary for this need by distinguishing entities, activities, agents, derivations, responsibility, and time (Moreau and Missier, 2013). POLIX need not adopt a particular serialization to apply the principle that evidence and decisions require attributable provenance.

14.1.3 Resolution Failure Surfaces

Resolution failure is broader than a false data point. A source can be accurate but unauthorized; an authorized source can be retrieved at the wrong time; authentic evidence can be interpreted under the wrong contract version; a correct proposal can become procedurally invalid if the event is not yet eligible for determination. Controls should therefore be assigned to failure surfaces rather than concentrated in one general claim of oracle security.

Table 14.1. Resolution-integrity failure surfaces

SURFACE	FAILURE EXAMPLE	REQUIRED CONTROL	RESIDUAL QUESTION
Specification	The outcome, threshold, time or exception is ambiguous.	Pre-publication validation, versioning and narrow clarification policy.	Can every plausible state map to one authorized treatment?
Source authority	A popular source is used instead of the source named by the contract.	Source hierarchy, canonical identifier and substitution rule.	Which source governs if publications disagree?
Observation	The source measures a proxy rather than the contract subject.	Semantic mapping between source field and outcome condition.	Does the datum answer the actual contract question?
Transport	Data is incomplete, altered, stale or retrieved from the wrong endpoint.	Authentication, timestamp, snapshot, integrity check and retry record.	Can the retrieved artifact be independently reproduced?
Timing	Preliminary evidence is treated as final or the event is proposed too early.	Eligibility time, finality indicator and waiting-state control.	What qualifies the evidence as ripe for determination?
Interpretation	A reviewer applies an unstated assumption or changed definition.	Decision checklist, reason codes and contract-linked rationale.	Would another reviewer reproduce the mapping?
Authority	One actor can propose, decide, alter records and trigger settlement.	Role separation, permissions, conflict controls and audit trail.	Who can act at each state and under what limits?
Incentives	An actor benefits from a particular outcome or frivolous dispute.	Disclosure, eligibility, economic or procedural deterrence, and review.	Are challenge and participation incentives proportionate?
Record and finality	Evidence or decisions are overwritten, duplicated, or reopened silently.	Append-only, tamper-evident version history, finality state, correction linkage and reconciliation.	Which version is authoritative for settlement and analysis?

Source: POLIX editorial synthesis informed by Al-Breiki et al. (2020), Pasdar, Lee, and Dong (2023), and PROV-DM (Moreau and Missier, 2013).

RESOLUTION-INTEGRITY PRINCIPLE **A secure ledger does not make an external fact secure by itself. Resolution integrity requires the contract, source, retrieval, interpretation, authority, challenge process, finality state, and settlement reference to form one attributable chain.**

14.2 Resolution Sources

A resolution source is the evidence authority or evidence channel named by the operative contract. It is not necessarily the most prominent website, the fastest data feed, or the source most participants used while trading. Source selection is part of the market specification because changing the source can change the contract. Industry practice illustrates this principle: Kalshi states that each contract includes the rules, information, and source used to determine the outcome, while Polymarket documentation states that the detailed resolution rules - not the title alone - define the source, end date, and edge cases (Kalshi, 2026a; Polymarket, n.d.-c).

POLIX should treat source identity as structured data. A label such as official results, government data, the company website, or major media is insufficient when several offices, releases, editions, jurisdictions, endpoints, or timestamps could qualify. The source record should identify the publisher, dataset or document, relevant field, event or series, geographic scope, publication state, canonical location or identifier, applicable time basis, and any authorized fallback.

14.2.1 Source Classes and Hierarchy

Source classes should be ordered by contractual authority, not general prestige. A rule-named source agency or adjudicative record normally occupies the first position because participants traded that source relationship. A primary event organizer or publisher may be appropriate when it owns the definitive record. Authenticated machine-readable feeds can reduce retrieval error and latency. Corroborative sources can detect anomalies, but they should not silently outvote the governing source. A fallback source or review procedure should become operative only under the condition the contract authorizes.

The hierarchy must distinguish confirmation from substitution. A second source may confirm that the primary publication exists without becoming the basis of resolution. Multiple independent records may support a decision when the contract expressly permits corroboration, but majority agreement is not inherently authoritative. Three derivative news reports can repeat one incorrect primary record; one official final release may supersede many preliminary reports.

Source quality is multidimensional. Authority asks whether the contract recognizes the source. Specificity asks whether the record addresses the precise subject. Finality asks whether the publication is preliminary or settled. Accessibility asks whether reviewers and participants can obtain it. Stability asks whether the artifact can be cited and preserved. Timeliness asks whether it is available within the market process. Independence asks whether ostensibly multiple sources share one origin. No single reputation score should conceal these differences.

Table 14.2. Conceptual source-selection ladder

LEVEL	SOURCE ROLE	USE CONDITION	CONTROL BOUNDARY
1. Rule-named authority	Agency, court, office, exchange, organizer or publication explicitly named by the contract.	Use when the required final record is published and matches the contract subject.	Authority does not excuse wrong field, time, edition or jurisdiction.
2. Primary publisher	Entity that creates or owns the definitive event record.	Use only when named directly or authorized by the hierarchy.	Marketing statements and informal channels may not be definitive records.

LEVEL	SOURCE ROLE	USE CONDITION	CONTROL BOUNDARY
3. Authenticated data channel	Signed feed, attested retrieval, API or archival capture of an authorized source.	Use to strengthen identity, integrity, time and reproducibility.	Authentication proves provenance of delivery, not correctness of meaning.
4. Corroborative evidence	Independent records used to test completeness or detect anomalies.	Use for review, exception detection or expressly permitted multi-source rules.	Corroboration should not silently replace the governing source.
5. Authorized fallback	Substitute source or adjudicative procedure triggered by a defined failure condition.	Use only after the trigger and authority are recorded.	A convenient substitute selected after the event changes the contract.
No authority	Search result, social post, model output, anonymous claim or uncited aggregation.	May generate a lead but cannot independently resolve the market.	Popularity, speed and apparent consensus do not create authority.

Source: POLIX editorial synthesis. The ladder defines a control model, not a confirmed POLIX source registry or fallback order.

14.2.2 Source Identity, Time, and Version

A source is often a changing information system rather than a static document. Web pages update, APIs revise values, agencies publish preliminary and final releases, sports bodies amend results, and organizations reorganize archives. The evidence record should therefore capture the state used for the decision: retrieval time, effective or publication time, timezone, document or dataset version, relevant field and value, source status, canonical identifier, and integrity reference such as a hash or signed receipt where appropriate.

Publication time and event time are different. A market may ask whether an event occurred by a deadline but rely on a report published later. It may refer to a value for one reference period that is revised in another period. The resolution procedure should test each temporal dimension separately: eligibility time, event-observation time, source-publication time, retrieval time, challenge time, final-decision time, and settlement-effective time.

The record should also distinguish correction from ordinary update. An ordinary update adds later information without asserting that the earlier value was erroneous. A correction revises the authoritative statement. The contract should state whether it uses the first published figure, a final release, the value available at a fixed observation time, or the value after a defined revision window. Without that rule, preserving the retrieved version allows audit but does not by itself decide which value governs.

14.2.3 Machine-Readable Evidence and Human Judgment

Machine-readable sources can reduce transcription error, support deterministic validation, and improve reproducibility. A parser can test schema, unit, field, timestamp, signature, and value range. It can compare independent captures and detect a source change. These controls are valuable because many resolution failures are mundane: wrong column, wrong unit, stale cache, missing row, locale-specific number format, or an endpoint that returns a preliminary record.

Automation should not be confused with adjudicative completeness. A data feed cannot decide an unstated exception; a model summary cannot create source authority; and a language model interpretation can be confident while relying on incomplete context. Human review remains necessary when evidence is unstructured, sources conflict, terms are ambiguous, exceptional events occur, or the decision carries material interpretive judgment. The procedure should state which checks are deterministic, which are assisted, and which require accountable human or collective authority.

POLIX AI Intelligence may assist with retrieval, translation, deduplication, chronology, comparison, anomaly detection, and drafting a rationale. Its output should be attributable to model and input versions and should remain reviewable. AI assistance should not be described as an independent source of

truth, a substitute for the contract, or a final decision authority unless a later, explicit governance policy formally and technically establishes such a role.

14.2.4 Source Failure and Substitution

Source failure includes more than downtime. The publisher may remove the relevant record, change format, lose authority, split into successor bodies, restrict access, issue irreconcilable releases, or decline to decide the event. A source can remain online while ceasing to answer the contract question. The resolution state should represent those conditions explicitly rather than treating every retrieval failure as a No outcome or every missing value as permission to search for a convenient substitute.

Substitution should follow a pre-governed sequence: confirm the failure condition; preserve attempted retrievals and notices; identify the contract provision authorizing the fallback; test the fallback against the same subject, time, unit, and finality requirements; disclose the proposed substitution; allow the applicable challenge process; and preserve both the unavailable primary source and the substitute record. If no fallback is authorized, the case should enter the exceptional-state procedure rather than resolution by ad hoc discretion.

> SOURCE-SELECTION PRINCIPLE **The correct source is the source authorized by the operative market version for the relevant fact, time, field, and publication state. Authentication, reputation, speed, redundancy, or consensus can strengthen evidence, but none may silently replace contractual authority.**

14.3 Outcome Verification

Outcome verification is the controlled process that maps evidence to one proposed or final market state. It should be reproducible enough that an independent reviewer can follow the same contract version, evidence artifacts, checks, and decision logic. Reproducibility does not require every case to be automated; it requires that judgment be attributable, bounded, and explained.

The process should preserve four objects. The evidence object records what was observed and from where. The analysis object records how the evidence was normalized and tested against the contract. The proposal object states one outcome and its rationale. The decision object states whether the proposal became final, was challenged, was changed, or entered an exceptional state. Combining these objects into one mutable field would make error correction and accountability difficult.

14.3.1 Evidence Intake and Normalization

Evidence intake begins only when the contract is eligible for determination or when an authorized early evidence condition exists. The reviewer or service retrieves the rule-named artifact, records failed attempts, verifies source identity, and freezes a decision copy. Normalization then converts the relevant observation into the unit, timezone, name, category, precision, and outcome convention the contract uses. Raw evidence should remain preserved beside the normalized representation.

Validation should include completeness, schema or document identity, range, unit, temporal fit, subject identity, version status, and consistency with the market outcome set. A value of 1.2 is not self-explanatory: it may be a percentage, index point, currency amount, measurement in another unit, or a parsed fragment. A named entity may have changed name or ownership. The evidence-to-contract mapping should be explicit enough to expose such mistakes.

Where several artifacts are used, the analysis should record their dependency. A news report citing an agency is not independent of the agency record. A data aggregator may transform the same upstream

feed shown elsewhere. Provenance should identify derivation and common origin so that apparent source diversity does not become false confidence.

14.3.2 Proposed Outcome and Review

A proposal should identify the contract, proposed outcome, evidence, mapping logic, proposer or service role, timestamp, and any uncertainty or exception. The proposed state is not final merely because it is plausible or machine-generated. It should remain visibly provisional until the required review or challenge condition is complete.

The verification model may be direct, dual-control, committee-based, optimistic, vote-based, or hybrid. Direct determination relies on an authorized reviewer or deterministic feed. Dual control requires a second independent check. Committee models allocate decision rights to a defined body. Optimistic models accept a proposal unless challenged; UMA describes requesters, proposers, and disputers in an escalation process, and Polymarket documents an implementation in which proposals may be disputed (UMA, 2026; Polymarket, n.d.-c). Vote-based models aggregate eligible judgments. Each design changes latency, cost, concentration, participation, and attack surfaces.

POLIX should select verification depth according to market risk rather than applying one ceremony to every question. Relevant factors include semantic complexity, source quality, economic exposure, likelihood of conflict, reversibility, data latency, external incentive to manipulate, and precedent value. Risk-based review does not mean opaque discretion; the routing criteria and minimum evidence standard should be versioned and observable.

14.3.3 Resolution Record and State Transitions

A market should move through explicit states. Awaiting evidence means the event may be complete but the required record is not yet available. Proposed means one outcome has been asserted but may still be challenged. Disputed means finality is suspended pending review. Final means the authorized process has produced a binding outcome for settlement. Exceptional means the ordinary outcome mapping cannot yet be applied. State changes should identify the authority, reason, effective time, and prior state.

Finality should activate a settlement gate rather than directly alter balances inside the decision record. The gate transmits the final market identifier, contract version, outcome, effective time, and resolution reference to the Chapter 13 settlement logic. This separation prevents a reviewer from changing positions or payout formulas and prevents the ledger from selecting evidence. Reconciliation can then test that one final decision was applied once to the correct position snapshot.

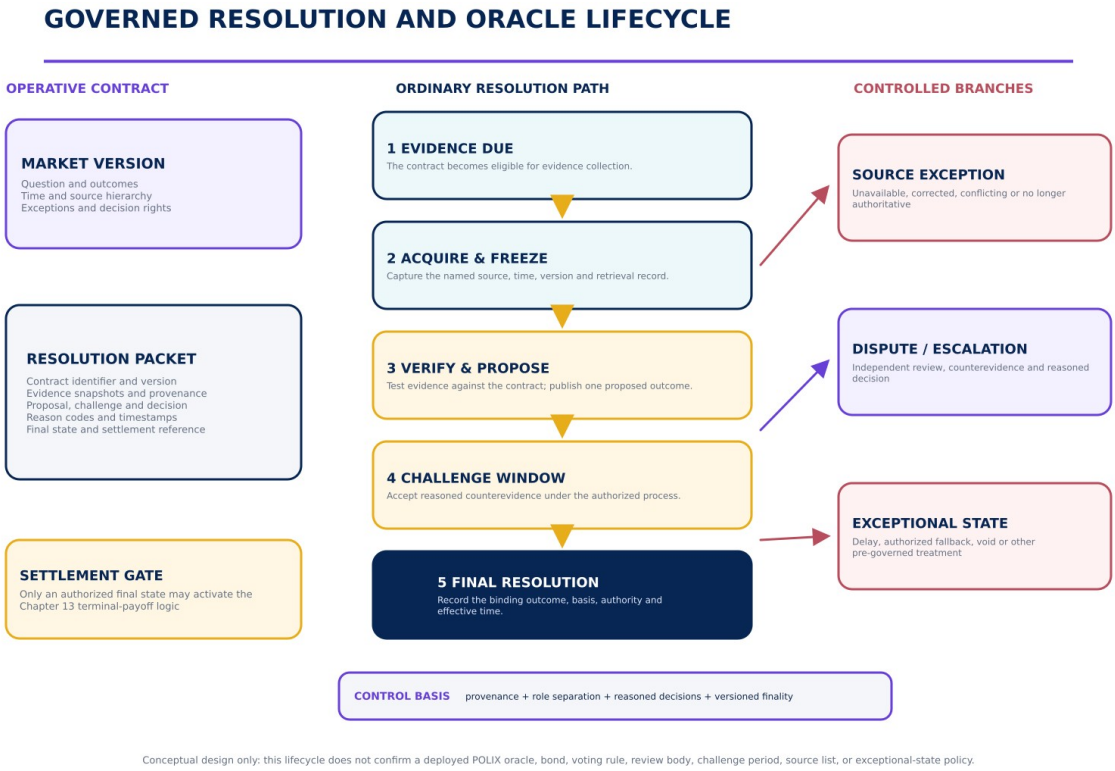

Figure 14.1. Governed Resolution and Oracle Lifecycle. Source: POLIX editorial synthesis. The figure is a conceptual control model and does not disclose a deployed POLIX oracle, role set, challenge period, or exceptional-state policy.

Table 14.3. Minimum resolution-packet fields

FIELD GROUP	MINIMUM CONTENT	WHY IT MATTERS	PUBLICATION BOUNDARY
Contract identity	Market identifier, operative version, outcomes, close and determination basis.	Prevents evidence from being applied to a different contract.	Public except security-sensitive internal identifiers.
Source record	Publisher, artifact or dataset, field, source state, canonical reference and hierarchy level.	Shows why the evidence is authorized.	Public reference; preserve restricted copy when access is limited.
Acquisition record	Retrieval, publication and effective times; method; snapshot; integrity reference; failed attempts.	Supports reproducibility and source-failure analysis.	Publish material facts while protecting credentials and security controls.
Normalization	Unit, timezone, entity mapping, transformations, dependencies and validation checks.	Exposes the path from raw observation to contract input.	Public rationale; sensitive tooling details may remain controlled.
Proposal	Outcome, proposer role, time, rationale, evidence links and disclosed uncertainty.	Separates provisional assertion from final decision.	Public when challenge or transparency policy requires.
Challenge	Standing, grounds, counterevidence, time, response and procedural status.	Makes disputes reasoned and reviewable.	Public rationale with personal or protected data redacted.
Decision	Final outcome or exceptional state, authority, reason code, effective time and appeal status.	Defines which state is binding and why.	Public decision record.
Settlement reference	Authorized final-state message, position-snapshot reference and reconciliation identifier.	Connects decision finality to accounting without merging roles.	User-facing result plus controlled audit detail.

Source: POLIX editorial synthesis informed by PROV-DM (Moreau and Missier, 2013). Publication boundaries are conceptual and do not establish a current POLIX privacy, retention, security, or disclosure policy.

14.3.4 Automation, AI, and Review Boundaries

A mature resolution system should automate repeatable checks without hiding judgment. Appropriate candidates include source availability monitoring, signature and schema validation, timestamp

normalization, unit conversion, artifact hashing, duplicate detection, change comparison, and generation of a review checklist. Automation can also identify when a case departs from the normal path and requires escalation.

Automated outputs should carry confidence and failure information rather than only a result. A parser that cannot locate a field, a translation with ambiguous terminology, an OCR process with low confidence, or a model that encounters conflicting documents should stop or route the case rather than manufacture certainty. The resolution packet should identify tool and model versions when their output materially affects the analysis.

The decision boundary should be especially clear for generative AI. AI may summarize evidence and suggest a mapping, but its answer is not an authoritative publication and should not be cited as the underlying event source. A reviewer should inspect the primary evidence and the operative contract. Material AI-assisted conclusions should be reproducible from preserved inputs, and undisclosed model reasoning should not become the sole basis of a final outcome.

VERIFICATION PRINCIPLE **Verification converts authorized evidence into a proposed or final state through visible checks and decision rights. The system should automate retrieval and validation where reliable, expose uncertainty where it exists, and preserve accountable judgment where semantics or exceptions cannot be reduced to data transport.**

14.4 Disputes and Exceptional Cases

A dispute is not evidence that the resolution system failed. It is a governed mechanism for testing a proposal before irreversible settlement. Failure arises when a valid challenge cannot be heard, a frivolous challenge can delay finality without constraint, decision makers are conflicted or unidentified, the evidentiary standard changes during the case, or the final rationale cannot be reconstructed.

Exceptional cases are conditions in which the ordinary source-to-outcome mapping is incomplete or unsafe. They include event cancellation, indefinite postponement, source failure, conflicting official records, data correction, entity substitution, contract defect, premature proposal, and technical incident. The framework should distinguish factual uncertainty from procedural failure: missing evidence is not the same as a No outcome, and a broken source is not the same as the event failing to occur.

14.4.1 Challenge Standing and Evidentiary Burden

Standing defines who may challenge and under what conditions. An open process can improve error detection but may invite spam or strategic delay. A restricted process can reduce noise but create capture or blind spots. Economic bonds, identity or role requirements, rate limits, evidence thresholds, and sanctions are possible controls, but they change access and incentives. This chapter does not select one mechanism. It requires that the adopted rule be proportionate, published, and consistent across comparable cases.

A challenge should identify the contested proposal, one or more permitted grounds, and material counterevidence. Grounds may include wrong source, wrong version, wrong field, premature determination, incorrect normalization, omitted exception, conflict of interest, procedural defect, or a proposed outcome that does not follow from the evidence. Disagreement about the desirability of the result is not evidence. Nor should a challenger be required to prove an alternative outcome when the claim is that the evidence is not yet sufficient for any ordinary outcome.

The burden of production and the burden of decision should be distinguished. A challenger may bear the burden of presenting a specific, reviewable issue. The decision authority remains responsible for

applying the contract and standard of proof or confidence adopted by policy. Silence, popularity, token holdings, or trading exposure should not substitute for a reasoned evidentiary record unless a later governance design explicitly makes them relevant.

14.4.2 Independent Review and Escalation

Review should be independent enough to correct the initial path. Independence may be organizational, procedural, technical, or economic: a second reviewer, different service, committee, external arbitrator, or broader vote. Merely asking the original proposer to confirm the proposal is not escalation. The reviewing authority should have access to the same contract and evidence record, plus the challenge and response, while remaining unable to rewrite positions or settlement formulas.

Escalation depth should be bounded. A process with no final authority can become indefinitely contestable; a process with immediate irreversible finality can lock in avoidable error. The policy should define which decisions are reviewable, whether new evidence is admitted, how conflicts are handled, what happens when reviewers split, and when the case becomes procedurally final. Different risk tiers may justify different levels, but every market should disclose the applicable route before finality.

Reason codes should survive escalation. If a proposal changes, the record should state whether the cause was better evidence, a corrected source, a contract interpretation, a procedural defect, or a technical error. This enables users to distinguish ordinary disagreement from systematic control weakness and enables the platform to improve source selection and drafting.

14.4.3 Exceptional-State Taxonomy

Exceptional states should be specific enough to guide treatment and analysis. A single Invalid label conceals whether the problem arose from the event, the source, the specification, or the platform. The taxonomy below separates triggers from possible controls. The controls are alternatives that a future POLIX policy may adopt; they are not current promises.

Table 14.4. Exceptional cases and governed responses

CASE	DISTINGUISHING TEST	POSSIBLE CONTROL OPTIONS	PROHIBITED SHORTCUT
Event cancelled or abandoned	The specified event will not produce the ordinary condition.	Wait under a defined horizon, apply a named replacement rule, or use an authorized void treatment.	Automatically assign No without checking the contract.
Event postponed	The event remains expected but occurs after the original time boundary.	Apply the published postponement rule, extend only if authorized, or enter exceptional review.	Move the deadline after positions are known without authority.
Source unavailable	The governing source cannot be retrieved or no longer publishes the required record.	Retry and preserve attempts, use a preauthorized fallback, or enter exceptional state.	Choose the first convenient public source.
Source conflict	Authorized records differ in identity, time, field, status or value.	Apply hierarchy and finality rules; escalate unresolved conflict.	Take an unweighted majority of derivative reports.
Correction or revision	The source changes a previously published value.	Apply the contract's first, final, or revision-window rule; preserve both states.	Silently overwrite the evidence used for a final decision.
Entity or event substitution	A renamed, merged, replacement or successor subject appears.	Apply the stated continuity rule or obtain reasoned review.	Assume similar names establish identity.
Specification defect	No authorized interpretation maps all plausible states consistently.	Use narrow clarification if permitted, escalate, or apply pre-governed invalid treatment.	Invent a material term after observing the outcome.
Technical record incident	Evidence, proposal, ledger linkage or system state is incomplete or corrupted.	Freeze settlement, reconstruct from authoritative records, disclose and reconcile.	Use a balance adjustment to conceal missing provenance.

CASE	DISTINGUISHING TEST	POSSIBLE CONTROL OPTIONS	PROHIBITED SHORTCUT
Premature proposal	Evidence is not final or the eligibility condition has not been reached.	Reject or return to awaiting-evidence state.	Treat speed as evidence of correctness.

Source: POLIX editorial synthesis. Options are conceptual controls and do not establish a live POLIX delay, substitution, void, refund, split, correction, or reopening policy.

14.4.4 Finality, Correction, and Reopening

Finality has at least three dimensions. Evidentiary finality means the source record has reached the state required by the contract. Procedural finality means the authorized proposal, challenge, and review process is complete. Accounting finality means the resulting state has been applied and reconciled in the settlement ledger. These moments may differ. A market should not be marked Settled when only the evidence appears final, and a public record should not describe a proposal as the authorized result while a challenge remains open.

Correction policy must balance accuracy and reliance. Reopening every settled result whenever new information appears would make terminal claims unstable. Refusing to correct any documented error would preserve finality at the cost of integrity. A future policy should distinguish source revision from platform error, material from immaterial change, pre-settlement from post-settlement discovery, and record correction from financial reversal. The permitted authority, time boundary, evidence threshold, and downstream effect should be explicit.

Where a result is corrected, the original record should remain visible as superseded rather than disappear. Historical price calibration, creator metrics, AI training data, and incident analysis should reference the authoritative version and the correction lineage. If the financial settlement is not reopened, the record should state that the evidentiary or descriptive correction did not alter accounting finality. If it is reopened, the reconciliation should identify every affected state change.

> DISPUTE-AND-FINALITY PRINCIPLE **A challenge path should make correct decisions easier to defend and incorrect decisions possible to correct without making every market indefinitely reversible. Exceptional cases require named states, bounded authority, attributable evidence, and a visible transition to finality.**

14.5 Transparency Principles

Transparency should allow participants and reviewers to understand how a market reached its outcome without exposing credentials, personal data, abuse controls, or other information whose disclosure would create security or privacy harm. The objective is decision transparency: visible contract, evidence basis, role, procedure, reason, status, and lineage. Publishing large volumes of unstructured material without those connections is not equivalent to accountability.

Transparency also has a timing dimension. Before trading, users need the source hierarchy, determination condition, exceptional rules, and review route. During resolution, they need the current state and whether an outcome is proposed or final. After finality, they need the decision record and settlement reference. Retroactive publication cannot fully cure information that was material when positions were taken.

14.5.1 Public Resolution Packet

A public packet should identify the market and version, final or current state, outcome, source basis, material evidence references, proposal and challenge history where applicable, decision authority or role, reason code, effective time, and settlement status. It should distinguish facts from interpretations and disclose when a fallback or exceptional procedure was used.

Evidence should be cited in a way that survives ordinary change. A canonical link may be supplemented by a timestamped snapshot, document identifier, quoted field, integrity reference, or archival location, subject to rights and access limits. The packet should not reproduce protected content unnecessarily. It should record enough provenance for an authorized reviewer to recover the material evidence and enough explanation for a participant to understand the decision.

The packet should be versioned. A clarification, challenge, correction, or final decision should add a linked event rather than rewrite the prior state. Users should be able to see which version is operative. Machine-readable status can support applications, while a concise human-readable rationale prevents an API value from becoming detached from meaning.

14.5.2 Separation of Roles and Decision Rights

The resolution framework contains distinct roles even if one organization performs several of them: market creator, contract approver, source publisher, evidence retriever, normalizer, proposer, challenger, reviewer, final decision authority, settlement operator, auditor, and incident responder. The role map should state permissions and prohibited combinations for the relevant risk level.

Separation does not require maximum organizational fragmentation. It requires that no actor can silently change the contract, select evidence, decide a contested outcome, alter positions, and settle balances without compensating control. Dual authorization, independent logs, limited keys, external attestations, public challenges, or post-decision review can provide separation in different architectures. Conflicts of interest and material trading exposure should be disclosed or controlled according to adopted policy.

Decision rights should also be state-specific. A creator may propose a market but lack final resolution authority. A source publisher provides evidence but does not necessarily interpret the market. A proposer may assert an outcome but cannot make it final until the challenge condition is satisfied. The settlement service applies the authorized result but does not revisit evidence. Clear state rights reduce both capture and accidental privilege expansion.

14.5.3 Measurement, Incident Learning, and Assurance

Resolution quality should be measured as a system, not reduced to speed. Useful metrics include time from eligibility to evidence, proposal, procedural finality, and settlement; proportion of markets entering source-exception or dispute states; challenge rate; rate of proposals upheld or changed; source failure and correction frequency; unresolved age; post-finality correction; record completeness; and settlement reconciliation exceptions. Each metric requires a denominator, time period, and market-risk context.

Fast resolution may indicate automation and reliable sources, or premature determination. A low dispute rate may indicate clarity, or a challenge path that is inaccessible. A high overturn rate may show weak proposals, or an effective correction mechanism applied to difficult markets. Metrics should therefore be paired with reasons, severity, and comparable market classes. Public reporting can aggregate sensitive details while preserving accountability for material incidents.

Incident review should connect the failure to a control owner and corrective action. A wrong field may require parser tests; a source conflict may require better hierarchy; a specification defect may require Chapter 12 drafting controls; a premature proposal may require eligibility gating; an untraceable decision may require provenance enforcement. The resulting change should be versioned and should not silently alter already traded contracts.

Assurance may include internal review, independent audit, reproducibility testing, access-control assessment, source simulation, dispute drills, and post-incident verification. Any future audit claim should identify scope, version, date, reviewer, limitations, and remediation status. A generic audited label would not establish that every source, contract interpretation, or real-world event is correct.

Table 14.5. Transparency and record-access layers

LAYER	ILLUSTRATIVE CONTENT	PRIMARY AUDIENCE	CONTROL OBJECTIVE
Pre-market disclosure	Source hierarchy, determination condition, exceptional rules, lifecycle and review route.	Prospective participants, creators and reviewers.	Make resolution risk visible before positions are taken.
Public resolution packet	Market version, state, outcome, evidence basis, proposal or challenge history, rationale and time.	Participants, observers, integrators and researchers.	Make the decision understandable and attributable.
User settlement record	Position quantity, final outcome, payoff rule, adjustments and settlement reference.	Affected user and support or review personnel.	Connect finality to the user-specific accounting result.
Restricted review record	Full evidence copies, reviewer notes, conflicts, internal checks and controlled personal data.	Authorized reviewers, auditors and incident responders.	Support reconstruction without over-disclosure.
Security and operations record	Credentials, signatures, access events, parser logs, alerts and recovery actions.	Authorized security and operations teams.	Protect source integrity, permissions and system availability.
Aggregate assurance report	Timeliness, disputes, reversals, source failures, incidents and remediation status.	Governance, stakeholders and the public at an appropriate level.	Measure system quality without reducing it to one score.

Source: POLIX editorial synthesis. Access layers are conceptual and do not establish a current POLIX privacy, retention, audit, reporting, or public-disclosure policy.

TRANSPARENCY PRINCIPLE **Resolution transparency means that the operative contract, authorized evidence, decision path, current status, reason, finality, and settlement reference can be followed as one versioned record. It does not require disclosure of credentials, personal data, or security controls that would create new harm.**

Chapter Synthesis

1. Chapter 14 defines resolution as the governed bridge between external evidence and the terminal payoff logic developed in Chapter 13.
2. An oracle is a function that imports and interprets off-system facts; it is not necessarily one contract, vendor, data feed, committee, or voting network.
3. World truth and contract truth are related but distinct. The authorized outcome must follow from applying the operative market version to its evidence and decision rules.
4. Resolution integrity affects pre-event prices because participants also price uncertainty about source, procedure, challenge, and finality.
5. The oracle problem includes observation, publication, transport, interpretation, authority, incentive, record, and finality risks.
6. Cryptographic or authenticated delivery strengthens provenance and transport but does not prove that a source is correct or that its data answers the contract question.
7. Decentralized, optimistic, committee, direct, dual-control, and vote-based designs distribute trust and cost differently; none is confirmed as the POLIX implementation.
8. The market title is a discovery label. Resolution should be governed by the complete, versioned specification and its source hierarchy.
9. Source authority is contractual. Popularity, speed, reputation, redundancy, or apparent consensus does not silently create authority.
10. A source record should identify publisher, artifact or dataset, field, subject, geographic scope, publication state, time basis, canonical reference, and fallback if authorized.

11. Publication, event, retrieval, proposal, challenge, finality, and settlement times are separate temporal objects.
12. Raw evidence and normalized evidence should be preserved together so that unit, timezone, entity, field, and transformation errors remain detectable.
13. Corroborative evidence should identify common upstream dependencies; many derivative reports may represent one underlying source.
14. Machine-readable sources and automated checks improve reproducibility but do not eliminate semantic judgment or exceptional cases.
15. AI may assist retrieval, translation, comparison, anomaly detection, and rationale drafting, but model output is not an authoritative event source or automatic final decision.
16. A proposal is provisional. It should state outcome, contract, evidence, mapping, role, time, and uncertainty before entering the applicable review or challenge path.
17. Resolution states should distinguish awaiting evidence, proposed, disputed, final, exceptional, and settled conditions.
18. The resolution packet should preserve contract identity, evidence provenance, acquisition, normalization, proposal, challenge, decision, and settlement reference.
19. Final resolution should activate a settlement gate; reviewers should not alter positions, and settlement logic should not select evidence.
20. A dispute is a quality-control mechanism when it is reasoned, bounded, accessible, independently reviewed, and protected against strategic delay.
21. Challenges should identify permitted grounds and material evidence; disagreement with the desirability of an outcome is not an evidentiary basis.
22. Exceptional states should distinguish cancellation, postponement, source unavailability, source conflict, correction, substitution, specification defect, technical incident, and premature proposal.
23. Missing evidence is not a No outcome, and an unavailable source is not proof that the event did not occur.
24. Substitution requires a recorded failure trigger and preauthorized fallback; ad hoc source selection after positions are known changes the contract.
25. Evidentiary, procedural, and accounting finality may occur at different times and should not share one ambiguous status label.
26. Correction and reopening policy should balance accuracy with reliance, preserve superseded records, and state whether accounting finality changes.
27. Transparency should be available before trading, during resolution, and after finality, with public, user-specific, restricted, and security-sensitive layers.
28. Role separation should prevent one actor from silently changing the contract, selecting evidence, deciding a contested outcome, altering positions, and triggering settlement.
29. Resolution quality metrics require reason, severity, denominator, time period, and market-risk context; speed or low dispute counts alone are not quality proof.
30. Every material incident should connect to a control owner, corrective action, and versioned change without retroactively rewriting already traded contracts.
31. The framework remains implementation-neutral until POLIX publishes separately authorized technical, governance, security, economic, and policy parameters.

TRANSITION TO CHAPTER 15 **Chapters 12 through 14 now define the end-to-end market object: a versioned question, tradable contingent claims, and an attributable path from evidence to final outcome and settlement. Chapter 15 translates those mechanisms into Eight Core Platform Experiences - All Markets, Market Detail, Portfolio, Wallet, Create Market, Leaderboard, Creator Dashboard, and AI Dashboard - while preserving the boundary that interface concepts do not by themselves confirm a deployed screen, feature, asset, or operating policy.**

CHAPTER 14 / REFERENCES

References and Source Notes

The references below support the oracle-problem, authenticated-data, provenance, source-authority, proposal-and-dispute, and resolution-governance principles applied in Chapter 14. Academic and standards references describe general design risks and mechanisms; industry documentation is used only as a comparative example of how existing platforms specify sources or organize proposals and disputes. None is evidence that POLIX has adopted the same source hierarchy, oracle, bond, challenge period, vote, contract, or settlement process. POLIX materials are treated as statements of intended product direction, not evidence of deployed resolution infrastructure.

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CHAPTER 15

Eight Core Platform Experiences

How market, account, creator, and intelligence objects become coherent, inspectable, and action-ready user experiences.

Chapter Thesis

POLIX is conceived not as eight disconnected screens, but as one governed interaction system expressed through eight core experiences. All Markets supports discovery; Market Detail supports contract understanding and trading; Portfolio supports position and performance oversight; Wallet supports asset and transaction control; Create Market supports qualified market supply; Leaderboard supports bounded comparison; Creator Dashboard supports stewardship and attribution; and AI Dashboard supports traceable analytical assistance. Their quality depends on whether the same versioned objects, states, rights, and evidence remain semantically consistent as a user moves among them.

Chapters 7 through 11 defined the architecture and four supply engines; Chapters 12 through 14 defined the market contract, trading and price-discovery layer, settlement boundary, and resolution framework. Chapter 15 does not repeat those mechanisms. It asks a different question: what must a user be able to see, understand, compare, and control when those mechanisms are presented through an interface? The answer is an experience contract, not a pixel specification. It identifies the objects, states, explanations, controls, and disclosure boundaries each experience should preserve even if layouts, devices, vendors, or implementation technologies change.

Human-centred design requires more than visual simplicity. ISO 9241-210 frames interactive-system quality around users, tasks, context, evaluation, and iterative design. In a prediction market, hiding complexity can be as dangerous as exposing too much of it. A participant may need a simple path to act, but the action must remain connected to the complete market contract, current probability state, executable price, liquidity conditions, fees or other economic terms when authorized, and the distinction between proposed and final outcomes. Progressive disclosure should reduce cognitive load without suppressing facts that could change a decision.

The eight experiences should therefore operate as views over shared versioned objects. A market identifier should refer to the same contract in discovery, trading, portfolio, creator, AI, and resolution contexts. A position quantity should reconcile with the executed transaction and settlement record. A creator contribution should retain attribution when surfaced in search or analytics. An AI signal should identify the market version, forecast horizon, source basis, model state, and uncertainty that produced it. If a view silently substitutes a different definition, timestamp, price convention, or status, navigation becomes a source of semantic error.

Experience design also allocates attention and authority. Ranking determines which markets are discovered. Default charts determine which probability history appears salient. Portfolio summaries

determine which exposures are visible. Wallet labels influence whether a user mistakes a pending transfer for available balance. Leaderboards define which behavior appears exemplary. AI dashboards may amplify model outputs through prominence even when the underlying evidence is weak. Interface choices are therefore part of market integrity and governance, not merely presentation.

Accessibility and internationalization are system requirements rather than finishing layers. WCAG 2.2 provides testable, technology-neutral guidance for perceivable, operable, understandable, and robust web content across devices. POLIX also anticipates global categories, languages, currencies, time zones, number formats, and local contexts. A label that is clear in one jurisdiction or language may be ambiguous in another; color-only direction, abbreviated dates, icon-only transaction states, and untranslated source terms can create material errors. The experience architecture should preserve meaning under translation, assistive technology, reduced screen size, and different input methods.

PRODUCT BOUNDARY **Chapter 15 defines normative information and control requirements, not a declaration of deployed POLIX software. It does not confirm finalized screens, navigation, supported assets, custody model, wallet provider, order type, fee schedule, ranking formula, creator-reward formula, identity or KYC workflow, AI model, copy-trading automation, localization coverage, data-refresh interval, accessibility certification, or production availability. Those parameters require separately authorized product, technical, security, legal, and operational documentation.**

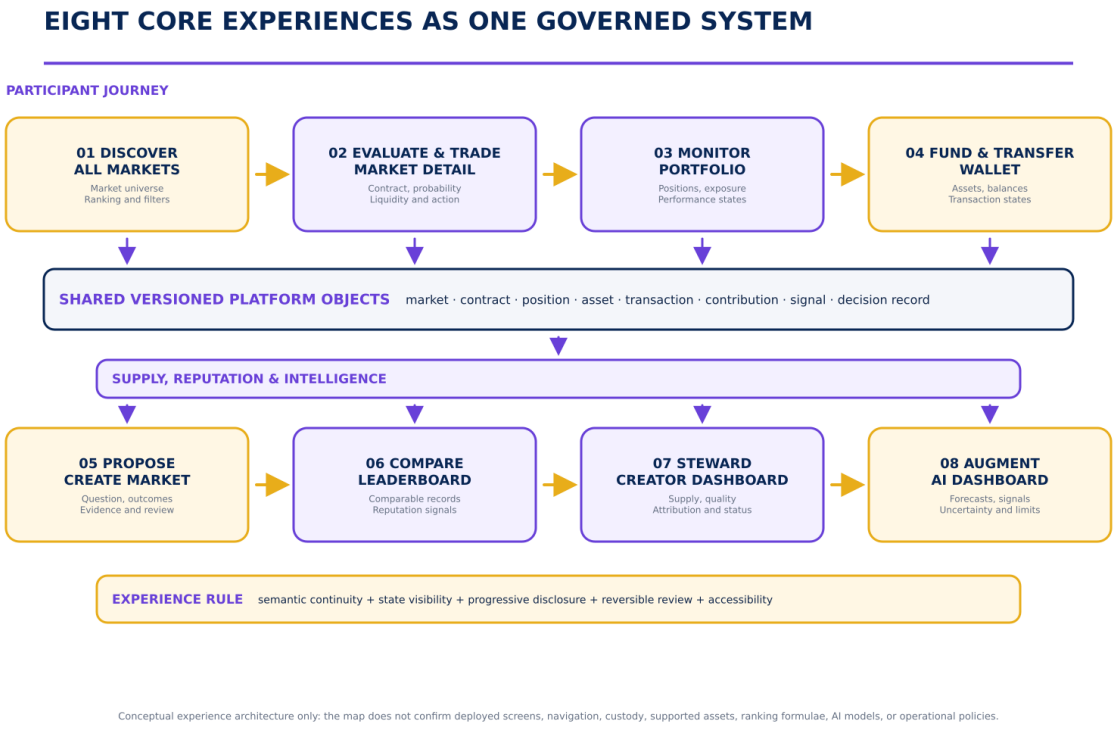

Figure 15.1. Eight Core Platform Experiences as one governed system. The participant journey and supply-intelligence lane share versioned market, position, asset, transaction, contribution, signal, and decision records.

Source: POLIX editorial synthesis based on POLIX Presentation v1.0 EN and the control frameworks developed in Chapters 7–14. Conceptual design only.

Table 15.1. Experience-to-object contract

EXPERIENCE	PRIMARY USER QUESTION	AUTHORITATIVE OBJECTS	NON-NEGOTIABLE BOUNDARY
All Markets	What opportunities exist and why are they shown?	Market universe, category, ranking inputs, current state.	Discovery order is not a claim of quality, truth, or suitability.

EXPERIENCE	PRIMARY USER QUESTION	AUTHORITATIVE OBJECTS	NON-NEGOTIABLE BOUNDARY
Market Detail	What exactly can I trade, on what terms, and in what state?	Operative contract, outcomes, price, liquidity, activity, resolution status.	Title and displayed probability cannot replace contract and executable economics.
Portfolio	What do I hold, how did it change, and what risk remains?	Positions, executions, marks, realized events, exposure and settlement records.	Displayed performance must state valuation basis and distinguish realized from unrealized.
Wallet	What assets are controlled, available, pending, or restricted?	Asset balances, addresses or account references, transaction and confirmation states.	Interface balance must reconcile with the adopted accounting and custody model.
Create Market	Can this proposal become a qualified, resolvable market?	Draft specification, evidence, validation results, review and version states.	Submission is not publication; creation rights do not imply trading or resolution authority.
Leaderboard	Who performs well under a comparable and disclosed metric?	Eligible observations, score rule, cohort, period, exclusions and confidence.	Rank is a bounded measurement, not endorsement or proof of future performance.
Creator Dashboard	What supply did I contribute and what is its qualified status?	Proposals, decisions, stewardship events, attribution and economic eligibility.	Activity count is not equivalent to accepted contribution or payable reward.
AI Dashboard	What does the model estimate, why, with what uncertainty and permitted use?	Target contract, model and data versions, horizon, forecast, evidence and evaluation state.	AI output is analytical assistance, not market truth, resolution evidence, or guaranteed return.

Source: POLIX editorial synthesis. The table specifies experience-level information integrity and does not establish production functionality.

EXPERIENCE-SYSTEM PRINCIPLE **A user should be able to move across all eight experiences without the underlying market, position, asset, contribution, or signal changing meaning. Navigation may change presentation; it must not silently change the authoritative object, time basis, state, or decision rights.**

15.1 All Markets

All Markets is the discovery surface for the market universe. Official POLIX materials describe smart discovery across politics, economy, crypto, finance, AI, entertainment, sports, and other categories; real-time insights; and filtering by category, search, popularity, and recency. The experience should help users form a review set, not manufacture urgency or imply that the first result is the best opportunity. Its primary design problem is selective visibility: a finite screen must order a larger and changing universe while explaining enough of that order to preserve user agency.

A market card should be treated as a compact decision index. At minimum it should identify the question, outcome format, current market state, displayed probability or price convention, relevant close or determination time, activity or liquidity indicator when meaningful, category, and exceptional notice. The card need not reproduce the complete contract, but it should provide a direct route to the operative specification and avoid labels that conflict with it. A short title can support scanning only if dates, thresholds, geographic scope, named entities, and resolution status remain discoverable before action.

15.1.1 Discovery as Ranking Under Constraints

Discovery ranking is a policy-bearing transformation from eligible market supply to visible attention. Inputs may include freshness, trading activity, liquidity, category relevance, creator quality evidence, editorial curation, user-selected interests, or anomaly and risk states. These inputs serve different purposes and should not be collapsed into one unexplained popularity score. A market may rank highly because it is active but still carry low liquidity, a near close time, a source exception, or a disputed status. The interface should preserve those counter-signals.

Personalization can reduce search cost while narrowing exposure. The system should distinguish user-controlled filters from system-selected recommendations and sponsored or partner placement if such forms are later authorized. Users should be able to return to a neutral or chronological view, inspect why an item appears, and avoid persistent inference from sensitive behavior where privacy policy does not permit it. The ranking record should retain model or rule version, eligible universe, material inputs, exclusions, and time so that systematic bias or manipulation can be investigated.

15.1.2 Search, Filters, Categories, and Market Families

Search should resolve more than text similarity. Named entities, aliases, dates, contract identifiers, event series, jurisdictions, leagues, assets, and creator identities may refer to related but non-identical markets. Results should distinguish an exact contract match from a topic match and disclose when several markets ask similar questions with different thresholds, sources, close times, or venues. Chapter 12 provides the duplicate and dependency controls; All Markets should make those relationships legible rather than presenting near-duplicates as independent confirmation.

Filters should be composable, reversible, and visible. Category, market state, outcome type, close horizon, language, source class, venue, liquidity band, creator, and exceptional-state filters may be useful when the underlying data exists. Active filters should remain obvious after navigation and should not silently exclude unfavorable states. Empty results are informative: the interface should explain whether no eligible market exists, the filter combination is too narrow, data is unavailable, or access is restricted under applicable policy.

15.1.3 Discovery Integrity and Attention Risk

The discovery surface can create self-reinforcing concentration. Higher placement attracts views and trading, which may increase the activity signals used to justify continued placement. New, local-language, specialized, or low-liquidity markets may become invisible even when they add valuable coverage. Diversity controls may therefore operate at the slate level: category and language coverage, concentration limits, exploration slots, or separation of trending, new, editorial, creator, and personalized modules. Such controls should be measured against qualified engagement and market quality, not raw click volume alone.

Integrity controls should also address coordinated promotion, duplicate creation, misleading thumbnails or headlines, wash-like activity, and abrupt probability movement without reliable depth. Detection may change ranking or add a notice, but a discovery action should not silently resolve, close, or invalidate a market. Market lifecycle decisions remain with the authorities defined in Chapters 12 and 14.

Table 15.2. Discovery signal and safeguard matrix

SIGNAL	POSSIBLE DISCOVERY USE	MISINTERPRETATION RISK	REQUIRED SAFEGUARD
Freshness	Surface newly published or materially updated markets.	New is mistaken for validated or important.	Show publication and material-update reason; retain quality status.
Activity	Identify markets receiving current participation.	High activity is mistaken for accuracy or liquidity.	Separate views, trades, volume, unique activity, and executable depth.
Probability movement	Highlight rapidly changing market signals.	Movement is treated as news or certainty without context.	Show time window, reference price, liquidity and related event notes.
Personal relevance	Reduce search cost using selected interests or prior behavior.	Filter bubble, sensitive inference, or opaque targeting.	Explain personalization, allow reset and apply privacy controls.
Creator evidence	Support discovery of consistently qualified market supply.	Creator popularity substitutes for contract quality.	Keep proposal quality, stewardship, audience and trading metrics separate.
Editorial or partner placement	Organize important collections or authorized campaigns.	Paid or curated visibility appears organic.	Label placement basis and preserve eligibility and integrity gates.

Source: POLIX editorial synthesis. Signals are design possibilities, not confirmation of a deployed POLIX ranking system.

DISCOVERY PRINCIPLE **All Markets should reduce the cost of finding a relevant contract without converting visibility into endorsement. Every ranking view needs a defined universe, time, input basis, counter-signals, and a route to the complete market specification.**

15.2 Market Detail

Market Detail is the authoritative participant-facing view of one market. Official POLIX materials emphasize real-time trading, live probability tracking, volume and activity, and intuitive Yes/No interaction. The interface should preserve that accessibility while making clear that a market is a versioned contract, not a headline with two buttons. Market Detail is where discovery becomes informed action; it therefore carries the highest obligation to connect what the user sees, what can be executed, and what will govern settlement.

15.2.1 Contract-First Information Hierarchy

The first information layer should answer five questions: what event is being measured, what outcomes exist, when trading and determination occur, which evidence and rules govern resolution, and what current state permits or blocks action. A concise summary may precede the detailed rules, but the summary should be generated from or reconciled to the operative version. Material clarifications, source substitutions, postponements, disputes, or exceptional states should appear near the action area rather than only in an archive.

Version identity should be visible whenever a market can change state. The page should distinguish original publication, authorized clarification, amendment before trading where permitted, close, proposed outcome, challenge, final resolution, settlement, correction, and archive. Users who entered under an earlier visible state should be able to recover that state and see whether a change altered the contract, only clarified it, or changed the decision record without changing accounting finality.

15.2.2 Probability, Price, Liquidity, and Action

The displayed probability should identify its calculation and time basis. Chapter 13 distinguishes last trade, midpoint, best executable quote, liquidity-weighted estimate, and model-derived probability. These values can differ. Market Detail should not present one number as a universal market probability without a label and should not allow an AI estimate to replace the market-derived value. Charts should expose reference convention, update time, interval, missing periods, and corporate or contract events that change comparability.

Before an order or equivalent action is authorized, the user should see outcome, side, quantity, price or pricing rule, estimated consideration, potential terminal payoff, applicable fee or cost when confirmed, price impact or execution uncertainty where measurable, and cancellation or reversibility boundary. A confirmation step should restate the contract identity and prevent stale or changed quotes from being accepted silently. An order accepted by the interface is not necessarily executed; submitted, open, partial, filled, cancelled, rejected, expired, and failed states should remain distinct.

15.2.3 Evidence, Activity, and Market Health

Market activity should be decomposed rather than summarized as one popularity counter. Volume, unique participants, trade count, depth, spread, price impact, concentration, and age describe different properties. Historical activity is not current executable liquidity, and an aggregated number may combine venues or contract structures that are not fully fungible. Chapter 10 establishes the compatibility and provenance requirements for liquidity integration; Market Detail should preserve the source and scope of any combined metric.

A market-health area should surface states that materially qualify interpretation: limited depth, concentrated exposure, suspended trading, stale data, scheduled maintenance, source delay, disputed proposal, or exceptional treatment. Notices should use text and accessible semantics rather than color alone. They should identify the affected object, severity, start time, current consequence, available user action, and link to the governing record. The purpose is not to predict harm but to make the current control state observable.

Table 15.3. Market Detail information hierarchy

LAYER	MINIMUM CONTENT	USER DECISION SUPPORTED	FAILURE IF OMITTED
Contract identity	Market ID, version, question, outcomes, time and governing source.	Determine whether the page represents the intended event contract.	A familiar title is traded under the wrong scope or version.
Market state	Open, limited, closed, awaiting evidence, proposed, disputed, final, exceptional or settled.	Know which actions and interpretations are currently valid.	Users mistake provisional or unavailable states for final and actionable.
Price and probability	Value, convention, timestamp, history basis and uncertainty notes.	Interpret the signal and compare it responsibly.	Non-comparable values appear interchangeable.
Execution context	Side, quantity, quote or rule, cost, payoff, impact, status and confirmation.	Understand the economic action before and after submission.	Displayed intent is mistaken for an executed position.
Liquidity and activity	Spread, depth, volume, concentration and source scope where available.	Assess execution and signal-quality conditions.	Historical activity is mistaken for current liquidity.
Resolution and evidence	Rules, source, notices, proposal, challenge and final decision links.	Understand how the terminal state will be or was authorized.	Headline narrative replaces the governed resolution record.

Source: POLIX editorial synthesis informed by Chapters 12–14 and POLIX Presentation v1.0 EN.

MARKET-DETAIL PRINCIPLE **The action area may be simple; the decision record cannot be vague. Market Detail should connect one contract version, current state, displayed price convention, executable terms, liquidity context, and resolution path before a participant acts.**

15.3 Portfolio

Portfolio is the participant-facing accounting and risk view of positions across markets. Official POLIX materials describe a portfolio overview, realized and unrealized profit-and-loss tracking, and position management. The experience should answer what the user holds, how those positions arose, what valuation convention is being applied, which exposures are related, and what events can change the result. A total value without lineage is insufficient because contingent claims can change discontinuously at resolution and may be difficult to exit before then.

15.3.1 Position Record and Reconciliation

Every position summary should reconcile to executions, transfers or authorized adjustments, and settlement events. The record should identify market and outcome, quantity, average or lot-based cost convention, fees or other costs when applicable, current mark and mark source, realized events, settlement state, and timestamp. Pending orders should not be counted as settled positions, and locked, disputed, or otherwise unavailable quantities should be distinguished from freely actionable quantities.

Reconciliation should be testable at multiple levels: transaction to position, position to market, market to portfolio, and portfolio to wallet or accounting balance where the adopted architecture links them. Corrections should add an attributable adjustment rather than rewrite historical executions. The interface may aggregate for usability, but an authorized user should be able to drill down to the records that explain each total.

15.3.2 Realized, Unrealized, and Scenario Value

Unrealized value is conditional on a mark, not equivalent to withdrawable cash or certain payoff. A last trade may be stale; a midpoint may not be executable; a theoretical value may depend on model assumptions; and a venue-derived mark may not represent another venue. Portfolio should label the mark convention, time, and missing or stale conditions. Realized profit or loss should identify the event that made it realized: closing execution, final settlement, authorized adjustment, or another defined accounting event.

Scenario views can make contingent exposure understandable without forecasting the future. For each market or related group, the interface may show terminal values under permitted outcomes, sensitivity to a price move, time to close or determination, and exceptional-state treatment if defined. Scenarios should not imply that displayed cases exhaust every operational risk. Source failure, market suspension, dispute, delay, fees, transfer restrictions, and correlated events may affect timing or realizability even when the terminal payoff formula is simple.

15.3.3 Exposure, Concentration, and Cross-Market Dependence

A portfolio can appear diversified while depending on one underlying event, person, asset, jurisdiction, date, or source. Related markets may use different questions but share the same causal driver. The normalized market object and dependency mapping from Chapters 10 and 12 should support grouping by event family, category, time horizon, currency or collateral, venue, source, creator, and other material dimensions. These groupings are analytical views; they should expose their classification basis and unresolved relationships.

Risk indicators should be descriptive and decision-supportive rather than promises of protection. Concentration, liquidity, time-to-resolution, unsettled value, disputed exposure, and data staleness may be displayed with thresholds approved by policy. A warning should not silently block an authorized action unless the governing control permits it, and the absence of a warning should not be framed as assurance that the portfolio is suitable or safe.

Table 15.4. Portfolio measurement boundaries

MEASURE	REQUIRED BASIS	USEFUL INTERPRETATION	PROHIBITED SHORTCUT
Position quantity	Executed, transferred, adjusted and settled records; availability state.	How many outcome units are held and actionable.	Include open orders or unavailable units without separation.
Cost basis	Declared averaging or lot method plus applicable costs.	Economic entry basis under one accounting convention.	Compare cost bases calculated by different methods as identical.
Unrealized P&L	Current mark, source, time and cost basis.	Change under the selected valuation convention.	Describe the value as realized, guaranteed or fully executable.
Realized P&L	Closing execution, settlement or authorized adjustment event.	Completed economic result under adopted accounting rules.	Use a price movement alone to create realized performance.
Exposure	Outcome payoff, market family, category, horizon and dependency rules.	Potential concentration and conditional terminal values.	Treat market count as diversification.
Performance rate	Return denominator, period, cash flows, fees and exclusions.	Comparable performance only within a defined methodology.	Rank users or strategies using undocumented denominators.

Source: POLIX editorial synthesis. The table defines measurement discipline and does not establish a live POLIX accounting or valuation policy.

PORTFOLIO PRINCIPLE **Portfolio totals should be explainable as a chain from executions and adjustments to positions, marks, realized events, exposure groups, and settlement. Aggregation may simplify review; it must not erase valuation basis or record lineage.**

15.4 Wallet

Wallet is the asset-control and transaction-state experience. Official POLIX materials describe asset management, secure deposits and withdrawals, transparent transaction records, and a real-time overview. Those statements establish intended user outcomes but not a custody model, wallet provider, supported asset list, network set, address format, signing method, recovery process, or legal access rule. The experience should therefore be specified through invariant accounting and control requirements that can apply to self-custodial, connected-wallet, custodial, smart-account, or hybrid architectures if later authorized.

15.4.1 Balance Semantics and Asset Identity

A balance should identify asset, network or ledger context, unit and precision, account or address scope, availability state, and update time. Total, available, reserved, pending, restricted, and unsettled balances answer different questions. Combining them can cause a user to submit an action that cannot complete or to mistake an expected receipt for controlled funds. If equivalent representations of an asset exist across networks, the interface should not imply interchangeability without an authorized conversion or bridge path.

Asset identity should survive ticker ambiguity and token impersonation. Where applicable, the authoritative record may include network, contract or issuer identifier, decimals, icon provenance, and risk or support state. A familiar symbol or logo is not sufficient. POLX-specific displays should distinguish token utility, trading or reward records, and transferability according to the policies actually adopted; the interface should not infer availability merely because a token is described in the token-economy documentation.

15.4.2 Transaction Lifecycle and Confirmation

Deposits, withdrawals, internal transfers, conversions, approvals, signatures, and settlement movements may follow different state machines. A generic Completed label can conceal broadcast, network confirmation, internal credit, final reconciliation, reversal risk, or compliance review. The user record should identify action type, asset, quantity, source and destination reference, network where relevant, submitted time, current state, fees when confirmed, transaction or ledger identifier, and any required user action.

Confirmation should be risk-sensitive. An irreversible external transfer requires stronger review than a reversible interface preference. Address display and copy controls should resist truncation ambiguity; network and destination compatibility should be checked where technically possible; estimated and final fees should remain distinct; and a changed quote or fee should require renewed consent. Failure messages should preserve reason categories without exposing security-sensitive detail and should state whether funds or permissions changed.

15.4.3 Security, Recovery, and Privacy Boundaries

Security should be expressed through observable state and safe action design rather than a generic secure label. Relevant controls may include authenticated sessions, transaction signing, device or key state, withdrawal confirmation, allowlists, limits, delays, anomaly review, access history, recovery, and incident notices, depending on the architecture adopted. The interface should distinguish a platform credential from a blockchain key and should never imply that support personnel can recover or reverse an action when the selected model does not permit it.

Wallet data can reveal identity, holdings, counterparties, location, behavior, and strategy. Public-ledger transparency does not authorize unnecessary aggregation or disclosure in the user interface. Address books, transaction descriptions, analytics, social features, and support workflows should apply data

minimization, access control, purpose limitation, and retention rules under the applicable policy. Privacy controls should not hide the transaction evidence required for the user to reconcile funds.

Table 15.5. Wallet transaction-state vocabulary

STATE	MINIMUM MEANING	USER-FACING CONSEQUENCE	CONTROL REQUIREMENT
Draft or awaiting authorization	Parameters are prepared but no binding submission has occurred.	User may review, change or abandon the action.	No balance or permission change should be implied.
Submitted	The authorized request has entered the applicable service or network.	Cancellation may or may not remain available.	Record parameters, time, authority and current cancellation rule.
Pending	Required confirmation, review, matching or reconciliation is incomplete.	Funds may be unavailable or not yet credited.	Identify dependency, elapsed time and escalation route.
Partially completed	Only part of the requested quantity or workflow is final.	Available and outstanding amounts must be separated.	Preserve component records and remaining action.
Completed	The adopted finality and accounting conditions are satisfied.	Balance and transaction history should reconcile.	State which ledger or process defines completion.
Failed, rejected or expired	The action did not reach the authorized completed state.	User needs reason, fund impact and permitted next step.	Do not merge distinct failure classes or conceal partial effects.
Reversed or corrected	A later authorized event changed or superseded an earlier record.	Current balance and history must show the relationship.	Preserve original event, authority, reason and reconciliation.

Source: POLIX editorial synthesis. State names are conceptual and must be mapped to the custody, network, accounting, and legal model later adopted.

WALLET PRINCIPLE **Wallet simplicity must not collapse distinct assets, networks, balances, permissions, and transaction states. Every displayed total and completed action should reconcile to an authoritative record under the adopted custody and accounting model.**

15.5 Create Market

Create Market is the interface that converts an idea into a reviewable proposal. Official POLIX materials describe user-generated markets and a simple step-by-step creation flow that enables community participation. Chapter 11 established creators as a source of qualified market supply, and Chapter 12 defined the market-specification and curation architecture. Chapter 15 therefore does not restate every drafting rule. It specifies how the creation experience should expose those rules at the point of work and preserve a versioned proposal record.

15.5.1 Guided Specification, Not a Title Form

The flow should progressively capture subject, predicate, scope, outcome set, close and determination conditions, time zone, governing source, resolution logic, exceptional states, category, language, rights or attribution information, and disclosed conflicts. The system may suggest structure, detect missing terms, identify similar markets, or preview how the contract will appear. Assistance should remain distinguishable from creator-authored content and should not silently convert a broad idea into materially different terms.

Validation should occur while the proposal is editable. Syntax, date format, outcome overlap, missing source, unsupported state, duplicate similarity, prohibited content, and inconsistent fields can be surfaced with specific reason codes. A warning should explain whether it blocks submission, requires acknowledgment, or is informational. Automated validation is not approval; human or governed review may still be required for semantic ambiguity, rights, local context, manipulation risk, or exceptional-event treatment.

15.5.2 Proposal States, Review, and Collaboration

The creation record should distinguish private draft, collaborative draft, submitted, returned for revision, under review, accepted, scheduled, published, limited, rejected, withdrawn, superseded, and archived states where adopted. Each transition should identify actor or role, reason, effective time, and version. A returned proposal should preserve reviewer feedback and allow a new version without deleting the reviewed state. Rejection should not imply misconduct unless the recorded reason supports that conclusion.

Collaboration requires attribution. Contributors may provide original concept, research, translation, source improvement, outcome revision, moderation, or lifecycle stewardship. The experience should record accepted contributions and permissions without allowing collaborators to alter an active contract outside the authorized amendment process. Public credit, private identity, rights disclosure, and economic attribution may require different visibility layers.

15.5.3 Publication Readiness and Handoff

Before publication, the experience should present a readiness summary: operative question, outcome set, dates, source, exceptions, category and language, unresolved issues, policy decision, and creator responsibilities. Publication should generate or reference the authoritative market version and hand it to All Markets and Market Detail without semantic drift. Creator Dashboard should receive the proposal and decision lineage; resolution services should receive the source and exception specification; economic eligibility should remain a separate decision.

A successful submission is not a promise of listing, liquidity, reward, or resolution influence. Market quality, policy compatibility, economic viability, duplicate control, legal availability, and operational capacity may produce different outcomes. The interface should state which decision is being made and avoid one binary Approved label for all of them.

> CREATION PRINCIPLE **Create Market should make the disciplined path easier than the ambiguous path. The interface can reduce drafting cost, but only a versioned specification, explicit validation, reasoned review, and controlled handoff can convert an idea into qualified market supply.**

15.6 Leaderboard

Leaderboard is the comparative reputation surface for predictors, traders, creators, or other eligible roles. Official POLIX materials describe top predictors, performance rankings based on profitability, win rate and historical prediction accuracy, and social trading insight. These measures are not interchangeable. Profitability depends on capital, timing, price and risk; win rate depends on event selection and thresholds; probability accuracy requires a scoring rule and resolved forecasts. A credible leaderboard should identify the measured behavior before assigning rank.

15.6.1 Comparable Cohorts and Score Contracts

Every ranking should have a score contract: eligible role, observation unit, market set, minimum sample, evaluation period, cutoff time, capital and fee treatment, unresolved-market treatment, exclusions, update frequency, tie rule, and uncertainty or confidence treatment. Comparisons should be made within meaningful cohorts where possible. A participant with one high-return position is not directly comparable to a forecaster with hundreds of probability estimates; a creator supplying local markets is not comparable to a trader allocating capital.

Forecast accuracy should use a proper scoring rule when probabilistic accuracy is claimed. For other task types, an alternative metric should be used only when its purpose, calculation, and limitations are disclosed. Brier (1950) and subsequent scoring-rule research show why probabilistic forecasts should be evaluated using the probability assigned to resolved outcomes. The interface should state whether it evaluates a forecast snapshot, time series, market-implied probability, AI estimate, or executed trade. Selecting a favorable timestamp after resolution would invalidate the comparison.

15.6.2 Risk, Scale, and Survivorship

Profit rankings can reward hidden leverage, concentration, illiquidity, or one-off variance. Risk-adjusted or consistency views may add context, but each introduces assumptions. At minimum, the interface should pair return with period, deployed capital or denominator, drawdown or adverse movement where defined, number of eligible observations, concentration, and unresolved exposure. Accounts or strategies that stop after losses should not disappear from historical cohorts if their removal would create survivorship bias.

Identity and account multiplicity also affect comparability. Sybil behavior, collusive trading, self-dealing, coordinated accounts, market creation followed by privileged participation, and copied strategies can inflate apparent skill. Integrity controls may exclude or annotate observations under a published policy, but enforcement states, appeals, and historical corrections should remain attributable. A ranking correction should not silently rewrite prior periods.

15.6.3 Social Discovery Without Endorsement

Leaderboard can help users discover public reasoning, market specialization, or consistently calibrated forecasts. It should not imply that rank creates fiduciary authority, suitability, guaranteed performance, or exemption from conflict rules. Profiles may distinguish verified identity or role, public handle, methodology, category expertise, disclosed interests, observation history, and follow eligibility according to policy. Privacy-preserving or pseudonymous participation may be appropriate, but the interface should not imply verification that has not occurred.

Copy or follow features require a separate action contract. A user should know whether following means receiving public updates, viewing a model portfolio, generating a suggestion, or automatically replicating transactions. Timing, price divergence, liquidity, capital scaling, fees, market access, conflict, and stopping conditions can produce materially different results. Chapter 9 defines AI Copy & Follow as a governed analytical workflow; leaderboard prominence alone should never authorize automation.

Table 15.6. Leaderboard metric contract

METRIC FAMILY	ELIGIBLE OBSERVATION	CONTEXT REQUIRED	COMMON DISTORTION
Probability accuracy	Time-stamped forecast linked to a resolved contract and scoring rule.	Forecast horizon, score, sample, category and resolution quality.	Cherry-picked timestamps, easy events or unresolved exclusions.
Trading return	Executed and reconciled economic records under one return method.	Capital, cash flows, fees, period, liquidity and unresolved exposure.	Hidden concentration, scale, leverage or non-executable marks.
Win rate	Defined winning observations with comparable thresholds.	Count, base rate, price paid, market selection and tie treatment.	Many low-value favorites appear superior to informative risk-taking.
Consistency	Repeated eligible observations across time or categories.	Window, missing periods, volatility and minimum activity.	Inactivity or account resets remove adverse evidence.
Creator quality	Reviewed proposals and stewardship decisions.	Acceptance, revision, incidents, scope, audience and time.	Market count or volume substitutes for qualified contribution.
Community contribution	Attributed, policy-compatible work or engagement.	Role, evidence, quality gate, duplication and privacy limits.	Spam, coordinated activity or popularity becomes reputation.

Source: POLIX editorial synthesis informed by Brier (1950), Gneiting and Raftery (2007), and the POLIX platform-feature concept. No live ranking formula is claimed.

LEADERBOARD PRINCIPLE **A rank is credible only within a disclosed score contract and comparable cohort. Leaderboards should make evidence discoverable while preserving uncertainty, conflicts, correction history, and the boundary between reputation signal and endorsement.**

15.7 Creator Dashboard

Creator Dashboard is the operating view for market-supply contributors. Chapter 11 already defined creator roles, qualified supply, attribution, revenue-sharing boundaries, quality gates, appeals, and gaming controls. This section specifies how those decisions should be made legible across the eight-experience system. The dashboard should help a creator understand proposal state, required work, evidence behind decisions, stewardship obligations, audience and market evidence, and any policy-defined economic eligibility without collapsing them into one popularity score.

15.7.1 Pipeline, Work Queue, and State Evidence

The primary panel should organize proposals and published markets by lifecycle state and required action. Drafts need completeness and collaboration status; submitted proposals need review state and expected next step; returned proposals need reason-coded revision tasks; published markets need source, close, quality, incident and stewardship alerts; closed markets need resolution and archival status. Counts should link to records and should distinguish a state from an action deadline.

Decision notices should state the reviewed version, decision scope, evidence, policy or quality reason, effective time, reviewer or authority role, and appeal or correction route where applicable. A dashboard that shows only accepted or rejected leaves creators unable to improve and makes platform quality difficult to measure. Sensitive reviewer, participant, or security information may be restricted, but the creator should receive enough rationale to understand the material issue.

15.7.2 Analytics, Attribution, and Economic Eligibility

Creator analytics may include qualified discovery, audience, repeat engagement, trading activity, liquidity conditions, source reliability, correction, incident, resolution readiness, and stewardship completion. Metrics should identify denominator, time, scope, qualification rule, privacy threshold, and update state. Raw views or volume should not dominate the experience when they can be manipulated or detached from market quality.

Attribution should separate original proposal, accepted revision, research, translation, curation, promotion, moderation, and lifecycle stewardship. Economic panels should display eligibility basis, evaluation period, status, approved amount or formula only when authorized, adjustment or hold reason, distribution reference, and appeal state. Expected or estimated rewards should not appear as earned or withdrawable. Chapter 11 governs contribution and sustainable reward principles; Wallet should receive only finalized economic records under the adopted policy.

15.7.3 Community Growth and Accountability

Community-growth tools may help creators understand how audiences discover and participate in their markets, but the dashboard should distinguish qualified discovery, invited activity, repeated participation, and promotional campaigns. Referral attribution, creator attribution, and trading activity are separate records even when one user journey involves all three. Combining them can produce duplicate rewards or unclear responsibility.

Accountability is reciprocal. Creators need notice, reasons, correction and appeal; the platform needs truthful identity or role evidence where required, source and rights disclosure, conflict disclosure, non-manipulative promotion, preservation of market meaning, and cooperation with incident response. The

dashboard should make these duties observable through state, reminders and records rather than relying on terms that appear only at onboarding.

CREATOR-DASHBOARD PRINCIPLE **Creator Dashboard should optimize for qualified market supply and accountable stewardship, not maximum proposal count. Every metric and economic state should remain linked to a versioned contribution, quality decision, period, and authorized rule.**

15.8 AI Dashboard

AI Dashboard is the participant-facing view of the intelligence-supply engine defined in Chapter 9. Official POLIX materials describe real-time market analysis, probability forecasting, AI signal generation, trading insight, portfolio support, and copy or follow intelligence. The dashboard should make those outputs useful without converting model confidence into institutional authority. Its central design problem is calibrated reliance: users need to know what the system estimates, what evidence and model state support it, where it may fail, and what action remains theirs.

15.8.1 Signal Card as an Analytical Contract

An AI signal should identify the target market and operative contract version, output type, forecast or action horizon, generated time, model or ensemble version, relevant data window, forecast value, market reference value, difference or edge calculation, uncertainty or confidence definition, material evidence links, known limitations, and expiration or withdrawal state. A percentage without these fields is not a reusable analytical object. It cannot be scored consistently, compared across versions, or distinguished from the market probability.

Evidence summaries should preserve source provenance and timing. News, social, on-chain, and market data may update at different rates and may share dependencies. The dashboard may present concise reasons, but an explanation generated after the forecast should not be represented as the model's causal basis unless the system actually preserves that relationship. When evidence is missing, conflicting, stale, inaccessible, or outside the model's intended use, the interface should expose the limitation or withhold the signal according to policy.

15.8.2 Performance, Calibration, and Drift

Model performance should be reported on resolved, version-matched observations using disclosed evaluation rules. Useful views may include calibration by probability band, proper score, directional or ranking performance where appropriate, coverage, abstention, update frequency, category and horizon breakdown, and performance under exceptional states. Aggregate accuracy without sample, period, baseline, and unresolved-case treatment can overstate reliability. Backtests, simulations, live evaluations, and user outcomes should remain separate.

Drift can arise from changing events, user behavior, market structure, data providers, language, jurisdictions, or feedback loops created by the model's own influence. A model card or status panel should identify intended use, current evaluation state, material version change, degraded or limited mode, incident, and last review. Historical signals should remain linked to the model and data versions that generated them; recomputing the past with a new model is useful for research but should not overwrite the original record.

15.8.3 Human Control, Action Boundaries, and Feedback

Human-AI interaction research recommends that systems communicate capability, context, uncertainty, correction paths, and changing behavior over time (Amershi et al., 2019). NIST AI RMF similarly emphasizes documentation, transparency, defined human roles, measurement, and management of

risk. For POLIX, the dashboard should distinguish informative output, recommendation, order draft, user-confirmed action, automated action if separately authorized, and post-action monitoring. Each step changes responsibility and should require an explicit permission and stopping rule.

Copy or follow intelligence should show source strategy or predictor, eligibility and evaluation basis, capital-scaling rule, market-access differences, expected divergence from source execution, liquidity and concentration limits, current synchronization state, and pause or exit controls. A model may suggest a portfolio or order, but a user should be able to inspect the component markets and economic terms before authorization. Automatic replication, if later adopted, requires separate safeguards and must not be inferred from an AI Dashboard concept.

Feedback should distinguish preference, factual correction, outcome label, explanation quality, harmful output, and strategy result. User clicks and trades are not automatically ground truth; optimizing directly for engagement can amplify sensational or high-turnover signals. Feedback data should be governed for quality, privacy, conflict, and manipulation, and material corrections should connect to model evaluation and incident records.

Table 15.7. AI signal display contract

FIELD GROUP	MINIMUM DISCLOSURE	DECISION VALUE	FAILURE IF ABSENT
Target and version	Market ID, contract version, outcome, category and jurisdictional scope.	Confirms what proposition the model addresses.	A forecast is applied to a similar but different contract.
Time and horizon	Generation time, data cutoff, forecast horizon and expiry or withdrawal.	Shows when the estimate was valid and what future point it concerns.	A stale or post-event output appears current.
Model and data state	Model or ensemble version, material source classes and coverage state.	Supports reproducibility, comparison and incident review.	Outputs change without attributable cause.
Forecast and reference	AI probability or score, market reference value and calculation of difference.	Separates model estimate from market-derived signal.	AI and market probability appear interchangeable.
Uncertainty and limits	Confidence definition, abstention, missing data, intended-use and risk notes.	Supports calibrated reliance and safe non-use.	Visual certainty substitutes for evaluated reliability.
Evidence and explanation	Material source links, time, provenance and concise rationale status.	Allows review of what information supports the output.	Generated explanation appears to be authoritative evidence.
Evaluation status	Sample, period, scoring method, baseline and category or horizon performance.	Places the current signal in measured historical context.	Marketing accuracy claims replace testable evidence.
Action boundary	Informative, suggested, drafted, confirmed or automated state plus stop controls.	Clarifies who authorized the economic action.	Viewing or following a signal silently triggers exposure.

Source: POLIX editorial synthesis informed by Chapter 9, NIST AI RMF 1.0, and Amershi et al. (2019). No deployed POLIX model, accuracy rate, or automation policy is claimed.

AI-DASHBOARD PRINCIPLE **AI Dashboard should increase the inspectability of intelligence, not the authority of an unexplained score. Every output needs a target, version, time, horizon, evidence state, uncertainty, evaluation context, permitted use, and explicit action boundary.**

Chapter Synthesis

1. Chapter 15 defines eight experiences as governed views over shared versioned platform objects rather than disconnected screens.
2. Human-centred simplicity should reduce cognitive cost without hiding contract, price, liquidity, state, or resolution facts that can change a decision.
3. Semantic continuity requires market, position, asset, transaction, contribution, signal, and decision records to retain meaning across navigation.

4. Accessibility, translation, time zone, number format, device size, and assistive-technology use are system requirements for a global platform.
5. All Markets is a discovery system whose ranking rules allocate attention and therefore require defined universes, inputs, counter-signals, and review.
6. Market cards are compact decision indexes; they should route directly to the operative contract and never convert visibility into endorsement.
7. Search and filtering should distinguish exact contracts from topic similarity and make market families, duplicates, dependencies, and active filters visible.
8. Market Detail is the authoritative participant-facing view connecting one contract version, current state, price convention, executable economics, liquidity context, and resolution path.
9. Displayed probability should identify whether it is a trade, quote, midpoint, derived estimate, or AI forecast and should retain time and comparability context.
10. Submitted, open, partial, filled, cancelled, rejected, expired, and failed actions are distinct states and should not be collapsed into traded or completed.
11. Portfolio totals should reconcile from executions and adjustments through positions, marks, realized events, exposure groups, and settlement.
12. Unrealized value depends on a mark convention and is not equivalent to withdrawable cash, executable exit value, or guaranteed terminal payoff.
13. Portfolio diversification should be evaluated through underlying event and dependency relationships rather than market count alone.
14. Wallet should distinguish asset and network identity, total and available balance, permissions, and transaction finality under the adopted custody model.
15. Wallet security should be expressed through observable controls and accurate recovery or reversibility boundaries, not a generic secure label.
16. Create Market is a guided specification and review experience; submission is not publication, listing, liquidity, reward, or resolution authority.
17. Proposal versions, reviewer decisions, collaboration, publication handoff, and correction history should remain attributable.
18. Leaderboard metrics require a disclosed score contract, comparable cohort, time, denominator, exclusions, sample, uncertainty, and correction policy.
19. Profitability, win rate, forecast accuracy, creator quality, and community contribution measure different behaviors and should not share one unexplained rank.
20. Leaderboard visibility is not endorsement, suitability, guaranteed performance, or authorization to copy or automate a strategy.
21. Creator Dashboard should organize qualified supply, state evidence, required work, attribution, stewardship and economic eligibility rather than optimize raw proposal count.
22. Creator metrics and reward states should remain connected to a versioned contribution, quality decision, evaluation period, and authorized rule.
23. AI Dashboard is the inspectable interface to the Chapter 9 intelligence engine, not an independent source of market truth or resolution evidence.
24. An AI signal requires target contract, time, horizon, model and data versions, forecast, market reference, uncertainty, evidence, evaluation and action boundary.

25. Backtests, simulations, live evaluation, user outcomes, and marketing claims should remain separate evidence classes.
26. Human review, confirmation, automation, pause, correction and feedback rights should be explicit wherever AI output can influence economic action.
27. Across all eight experiences, interface prominence and defaults should be treated as integrity-relevant allocation decisions and measured accordingly.
28. The chapter remains implementation-neutral until POLIX publishes separately authorized product, technical, security, legal and operating specifications.

TRANSITION TO CHAPTER 16 **Chapter 15 defines how participants and creators encounter the governed POLIX system. Chapter 16 extends the boundary outward to partner networks and ecosystem integration: which capabilities may be exposed, how identity and permissions cross organizational boundaries, how data and liquidity retain provenance, and how partner activity connects to POLX without weakening the object, state, and accountability contracts established here.**

CHAPTER 15 / REFERENCES

References and Source Notes

Official POLIX materials support the intended Eight Core Platform Experiences and the AI, creator, referral, liquidity, and ecosystem direction referenced in this chapter. Standards and research sources support human-centred design, accessibility, probabilistic evaluation, and human-AI interaction principles. They do not establish deployed POLIX screens, wallet architecture, ranking formulae, AI models, performance, security certification, legal availability, or operating policy.

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CHAPTER 16

Partner Network and Ecosystem Integration

A governed federation for connecting partner platforms, data, intelligence, distribution, and economic participation without losing semantic integrity or accountability.

Chapter Thesis

POLIX is conceived as a platform ecosystem whose value can expand when independent organizations contribute markets, liquidity, data, analytical services, distribution, regional knowledge, and operational capabilities. Integration alone, however, does not create a trustworthy network. A credible partner ecosystem requires a stable core, explicit boundary contracts, versioned identities and permissions, attributable data and service outputs, measurable quality, reversible lifecycle states, and economic eligibility that follows verified contribution rather than mere connection. Chapter 16 defines those conditions for the intended Prediction Market Alliance Network.

Chapter 7 described the POLIX core-and-engine architecture, Chapters 8 through 11 developed the four supply engines, and Chapters 12 through 15 defined market objects, trading, resolution, and participant-facing experiences. Chapter 16 does not repeat those internal mechanisms. It asks what must remain true when capabilities cross organizational boundaries. A partner may retain its own users, interface, market inventory, models, data providers, compliance obligations, and commercial priorities. The network still needs one attributable way to identify the partner, understand the capability exposed, map the objects exchanged, measure service state, investigate an incident, and decide whether an activity is eligible for discovery, liquidity, analytics, attribution, or POLX-related treatment.

Platform research shows why this boundary is strategically important. Two-sided network effects can increase the value of participation as additional complementary groups join, but the resulting benefits depend on interaction design rather than connection count alone (Parker and Van Alstyne, 2005). Technology ecosystems must also balance standardization with variety, platform control with partner autonomy, and collective value with individual incentives (Wareham, Fox, and Cano Giner, 2014). Boundary resources - including interfaces, schemas, tools, rules, documentation, and review channels - mediate those tensions and evolve through use by both the core platform and complementors (Eaton et al., 2015).

For POLIX, the stable core should be semantic before it is technical. A market identifier should map to one operative contract version. A probability or price should state its source, convention, and time. A liquidity contribution should state venue, executable conditions, and compatibility. An AI forecast should retain target, model and data versions, horizon, uncertainty, and permitted use. A referral or discovery event should retain attribution and qualification basis. If partners exchange only labels and numbers while their meanings differ, the network may appear unified while producing false comparability, duplicate activity, or untraceable decisions.

Official POLIX materials describe an intended Prediction Market Alliance Network through which emerging prediction platforms may access AI intelligence, analytics, discovery, and growth tools, while the Liquidity Hub and aggregator vision seek to reduce fragmentation. The same materials position POLX as the economic layer supporting partner incentives and ecosystem growth (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 5, 2026; POLIX Project Summary 7, 2026; POLIX Project Summary 8, 2026; POLIX Project Summary 12, 2026; POLIX Token Economy v1.0 EN, 2026). These statements establish strategic direction, not a deployed integration contract. The chapter therefore develops an implementation-neutral governance architecture that can later be instantiated through separately authorized product, technical, security, legal, data-rights, and commercial specifications.

INTEGRATION BOUNDARY **Chapter 16 does not confirm a live partner roster, API gateway, data model, authentication protocol, supported venue, cross-venue order-routing method, custody or settlement arrangement, service-level commitment, partner fee, revenue share, jurisdictional availability, licensing right, token payment requirement, incentive rate, or production launch state. It defines the evidence and controls that any adopted integration should make explicit.**

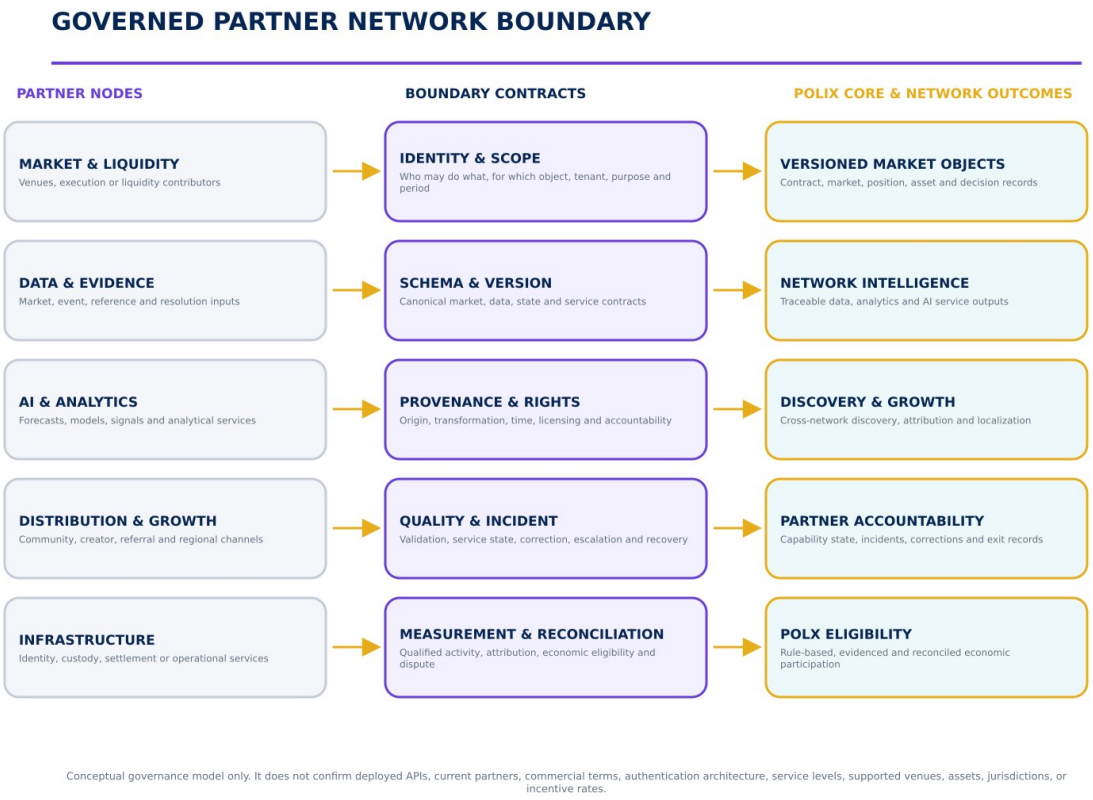

Figure 16.1. Governed partner-network boundary. Partner capabilities become network capabilities only through explicit identity, semantic, provenance, quality, lifecycle, and reconciliation contracts.

Source: POLIX editorial synthesis informed by POLIX ecosystem materials, Wareham, Fox, and Cano Giner (2014), Eaton et al. (2015), W3C PROV-DM, and Chapters 7-15. Conceptual design only.

Table 16.1. Partner contribution classes and boundary conditions

PARTNER CLASS	POSSIBLE CONTRIBUTION	AUTHORITATIVE EVIDENCE	BOUNDARY CONDITION
Market or liquidity network	Market inventory, quotes, executions, depth or venue access.	Contract mapping, venue identity, time, executable terms, status and reconciliation record.	Similar markets are not assumed fungible; routing or aggregation requires explicit compatibility.

PARTNER CLASS	POSSIBLE CONTRIBUTION	AUTHORITATIVE EVIDENCE	BOUNDARY CONDITION
Data or evidence provider	Event, reference, market, on-chain, news or resolution-related data.	Source identity, field definition, publication and retrieval time, transformation, rights and correction state.	Authenticated delivery does not prove relevance, accuracy, independence or resolution authority.
AI or analytics provider	Forecast, anomaly, ranking, portfolio, discovery or execution-support service.	Target, model and data versions, horizon, method class, evaluation state, limits and incident record.	A partner score does not become market probability, settlement evidence or authorized action by display alone.
Distribution or growth partner	Referral, community, creator, regional, media or discovery channel.	Campaign and source identity, consent state, qualified event, attribution rule, duplication and correction record.	Reach and raw traffic are not equivalent to unique users, qualified activity or payable contribution.
Operational infrastructure	Identity, custody, settlement, messaging, monitoring or other technical service.	Service identity, scope, dependencies, control state, availability, security and recovery evidence.	Infrastructure access is least-privilege and does not confer market, resolution or economic authority.
Regional or institutional partner	Localization, category expertise, policy context, research or enterprise access.	Role, jurisdiction and language scope, methodology, conflicts, review state and approved use.	Local expertise does not silently alter the operative market contract or network-wide policy.

Source: POLIX editorial synthesis. The classes describe possible integration roles and do not confirm current partners or services.

ECOSYSTEM PRINCIPLE **The unit of integration is not the partner name or API connection. It is a versioned capability with a defined actor, object, scope, provenance, state, quality evidence, responsibility, and exit path.**

16.1 Partner Ecosystem Overview

The POLIX partner ecosystem should be understood as a governed federation around a stable prediction-market core. Federation means that independent actors may preserve organizational autonomy while agreeing on the minimum contracts necessary for reliable interaction. It is neither a single merged company nor a permissionless assumption that every external object is compatible. The network can include heterogeneous roles, but each role should connect through a bounded capability whose meaning and consequences are testable.

A platform ecosystem becomes more valuable when complementary contributions reduce search cost, expand market coverage, deepen usable liquidity, improve analytical quality, or open reliable distribution. It becomes more fragile when additional nodes introduce incompatible contracts, duplicated activity, poor-quality data, hidden common dependencies, unbounded permissions, or incentives to maximize volume at the expense of integrity. Ecosystem scale should therefore be measured by qualified interoperability and attributable outcomes, not partner count alone.

16.1.1 Ecosystem Unit of Analysis

The appropriate unit of analysis is a capability relationship. One organization may contribute several capabilities under different assurance levels: public market metadata, authenticated quotes, executable orders, a probability model, referral distribution, or resolution evidence. These should not inherit one blanket trust status. A partner may be qualified to publish a data feed but not to create markets; qualified to refer users but not to receive private portfolio data; or qualified to supply analytics but not to initiate an economic action. Capability-level status limits the damage created when organizational reputation substitutes for technical or procedural evidence.

Each capability record should identify the provider and accountable role; service and version; intended purpose; objects and fields accepted or returned; jurisdiction, language, category or venue scope where material; rights and restrictions; data classification; required assurance; dependency chain; quality and

availability state; economic eligibility class; and effective, expiry, suspension or termination time. The record should distinguish what the partner asserts, what POLIX validates, and what remains dependent on a third party.

16.1.2 Federation Without Semantic Drift

Federated systems fail when common labels conceal different semantics. Open, closed, resolved, volume, liquidity, probability, user, referral, creator, reward and settlement may each have venue-specific definitions. A canonical schema should not erase those differences. It should preserve the source representation, map it to a network concept only when the mapping is valid, record transformations and confidence, and refuse or qualify mappings that would create false equivalence.

Market federation is especially sensitive. Two contracts referring to the same public event may differ in outcome set, threshold, close time, source hierarchy, cancellation rule, currency, settlement convention or jurisdiction. They may be related without being fungible. Chapter 12 governs specification and duplicate relationships; Chapter 10 governs liquidity compatibility. Chapter 16 adds the partner boundary: the mapping decision, source contract, venue state and version should remain attributable so downstream discovery, analytics, or routing can recover why objects were grouped or kept separate.

The W3C PROV Data Model distinguishes entities, activities, agents, derivations, responsibility and time, providing a useful general vocabulary for preserving this lineage (Moreau and Missier, 2013). POLIX need not adopt a particular serialization to apply the principle. Every material network output should be traceable to the source objects, transformations, actors and versions that produced it.

16.1.3 Network Effects, Bottlenecks, and Externalities

A partner network can generate cross-side effects: more market supply may attract more users; more qualified user activity may support liquidity; deeper liquidity may improve discovery and execution; better data may improve analytics; better analytics may increase participation; and more creators may expand category coverage (Rochet and Tirole, 2003). These effects are conditional. Low-quality markets can increase review cost, duplicated feeds can create apparent but not real evidence diversity, and fragmented capital can make a larger catalog less executable.

The bottleneck may migrate as the network grows. Early constraints may be partner acquisition or market coverage; later constraints may be normalization quality, review capacity, data licensing, identity assurance, incident response, or economic reconciliation. Governance should therefore measure queues and failure rates across the integration lifecycle: mapping exceptions, stale feeds, rejected events, unresolved incidents, duplicated attribution, reconciliation breaks and partner concentration. Growth that shifts cost into opaque exception handling is not sustainable network expansion.

Concentration deserves explicit attention. A network can appear plural while depending on one upstream data vendor, cloud provider, liquidity source, identity service, or distribution channel. Dependency mapping should identify common origin and substitutability. The objective is not mechanical diversification but visibility into which network services can continue, degrade safely, or stop when a partner or upstream dependency fails.

Table 16.2. Ecosystem scale indicators and counter-signals

INDICATOR	POSSIBLE VALUE	COUNTER-SIGNAL	INTERPRETATION RULE
Connected partners	Breadth of organizational participation.	Inactive, duplicate, dependent or unqualified connections.	Count only the relevant lifecycle state and disclose capability coverage.
Integrated markets	Expanded discovery and event coverage.	Non-comparable contracts, stale mappings or unusable depth.	Separate mapped, validated, tradable and executable states.

INDICATOR	POSSIBLE VALUE	COUNTER-SIGNAL	INTERPRETATION RULE
Shared liquidity	Potentially deeper execution and stronger price discovery.	Fragmentation, routing loss, venue concentration or settlement mismatch.	Report executable conditions and provenance, not nominal totals alone.
Data coverage	Broader evidence and analytical context.	Common upstream source, latency, rights limits or transformation error.	Measure independence, freshness, field quality and recoverability.
Network activity	Participation across partner surfaces.	Bots, duplicates, self-referrals, wash-like behavior or attribution collision.	Use qualified unique events under a versioned counting rule.
Partner revenue or rewards	Economic value distributed to contributors.	Subsidy dependence, circular activity or unreconciled claims.	Tie eligibility to evidenced contribution and finalized accounting.

Source: POLIX editorial synthesis. No current POLIX partner count, market count, liquidity total, data coverage, activity, revenue, or reward level is claimed.

SCALE PRINCIPLE **Network effects should be evaluated through qualified interaction, not gross connectivity. Every growth indicator needs a counter-signal for compatibility, concentration, quality, manipulation, and reconciliation.**

16.2 Prediction Market Alliance Network

Official POLIX materials describe the Prediction Market Alliance Network as a collaborative structure through which emerging prediction platforms may access AI trading tools, market analytics, discovery, and growth capabilities while participating in a broader liquidity and intelligence ecosystem (POLIX Presentation v1.0 EN, 2026; POLIX Project Summary 12, 2026). A credible alliance should convert that proposition into a staged relationship rather than one undifferentiated partnership badge. The network should know what capability is being admitted, what evidence supports it, what it may access, and what happens when conditions change.

16.2.1 Membership and Capability Tiers

Membership should be decomposed into capability tiers that reflect increasing consequence. A discovery capability may expose public market metadata. A data capability may deliver reference or activity feeds. An intelligence capability may provide or consume analytical outputs. A liquidity capability may expose executable quotes or routing access. An operational capability may affect identity, custody, settlement, or incident processes. The names of eventual tiers may differ, but the assurance required should rise with irreversibility, financial exposure, personal data, and authority over market state.

Tiering should not create permanent prestige. Status is a time-bounded conclusion supported by current evidence. A partner may be qualified for one category, geography, endpoint, data class or transaction limit and only in a sandbox or limited-production state. Scope expansion should require a new review. Conversely, an incident in one capability should not automatically invalidate unrelated capabilities unless the dependency or control failure justifies broader action.

16.2.2 Identity, Authority, and Least Privilege

Cross-organizational identity should distinguish the legal or accountable organization, technical client, service instance, human operator, delegated role and end user where applicable. One identifier cannot safely stand for all five. Authorization should bind the actor to specific resources, actions, tenants, purposes, environments, limits and time. Secrets or tokens should be revocable, rotated and protected according to the risk of the capability; activity should be logged with enough context to reconstruct who requested, approved and executed a material action.

OAuth 2.0 is one widely used authorization framework, and RFC 9700 documents current security best practice for deployments using it, including the need to address implementation weaknesses and dynamic trust relationships (Lodderstedt et al., 2025). This chapter does not prescribe OAuth or any specific protocol. It adopts the general control principle: credentials should carry no more authority than necessary, authority should be audience- and purpose-bound, and a revoked or expired relationship should not continue through cached or downstream permissions.

Delegation requires special care. A partner may act for its platform, for a user, or for another service. The network should preserve the delegation chain and distinguish consent, organizational authorization and system permission. A user login at a partner should not automatically authorize POLIX trading, data sharing, portfolio access or rewards. Each material purpose should have an explicit legal, policy and technical basis under the adopted implementation.

16.2.3 Onboarding, Operations, Suspension, and Exit

A partnership lifecycle should begin with a capability dossier and proceed through evidence collection, semantic mapping, security and rights review, test data, sandbox execution, reconciliation testing, limited exposure and monitored qualification. Advancement should be reason-coded. A partner that passes connectivity testing may still fail market mapping, data rights, recovery, or economic reconciliation. Separate gates prevent one successful test from becoming blanket approval.

Operational state should be observable. Planned maintenance, degradation, stale data, failed reconciliation, partial outage, security incident, mapping defect and policy suspension have different consequences. The network should state which objects and actions are affected, when the state began, whether data remains readable, whether new actions are blocked, and how recovery will be validated. Service-level objectives may later define availability or latency targets, but no target should be implied until authorized.

Exit is part of architecture. Credentials and delegated rights should be revoked; new activity should stop according to the capability; pending transactions or obligations should be reconciled; market, data, attribution and accounting records should remain recoverable for the required period; user-facing notices should identify material consequences; and public or internal directories should reflect the new state. Historical provenance should not be deleted merely because the commercial relationship ends.

Table 16.3. Partner lifecycle and decision gates

STATE	MINIMUM EVIDENCE	PERMITTED CONSEQUENCE	EXIT OR ESCALATION TRIGGER
Candidate	Identity, capability proposal, scope, dependencies, rights and accountable contacts.	Discovery and assessment only; no production authority implied.	Incomplete, incompatible, prohibited or unsupported proposal.
Sandbox	Test credentials, versioned schema, synthetic or controlled data, validation and logging.	Isolated integration testing under explicit non-production limits.	Semantic failure, unsafe permissions, missing provenance or unrecoverable errors.
Limited	Successful tests, scoped authorization, monitoring, incident route and reconciliation basis.	Restricted production exposure by object, user, volume, category or function.	Threshold breach, material incident, unexplained drift or reconciliation break.
Qualified	Current evidence across technical, semantic, operational, rights and accountability controls.	Authorized capability within the approved scope and lifecycle period.	Material change, expired review, repeated failure or policy conflict.
Suspended	Reason, effective time, affected capability, preservation and recovery plan.	Blocked or reduced operation while evidence is reviewed or controls restored.	Recovery validation, permanent termination or scope reduction.

STATE	MINIMUM EVIDENCE	PERMITTED CONSEQUENCE	EXIT OR ESCALATION TRIGGER
Exited	Revocation, obligation and data treatment, final reconciliation, notice and archive record.	No new authority; historical records retained according to policy.	Re-entry requires a new or explicitly resumed capability review.

Source: POLIX editorial synthesis. Lifecycle states are proposed governance vocabulary, not confirmation of deployed onboarding or contractual terms.

ALLIANCE PRINCIPLE **A partner badge should never carry more meaning than the evidence behind it. Alliance status must be capability-specific, scoped, time-bounded, observable, revocable, and connected to an accountable lifecycle record.**

16.3 AI and Analytics Infrastructure

The alliance vision includes shared AI intelligence and market analytics (POLIX Project Summary 8, 2026; POLIX Project Summary 12, 2026). Chapter 9 defined how AI outputs should remain traceable, evaluated and bounded; Chapter 15 defined how users should encounter them. Chapter 16 addresses the inter-organizational layer: how external data and model services can enter the network without losing target identity, provenance, comparability, rights, quality state or responsibility.

16.3.1 Data Contracts and Provenance

A data contract is more than an endpoint and schema. It should define the entity or event represented; field meaning and units; market, category, venue or jurisdiction scope; source and upstream dependency; publication, effective, observation and retrieval times; update and correction behavior; missing and exceptional values; transformation and aggregation; licensing and permitted uses; retention; quality tests; version compatibility; and incident and deprecation procedures. A technically valid response can still be semantically wrong for the target use.

Provenance should be preserved at the appropriate granularity. A dataset identifier may be sufficient for stable historical research, while a market decision may require the exact record, field, timestamp and transformation used. The W3C Data on the Web Best Practices notes that origin and history help consumers assess quality and interpret data (W3C, 2017). Where multiple partners ultimately depend on the same source, the common origin should remain visible so apparent plurality does not become false independence.

Corrections should be additive and attributable. If a provider revises a value, the network should retain the earlier value, receipt time, affected downstream objects, reason, authorized correction and effective state. Reprocessing may be appropriate for analytics; it should not silently rewrite an executed order, published forecast, resolution record or previously disclosed metric. Material downstream consequences require the governing chapter-specific procedure.

16.3.2 AI Service Boundary and Model Accountability

An external model service should return an analytical object, not an orphaned score. The object should identify target market and contract version, output type, generation time, data cutoff, horizon, model or ensemble version, material data classes, forecast or score, uncertainty, abstention or invalid state, intended use, prohibited use, expiry, and evaluation reference. A partner explanation should be labeled according to how it was generated and should not be presented as the causal basis of a forecast unless that relationship is preserved.

Model cards were proposed to document intended use, performance conditions, evaluation procedures and limitations for trained models (Mitchell et al., 2019). NIST AI RMF 1.0 organizes risk management

around Govern, Map, Measure and Manage and treats trustworthiness as context-dependent (NIST, 2023). Applied to a partner network, these principles mean that POLIX should know the responsible provider, context of use, evidence for performance, monitored risks, material changes and available controls before a model output can be promoted, compared, automated or used in a consequential workflow.

A service boundary should also separate provider assurance from POLIX assurance. The provider may attest to model version and evaluation; POLIX may validate schema, target mapping, timeliness and policy eligibility; a venue may control execution; and a user may authorize action. None of these actors should be represented as guaranteeing another actor's decision unless the adopted agreement and evidence support that responsibility.

16.3.3 Cross-Network Evaluation and Learning

Evaluation across partners requires a common observation contract. Probabilistic forecasts should be matched to the exact market version and resolved outcome, with forecast time, horizon, unresolved-case treatment, category, sample and scoring rule disclosed. Trading or opportunity signals require different measures and should not inherit forecast-accuracy language. Backtests, simulations, paper trading, limited live trials and production outcomes are separate evidence classes.

Performance should be segmented where partner environments differ. A model that performs well on high-liquidity political markets may not generalize to local-language entertainment markets, new categories or low-frequency events. Aggregated accuracy can hide coverage gaps, abstention, selection bias and dependence on market prices that already incorporate network information. Evaluation should therefore report what the service attempted, what it declined, what data was available, which baseline was used, and what changed after deployment.

Learning loops should not treat activity as ground truth. Clicks, watchlists, referrals and trades may reflect interface prominence, promotion, risk preference or manipulation rather than information quality. Resolved outcomes, corrected labels, human review and incident records should remain distinct feedback channels. Shared learning should also respect data rights, privacy, purpose limitation and partner boundaries; the strategic value of pooled data does not create automatic permission to pool it.

Table 16.4. Partner data and AI service contract

CONTRACT LAYER	REQUIRED DISCLOSURE	VALIDATION QUESTION	FAILURE STATE
Target semantics	Entity, market, contract version, outcome, category, venue and jurisdiction scope.	Does the output address the exact object and permitted use?	Valid syntax applied to the wrong proposition or scope.
Time and version	Observation, publication, retrieval, generation, cutoff, horizon, expiry and schema/model versions.	Can the network reconstruct when each input and output was valid?	Stale, post-event or incomparable values appear current.
Provenance and rights	Source, upstream dependency, transformations, ownership or license, retention and redistribution limits.	Can origin, derivation and authorized use be recovered?	Data is untraceable, duplicated, transformed opaquely or used beyond rights.
Quality and uncertainty	Missingness, validation, coverage, confidence, abstention, baseline and evaluation state.	What is known about reliability in this context?	Precision or confidence is inferred from formatting rather than evidence.
Service and incident	Availability state, dependency, error class, correction, notification, recovery and deprecation path.	Can affected objects and actions be contained and restored?	Failure propagates without observable scope or accountability.
Action boundary	Informative, recommended, drafted, confirmed or automated state; actor, permission and stop control.	Who may convert the output into an economic or market action?	Viewing or receiving data silently creates authority or exposure.

Source: POLIX editorial synthesis informed by W3C PROV-DM, W3C Data on the Web Best Practices, NIST AI RMF 1.0, Mitchell et al. (2019), and Chapters 9, 14, and 15.

INTELLIGENCE-INTEGRATION PRINCIPLE **Shared intelligence is credible only when the network can recover the target, source, transformation, version, time, evaluation, uncertainty, rights, responsible actor, and permitted action for every material output.**

16.4 Discovery and Growth Tools

The alliance proposition includes discovery and growth support for partner platforms (POLIX Project Summary 5, 2026; POLIX Project Summary 7, 2026; POLIX Project Summary 12, 2026). Chapter 8 defined the referral engine and Chapter 15 defined the All Markets and dashboard experiences. Chapter 16 focuses on what changes when discovery, attribution and growth measurement span several organizations. Cross-network growth should expand access to qualified markets and communities without converting partner placement, duplicated traffic or subsidized activity into misleading evidence of demand.

16.4.1 Discovery Across Heterogeneous Markets

Cross-network discovery begins with an eligible universe. The universe should state which partners, categories, languages, jurisdictions, market states and contract types are included, when data was refreshed, and why some objects are excluded. Search may group related markets, but the result should distinguish an exact contract, event family, alternative threshold, different venue and derived analytical collection. A unified interface should reduce fragmentation without visually erasing non-fungibility.

Ranking inputs should preserve source and purpose. Activity at one partner may not be comparable with another if volume, users, orders or liquidity are counted differently. Editorial selection, paid or reciprocal placement, partner priority, personalization and organic relevance should be distinguishable where used. A partner should not be able to improve network ranking merely by reporting an easier metric or creating duplicate markets.

Discovery also creates a responsibility to route users accurately. A market may be visible while unavailable to a particular user, jurisdiction, account type or device. The interface should not infer legal or operational availability from catalog inclusion. Handoff to a partner should preserve contract identity and disclose destination, applicable account and action boundary before the user leaves the POLIX-controlled experience.

16.4.2 Referral, Attribution, and Localization

Cross-partner referral requires a versioned attribution contract. It should define the source partner or campaign, eligible user or activity, consent and privacy basis, attribution window, duplicate and pre-existing-user treatment, self-referral and related-account policy, qualifying event, adjustment and reversal rules, economic eligibility, and dispute path. A click is evidence of navigation, not necessarily evidence of acquisition, trading contribution or revenue.

Multi-touch journeys should retain component records. A user may encounter a creator, referral link, partner application, regional campaign and POLIX market before acting. Assigning all value to one last visible touch may be simple but can misstate contribution. The adopted rule should be disclosed and consistently applied; corrections should not silently reassign historical credit. Chapter 8 governs the referral engine's tier and qualification logic, while Chapter 16 governs the inter-organizational handoff and reconciliation boundary.

Localization is more than translation. Partners may contribute language, category knowledge, event calendars, cultural context and user support. Localized titles and summaries should remain linked to the

canonical market version and should identify when a term lacks an exact equivalent. Dates, time zones, currencies, number formats, named entities and source accessibility can materially alter understanding. A local partner may propose or review a localization, but that role does not automatically authorize contract amendment or resolution.

16.4.3 Growth Integrity and Measurement

Growth measurement should separate reach, acquisition, activation, qualified participation, retention and economic contribution. Gross registrations can rise while unique funded or active users do not; trading volume can rise through concentrated or circular activity; market count can rise through duplication; referral events can be inflated through related accounts; and partner distribution can cannibalize traffic that would have occurred anyway. Each metric should identify denominator, cohort, time, partner scope, qualification rule and correction state.

Incrementality is a decision question, not a decorative metric. Where feasible, the network may use holdouts, staggered access, matched cohorts or other evaluation designs to estimate whether a partner capability changed qualified outcomes. Such methods require assumptions and may not be appropriate in every case. The minimum requirement is to distinguish observed attributed activity from causal incremental effect.

Integrity controls should be separable from commercial judgment. An activity may be valid but economically ineligible; a campaign may be approved but later adjusted for duplication; a partner may generate genuine users but breach a disclosure requirement; and a high-performing channel may create unacceptable concentration. Reason-coded decisions support correction and appeal while preventing one opaque partner score from controlling visibility, access and rewards.

Table 16.5. Cross-network discovery and growth measurement

MEASURE	MINIMUM DEFINITION	QUALITY OR INTEGRITY TEST	DOES NOT PROVE
Reach	Unique eligible impressions or recipients by partner, surface, period and counting rule.	Bot filtering, duplication, viewability, partner concentration and disclosure state.	Interest, acquisition, suitability or market quality.
Acquisition	New eligible account or user relationship under the adopted attribution rule.	Pre-existing user, identity confidence, self-referral, duplicate and consent treatment.	Funding, trading, retention or incremental effect.
Activation	Defined first qualified action within a stated period and capability.	Event validity, reversals, sandbox exclusion and user or market eligibility.	Long-term value, profitability or responsible participation.
Participation	Qualified markets, orders, trades, contributions or analytical use by cohort.	Wash-like behavior, related accounts, cancelled events, concentration and venue differences.	Information quality, executable liquidity or net economic contribution.
Retention	Repeat qualified activity over a disclosed cohort and interval.	Survivorship, migration between partners, inactivity definition and data loss.	User satisfaction, safety or causality.
Economic contribution	Finalized attributable revenue, cost saving or other approved value measure.	Accounting reconciliation, subsidies, reversals, fees, disputes and policy eligibility.	Automatic POLX reward, token value or future entitlement.

Source: POLIX editorial synthesis. No deployed POLIX attribution model, partner campaign, growth metric, referral rate, user count, activity level, or economic contribution is claimed.

GROWTH PRINCIPLE **Cross-network growth should be measured as qualified, attributable and reconciled contribution. Reach, clicks, registrations, market count and nominal volume are intermediate observations, not substitutes for integrity or causal value.**

16.5 POLX-Based Partner Alignment

Official POLIX materials position POLX as the economic layer supporting incentives, participation and ecosystem growth, including partner incentives associated with liquidity and integration (POLIX Token

Economy v1.0 EN, 2026). The token can provide a common unit for recognizing approved ecosystem contribution, but a common asset does not by itself align incentives. Alignment requires the network to define which contribution is valued, how it is evidenced, who authorizes eligibility, how amounts or formulas are approved, when records become final, and how errors, reversals and disputes are handled.

Chapter 16 therefore treats POLX-based partner alignment as an accounting and governance boundary rather than a promise of payment. Detailed token purpose, utility, allocation, circulation, rewards, revenue-based sustainability, buyback and burn, reserves and governance are developed in Chapters 17 through 28. This section establishes only the partner-facing prerequisites that those later mechanisms should preserve.

16.5.1 Economic Eligibility Is Not Automatic Reward

A connection, signed agreement, API call, listed market, referred account, quote, forecast or reported volume should not automatically create a POLX claim. The relevant record should first pass the capability, quality, rights, manipulation, duplication, accounting and policy gates appropriate to the contribution. Eligibility should identify contributor, capability, period, object, metric, rule version, evidence, reviewer or automated authority, status, adjustment basis and appeal route.

Different contribution classes may require different measurement. Liquidity contribution may depend on executable depth, time, spread, venue risk and completed reconciliation rather than gross order size. Data contribution may depend on coverage, timeliness, independence, rights and correction quality. AI contribution may depend on evaluated performance, coverage, permitted use and incident state. Distribution contribution may depend on qualified unique activity and incremental value. One generic partner score would conceal these distinctions.

Economic eligibility should also remain separate from token transferability and user-facing balance. Approved, accrued, held, adjusted, distributed, vested where applicable, reversed and expired are different states. A dashboard should not show an estimated partner value as earned or withdrawable before the authorized accounting event occurs.

16.5.2 Measurement, Reconciliation, and Dispute

A partner economic record should reconcile from source events to the finalized outcome. The chain may include raw event, qualified event, attribution, measurement, rate or formula, adjustment, authorization, obligation, distribution reference and accounting completion. Each transformation should retain version and time. Aggregation may support reporting, but a disputed amount should be decomposable into the component records that created it.

Reconciliation should address asymmetric information. A partner may control user or venue data while POLIX controls qualification or distribution records. The agreement should identify the authoritative source for each field, matching key, cutoff, tolerance, missing-data treatment, correction window and escalation route. Where neither side can unilaterally prove the result, a joint or independent review process may be required. The chapter does not specify the legal forum or binding dispute procedure.

Corrections should preserve history. A late cancellation, chargeback, invalid referral, corrected trade, data-rights issue or manipulation finding may alter eligibility. The network should record the original calculation, new evidence, authority, effective change and downstream consequence. Retroactive changes should be limited by the adopted policy and communicated when material.

16.5.3 Sustainable Alignment and Chapter Boundary

Official POLX Token Economy materials confirm that Strategic Partnerships & Listings account for 3% of the fixed maximum supply, or 12,000,000 POLX, and are subject to an initial 24-month lock-up. The same materials describe progressive deployment for approved strategic collaborations and ecosystem expansion (POLIX Token Economy v1.0 EN, 2026). These confirmed parameters do not allocate tokens to any named partner, establish a distribution date, create a current circulating amount, or define the economic value of an integration.

Partner incentives should support durable network capability rather than temporary reported activity. Measures may therefore incorporate persistence, quality, availability, correction behavior, user value, market integrity, concentration and cost. A subsidy that creates activity only while emissions continue may expand visible volume without building a resilient ecosystem. POLIX materials also describe a longer-term transition toward revenue-funded incentives as platform revenue matures; Chapter 24 develops that platform-economy boundary in detail.

Economic alignment should not weaken neutral control. A partner with a large contribution or allocation should not obtain silent authority over market specification, ranking, resolution, user assets, model evaluation or incident review. Any governance or decision right should be separately defined in the relevant chapter and authorized record. Token or commercial exposure is a conflict to disclose and manage, not evidence that a partner is correct.

Table 16.6. Partner economic eligibility and reconciliation contract

RECORD LAYER	MINIMUM CONTENT	CONTROL QUESTION	PROHIBITED INFERENCE
Contribution event	Partner, capability, object, time, quantity or service state, source and version.	Did a defined event occur within the authorized scope?	Reported activity is automatically valid, unique or valuable.
Qualification	Eligibility rule, quality evidence, exclusions, manipulation and rights state.	Does the event satisfy the policy version for this contribution class?	Technical acceptance creates economic entitlement.
Measurement	Metric, denominator, period, cohort, rate or formula authority and uncertainty.	Can another reviewer reproduce the calculation?	One metric is comparable across all partner roles.
Reconciliation	Matching key, authoritative fields, cutoff, tolerance, missing items and differences.	Do partner and POLIX records support the same finalized basis?	An aggregate dashboard total is self-proving.
Decision and adjustment	Authority, reason, approved amount or state, hold, reversal, correction and appeal.	Who authorized the economic state and what can still change?	Estimated, pending or disputed value is earned or withdrawable.
Distribution reference	Authorized instrument, destination, transaction or accounting reference and completion state.	Did the approved obligation reach the adopted final state?	A policy statement proves a token transfer or current circulation.

Source: POLIX editorial synthesis informed by the confirmed POLIX Token Economy v1.0. No partner-specific amount, formula, payment, distribution date, circulating supply, token price, or entitlement is claimed.

PARTNER-ALIGNMENT PRINCIPLE **POLX can align partners only when economic treatment follows qualified and reconciled contribution under an authorized rule. Connection, prominence, reported volume, token ownership, or commercial importance must not substitute for evidence or decision rights.**

Chapter Synthesis

1. Chapter 16 defines the POLIX partner ecosystem as a governed federation around a stable semantic core, not a loose directory of integrations.
2. The unit of integration is a versioned capability with a defined actor, object, scope, provenance, state, quality evidence, responsibility and exit path.
3. Partner organizations may retain autonomy, but market, data, service, attribution and economic objects must remain interpretable across boundaries.

4. Canonical schemas should preserve source differences and reject false equivalence rather than erase venue-specific semantics.
5. Market relationship does not imply contract fungibility; compatibility requires explicit specification, state, execution and settlement evidence.
6. Network scale should be measured through qualified interoperability and attributable outcomes, not partner, market, API-call or traffic counts alone.
7. Common upstream dependencies should remain visible so apparent partner or data diversity does not become false resilience.
8. Alliance membership should be capability-specific, scoped, time-bounded, observable and revocable.
9. Assurance should increase with irreversibility, financial exposure, personal data and authority over market or asset state.
10. Cross-organizational identity should distinguish organization, technical client, service instance, operator, delegated role and end user where applicable.
11. Permissions should be least-privilege, purpose-bound, revocable and logged; user presence at a partner does not create automatic POLIX authority.
12. The partner lifecycle should separate candidate, sandbox, limited, qualified, suspended and exited states with reason-coded gates.
13. Exit should revoke authority while preserving the historical records needed for provenance, reconciliation, user notice and accountability.
14. A data contract includes meaning, time, provenance, rights, corrections, quality, dependencies and deprecation, not only endpoint and schema.
15. External AI outputs require target, model and data versions, horizon, uncertainty, evaluation, intended use, expiry and action boundary.
16. Provider assurance, POLIX validation, venue execution and user authorization are separate responsibilities.
17. Cross-network evaluation should separate forecast accuracy, trading outcomes, backtests, simulations and production evidence.
18. Shared learning must not treat clicks, referrals or trades as ground truth and must respect data rights, privacy and purpose limits.
19. Cross-network discovery should disclose its eligible universe, mapping, refresh time, ranking basis and partner or paid placement where used.
20. Referral and distribution attribution should retain consent, identity, qualification, duplication, correction and dispute rules across organizations.
21. Localization should preserve canonical market meaning and does not confer silent authority to amend or resolve a contract.
22. Growth measurement should separate reach, acquisition, activation, participation, retention and economic contribution.
23. Attributed activity is not the same as causal incremental effect; nominal volume and market count require manipulation and quality counter-signals.
24. POLX-related partner treatment should follow qualified and reconciled contribution, not connection, API use, token ownership or reported activity alone.

25. The confirmed Strategic Partnerships & Listings allocation and lock-up do not establish named partner amounts, release dates, rights or current circulation.
26. Economic states such as estimated, approved, held, adjusted, distributed and completed must remain distinct and attributable.
27. A large partner contribution or token exposure must not create silent authority over ranking, specification, resolution, assets, AI evaluation or incidents.
28. The chapter remains implementation-neutral until POLIX publishes separately authorized partner, product, technical, security, legal, data-rights, commercial and operating specifications.

TRANSITION TO CHAPTER 17 **Chapter 16 defines how external capabilities may enter the POLIX ecosystem without weakening semantic integrity, provenance, permissions, quality, accountability or reconciliation. Chapter 17 turns to POLX itself as the common economic layer: what value relationship the token is intended to represent across platform activity, ecosystem participation and long-term sustainability, before later chapters specify utility, supply, allocation and control.**

CHAPTER 16 / REFERENCES

References and Source Notes

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CHAPTER 17

POLX: The Economic Layer

A policy-governed coordination and accounting layer connecting qualified platform activity, ecosystem participation, and long-term sustainability.

Chapter Thesis

POLX is intended to serve as the common economic layer of the POLIX ecosystem. Its purpose is not merely to exist beside the prediction-market platform, but to provide a consistent unit through which eligible access, contribution, participation, and ecosystem-support relationships may be expressed under explicit rules. The token can perform that role only when platform activity is attributable, qualified, authorized, accounted for, and subject to limits. Raw activity, token ownership, or technical connectivity alone must not create automatic rewards, decision rights, or claims on platform value.

Chapters 1 through 16 established the informational, market, trading, resolution, participant, creator, and partner architecture of POLIX. Chapter 17 marks a change of analytical level. It does not repeat how a question becomes a market, how prices aggregate information, how liquidity is supplied, how AI outputs are governed, or how creators and partners enter the network. It asks how those heterogeneous activities can be related through one economic system without collapsing distinct forms of contribution into an undifferentiated reward metric.

Official POLIX materials describe POLX as the economic layer supporting incentives, participation, and ecosystem growth, with contemplated utility across governance, AI access, trading rewards, partner incentives, referral rewards, and creator rewards. The same materials identify BNB Smart Chain and the BEP-20 standard, a fixed maximum supply of 400,000,000 POLX with no additional minting, controlled deployment, platform-economy and ecosystem-growth allocations, and an intended longer-term transition toward revenue-funded incentives (POLIX Presentation v1.0 EN, 2026; POLIX Token Economy v1.0 EN, 2026). These confirmed design statements establish direction and supply boundaries. They do not, by themselves, establish current circulation, a token price, a launch condition, a deployed contract, a reward rate, present governance authority, revenue performance, or an executed buyback or burn.

The economic problem is one of coordination under uncertainty. A new platform may need to attract users, creators, liquidity providers, analytical contributors, and partners before the benefits of participation are fully available. Yet issuing incentives without measurement can subsidize imitation, manipulation, duplicate activity, or short-lived volume. Research on blockchain-based tokens shows that token design can affect adoption and user participation, while marketplace research shows that tokens may help coordinate early participation only when the mechanism connects subsidies to the marketplace problem being solved (Catalini and Gans, 2016; Cong, Li, and Wang, 2021; Bakos and Halaburda, 2022). POLIX therefore requires an economic layer that distinguishes bootstrap support from sustainable economic demand and distinguishes eligible contribution from mere activity.

Chapter 17 defines that layer in architectural and governance terms. It establishes the role of POLX, the activity-to-economic-state pipeline, the logic of incentives and participation, the alignment of stakeholder relationships, and the transition from controlled token distribution toward evidence-based sustainability. Chapters 18 through 28 will specify the corresponding utility, technical, allocation, lock-up, platform-economy, growth, revenue, supply-action, liquidity, governance, security, and risk domains. Where those later rules are not yet confirmed, this chapter states the required evidence and decision boundary rather than inventing an operating parameter.

ECONOMIC-LAYER BOUNDARY **Chapter 17 does not state an initial price, TGE condition, current circulation, detailed unlock calendar, smart-contract address, audit status, fee schedule, reward rate, revenue level, buyback trigger, burn schedule, present governance right, legal entity, jurisdiction, KYC/AML rule, dated roadmap, or deployment status. It defines how such matters should relate to the economic system if and when separately approved and disclosed.**

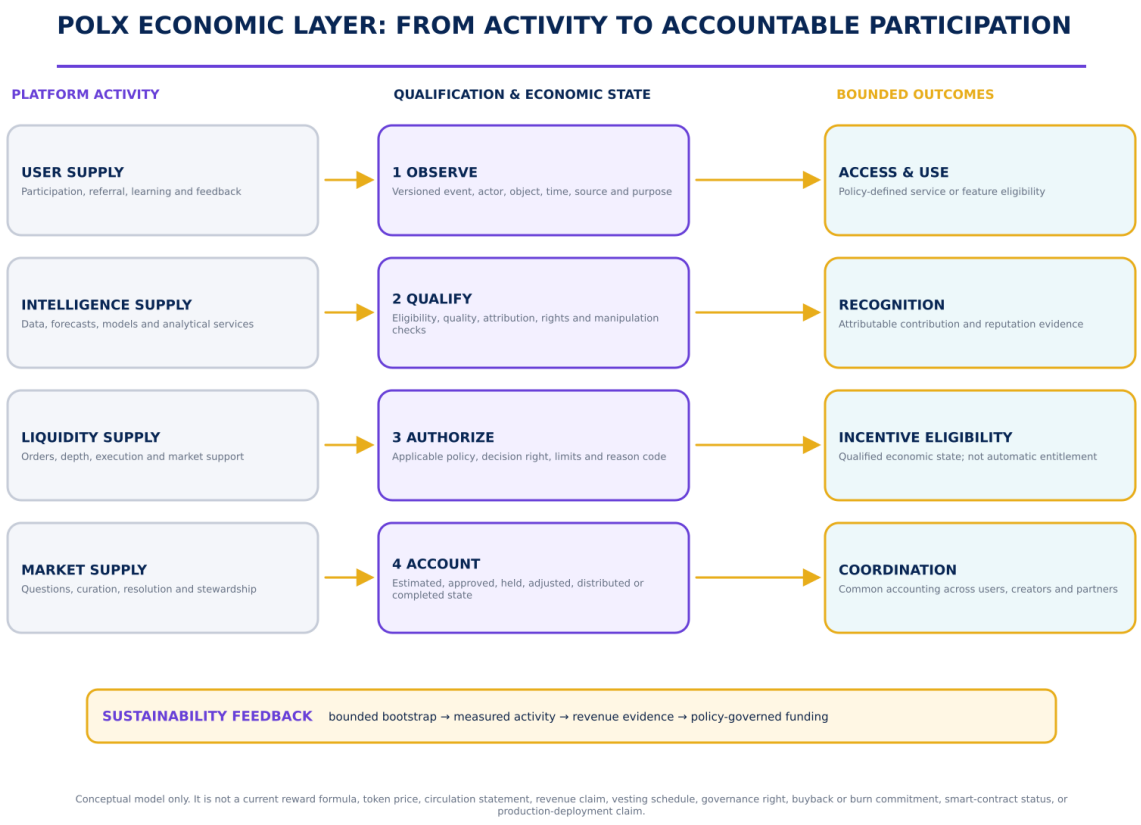

Figure 17.1. POLX economic-layer model. Platform events become economic states only after qualification, authorization, and accounting; resulting access, recognition, incentive eligibility, and coordination remain bounded by policy.

Source: POLIX editorial synthesis informed by POLIX official materials, Catalini and Gans (2016), Cong, Li, and Wang (2021), Bakos and Halaburda (2022), and Chapters 7-16. Conceptual design only.

Table 17.1. Economic-layer function classes and boundaries

FUNCTION CLASS	ECONOMIC PURPOSE	REQUIRED EVIDENCE	BOUNDARY
Access and service use	Express eligibility to use a defined feature, service, capacity, or participation path.	Actor, service, purpose, policy version, balance or entitlement basis, and decision state.	Holding POLX does not imply universal, perpetual, jurisdiction-independent, or unrestricted access.
Contribution recognition	Associate attributable work or resources with a participant or organization.	Qualified event, provenance, rights, quality, uniqueness, time, and accountable actor.	Recognition is not automatically a transferable reward or legal ownership right.

FUNCTION CLASS	ECONOMIC PURPOSE	REQUIRED EVIDENCE	BOUNDARY
Incentive eligibility	Create a policy-governed basis for possible economic treatment.	Eligibility rule, exclusions, manipulation checks, authorization, accounting state, and limits.	Activity, volume, referral, prediction, or creation does not create automatic entitlement.
Coordination and settlement reference	Provide a common unit for authorized obligations or transfers across ecosystem roles.	Operative rule, amount or state, counterparty, destination, timing, reconciliation, and completion evidence.	A quoted or estimated amount is not distributed, final, circulating, or withdrawable.
Governance participation	Support a separately authorized mechanism for expressing or executing bounded collective choices.	Proposal scope, eligibility, voting or delegation rule, conflict controls, quorum and execution authority.	Token ownership alone does not establish current governance power or control of every platform decision.
Supply and sustainability policy	Relate fixed supply, controlled deployment, funding sources, and possible supply actions to system health.	Confirmed supply parameters, reserve state, policy authority, financial evidence, controls, and disclosure.	Scarcity language does not guarantee demand, price appreciation, liquidity, revenue, or a burn event.

Source: POLIX editorial synthesis. Function classes are architectural categories; detailed POLX utility and execution rules are deferred to Chapters 18-28.

CORE PRINCIPLE **POLX should represent a governed economic relationship, not an unqualified promise. Every economically meaningful state should identify the activity, evidence, policy, authority, limits, and conditions under which the state may change.**

17.1 The Role of POLX

POLX is intended to connect otherwise heterogeneous forms of ecosystem participation through a common economic vocabulary. Users may trade, learn, refer, provide feedback, or use analytical services. Creators may propose and steward markets. Liquidity providers may commit capital and execution capacity. Data and AI contributors may provide evidence, forecasts, models, or analytical services. Partners may extend distribution, market coverage, infrastructure, or regional capability. These roles produce different outputs, risks, and externalities. A common token can link them only if the system preserves those differences while applying a consistent process for qualification and accounting.

The economic layer therefore sits above the underlying chain and below the broader business narrative. The chain can record token balances and transfers, but it does not determine whether a market was well specified, a referral was incremental, a forecast was valid, liquidity was executable, a creator retained rights to submitted material, or an activity was eligible under a policy. Conversely, the platform may observe qualified activity without requiring every observation to become an on-chain transfer. POLX-related decisions require both technical state and off-chain or hybrid evidence where the activity itself occurs outside the token contract.

17.1.1 Token as a Platform Coordination Instrument

A platform token may reduce coordination friction by giving participants a common instrument through which access, incentives, and ecosystem support can be expressed. That potential is most relevant when the platform faces a sequencing problem: participants value liquidity, market variety, intelligence, and community activity, but each of those benefits depends on others arriving and contributing. A bounded bootstrap program can support early participation before the network produces sufficient internally funded benefits. The token is not the network effect itself; it is one possible coordination instrument used while the platform establishes the conditions from which durable network effects may emerge.

This distinction matters because a token cannot compensate indefinitely for weak product utility, poor market design, unreliable resolution, thin executable liquidity, or untrusted governance. If participation occurs mainly to obtain distributions, observed activity may overstate genuine demand for the platform.

POLX should therefore be evaluated by whether token-enabled programs improve qualified participation and useful platform outcomes after accounting for subsidy, duplication, concentration, manipulation, and retention. The correct counterfactual is not zero activity, but the level and quality of activity that would have occurred without the program.

Coordination also requires temporal discipline. An early program may rationally prioritize experimentation, but it should specify its cohort, purpose, budget, eligibility window, measurement horizon, stop condition, and review authority. An activity should not remain economically favored merely because it was important during bootstrap. As the ecosystem matures, the policy should be able to shift from acquisition toward retention, from volume toward quality, and from generalized subsidy toward services or contributions that create measurable value.

17.1.2 Economic Layer, Not a Claim on Platform Value

POLX is described in this whitepaper as a utility and coordination instrument within the POLIX ecosystem. This functional description should not be confused with a claim on company equity, a debt obligation, a deposit, a guaranteed redemption right, a fixed yield, or an automatic share of revenue. Whether any token-related arrangement creates legal rights or obligations depends on separately adopted terms and applicable law. The economic architecture in this chapter does not establish those rights.

Nor does the existence of platform activity establish token value. Demand for a token can be affected by many factors, including the usefulness and exclusivity of token-mediated services, the ability to obtain comparable services without the token, user acquisition costs, retention, velocity, reserve policy, distribution concentration, liquidity, market expectations, regulatory conditions, and the credibility of future rules. Supply limits constrain issuance but do not guarantee demand, liquidity, stability, or price appreciation. Any analysis that moves from platform growth to token price without specifying the transmission mechanism, leakage, substitution, and timing is incomplete.

The appropriate claim for Chapter 17 is narrower: POLX is intended to provide a common policy and accounting layer for defined ecosystem functions. Later chapters can identify which functions require, accept, distribute, reserve, or otherwise reference POLX. Each such function must be evaluated independently. A token use can be economically meaningful even when it is not a payment; equally, a nominal payment in POLX may have little durable effect if recipients immediately convert it and no recurring utility exists.

17.1.3 Utility, Demand, and Evidence Boundaries

Utility should be stated as an operable relationship. A credible statement identifies the actor, action, object, token role, eligibility rule, timing, limits, alternative paths, authority, and evidence of completion. “POLX supports AI access,” for example, is a strategic direction. An operable specification would state which service, whether POLX is required or optional, how access is measured, whether balances are held, spent, locked, or merely checked, what happens on failure, and which policy version governs the decision. Chapter 18 will organize these use cases without treating every contemplated function as currently active.

Demand evidence should likewise distinguish intention from observation. Announced utility is not actual use. Wallet count is not unique active demand. Gross transfers are not economic consumption. Exchange volume is not platform utility. Tokens reserved for programs are not circulating merely because they have been allocated. Tokens distributed are not necessarily retained. A robust evidence set may include qualified users, repeat service use, token-mediated actions, holding duration, concentration, net flows, subsidy-adjusted retention, and the proportion of activity funded by platform revenue rather than token reserves.

POLIX should disclose economic evidence at the level supported by its systems and obligations. Where a metric is estimated, sampled, privacy-limited, third-party dependent, unaudited, or subject to correction, that status should accompany the number. The economic layer gains credibility when it records uncertainty and limitations rather than presenting precision unsupported by its data.

17.2 Connecting Platform Activity

The four POLIX supply engines organize platform activity by the resource contributed: users, intelligence, liquidity, and markets. Chapter 17 does not merge them into one score. It defines a shared economic-state pipeline through which events from each engine can be evaluated while retaining engine-specific evidence. The same event may have product, market, risk, compliance, and economic consequences, but those consequences should be recorded separately so one approval does not silently authorize another.

A useful economic event model should answer six questions: who acted; on what object; for which purpose; under which versioned rule; what evidence shows the activity and its quality; and what economic state followed. The model should support correction and reversal where the underlying evidence changes. It should also preserve the difference between observation, qualification, authorization, accounting, distribution, and completion.

17.2.1 From Activity Events to Economic State

An activity event is a time-bounded record that something occurred: a user completed a qualified action, a creator submitted a market, a liquidity provider supplied executable depth, an AI service produced a forecast, or a partner referred a participant. Observation should not be equated with economic qualification. The event must be mapped to the operative object and actor, deduplicated where necessary, assessed for rights and policy compliance, and evaluated against quality and manipulation controls.

Qualification determines whether the event satisfies a defined policy. Authorization determines whether an accountable role or automated rule may assign an economic state. Accounting records the amount, class, restriction, or status without implying transfer. Distribution, if applicable, should reference an approved destination and instrument. Completion should mean that the adopted finality condition has been met and reconciled. A reversal or adjustment should preserve the original record, reason, authority, and relation to the new state.

Table 17.2. Activity-to-economic-state record

RECORD LAYER	MINIMUM CONTENT	CONTROL QUESTION	INVALID INFERENCE
Observation	Actor, activity, object, source, time, version, quantity or service state.	Did the defined event occur within the observable scope?	Observed activity is unique, useful, compliant, or rewardable.
Qualification	Eligibility policy, evidence, quality, rights, duplication, manipulation and exclusions.	Does the event satisfy the operative rule for its contribution class?	Passing one gate authorizes every downstream use.
Authorization	Decision authority, policy version, limit, reason, effective time and review path.	Who may create or change the economic state?	An algorithmic score or staff recommendation is self-executing.
Accounting	Unit, amount or class, status, restriction, source obligation, adjustment and expiry.	What is recorded, and which conditions remain open?	Estimated, reserved, pending or held value is distributed.
Distribution	Authorized instrument, destination, transaction or ledger reference, time and status.	Was an approved obligation initiated under the adopted controls?	A transaction request proves receipt, finality or circulation.
Completion or reversal	Finality basis, reconciliation, exception, correction, appeal and retained history.	Is the state final, reversible, disputed, failed or superseded?	The latest total can replace provenance and prior states.

Source: POLIX editorial synthesis. The record model is implementation-neutral and does not claim a deployed POLX accounting or distribution system.

17.2.2 One Token, Multiple Function Classes

A single token may participate in several function classes, but those classes should not be treated as interchangeable. Access can depend on a balance threshold, a payment, a lock, an entitlement, or a program allocation. Incentives can compensate an eligible contribution, subsidize desired behavior, or recognize participation. Governance can express preference, delegate authority, or trigger a narrowly defined process. Liquidity support can involve market-making resources, reserve deployment, or partner arrangements. Each mechanism creates different risks, accounting treatment, and user expectations.

Function separation allows the platform to revise one mechanism without silently changing the others. A change to an AI-access rule should not automatically alter creator eligibility. A liquidity-support decision should not confer governance power. A referral program should not redefine circulating supply. A future burn policy should not retroactively change a participant's recorded contribution. The token is common; the rights, obligations, evidence, and authorities remain function-specific.

This separation also reduces narrative double counting. The same POLX unit may move from a reserve to an authorized program, to a participant, and later to another user or venue. Counting each transfer as new ecosystem value would overstate economic activity. Likewise, one user action may support product usage, a creator metric, a referral event, and a market-volume total. The accounting layer should preserve links among those records while preventing one underlying event from being treated as four independent contributions.

17.2.3 Cross-Engine Accounting Without Double Counting

Cross-engine events require a canonical lineage graph. Consider a referred user who discovers a creator-produced market, uses AI analysis, and executes a trade supported by external liquidity. The sequence may generate valid records for distribution, market supply, intelligence use, trading, and liquidity. Yet the platform should distinguish the originating user, referring source, market creator, analytical service, execution venue, and liquidity provider; identify the policy relevant to each; and state whether any rewards are additive, mutually exclusive, capped, shared, or ineligible.

The economic layer should therefore maintain stable event identifiers, parent-child relations, attribution windows, identity-resolution rules, deduplication keys, conflict precedence, and correction paths. Aggregation should occur only after engine-specific qualification. If the same organization controls several apparent roles, related-party status and concentration should remain visible. If the platform cannot reliably separate roles, the corresponding metric should be limited or excluded rather than presented as precise.

Net economic contribution is not identical to gross activity. A program may increase trades while increasing incentive expense, manipulation, support cost, or adverse selection. A creator may produce many markets with low resolution quality. A liquidity program may show quoted depth that is unavailable when users trade. A referral channel may deliver registrations that do not activate. Economic evaluation should pair output metrics with cost, quality, durability, concentration, and counterfactual evidence.

17.3 Incentives, Participation, and Growth

Incentives are interventions in participant behavior, not proof of ecosystem health. Their purpose should be stated in terms of a diagnosed coordination problem: insufficient early liquidity, limited market supply, weak discovery, missing data, high creator cost, regional access, or lack of repeat participation. The policy should explain why a token-mediated mechanism is appropriate, what behavior it seeks to change, what harmful behavior it may induce, and how the program will be evaluated.

Official POLIX token-economy materials provide for progressive deployment of ecosystem and platform-economy resources based on actual activity and growth. This principle supports stage-gated rather than calendar-only distribution. It does not determine the exact programs, recipients, amounts, rates, or release conditions. Those details belong to the allocation, lock-up, platform-economy, and utility chapters and to separately approved operating policies.

17.3.1 Bootstrapping and the Coordination Problem

New marketplaces often confront a participation threshold. Users may not arrive without markets and liquidity; creators and liquidity providers may not contribute without users; partners may not integrate without evidence of demand. Cryptographic tokens can support coordination by providing a scarce instrument that participants may value if the network succeeds, but the mechanism also exposes participants to uncertainty and can attract behavior oriented toward token receipt rather than platform use (Bakos and Halaburda, 2022; Cong, Li, and Wang, 2021). The design question is therefore not whether to reward activity in the abstract, but which constraint prevents useful interaction and whether a bounded intervention can remove it.

A bootstrap program should identify the target side of the market and its complement. Subsidizing one group can be ineffective when the limiting resource lies elsewhere. Additional users may not improve a category with no resolvable questions; more markets may fragment already thin liquidity; higher quoted rewards may attract liquidity that disappears around volatility; more referrals may increase support costs without retention. Program design should use diagnostic evidence rather than assume that all activity contributes equally to network formation.

Bootstrap support should also have an exit logic. A program can terminate, narrow, or change when the targeted constraint is relieved, when marginal qualified contribution falls below cost, when manipulation rises, when concentration becomes excessive, or when the platform can fund the activity from recurring revenue. A subsidy without an exit condition can become an expectation that distorts later governance and reserve-management choices.

17.3.2 Contribution Quality and Incentive Compatibility

Incentive compatibility requires that the easiest way to earn an intended benefit should be reasonably aligned with producing the contribution the platform needs. If market count is rewarded, participants may create duplicative or unresolvable markets. If referral count is rewarded, participants may create low-intent or duplicate accounts. If trade volume is rewarded, participants may self-trade or churn. If liquidity is measured only by snapshots, providers may quote when measurement occurs and withdraw when users need execution. If forecast accuracy is rewarded without ex ante submission and a proper scoring basis, contributors may select only favorable outcomes or revise records after events.

No metric is immune to gaming once it becomes a target. Policies should combine positive measures with counter-signals: market creation with rejection, revision, dispute, cancellation, and resolution quality; referrals with uniqueness, activation, retention, and complaint rates; liquidity with executable spread, depth, uptime, adverse-selection behavior, and realized execution; AI contribution with calibration, coverage, provenance, stability, and incidents; trading with concentration, wash-trading indicators, reversals, and subsidy-adjusted retention.

Quality gates should remain separable and reason-coded. A contribution can be novel but unresolved, high-volume but manipulative, accurate but rights-restricted, popular but unsafe, or useful but outside the current budget. A composite score may support triage, but the underlying evidence and decision authority should remain inspectable. Economic treatment should be capable of being held, adjusted, reversed, or appealed when the evidence changes.

17.3.3 Transition from Token-Funded to Revenue-Funded Activity

POLIX official materials state an intention to transition, as platform revenue matures, from early strategic token allocations toward revenue-funded incentives. This is an economic sustainability objective rather than a claim that the transition has occurred or that a particular revenue stream exists at a given level. Chapter 24 will address revenue-based sustainability in detail. Chapter 17 defines the logic: recurring platform benefits should increasingly finance recurring participation costs when doing so is economically and legally feasible.

The transition should be measured by funding-source composition and activity quality, not merely by elapsed time. Relevant indicators may include the proportion of incentives funded by current revenue, contribution margin after direct program cost, retention after subsidy reduction, service use by non-incentivized cohorts, concentration of funded activity, and the stability of qualifying supply. A program funded by revenue can still be unsustainable if it destroys margin or rewards activity unrelated to user value; a token-funded experiment can still be useful if it is bounded, measured, and produces transferable learning.

Revenue funding also requires accounting separation. Gross platform revenue, net revenue, reserve inflow, operating cash, and amounts authorized for incentives are not interchangeable. The policy should identify the eligible revenue basis, costs and reserves deducted, observation period, approval authority, maximum commitment, settlement asset, and treatment of shortfalls or reversals. Until those elements are adopted, the whitepaper should describe the intended transition without assigning a formula.

Table 17.3. Incentive lifecycle and evidence gates

LIFECYCLE STATE	DECISION PURPOSE	MINIMUM EVIDENCE	STOP OR REVISION SIGNAL
Diagnose	Identify the participation constraint and affected market side.	Baseline, cohort, funnel, quality, cost, concentration and plausible counterfactual.	No specific constraint; evidence points to product, trust, policy or resolution failure instead.
Design	Define target behavior, eligibility, budget, duration, limits and counter-signals.	Policy version, simulation or scenario analysis, manipulation review, operational capacity and authority.	Metric is easily self-generated, unverifiable, rights-conflicted, or disconnected from the constraint.
Pilot	Test the mechanism with bounded exposure and observable cohorts.	Caps, monitoring, incident path, identity and attribution controls, comparison basis and expiry.	Unexpected loss, manipulation, concentration, user harm, legal or operational limit, or weak incremental effect.
Scale	Expand only when qualified contribution and economics are reproducible.	Repeat cohorts, stable quality, cost and retention, reconciled accounting, and approved funding source.	Marginal contribution deteriorates, subsidy dependence persists, or cost grows faster than useful activity.
Transition	Reduce token-reserve dependence or change the supported behavior.	Revenue evidence, service demand, retention after reduction, updated budget and stakeholder notice.	Revenue basis is insufficient, participant obligations are unclear, or quality falls below the threshold.
Close or replace	End a mechanism while preserving records, appeals and learning.	Final accrual, reconciliation, notice, exceptions, residual obligations and evaluation report.	Open disputes, incomplete evidence, unprocessed corrections, or unclear successor policy.

Source: POLIX editorial synthesis informed by marketplace coordination and token-adoption literature. No current POLIX incentive program, budget, rate, revenue basis, or launch state is claimed.

INCENTIVE PRINCIPLE **An incentive is justified by a diagnosed coordination problem and survives only while qualified incremental contribution exceeds its economic, integrity, operational, and user costs. Distribution volume alone is not success.**

17.4 Economic Alignment Across the Ecosystem

Economic alignment does not mean that all stakeholders want the same outcome. Users may prefer low costs and deep liquidity; creators may seek attribution and compensation; liquidity providers may require risk-adjusted returns; data and AI contributors may protect rights and methods; partners may seek distribution and commercial value; the platform must preserve integrity, security, continuity, and financial sustainability. POLX can coordinate these interests only by making exchanges, limits, and conflicts legible.

The economic layer should therefore distinguish value creation, value capture, and value distribution. A participant creates value when an attributable contribution improves a platform outcome. The platform captures value when users or partners are willing to pay for useful services or when the network reduces cost or risk. Value is distributed when an approved economic obligation is allocated or transferred. These stages may be related, but they are not simultaneous and should not be presented as though every contribution immediately produces revenue or every revenue event automatically belongs to token holders.

17.4.1 Stakeholder Roles and Value Exchanges

A stakeholder map should state what each role contributes, receives, risks, and can influence. The same organization may occupy several roles, and the same individual may be a user, trader, creator, referrer, or token holder. Role-specific records prevent one identity from multiplying its apparent contribution or using one relationship to obtain authority in another. Related-party and self-directed activity should remain visible where it affects qualification or disclosure.

Economic exchanges should be described symmetrically. If a user pays for a service, the service and refund or failure condition should be defined. If a creator becomes eligible for a reward, the attributable work, rights, quality gate, review status, and payment condition should be defined. If a liquidity provider is supported, the eligible market, executable requirement, measurement interval, risk allocation, and reconciliation should be defined. If a partner receives economic treatment, the approved capability, qualified contribution, commercial or token basis, and conflict controls should be defined.

Table 17.4. Stakeholder value exchange and conflict boundaries

ROLE	POSSIBLE CONTRIBUTION	POSSIBLE ECONOMIC RELATION	PRINCIPAL CONFLICT BOUNDARY
User or trader	Attention, information, trading, fees, feedback, learning and responsible participation.	Service access, eligible incentives, lower friction, analytics or other approved utility.	Activity must not be manufactured, misrepresented, privacy-invasive, or treated as investment entitlement.
Creator or curator	Question design, sources, localization, stewardship, correction and resolution support.	Attribution, eligible creator support, tools, visibility or approved economic treatment.	Creation does not confer unilateral authority over trading, resolution, ranking, disputes or rewards.
Liquidity contributor	Executable capital, quotes, depth, continuity, risk bearing and venue support.	Approved liquidity support, fee relation, partner arrangement or other defined treatment.	Displayed depth, related-party trades or short measurement windows must not substitute for usable liquidity.
Data or AI contributor	Evidence, forecasts, models, evaluation, analysis and operational support.	Service payment, access exchange, attribution or approved partner incentive.	A provider cannot silently define ground truth, resolution authority, model quality or permitted use.
Referral or distribution participant	Qualified discovery, education, community, regional or partner access.	Attribution and approved referral or growth treatment.	Reach is not causality; consent, uniqueness, activation, retention and complaints remain material.
Platform or reserve-management authority	Product, policy, infrastructure, moderation, security, accounting and continuity.	Fees, service revenue, reserves and policy-governed deployment.	Reserve-management control must not erase disclosure, segregation, limits, review, conflicts or user obligations.

ROLE	POSSIBLE CONTRIBUTION	POSSIBLE ECONOMIC RELATION	PRINCIPAL CONFLICT BOUNDARY
Token holder or governance participant	Capital exposure, service demand, feedback or authorized collective participation.	Defined utility and any separately adopted governance process.	Ownership does not create equity, guaranteed return, universal access, operational control or immunity from policy.

Source: POLIX editorial synthesis. “Possible” describes an architectural relationship, not a currently available right, payment, reward, fee, or governance power.

17.4.2 Rights, Obligations, and Conflict Boundaries

Economic alignment requires procedural rights appropriate to the state: notice of material terms, access to relevant decision reasons, correction of erroneous data, review or appeal where applicable, and preservation of finalized obligations. These are not claims that every state requires the same process. Low-risk promotional eligibility may allow rapid automated review; suspension of a material accrued state may require stronger evidence and an accountable reviewer. The policy should scale process with impact, reversibility, privacy, and financial exposure.

Obligations should include truthful identity where required, source and rights disclosure, conflict disclosure, non-manipulative participation, preservation of market meaning, cooperation with incident and reconciliation processes, and compliance with applicable product terms. A participant should not be able to create, trade, refer, provide liquidity, or hold tokens in a way that overrides the separate authority governing market specification, resolution, security, or economic decisions.

Conflicts should be addressed at the mechanism level. A market creator who trades in the created market may have different information or incentives. A resolution contributor may hold a position affected by the outcome. A liquidity provider may also receive referral attribution. A partner may supply data used to evaluate its own performance. A reserve-management decision may affect token supply or market conditions. Disclosure alone may be insufficient; the policy may require segregation, recusal, independent evidence, caps, alternative sources, delayed action, or prohibition.

17.4.3 Measurement, Concentration, and Feedback Control

Economic measurement should be multi-dimensional. Activity indicates scale; quality indicates usefulness; cost indicates efficiency; retention indicates durability; concentration indicates dependency; and incidents indicate hidden risk. A dashboard that presents only positive totals encourages over-optimization. Each major metric should have a denominator, cohort, period, definition, source, update time, uncertainty, and counter-signal.

Concentration is economically relevant across tokens, users, liquidity, creators, markets, partners, data sources, AI providers, revenue sources, and incentive recipients. A program may appear successful while relying on one market, one venue, one campaign, one related-party cluster, or a small set of wallets. Concentration should not automatically disqualify a program, especially during early development, but it should affect limits, interpretation, contingency planning, and disclosure.

Feedback control connects measurement to action. Thresholds may trigger review, but they should not become hidden automatic promises unless that automation is explicitly authorized. Policy responses may include maintaining, narrowing, pausing, changing qualification, lowering or increasing a cap, requiring more evidence, diversifying a dependency, or closing a program. The decision and rationale should be retained so later evaluation can distinguish policy effects from external conditions.

Table 17.5. Economic indicators and counter-signals

DIMENSION	ILLUSTRATIVE INDICATOR	REQUIRED COUNTER-SIGNAL	INTERPRETATION LIMIT
Participation	Qualified active users, creators, contributors or partners by cohort.	Subsidy exposure, duplication, concentration, complaints, failed qualification and attrition.	More accounts or events do not establish more independent or durable demand.

DIMENSION	ILLUSTRATIVE INDICATOR	REQUIRED COUNTER-SIGNAL	INTERPRETATION LIMIT
Utility	Repeat token-mediated service use or policy-defined access events.	Alternative payment or access paths, reversals, inactivity, immediate outflows and subsidy dependence.	Announced use cases, balances and transfers are not actual utility consumption.
Market quality	Resolvable market supply, executable liquidity, trading continuity and resolution timeliness.	Rejection, cancellation, dispute, spread, slippage, wash-trading and concentration.	Gross market count, quoted depth or volume may overstate usable market quality.
Economic efficiency	Qualified contribution or retained activity per unit of program cost.	Support, compliance, loss, incident, dilution of reserves and opportunity cost.	Low apparent acquisition cost can exclude downstream operating and integrity costs.
Sustainability	Revenue-funded share, contribution margin, retention after subsidy reduction and recurring service demand.	Revenue concentration, volatility, reserves, liabilities, cohort decay and unfunded obligations.	Revenue funding alone does not prove positive margin or long-term solvency.
Supply and market integrity	Authorized deployment, concentration, reserve flows and reconciled supply states.	Unlocks, custody, related parties, exchange or pool concentration, discrepancies and exceptions.	Fixed maximum supply does not guarantee price, liquidity, decentralization or market stability.

Source: POLIX editorial synthesis. Indicators are proposed evaluation classes, not reported POLIX performance or committed disclosure frequency.

ALIGNMENT PRINCIPLE **Economic alignment exists when each stakeholder can understand the contribution, benefit, cost, risk, decision authority, and correction path relevant to the role. A common token must not conceal asymmetric information or conflicting authority.**

17.5 From Token Distribution to Sustainable Value

Token distribution and sustainable value are different stages of economic design. Distribution places tokens into defined states or hands; it may support adoption, liquidity, contribution, partnerships, or reserves. Sustainable value requires continuing usefulness, credible rules, responsible funding, and platform outcomes for which participants are willing to contribute resources. A distribution can be operationally successful while creating little durable utility; a valuable platform can also fail to translate its activity into token demand if the token is avoidable, excessively subsidized, poorly integrated, or governed unpredictably.

The confirmed maximum supply and no-additional-minting rule provide a clear issuance ceiling. Controlled deployment and reserved allocations can reduce immediate circulation relative to the maximum supply. Those facts improve the ability to reason about supply, but they do not substitute for a current circulating-supply statement, custody disclosure, unlock schedule, or reserve report. Chapter 19 addresses token specification; Chapter 20 addresses allocation, including the Liquidity & Market Stability category; Chapter 21 addresses lock-up; and Chapter 26 addresses reserve management and capital allocation controls.

17.5.1 Fixed Supply and Controlled Deployment

POLIX Token Economy v1.0 confirms a maximum supply of 400,000,000 POLX and states that no additional tokens will be minted. It also describes progressive deployment in which reserved resources are intended to enter programs based on approved allocation and actual ecosystem activity rather than becoming circulating merely because they exist within the maximum supply. This architecture can support budget discipline only if reserve and program states remain distinguishable and reconciled.

At minimum, supply reporting should distinguish maximum supply, created supply, controlled reserve balances, contractually or policy-restricted balances, program-authorized amounts, distributed amounts, circulating estimates under an explicit methodology, held or locked amounts, burned amounts if any, and reconciliation exceptions. The exact taxonomy should match the adopted technical and custody architecture. A single headline figure cannot adequately represent all these states.

Controlled deployment should identify authority, purpose, recipient class, budget, eligibility, restriction, time, destination, and completion evidence. It should also preserve the difference between a strategic allocation category and an individual distribution. The existence of an allocation does not identify a recipient, establish a vesting start date, authorize immediate transfer, or prove circulation.

17.5.2 Value Creation, Value Capture, and Supply Actions

Sustainable token economics requires a credible path from platform usefulness to token-mediated demand or reduced effective supply, but each link must be specified. Value creation occurs through better markets, liquidity, intelligence, distribution, and user outcomes. Value capture may occur through fees or service revenue where adopted. Token demand may arise from access, payment, participation, reserves, incentives, or governance where actually implemented. Supply actions may affect available supply where authorized. None of these links is automatic, and each can be weakened by substitution, low retention, high velocity, reserve-related sales, poor liquidity, concentration, or regulatory and operational constraints.

Official materials state a long-term objective to burn up to 200,000,000 POLX and contemplate future buyback and burn under predefined operating policies and financial sustainability. This is a directional supply objective, not evidence that a buyback or burn has occurred, not a guaranteed amount or date, and not a promise that revenue or market conditions will support implementation. Chapter 25 will define the governance, funding, disclosure, execution, custody, accounting, market-integrity, and exception questions that must precede any such action.

Supply reduction should not be presented as a substitute for product economics. A burn can reduce supply but cannot create useful demand, remedy weak liquidity, guarantee price performance, or resolve operating losses. Likewise, buybacks use resources that could otherwise fund security, reserves, product development, compliance, liquidity, or participant obligations. A responsible policy must consider solvency, cash needs, market impact, conflicts, legal constraints, and disclosure before authorizing an action.

17.5.3 Chapter Boundary and Falsifiable Claims

A rigorous economic whitepaper should make its claims falsifiable. “POLX aligns the ecosystem” is not testable unless alignment is connected to observable contribution, policy compliance, stakeholder cost, retention, concentration, and correction. “POLX creates sustainable growth” is not testable unless growth is separated from subsidy, revenue funding is defined, and the relevant cohort and time horizon are disclosed. “Fixed supply supports value” is incomplete unless actual supply states, utility, demand, liquidity, and policy actions are measured.

Chapter 17 therefore treats the following as confirmed design parameters: POLX is intended as the economic layer of the POLIX ecosystem; the official materials contemplate utility across several platform functions; the stated network and token standard are BNB Smart Chain and BEP-20; maximum supply is 400,000,000 POLX with no additional minting; deployment is intended to be controlled and progressive; and the longer-term design seeks greater revenue-funded sustainability and contemplates a burn objective under future policy. All current operational states, rates, dates, addresses, audits, distributions, revenues, rights, and executed supply actions require separate evidence.

This boundary is productive rather than incomplete. It allows subsequent chapters to add technical and economic specificity without forcing the present chapter to invent details. It also creates a review standard: later rules should be consistent with the fixed-supply boundary, map every activity to evidence and authority, distinguish eligibility from entitlement, separate accounting states, prevent double counting, disclose conflicts, and preserve the ability to pause or correct a mechanism that harms platform integrity or sustainability.

Table 17.6. Confirmed design parameters and deferred specifications

TOPIC	CONFIRMED AT CHAPTER 17	DEFERRED SPECIFICATION	DESTINATION
Economic role	POLX is intended as the common layer for incentives, participation and ecosystem growth.	Operative use cases, eligibility, payment or access paths, limits and current availability.	Chapter 18
Token form	BNB Smart Chain; BEP-20; maximum supply of 400,000,000; no additional minting.	Contract address, decimals and implementation details, control roles, deployment and audit evidence.	Chapter 19
Allocation	Official allocation categories include ecosystem growth, platform economy, liquidity, reserves, partnerships and contributors.	Complete allocation table, custody, authority, program assignment and supply-state disclosure.	Chapter 20
Lock-up and release	Controlled and progressive deployment is confirmed; detailed lock-up and release conditions are addressed separately.	Full release schedules, start conditions, beneficiary-level terms, exceptions and current unlocked state.	Chapter 21
Rewards and growth	Platform-economy and ecosystem-growth resources are intended to support qualified participation.	Programs, rates, budgets, performance gates, attribution, distribution and appeals.	Chapters 22-23
Revenue sustainability	The design intends a longer-term transition toward revenue-funded incentives.	Eligible revenue basis, margins, authorization, caps, accounting and disclosure.	Chapter 24
Buyback and burn	Official materials contemplate policy-governed actions and a long-term objective to burn up to 200,000,000 POLX.	Trigger, funding, authority, timing, venue, execution, custody, accounting and completed transactions.	Chapter 25
Liquidity, governance and risk	These are necessary economic-layer control domains.	Market-stability methods, governance rights, legal alignment, security controls and incident response.	Chapters 26-28

Source: POLIX Token Economy v1.0 EN and POLIX Presentation v1.0 EN, interpreted under the evidence boundaries stated in this chapter.

SUSTAINABILITY PRINCIPLE **Distribution can initiate participation; it cannot by itself establish sustainable value. Sustainability requires recurring utility, qualified contribution, accountable funding, controlled supply states, credible disclosure, and the ability to revise mechanisms when evidence changes.**

Chapter Synthesis

1. POLX is intended to serve as the common economic layer connecting qualified activity, participation and ecosystem growth across POLIX.
2. The token is a coordination instrument; it is not the network effect, the product, or a substitute for market quality, liquidity, resolution integrity or trusted operations.
3. A POLX-related state should identify the actor, activity, object, evidence, policy, authority, limits and conditions under which the state can change.
4. Token ownership or raw activity does not create automatic rewards, governance power, platform control, revenue rights, legal ownership or guaranteed access.
5. The economic layer should preserve the distinction between observation, qualification, authorization, accounting, distribution, completion and reversal.
6. One token can support several function classes, but access, incentives, governance, liquidity and supply policy require separate rules and authorities.
7. Cross-engine accounting should preserve lineage and prevent one underlying action from being counted as several independent economic contributions.
8. Gross activity should be paired with cost, quality, retention, concentration, manipulation and counterfactual evidence.
9. Incentives should address a diagnosed coordination problem and should have a purpose, budget, cohort, duration, limits, counter-signals, review authority and exit condition.

10. Bootstrap support is economically distinct from recurring demand and should not become an indefinite substitute for product utility or revenue.
11. Incentive compatibility requires that the easiest way to qualify remains reasonably aligned with the useful contribution the platform seeks.
12. No single activity metric is sufficient; market count, referrals, volume, liquidity, forecasts and token transfers can each be manipulated or misinterpreted.
13. The intended transition toward revenue-funded incentives should be evaluated by funding-source composition, margin, retention and quality rather than elapsed time alone.
14. Value creation, value capture and value distribution are separate stages and should not be collapsed into a claim that all platform growth accrues to POLX.
15. Stakeholder roles should specify contribution, possible benefit, cost, risk, decision authority, conflict boundary and correction path.
16. Concentration across wallets, users, liquidity, creators, markets, partners, data, revenue and incentive recipients should remain visible.
17. The confirmed maximum supply is 400,000,000 POLX with no additional minting; maximum supply is not equivalent to current circulation.
18. Reserved or allocated tokens do not become circulating solely because an allocation exists; progressive deployment requires authorization and reconciled state.
19. Any future buyback or burn remains policy-dependent and must not be presented as a completed action, guaranteed amount, date or price claim.
20. Supply reduction cannot replace platform usefulness, sustainable funding, market integrity, liquidity, solvency or disclosure.
21. Chapter 17 confirms architectural relationships and evidence boundaries while deferring operational utility, technical, allocation, vesting, revenue, supply-action and control specifications to Chapters 18-28.

TRANSITION TO CHAPTER 18 **Chapter 17 defines POLX as the policy-governed economic layer through which qualified platform activity may become bounded access, recognition, incentive eligibility, coordination or supply-policy states. Chapter 18 now turns from architectural role to specific utility classes and use cases, separating intended functions from current availability and defining the evidence required for each operable token relationship.**

CHAPTER 17 / REFERENCES

References and Source Notes

Official POLIX materials support the intended economic-layer role, contemplated utility classes, BNB Smart Chain and BEP-20 specification, fixed maximum supply, no-additional-minting rule, controlled deployment, ecosystem and platform-economy direction, revenue-funded sustainability objective, and long-term burn objective described in this chapter. Academic sources support the coordination, adoption, network, and marketplace-mechanism principles. They do not establish current POLX price, demand, circulation, utility availability, contract deployment, audit, rewards, revenues, governance rights, buybacks, burns, partners, users, market performance, or legal status.

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CHAPTER 18

POLX Utility Framework

A use-case architecture that separates intended utility from present availability and converts token relationships into bounded, evidence-based operating states.

Chapter Thesis

POLX utility should be defined as a policy-governed relationship among a participant, a qualifying activity or service, a token function, an authorized outcome, and verifiable evidence. Official POLIX materials contemplate six principal utility domains: trading rewards, referral rewards, creator rewards, premium AI access, partner incentives, and participation in ecosystem decisions. These domains establish the intended utility portfolio. They do not establish that every function is currently active, that any activity automatically earns POLX, that holding POLX creates universal access or governance power, or that a reward, price, rate, payment path, or service level has been fixed.

Chapter 17 positioned POLX as the common economic layer of POLIX. Chapter 18 moves from that architectural role to the token relationships contemplated within specific platform contexts. It does not repeat how the Referral Engine acquires users, how AI Intelligence produces analytical outputs, how creators propose and steward markets, how partners connect infrastructure, or how trading and pricing operate. Those mechanisms were addressed in Chapters 8 through 16. The present question is narrower and operational: under what conditions may a confirmed platform context become a POLX access, incentive, or participation state, and what evidence would be required to describe that state responsibly?

Utility is often discussed as a list of features. A list is insufficient for a rigorous whitepaper because the same label can conceal materially different arrangements. “AI access” may mean that a balance, payment, lock, subscription, or usage entitlement is required; “trading rewards” may mean an eligibility calculation, a discretionary campaign, a budgeted distribution, or a revenue-funded program; “governance” may mean proposal access, signaling, voting, delegation, or execution authority. Until the actor, trigger, token role, benefit, limits, funding, state transition, and evidence are specified, the label describes intent rather than an operable function.

This distinction also protects the economic analysis. Token utility can influence participation only if the underlying service or incentive is useful, credible, available, and difficult to substitute at lower cost. A feature that exists only as a future narrative cannot be counted as current demand. A reward that merely transfers tokens without improving durable participation cannot be assumed to create platform value. Research on tokenized platforms emphasizes the interaction among adoption, token supply, expectations, and network growth; it does not support treating every announced use case as realized economic demand (Catalini and Gans, 2016; Cong, Li, and Wang, 2021; Bakos and Halaburda, 2022).

Chapter 18 therefore uses three utility families. Incentive-linked utility covers trading, referral, creator, and partner contributions. Service-linked utility covers access to defined premium AI intelligence. Decision-linked utility covers bounded participation in ecosystem decisions. Each family has a different object, evidence model, risk profile, and completion state. A common operability envelope applies across them: identifiable actor; qualifying activity or service; applicable policy version; eligibility and exclusion rules; limits; decision authority; delivery or distribution evidence; reconciliation; and a review, suspension, correction, or retirement path.

UTILITY DISCLOSURE BOUNDARY **Chapter 18 defines intended utility classes and the evidence required to activate them. It does not state a current reward rate, payment method, subscription price, minimum balance, lock requirement, governance threshold, partner payment, campaign budget, launch date, circulation level, contract address, audit status, or current feature availability.**

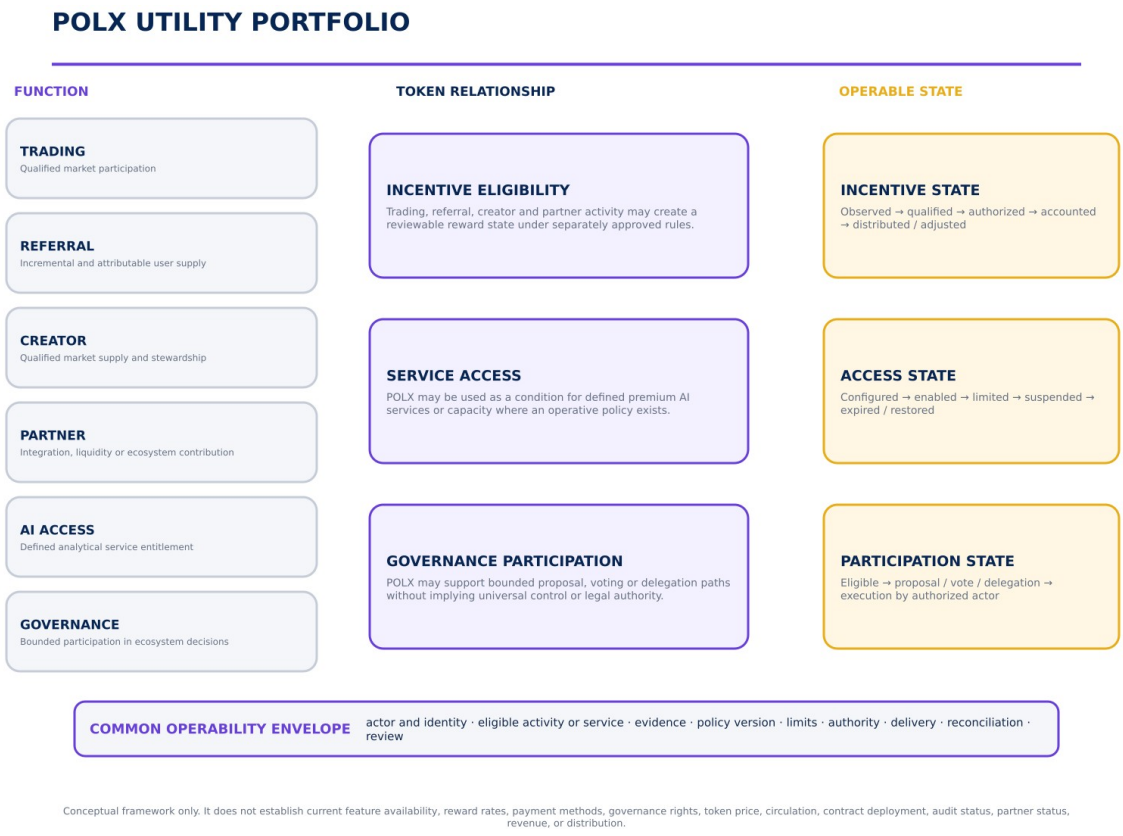

Figure 18.1. POLX utility portfolio. Intended use cases map to incentive, service-access, and governance-participation relationships, each with a distinct operating state and a common evidence-and-control envelope.

Source: POLIX editorial synthesis based on POLIX Presentation v1.0 EN, POLIX Token Economy v1.0 EN, and Chapters 8-17. Conceptual framework only.

Table 18.1. Minimum specification for an operable POLX utility

FIELD	QUESTION	REQUIRED DISCLOSURE	FAILURE IF OMITTED
Actor and identity	Who may use or qualify for the function?	Eligible role, identity or wallet linkage, region or channel constraints, and privacy boundary.	One wallet is treated as one person, role or organization without evidence.
Utility object	What service, contribution or decision is being governed?	Named feature, activity, market, proposal, partner service or other bounded object.	A broad platform narrative substitutes for the actual utility.
Token relationship	What does POLX do in the relationship?	Access condition, payment reference, reward eligibility, distribution unit, credential or other defined role.	Holding, paying, earning and governing are treated as equivalent.

FIELD	QUESTION	REQUIRED DISCLOSURE	FAILURE IF OMITTED
Trigger and evidence	What observable event can change the state?	Source event, attribution, time, quality, uniqueness, verification and applicable policy version.	Raw activity or a self-reported event creates an automatic economic claim.
Benefit and obligation	What may the participant receive or be required to do?	Service level, eligible amount or state, timing, duties, counterparty and conditions.	The use-case label is presented as an unconditional entitlement.
Limits and exclusions	What prevents overuse, manipulation or conflict?	Caps, budgets, exclusions, concentration controls, pause conditions and prohibited conduct.	The mechanism can be optimized through harmful or circular activity.
Authority and state	Who can authorize, deliver, correct or retire the function?	Decision owner, state vocabulary, audit trail, appeal, reversal and disclosure process.	An estimate is treated as approved, delivered, final or currently available.

Source: POLIX editorial specification. The schema is a review standard, not a claim that every field has already been operationally configured.

OPERABILITY PRINCIPLE **A use case becomes operable when its token relationship, evidence, policy, authority, limits, delivery path, and state are all defined. A feature name alone is not current utility.**

18.1 Utility Overview

The official POLIX utility portfolio includes four contribution-linked incentives, one service-access function, and one governance-participation function. These use cases are complementary but not interchangeable. Trading, referral, creator, and partner programs ask whether an observed contribution should become eligible for economic treatment. AI access asks whether a participant may use a defined service under a stated entitlement. Governance participation asks whether a participant may take part in a bounded decision process. A single POLX balance may be relevant to more than one use case, but each use case should maintain its own policy and state record.

Utility should also be separated from demand. A token may be referenced by a function without creating material recurring demand if the amount required is negligible, the token is immediately recycled, the service is rarely used, substitutes are readily available, or eligibility is funded entirely from reserved supply. Conversely, a function can be useful without creating an immediate transfer if the token serves as a credential, stake, access condition, or accounting unit. The whitepaper should therefore describe the transmission mechanism rather than infer token value from the number of listed features.

18.1.1 Utility as a Policy-Defined Relationship

An operable utility can be written as a relationship U = (A, O, R, E, P, L, S), where A is the actor, O the bounded object, R the role of POLX, E the qualifying evidence, P the applicable policy and authority, L the limits and exclusions, and S the resulting state. The notation is not a pricing or reward formula. It is a completeness test. If one element is missing, participants cannot determine what the token does, operators cannot apply the rule consistently, and reviewers cannot distinguish intended design from current execution.

The actor may be a user, creator, referrer, liquidity provider, integration partner, data provider, delegate, or other approved role. The object may be a trade, referral relationship, market lifecycle, AI service, integration milestone, or governance proposal. The token role may be access, payment, reward eligibility, distribution, bond, credential, or another defined function. The evidence should establish provenance, time, attribution, quality, and non-duplication. Policy identifies who may decide and under which version. Limits define caps, exclusions, conflicts, and suspension conditions. State records whether the relationship is proposed, qualified, authorized, active, distributed, adjusted, expired, reversed, or retired.

This relational approach prevents several common category errors. Owning POLX is not the same as qualifying for a reward. Qualifying is not the same as receiving a distribution. Paying POLX is not the same as holding a balance. Holding a balance is not the same as having a non-transferable identity attribute. Participating in a vote is not the same as having execution authority. A token transfer can be complete on-chain while the associated off-chain service remains undelivered, limited, disputed, or refundable under separate terms.

18.1.2 Utility Families and Non-Equivalence

Incentive-linked utility begins with platform evidence. An activity is observed, tested against eligibility and quality rules, checked for manipulation and duplication, authorized within a budget, accounted, and only then distributed or otherwise settled. The economic question is whether the program changes useful behavior at an acceptable cost. Trading volume, referral count, market count, partner connections, or wallet activity are inputs to analysis; none is sufficient by itself.

Service-linked utility begins with an entitlement and a deliverable. The policy must identify the AI product or capability, allowed user or organization, access period or usage unit, capacity, model or service version, exclusions, data-handling boundary, and the state produced when access is enabled, consumed, limited, suspended, or expired. The economic question is whether the service has recurring usefulness and whether the token relationship is necessary and proportionate to the service.

Decision-linked utility begins with a governed process. The policy must separate proposal creation, eligibility review, deliberation, signaling, voting, delegation, quorum, execution, appeal, and emergency intervention. POLX may be relevant to some of these stages without controlling all of them. The economic question is whether the mechanism improves legitimate participation and accountability without allowing concentration, bribery, capture, or technical token ownership to override legal and operational responsibilities.

18.1.3 Availability and Evidence States

Every utility should have an independently disclosed availability state. “Planned” means the function appears in approved product or economic design. “Specified” means the actor, token relationship, rules, limits, and states have been documented. “Configured” means implementation and operating controls exist in a testable environment. “Active” means eligible participants can use the function under an effective policy. “Restricted” means use is limited, paused, or available only to a bounded cohort or channel. “Retired” means new use has ceased and residual obligations are being reconciled or have been closed.

These states should not be inferred from marketing language, a user-interface image, a contract artifact, a token balance, or a previous campaign. Active status requires an effective policy, accessible terms, operational delivery, support and incident paths, and evidence that the function can be completed as described. A function may be active in one jurisdiction, cohort, partner channel, asset, market category, or product version and inactive elsewhere. The disclosure should identify the boundary rather than present a global binary state.

Chapter 18 treats the six official use cases as intended design. It does not assign a current availability state to any of them. Future disclosures should publish the state, effective version, eligible scope, material limitations, and last review date feature by feature. Historical rewards or access should remain distinguishable from currently obtainable utility.

Table 18.2. POLX utility portfolio and evidence boundary

USE CASE	INTENDED TOKEN RELATIONSHIP	OPERABILITY EVIDENCE	EXCLUDED INFERENCE
Trading rewards	Possible reward eligibility linked to qualified trading activity.	Eligible market and cohort, quality and integrity tests, budget, calculation rule, authorization and distribution record.	Every trade earns POLX; volume alone proves contribution; a current rate or campaign exists.
Referral rewards	Possible reward eligibility linked to attributable, incremental and qualified user supply.	Referral lineage, consent, activation, uniqueness, quality, retention, exclusions, budget and settlement state.	Every registration earns POLX; tiers or rates are currently active; self-referral is permitted.
Creator rewards	Possible reward eligibility linked to qualified market supply and stewardship.	Proposal, attribution, publication, activity, resolution, correction, policy compliance and authorized reward state.	Creating a draft guarantees publication, revenue share, ownership, POLX or perpetual rights.
AI access	Possible POLX-mediated entitlement to defined premium AI intelligence.	Named service, entitlement basis, capacity, duration or usage unit, delivery status, model limits and support path.	Holding POLX unlocks every AI feature; outputs are accurate, profitable, personalized advice or always available.
Partner incentives	Possible reward or settlement eligibility for approved liquidity, integration or ecosystem contribution.	Agreement or policy, deliverable, service level, attributable performance, conflicts, budget, acceptance and reconciliation.	A partnership announcement creates payment; connectivity alone proves value; current partners or rates are established.
Governance participation	Possible eligibility for bounded participation in ecosystem decisions.	Proposal scope, eligibility, voting or delegation rule, conflict controls, quorum, record and execution authority.	POLX ownership creates company control, legal authority, universal voting rights or direct execution power.

Source: POLIX Presentation v1.0 EN and POLIX editorial synthesis. All current states and operating parameters remain subject to separate evidence.

Table 18.3. Utility availability-state vocabulary

STATE	MINIMUM MEANING	PUBLIC EVIDENCE	PROHIBITED SHORTCUT
Planned	Approved design intent identifies the prospective function and purpose.	Dated design statement and responsible domain.	Described as available, launched or demand-generating.
Specified	Actor, object, token role, evidence, rules, limits, authority and states are documented.	Versioned specification and review record.	Documentation is treated as deployed functionality.
Configured	Implementation and controls can be tested in a bounded environment.	Test scope, version, results, unresolved issues and release authority.	Test configuration is presented as public availability.
Active	Eligible participants can complete the function under an effective policy.	Terms, eligible scope, user path, support, incidents and observable completion evidence.	A screenshot, balance or announcement substitutes for operability.
Restricted	Use is limited, paused, degraded or confined to an identified scope.	Reason, affected scope, start, review owner and restoration or exit conditions.	Restrictions are concealed while the feature remains described as fully active.
Retired	New use has ended and residual rights or obligations are closed or being reconciled.	Retirement notice, cutoff, residual treatment and archival record.	A historical use case remains counted as current utility.

Source: POLIX editorial operating-state framework. The table defines disclosure states; it does not assign a present state to a POLX use case.

AVAILABILITY PRINCIPLE **Utility should be disclosed feature by feature and state by state. Planned, specified, configured, active, restricted, and retired are not interchangeable.**

18.2 Trading Rewards

Official POLIX materials identify trading rewards as a contemplated POLX utility. The purpose of a trading-reward program should be stated in terms of the market problem it addresses: attracting qualified participation, improving discovery, supporting depth, encouraging repeat use, or testing a new market segment. “More volume” is not a sufficient purpose because gross volume can be circular, subsidized, concentrated, loss-making, manipulative, or unrelated to better price discovery and executable liquidity.

Trading rewards sit above the trading engine defined in Chapter 13. The trading engine determines orders, contracts, prices, fills, positions, settlement and market states. A reward program consumes evidence from that engine but should not modify market outcomes, resolution, user balances, or contract payoffs merely to increase eligibility. Reward accounting must remain distinct from trade accounting so a correction, cancellation, dispute, reversal, or invalid market can be traced through both systems.

18.2.1 Contribution Being Recognized

The first design decision is the contribution being recognized. A platform may seek new qualified participants, reliable repeated participation, information-bearing orders, executable liquidity, activity in underserved markets, or a balanced order book. Each objective requires different evidence. Trade count can measure actions but not economic size or quality. Notional volume can measure scale but not independence, risk or usefulness. Time in market may support liquidity but can be gamed with non-executable quotes. Realized profit reflects outcomes, not necessarily contribution. A robust program should state one primary objective and use counter-metrics to reveal harmful optimization.

The relevant unit should also be identified. Eligibility might attach to a user, account, wallet, verified identity, market, order, filled trade, position, cohort, period, or campaign. These units are not equivalent. One person can control several wallets; one wallet can represent an organization; one trade can create two counterparties; one order can generate several fills; and one market can be duplicated across venues. Attribution should preserve the lineage from underlying trading event to any reward state.

A reward should compensate a defined positive externality rather than the private benefit already obtained through trading. Traders already receive the opportunity to profit from information and risk-taking. Additional POLX should be justified by a stated and measured platform objective, such as adoption, liquidity, discovery, or coverage. The reward should be evaluated net of acquisition cost, fraud loss, support cost, market distortion, adverse selection, and subsequent retention.

18.2.2 Qualification and Market-Integrity Boundary

Qualification should exclude activity that is self-dealing, circular, duplicated, reversed, generated through prohibited coordination, produced by compromised accounts, or designed primarily to extract incentives. Wash trading is economically different from independent exchange because it can create apparent volume without transferring meaningful risk. Related-party transactions and offsetting positions may also inflate activity while leaving net exposure small. The platform should be able to aggregate linked evidence without publicly exposing unnecessary personal information.

Quality controls may include eligible markets and assets, minimum completion status, net exposure or holding-period tests where appropriate, cancellation and reversal treatment, abnormal concentration checks, related-account analysis, cost-to-reward ratios, and cohort-level review. These are control categories, not adopted POLIX thresholds. Any rule should be versioned and tested for false positives, exclusion effects, privacy impact, and the risk that sophisticated participants shift manipulation to an unmeasured dimension.

A market should not be approved, priced, suspended, or resolved differently because a reward budget exists. Reward administrators should not influence outcome rules, oracle evidence, or settlement to preserve campaign metrics. Likewise, participants should be informed that eligibility can be held, adjusted, denied, or reversed when the underlying activity is invalidated or when integrity evidence changes, subject to an appropriate reason and review path.

18.2.3 Reward State, Funding, and Evaluation

A trading-reward record should distinguish observed, estimated, qualified, authorized, held, distributed, adjusted, denied, expired, and reversed states. An estimated amount displayed in an interface should not be described as earned, withdrawable, circulating, or final. Authorization should confirm an applicable budget, policy, identity or account eligibility, and integrity status. Distribution should create a transaction or reconciled ledger record that can be matched to the authorized state.

Funding source matters. A reward paid from a reserved allocation, operating revenue, partner-funded campaign, or another approved source has a different sustainability profile. Chapter 22 will address platform-economy and reward programs, and Chapter 24 will address revenue-based sustainability. Chapter 18 does not select a funding source, rate, formula, cadence, cap, or campaign. It requires that whichever source is adopted be disclosed and that reserved supply, authorized expenditure, distributed POLX, and current circulation remain separate states.

Evaluation should compare the rewarded cohort with a credible baseline. Useful measures may include incremental qualified users, retained activity after incentives, market coverage, depth, spread, slippage, price response, dispute rate, support cost, concentration, suspected manipulation, and reward cost per durable outcome. A program that increases activity only while rewards exceed users' private costs is a subsidy, not yet evidence of recurring utility.

Table 18.4. Trading-reward measurement and counter-metrics

SIGNAL	WHAT IT MAY INDICATE	WHY IT IS INSUFFICIENT	COUNTER-EVIDENCE
Trade count	Frequency of completed trading actions.	Can be split into small, repetitive or related-account trades.	Unique qualified actors, net exposure, concentration and abnormal repetition.
Gross notional	Economic scale of filled transactions.	Can be circular, subsidized, leveraged, offset or concentrated.	Net exposure, independent counterparties, reward-to-cost ratio and persistence.
Active days or retention	Repeated platform use over time.	Repeated use can remain incentive-dependent or low quality.	Post-program retention, market diversity, support incidents and organic activity.
Quoted or supplied liquidity	Potential availability of orders and depth.	Quotes may be non-executable, fleeting or withdrawn when needed.	Executable depth, spread, slippage, uptime, adverse periods and realized fills.
Market coverage	Participation in new or underserved markets.	Activity may be thin, duplicative or unrelated to useful demand.	Qualified participants, information response, resolution quality and repeat demand.
Reward distribution	POLX transferred under an approved program.	Distribution measures cost, not causal platform benefit.	Incremental outcome, total program cost, abuse loss, concentration and long-term effect.

Source: POLIX editorial synthesis informed by Chapters 10, 13, 17, and marketplace-incentive principles. No metric, threshold or program is asserted as currently adopted.

TRADING-REWARD PRINCIPLE **Trading activity may create a reviewable incentive state only when it advances a stated market objective after integrity, cost, quality, and sustainability controls. Volume alone is not contribution.**

18.3 Referral Rewards

Official POLIX referral materials describe the Referral Engine as a user-supply mechanism and contemplate tier-based participation and POLX incentives. Chapter 8 addressed the growth engine, attribution, quality, fraud, and network dynamics. Chapter 18 defines the token relationship: a referral should become economically eligible only when it is attributable, incremental, consented, non-duplicative, policy-compliant, and associated with a qualified downstream state rather than a registration event alone.

Referral utility is particularly sensitive to the difference between acquisition and value. A referred user may register but never complete onboarding, use the platform, participate responsibly, or remain after an incentive ends. The referrer may be influential, incidental, or merely the last link clicked. A tier may organize program eligibility, but rank does not prove incrementality or quality. The system should preserve both the relationship lineage and the evidence used to decide its economic treatment.

18.3.1 Incremental and Attributable User Supply

Incrementality asks whether the referred participant or useful activity would likely have occurred without the referral. Perfect counterfactual knowledge is impossible, but the program can avoid obvious over-crediting by defining attribution windows, prior-user exclusions, channel precedence, account and device integrity tests, and treatment of organic, partner, paid and community acquisition. The rule should disclose whether first-touch, last-touch, verified invitation, or another method governs credit.

Attribution should identify the referrer, referred actor, invitation or link, time, channel, applicable policy, qualification event, and any reassignment. It should not expose private social relationships beyond what the program requires. A wallet address alone may be insufficient where one participant can use several wallets or where an organization legitimately operates multiple accounts. Identity controls should be proportionate to abuse risk and separated from public reward disclosure.

A referral relationship should not confer control over the referred user, their data, trading decisions, balances, or future participation. Referrers should not receive information that reveals private activity merely to validate a reward. Any contribution metric should use aggregation, reason codes, and minimum disclosure necessary to support accountability.

18.3.2 Quality, Retention, and Tier Evidence

A qualified referral may require more than registration: completion of an approved onboarding step, non-duplicate identity, a minimum period without fraud or reversal, or a defined form of responsible platform participation. These are examples of evidence categories, not current POLIX thresholds. The exact event should be observable, proportionate, disclosed in advance, and independent of whether the referred participant wins or loses.

Tier progression should represent an evidence-based program state rather than a permanent status. A tier may reflect qualified referrals, retained activity, quality, compliance, or contribution diversity. The program should state the measurement window, decay or review logic, exclusions, maximum benefit, and whether changes operate prospectively. A higher tier should not waive integrity controls or create a guaranteed reward.

Empirical research on referral programs suggests that referred customers can differ in value and retention, but the result depends on program and customer context (Schmitt, Skiera, and Van den Bulte, 2011). POLIX should therefore measure its own cohorts rather than import a universal assumption that referred users are always more valuable. The appropriate comparison includes acquisition cost, activation, retention, responsible use, support burden, concentration, fraud and the durability of activity after incentives decline.

18.3.3 Reward Boundaries and Abuse Controls

Referral abuse can include self-referral, identity farming, account sale, related-account chains, circular invitations, paid traffic misrepresented as personal referral, scripted registrations, geographic circumvention, duplicate attribution, and coordinated activity designed to satisfy a qualification event. Controls should consider the network rather than inspect each account in isolation. A cluster may be suspicious even when every individual event appears valid.

Economic treatment should distinguish estimated, qualified, held, authorized, distributed, denied and reversed states. A hold period may be appropriate where the qualification event can be reversed or where fraud evidence arrives later, but Chapter 18 does not set such a period. Denial or reversal should identify the applicable rule and preserve an appropriate review path without revealing detection methods that would materially enable abuse.

The reward formula, tier count, percentages, minimum activity, cap, duration and current availability remain outside the confirmed scope of this chapter. The official materials support the intended referral-reward utility and tier-based direction. They do not establish that a particular rate, tier, campaign or distribution is active. Chapter 22 will address reward-program economics and Chapter 23 ecosystem-growth programs.

Table 18.5. Referral-reward evidence chain

STAGE	EVIDENCE OBJECT	QUALITY QUESTION	ECONOMIC STATE
Invitation or attribution	Referrer, link or invitation, referred actor, time, channel and policy.	Is the relationship valid, consented, unique and attributable under the operative method?	Observed; no entitlement.
Onboarding or activation	Approved completion event and non-duplicate actor evidence.	Did a real eligible participant complete the stated condition?	Potentially qualified.
Quality and persistence	Responsible participation, retention window, reversals, incidents and exclusions.	Did the referral produce durable user supply without harmful behavior?	Qualified or held.
Tier or program state	Versioned tier criteria, measurement window, caps and review status.	Does the relationship satisfy the current program rather than a historical rule?	Eligible under a bounded program.
Authorization	Budget, funding source, reason code and responsible authority.	Is the amount or benefit approved and within policy?	Authorized; not yet distributed.
Distribution and review	Transaction or ledger record, reconciliation, adjustment and appeal outcome.	Was the authorized benefit delivered and can errors be corrected?	Distributed, adjusted, denied or reversed.

Source: POLIX Referral Engine materials and POLIX editorial synthesis. The stages are a control model; no current threshold, tier or reward rate is asserted.

REFERRAL-REWARD PRINCIPLE **A referral reward should recognize attributable and incremental user supply, not ownership of a social relationship or the mere creation of an account.**

18.4 Creator Rewards

Official POLIX materials contemplate POLX-based creator rewards and creator revenue sharing within a creator-led market-supply model. Chapters 11 and 12 established that open proposal and controlled publication are compatible: creators can contribute ideas, expertise, local context and stewardship, while the platform maintains formulation, rights, policy, liquidity, resolution and risk gates. Chapter 18 defines how a qualified creator contribution may become an incentive state without converting proposal authorship into automatic publication, ownership, revenue or POLX entitlement.

Creator utility is lifecycle-dependent. A market idea may be valuable but not publishable; a published market may attract activity but resolve poorly; a specialized market may serve a small audience with high information value; a high-volume market may impose exceptional moderation or dispute cost. The reward object should therefore identify which contribution is being recognized: proposal, research, formulation, localization, curation, audience development, stewardship, correction, resolution support, or another approved role.

18.4.1 Market-Supply Contribution and Attribution

Attribution should preserve the difference between original proposal, accepted revision, collaboration, reused source material, localization, curation and operational stewardship. One market can have

several contributors, and one contributor can perform several roles. The system should identify the role, accepted version, rights disclosures, conflicts, source provenance, time, and accountable actor. A creator should not receive exclusive credit merely because the initial idea was submitted first.

Market count is an especially weak standalone metric. It can encourage duplicate, trivial, ambiguous, unresolvable, sensational, low-demand or policy-sensitive proposals. The supply objective is qualified market diversity: relevant questions, clear outcomes, reliable resolution, appropriate rights, sufficient participant interest, and responsible lifecycle management. Creator incentives should make useful supply easier to produce than low-quality quantity.

The attribution record may support reputation or recognition without creating a transferable token benefit. Recognition, incentive eligibility and revenue-sharing eligibility should remain separate states because they can use different rules, funding sources and time horizons. A creator may deserve public credit even when a market is not economically eligible, and an operational steward may qualify for compensation without owning the underlying idea.

18.4.2 Lifecycle Quality and Stewardship

Creator contribution continues after publication where the role includes stewardship. Relevant evidence may include timely source updates, user clarification, incident reporting, cooperation with correction, resolution readiness, dispute handling and preservation of market meaning. The policy should identify which duties belong to the creator and which remain with POLIX. A creator should not be able to alter an active contract, control settlement, suppress criticism, or unilaterally resolve a market merely because the proposal was accepted.

Quality should be measured against the market's purpose and scope. Participation can be informative, but raw volume and audience size can favor sensational or broad markets over specialized markets with genuine decision value. Useful counter-evidence includes ambiguity, cancellations, disputes, corrections, concentration, complaint signals, manipulation risk, support cost, resolution delay, source reliability and repeat responsible participation.

Where a market changes materially, reward lineage should follow the version history. A revised question may preserve the original contribution, create a new collaborative contribution, or become ineligible if meaning changes. The policy should not silently replace an active attribution basis. Revision, suspension, invalidation and cancellation should each have defined effects on estimated, held, authorized or distributed creator states.

18.4.3 POLX Rewards and Revenue-Sharing Boundary

POLX rewards and revenue sharing are distinct economic mechanisms. A POLX reward may be funded from an approved allocation or another authorized source and linked to a qualified contribution. Revenue sharing, if adopted, requires an eligible revenue base, cost treatment, attribution rule, period, cap, accounting method, payment condition and disclosure. Neither term should be used as a synonym for ownership, royalty, equity, profit participation, or a perpetual claim.

An interface may display estimated creator metrics, but estimation should not be described as earned, approved, payable or distributed. Eligibility can be held while the market remains unresolved or while rights, fraud, policy, or attribution questions are open. A completed reward should identify the approved basis and the transaction or reconciled ledger record. Corrections should preserve historical states rather than overwrite the original record.

Chapter 18 confirms the intended creator-reward utility and the need to separate roles and states. It does not establish a current creator program, formula, revenue share, minimum activity, payment date,

funding pool, market ownership right or distribution. Chapter 22 will address platform-economy rewards; Chapter 24 will address revenue-based funding.

Table 18.6. Creator contribution and possible POLX state

CONTRIBUTION	QUALIFICATION EVIDENCE	POSSIBLE TOKEN RELATIONSHIP	NON-AUTOMATIC OUTCOME
Proposal and research	Originality, sources, rights, conflict disclosure, clear question and resolution basis.	Recognition or bounded eligibility under an approved program.	Publication, exclusive authorship, reward or ownership.
Accepted formulation or revision	Versioned accepted text, material edits, collaborators and change rationale.	Attributable contribution state.	Control over the active contract or every later revision.
Localization and curation	Language, cultural context, rights, accuracy, audience need and accepted version.	Role-specific recognition or eligibility.	Automatic credit for copied, low-quality or unauthorized adaptation.
Audience and market development	Qualified discovery, responsible participation, retention and concentration evidence.	Possible incentive state where separately approved.	Reward based solely on views, followers, registrations or gross volume.
Stewardship and correction	Timely updates, incident cooperation, meaning preservation and policy compliance.	Lifecycle-quality eligibility or adjustment.	Unilateral editing, suspension, resolution or dispute authority.
Resolution support and closure	Reliable sources, timely evidence, conflicts, dispute record and final status.	Completion evidence for held or conditional states.	Authority to decide settlement merely because the creator supplied evidence.

Source: POLIX Creator Economy, Chapters 11-12, and POLIX editorial synthesis. Possible token relationships require a separately approved program.

CREATOR-REWARD PRINCIPLE **Creator rewards should follow qualified, attributable market supply and lifecycle stewardship. A proposal is a contribution; it is not an automatic market, property right, revenue claim or token entitlement.**

18.5 AI Access

Official POLIX materials state that POLX is intended to unlock premium AI intelligence. Chapter 9 defined AI Intelligence as a traceable analytical system whose outputs should preserve source, model, time, uncertainty, suitability and human-control boundaries. Chapter 18 addresses the economic relationship: how a POLX condition may authorize access to a defined AI service and how entitlement, delivery, usage, limits and review should be recorded.

AI access differs from a reward. The participant may provide POLX, maintain a required state, consume an entitlement, or satisfy another approved condition in exchange for a service; the exact mechanism must be specified separately. The token relationship should not obscure the service relationship. The user needs to know what capability is included, for how long or how much, under which model and data policy, with what limits, and what occurs when capacity, safety, integrity or availability changes.

18.5.1 Access Object and Entitlement Basis

The access object should be more precise than “AI.” It may be a market summary, probability estimate, evidence retrieval, alert, signal, portfolio analysis, model comparison, automated strategy interface, or another named capability. Different objects have different costs, data requirements, risks and suitability. A service catalog should identify version, eligible markets or data, latency, refresh logic, input limits, output format, retention and whether an output is informational, executable, personalized or connected to an automated action.

Illustrative entitlement architectures, which are not adopted POLX methods, may include holding, paying, subscribing, consuming a usage credit, satisfying a participation condition, or receiving a sponsored allocation. The operative policy should select the relationship and explain how token transfer, balance, entitlement issuance, service activation, consumption, refund or expiration are

reconciled. If an entitlement is non-transferable, transferring POLX should not silently transfer the identity-bound service right.

The price or quantity of access should not be inferred in this chapter. A service may have token-denominated, fiat-referenced, usage-based, cohort-based or other pricing if separately adopted. Any denomination policy should address volatility, quote validity, rounding, failed transactions, refunds, tax or accounting treatment where applicable, and the difference between token amount and service value. Chapter 18 establishes only the need for a defined entitlement basis.

18.5.2 Service Delivery, Capacity, and Availability

Access is complete only when the entitled service is delivered within its stated boundary. On-chain payment or balance verification may be final while the off-chain service fails, times out, returns incomplete data, or becomes unavailable. The system should record entitlement creation, activation, request, delivery, consumption, failure, retry, suspension, expiration and any refund or replacement state. Users should not be required to infer service completion from a token transaction.

Capacity limits should be explicit. AI services can face model, data, compute, latency, rate, jurisdiction, security or incident constraints. A premium label should not imply unlimited use, priority under every condition, a fixed model, or perpetual access. When a service is degraded or suspended, the disclosure should identify the affected capability, entitlement treatment, restoration or exit process, and support channel.

Availability must remain feature-specific. A public model description or interface mock-up does not prove that a POLX access path is active. Evidence of active status should include effective terms, a working eligible-user path, service completion records, support and incident controls, and clear limitations. Chapter 18 does not assert current deployment, model availability, subscription status, token requirement or service level.

18.5.3 Model Limitations and User Control

POLX-mediated access does not transform an AI output into truth, a guarantee, fiduciary advice, or an assured trading result. Outputs can be incomplete, stale, biased, miscalibrated, non-representative or unsuitable for a participant's objective. The interface should preserve model and data provenance, timestamp, confidence or uncertainty where meaningful, material limitations, and whether human review or confirmation is required before an action.

NIST's AI Risk Management Framework emphasizes governance, mapping, measurement and management across the AI lifecycle (NIST, 2023). Applied to utility, this means access policy should not be separated from model-risk policy. Eligibility to use a feature should coexist with controls for data rights, privacy, security, robustness, harmful automation, incident response, monitoring, change management and user recourse.

Where an AI output can trigger an automated trade or other consequential action, access, recommendation, authorization and execution should be separate events. A participant should be able to understand whether the system is informational or executable, which permissions are active, how they can be revoked, and what limits apply. Token ownership or payment should never substitute for informed authorization.

Table 18.7. POLX-mediated AI access specification

CONTROL OBJECT	REQUIRED SPECIFICATION	STATE EVIDENCE	BOUNDARY
Service object	Named capability, model or service version, eligible inputs and output type.	Catalog and request record match the delivered service.	"Premium AI" is not a complete service description.

CONTROL OBJECT	REQUIRED SPECIFICATION	STATE EVIDENCE	BOUNDARY
Entitlement basis	Selected POLX relationship, eligible actor, quantity or duration, transferability and expiry.	Entitlement issued and linked to the correct actor and policy.	Token ownership does not imply every service or perpetual access.
Usage and capacity	Request unit, rate or capacity limit, priority, latency and degradation policy.	Consumption, remaining entitlement, failure and retry are recorded.	Premium does not mean unlimited or uninterrupted.
Delivery	Completion criteria, output timestamp, provenance, support and failed-delivery treatment.	Delivered, incomplete, failed, retried, replaced or refunded state.	An on-chain token event is not proof of off-chain delivery.
Model and data risk	Limitations, uncertainty, source rights, privacy, security and material change notice.	Version, evaluation, incident and monitoring record.	Access does not guarantee accuracy, suitability or profit.
Automation authority	Whether the output is informational or executable; permissions, limits and revocation.	Separate user authorization and execution record.	Payment or holding does not authorize consequential action.

Source: POLIX AI Intelligence materials, Chapter 9, NIST AI RMF 1.0, and POLIX editorial synthesis. No current access method, model, price or service level is asserted.

AI-ACCESS PRINCIPLE **POLX may mediate access to a defined AI service; it does not validate the output. Entitlement, delivery, model risk, user authorization, and execution remain separate states.**

18.6 Partner Incentives

Official POLIX materials contemplate partner incentives for liquidity and integration partners. Chapter 16 defined the partner network as a governed interface among infrastructure, distribution, data, liquidity, regional and ecosystem contributors. Chapter 18 focuses on the token relationship: a partner contribution may become eligible for a POLX incentive or another separately authorized form of settlement only when the counterparty, deliverable, service level, evidence, conflicts, budget, authority and completion state are defined.

Partner incentives should not be conflated with the Strategic Partnerships & Listings allocation described in the token economy. An allocation category identifies a possible source and strategic purpose; it does not create a payment obligation to every partner, prove that a partnership exists, or establish current distribution. A particular partner program requires separate authorization, agreement or policy, performance evidence, custody and accounting.

18.6.1 Eligible Partner Contribution

An eligible contribution may include integration work, maintained technical connectivity, liquidity support, market distribution, verified data, localization, compliance support, infrastructure, custody, security, or another approved service. The object should be a deliverable or performance state, not the existence of a relationship. Announcements, memoranda, listings, API keys, connections or committed capacity do not by themselves demonstrate completed value.

The partner record should identify legal or accountable counterparty, approved role, scope, version, rights, data or asset boundaries, service levels, geographic or channel limits, conflicts, subcontractors where material, measurement source, acceptance authority and termination path. Public disclosure can be aggregated where confidentiality or security requires, but the internal evidence should support the economic state.

Different partner roles require different counterfactuals. Liquidity support should be evaluated through executable quality and stressed conditions, not quoted capital alone. Integration work should be evaluated through functioning, maintained use rather than initial connection. Distribution should be assessed through incremental qualified participation rather than impressions or registrations. Data

should be assessed through rights, reliability, coverage and correction. Localization should be assessed through accuracy and responsible access, not language count.

18.6.2 Measurement, Conflicts, and Concentration

A partner can influence both the activity being rewarded and the evidence used to measure it. A liquidity partner may generate volume; a distributor may attribute users; a data partner may supply a performance feed; an integration partner may define uptime. Independent or multi-source verification is therefore important where the amount is material or where self-reported evidence creates a conflict. Exceptions should be documented rather than hidden inside a score.

Concentration should be visible across partner payments, liquidity, data, distribution, infrastructure and geographic coverage. A program may improve short-term capability while increasing dependency or exit risk. Economic evaluation should include substitute availability, switching cost, correlated failure, termination impact, asset or data custody, operational recovery and whether incentives are creating durable capability or merely renting activity.

Incentives should not compromise market neutrality, listing decisions, resolution, security, participant privacy, disclosure or legal responsibilities. A partner should not receive privileged market outcomes, undisclosed access to participant data, or the ability to alter active contracts because it provides liquidity or integration. Any preferential service should be explicit, bounded and consistent with platform integrity.

18.6.3 Authorization, Settlement, and Exit

Partner incentive states may include proposed, accepted, in progress, measured, disputed, qualified, authorized, held, settled, adjusted, terminated and closed. Milestones and recurring performance should not be collapsed into one state. An authorized amount should identify funding source, approved basis, period, counterparty, token quantity or valuation method where applicable, payment condition and responsible authority. Settlement should be reconciled to a transaction or ledger record.

Where POLX is used, denomination and timing rules should address volatility, quote validity, failed transfer, receiving address controls, tax or accounting treatment where applicable, and whether the partner may be subject to lock, use or sale restrictions under separate terms. Chapter 18 does not establish such terms. It defines the need to disclose them before describing a partner incentive as operable.

Termination should preserve residual obligations, data and asset return, user continuity, open disputes, confidentiality, security response and any unsettled economic state. A partner relationship can end while individual deliverables remain accepted or disputed. The record should not erase prior performance or continue accrual after the effective cutoff without an authorized basis.

Table 18.8. Partner-incentive qualification by contribution class

PARTNER CLASS	QUALIFIED OBJECT	PRIMARY EVIDENCE	NON-QUALIFYING SHORTCUT
Liquidity	Executable liquidity or market support under defined conditions.	Depth, spread, slippage, uptime, stressed-period behavior, fills, concentration and incidents.	Committed capital, quoted depth or gross volume alone.
Integration	Working and maintained technical capability used within approved scope.	Acceptance tests, availability, usage, change control, security and support records.	Signing, API access or initial connectivity alone.
Distribution or community	Incremental qualified participants or responsible reach.	Attribution, activation, retention, quality, consent, cost and concentration.	Impressions, clicks, registrations or audience size alone.
Data or intelligence	Reliable, rights-cleared and useful data or analytical service.	Provenance, coverage, timeliness, correction, licensing, monitoring and incidents.	Data volume, model label or self-reported accuracy alone.

PARTNER CLASS	QUALIFIED OBJECT	PRIMARY EVIDENCE	NON-QUALIFYING SHORTCUT
Regional or localization	Accurate local capability and responsible market access.	Language and policy quality, local evidence, operations, support and user outcomes.	Country count, translated pages or public announcement alone.
Infrastructure or security	Delivered capacity, resilience, custody or control service.	Service level, testing, incidents, recovery, audit or assurance evidence where applicable.	Vendor status or capacity claim without accepted delivery.

Source: POLIX partner-network materials, Chapter 16, and POLIX editorial synthesis. No current partner, payment, rate or program is asserted.

PARTNER-INCENTIVE PRINCIPLE **A relationship is not a contribution and an announcement is not performance. Partner incentives should follow accepted, attributable and reviewable capability or service evidence.**

18.7 Governance Participation

Official POLIX materials identify participation in ecosystem decisions as a contemplated POLX utility. This statement establishes design direction, not current governance rights. Chapter 18 defines the utility boundary; Chapter 27 will address governance and decision rights in greater detail. Until an operative framework is adopted and disclosed, POLX ownership should not be described as conferring voting power, proposal rights, delegation rights, execution authority, control of the company, control of user assets, or authority over every platform decision.

Governance participation is not one function. It is a sequence of distinct rights and responsibilities: raising an issue, submitting a proposal, qualifying its scope, disclosing conflicts, deliberating, signaling, voting, delegating, establishing quorum, interpreting the result, executing an authorized change, reviewing an emergency action, and preserving the record. POLX may be relevant to some stages and irrelevant or insufficient at others.

18.7.1 Scope and Excluded Rights

A governance object should be bounded. Possible domains include product parameters, ecosystem programs, community priorities, grants, representative selection, policy signaling or another defined matter. Certain matters may remain with technical, legal, security, fiduciary, contractual or operational authorities. The framework should identify reserved decisions and explain why token voting cannot override them. “Ecosystem decisions” should not be presented as unlimited control.

Token-based participation also should not be confused with legal ownership or corporate voting. A governance utility may allow a participant to express a preference without creating equity, debt, a revenue right, fiduciary status, agency, partnership, employment, ownership of platform intellectual property, or authority to bind an operating entity. Applicable terms and law, not the use-case label, determine legal effect.

Where balances affect eligibility or weight, the policy should define the relevant balance, snapshot or lock, custody and delegation treatment, excluded addresses, concentration controls, borrowing or temporary acquisition risk, conflicts, privacy, and whether the rule applies per wallet, identity, organization or another unit. Chapter 18 does not select any method or threshold.

18.7.2 Proposal, Voting, Delegation, and Execution Separation

Proposal access should identify eligible subjects, minimum specification, evidence, sponsor obligations, conflict disclosure, review authority, duplication and spam controls, amendment process and withdrawal. A proposal can be admissible without being advisable, and popular without being

executable. Qualification should not become a concealed substantive veto; reasons and review paths should be available within security and confidentiality limits.

Voting or signaling should identify electorate, weight, snapshot, period, quorum, approval rule, abstention, delegation, conflicts, invalid activity, recount, finality and disclosure. Delegation requires a separate record because the beneficial participant, delegate and token holder may differ. A token transfer during the process should not silently create duplicate weight or erase already exercised rights unless the rule expressly provides for that effect.

Execution should be assigned to an authorized actor or mechanism. A passed vote may require technical validation, security review, legal review, budget confirmation, staged implementation or a delay. Emergency authority may pause execution where immediate harm is likely, but the scope, reasons, duration, accountable actor and later review should be recorded. Governance credibility depends on explaining when a result is binding, advisory, deferred, modified, rejected or superseded.

18.7.3 Progressive Activation and Evidence

Governance utility can be activated progressively. Early stages may support surveys, non-binding signaling, working groups, public proposals or delegated advisory processes before binding token-based decisions are appropriate. Progression should depend on tested identity and wallet controls, participation quality, concentration, attack resistance, decision latency, execution capability, incident response and the clarity of reserved responsibilities rather than a promotional timetable.

Evidence of active governance includes an effective charter or policy, eligible scope, participant rules, proposal and decision records, conflicts, vote or deliberation data, authority, execution status, appeals and amendments. A governance interface, token distribution or community poll is not enough. Historical experiments should remain distinguishable from current rights.

The governance state should be reviewable and reversible where appropriate without rewriting history. The record should preserve the proposal as submitted, amendments, eligible electorate, votes or signals, delegations, invalidations, decision rationale, execution and later correction. Transparency should be balanced with privacy, security, anti-bribery, market-integrity and legal constraints.

Table 18.9. Governance-participation stages and authority boundaries

STAGE	POSSIBLE POLX RELATIONSHIP	REQUIRED EVIDENCE	SEPARATE AUTHORITY
Issue and proposal	Eligibility to submit, sponsor or support a bounded proposal where adopted.	Scope, author, evidence, conflicts, policy version and qualification result.	Admissibility and policy review do not equal approval.
Deliberation and signaling	Access to discussion or non-binding preference expression.	Eligible forum, participants, time, amendments, moderation and result.	A signal does not execute a platform change.
Voting	Eligibility or weight under a separately disclosed balance, identity or delegation rule.	Electorate, snapshot, weight, quorum, period, invalidations and final tally.	Token ownership alone does not establish a current vote.
Delegation	Transfer of bounded participation authority without transferring every underlying right.	Delegator, delegate, scope, duration, revocation and double-count prevention.	Delegation is not asset custody or unlimited agency.
Decision	Outcome classification under the operative approval rule.	Binding or advisory status, reasons, conflicts, exceptions and review.	A majority is not automatically legal, secure, funded or executable.
Execution and oversight	No automatic token right unless expressly adopted; authorized actors implement and report.	Technical, legal, security and budget checks; execution, delay, veto or emergency record.	Voting and execution authority remain distinct.

Source: POLIX Presentation v1.0 EN, governance-design principles, and POLIX editorial synthesis. No current voting, delegation, proposal or execution right is asserted.

GOVERNANCE-UTILITY PRINCIPLE **POLX may support bounded participation in ecosystem decisions only under an operative governance framework. Token ownership is not universal authority, corporate control, or automatic execution power.**

Chapter Synthesis

1. The official POLIX utility portfolio contemplates trading rewards, referral rewards, creator rewards, premium AI access, partner incentives and participation in ecosystem decisions.
2. These use cases establish intended design direction; they do not establish that a feature, rate, entitlement, program or governance right is currently active.
3. An operable utility should identify the actor, bounded object, role of POLX, qualifying evidence, applicable policy and authority, limits and resulting state.
4. Holding, paying, earning, accessing, qualifying and governing are distinct token relationships and should not be treated as synonyms.
5. Incentive-linked, service-linked and decision-linked utilities require different evidence, risks and completion states even when they reference one token.
6. Utility should be disclosed feature by feature as planned, specified, configured, active, restricted or retired, with the effective scope and version.
7. A planned or configured use case cannot be counted as current demand, and a historical campaign cannot be counted as continuing utility.
8. Trading rewards should address a stated market objective and should not treat gross volume, trade count, quoted liquidity or distribution as sufficient evidence of contribution.
9. Trading-reward accounting should remain separate from trade, position, market and resolution records while preserving event lineage and correction.
10. Referral rewards should recognize attributable, incremental and qualified user supply rather than registrations, social ownership or a referral link alone.
11. Tier status, if adopted, should remain versioned, reviewable and subject to quality, integrity, duration and cap rules; it is not guaranteed entitlement.
12. Creator rewards should follow qualified market supply, role-specific attribution and lifecycle stewardship rather than proposal or market count alone.
13. POLX creator rewards and revenue sharing are separate mechanisms; neither establishes ownership, royalties, equity, profit participation or perpetual rights.
14. AI access requires a named service, entitlement basis, capacity, delivery evidence, model limits, support and clear separation between information and execution authority.
15. POLX-mediated access does not guarantee model accuracy, suitability, availability, personalized advice or profitable outcomes.
16. Partner incentives should follow accepted and attributable integration, liquidity, distribution, data, localization, infrastructure or other approved service evidence.
17. An allocation category, partnership announcement, API connection, listing or committed capacity does not by itself establish a partner payment or completed contribution.
18. Governance participation should separate proposal, deliberation, signaling, voting, delegation, decision and execution, and should identify reserved authorities.

19. POLX ownership does not by itself create current voting rights, company control, legal authority, execution power, asset control or universal participation.
20. Every utility should preserve observed, qualified, authorized, delivered or distributed, adjusted, denied, expired, reversed and retired states as applicable.
21. Funding source, program budget, denomination, current availability, operating rate, launch date, contract status and current distribution remain subject to separate disclosure.
22. Chapter 18 specifies the intended utility portfolio and evidence boundaries; Chapter 19 turns to the technical identity and fixed-supply specification of POLX.

TRANSITION TO CHAPTER 19 **Chapter 18 defines the intended POLX utility portfolio and the conditions under which a use case may become an operable access, incentive or participation state. Chapter 19 now turns from function to token specification: identity, BNB Smart Chain and BEP-20 alignment, fixed maximum supply, no-additional-minting rule, and the evidence boundary between approved specification and deployed contract state.**

CHAPTER 18 / REFERENCES

References and Source Notes

Official POLIX materials support the intended utility portfolio described in this chapter: trading rewards, referral rewards, creator rewards, premium AI access, partner incentives, and participation in ecosystem decisions. They also support tier-based referral direction, creator revenue-sharing direction, and partner incentives for liquidity and integration. These materials do not establish current utility availability, reward formulas, rates, tiers, budgets, payment or access methods, AI models or service levels, partners, revenue sharing, voting or delegation rights, contract deployment, audit, circulation, token price, distributions, or legal effect. Academic and public-framework sources support general platform, referral, token-adoption, AI-risk, and governance principles; they do not establish current POLIX operations.

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CHAPTER 19

Token Specification

A bounded specification of POLX identity, network and interface alignment, fixed maximum supply, no-additional-minting constraint, and long-term burn objective—without treating design intent as deployed contract fact.

Chapter Thesis

POLX is specified as the fungible token of the POLIX ecosystem on BNB Smart Chain under the BEP-20 interface standard, with a fixed maximum supply of 400,000,000 POLX and no additional minting. Official POLIX materials also state a long-term objective to burn up to 200,000,000 POLX, equal to 50% of the maximum supply. These statements define the approved token identity and high-level supply policy. They do not, by themselves, establish a deployed contract, contract address, source-code version, token decimals, administrative privileges, upgradeability, audit status, current total or circulating supply, completed burn, burn schedule, or present market availability.

Chapter 18 defined how POLX may relate to incentives, services, and bounded ecosystem participation. Chapter 19 does not repeat those functions or infer demand from them. It asks a prior technical and accounting question: what unit is being referenced when the whitepaper says POLX, what network and interface identify that unit, what supply constraints apply, and which evidence must exist before a specification claim can be converted into a deployment or operating claim?

A token specification operates at several layers. The editorial layer names the asset and its intended role. The interface layer identifies the callable functions and events expected by wallets, applications, and infrastructure. The implementation layer determines how supply, transfers, allowances, privileges, pauses, upgrades, and burns actually behave. The deployment layer binds bytecode to a network and contract address. The operating layer records current balances, total supply, verified burns, incidents, restrictions, and changes. Conflating these layers creates false certainty: an approved symbol is not a contract address, standard conformance is not an audit, a maximum supply is not circulating supply, and a burn objective is not a completed burn.

The distinction is particularly important for fungible tokens because symbols are not globally unique. A wallet or exchange can display multiple assets called POLX, and an incorrect address can point to an unrelated or malicious contract. The canonical identity of a deployed token therefore requires at least the network, chain context, contract address, verified implementation, and authoritative publication channel in addition to the human-readable name and symbol. None of those deployment identifiers is invented in this chapter.

The supply specification also requires precise vocabulary. Maximum supply is the upper bound permitted by policy. Total supply is the amount recognized by the operative contract at a point in time. Circulating supply applies additional classification rules to identify units considered available in the

market. Allocated, reserved, locked, vested, distributed, held, and burned are separate states that cannot be derived from the maximum alone. Chapters 20 and 21 will address allocation and lock-up design; Chapter 25 will address buyback and burn policy. Chapter 19 establishes only the token-level definitions and invariants needed for those later analyses.

SPECIFICATION BOUNDARY **Confirmed in Chapter 19: POLX; BNB Smart Chain; BEP-20; maximum supply of 400,000,000 POLX; no additional minting; and a directional objective to burn up to 200,000,000 POLX. Not asserted: deployment, address, audit, decimals, privileges, upgrade design, current total or circulating supply, TGE terms, token price, burn execution, schedule, funding source, or completed supply reduction.**

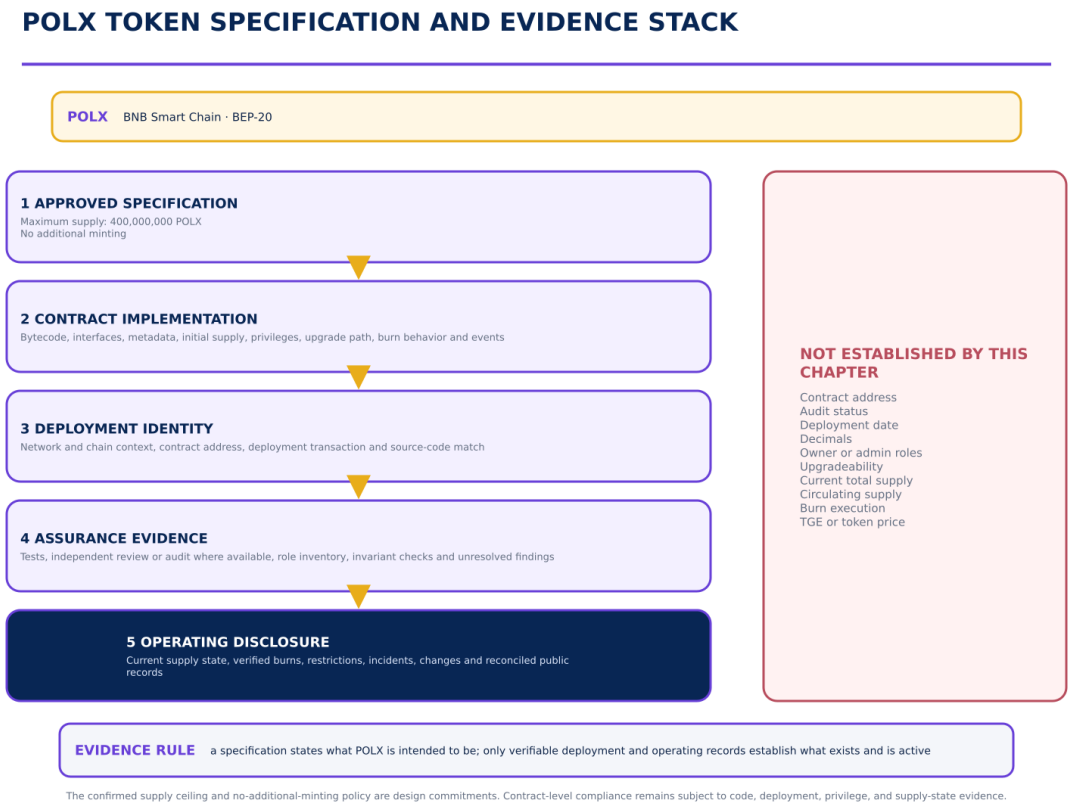

Figure 19.1. POLX token specification and evidence stack. Approved identity and supply policy require implementation, deployment, assurance, and operating evidence before they can be described as current contract facts.

Source: POLIX editorial synthesis based on POLIX Token Economy v1.0 EN, BEP-20, EIP-20, and software-assurance principles. Conceptual framework only.

Table 19.1. Confirmed POLX specification and evidence boundary

FIELD	CONFIRMED SPECIFICATION	EVIDENCE NEEDED FOR OPERATING CLAIM	NOT ESTABLISHED HERE
Token identity	Token identifier and symbol: POLX; fungible ecosystem token described in official POLIX materials.	Authoritative network and contract publication; verified metadata and implementation match.	A unique deployed asset can be identified by symbol alone.
Network	BNB Smart Chain.	Chain context, deployment transaction, final contract address and supported environment.	A mainnet deployment, launch date, bridge or multi-chain version exists.
Interface standard	BEP-20.	Interface tests, source or bytecode verification, events and integration behavior.	BEP-20 alignment proves security, audit, availability or every optional feature.
Maximum supply	400,000,000 POLX.	Initialization record, totalSupply history, mint-path analysis and reconciled supply states.	All maximum units are minted, distributed, circulating or unlocked.

FIELD	CONFIRMED SPECIFICATION	EVIDENCE NEEDED FOR OPERATING CLAIM	NOT ESTABLISHED HERE
Additional minting	Not available as an approved token-policy rule.	No callable post-initial mint path; privilege and upgrade analysis; continuous invariant monitoring.	Current code, ownership or upgradeability has already been verified.
Long-term burn objective	Up to 200,000,000 POLX, equal to 50% of maximum supply.	Effective policy, authorization, funding, execution transaction, supply change and public reconciliation.	The objective is guaranteed, scheduled, funded, completed or price-supporting.

Source: POLIX Token Economy v1.0 EN and POLIX editorial evidence framework. Current deployment and operating fields remain subject to separate disclosure.

IDENTITY PRINCIPLE **A token is not safely identified by name or symbol alone. Before public use, POLX should be identified by the authoritative network, chain context, contract address, verified implementation and publication source.**

19.1 Token Identity

The canonical editorial token identifier is POLX. Official materials identify the token as POLX and use POLX as its ticker symbol, while the deployed contract name() metadata remains subject to contract-level verification. Chapter 19 uses “POLIX” for the platform and ecosystem and “POLX” for the token. This naming distinction should remain consistent across the whitepaper, interfaces, policies, accounting records, exchange or wallet integrations, support materials, and public announcements.

Token identity has a human-readable component and a machine-resolvable component. The human-readable component includes name, symbol, description, brand assets, and intended network. The machine-resolvable component includes chain identifier, contract address, interface behavior, bytecode or verified source, deployment transaction, metadata values, and relevant version information. Human-readable fields improve discovery; machine-resolvable fields prevent ambiguity. Both are necessary, but only the latter can distinguish one deployed contract from another with the same symbol.

19.1.1 Canonical Token Identifier, Symbol, and Unit

POLX should be treated as a fungible accounting unit: equal on-chain units governed by one canonical contract state should be interchangeable, subject to the contract and any external restrictions that may lawfully apply. Fungibility at the token layer does not mean that every holder has identical platform entitlements. Chapter 18 showed that access, incentive eligibility, and governance participation depend on separate policies, actors, evidence, and states. The token unit and the platform right are related but not identical.

The symbol should not be treated as a globally unique key. Token lists, wallets, exchanges, indexers, analytics systems, and user interfaces should bind the display symbol to the correct chain and contract address. Brand marks can reinforce recognition but cannot substitute for the address. Search results, screenshots, community messages, and third-party listings should not be authoritative sources of token identity unless they can be reconciled to an official publication.

The number of decimal places is an implementation metadata field that affects display and unit conversion. It does not change the maximum number of whole POLX expressed by the economic specification, but an incorrect decimal assumption can materially distort balances, transfer amounts, and prices in interfaces. The official source set reviewed for this chapter does not confirm the deployed decimals value. It should therefore be published only with the verified contract identity and tested across supported integrations.

19.1.2 Identity Across Interfaces and Records

Every system that references POLX should preserve a canonical asset key. At minimum, the key should include network and contract address once deployed. Systems that support several environments should also distinguish mainnet, testnet, staging, simulation, wrapped, bridged, and deprecated forms. A test token or mock contract should never be presented with a visual identity that allows it to be mistaken for the canonical asset without a conspicuous environment label.

Operational records should preserve the address as data rather than as an image. A published address should be available in copyable text, protected from truncation ambiguity, and accompanied by network information. Where shortened display is used, the full value should remain inspectable. Address changes, migrations, replacements, or wrappers should be treated as formal identity events with an effective version, reason, verification procedure, affected balances, user instructions, and archival record.

Third-party integration does not transfer authority over canonical identity. A wallet may import metadata, an exchange may assign a ticker, and an indexer may label a contract, but those labels can be incomplete or incorrect. The project should maintain an authoritative identity record and explain how third-party representations can be checked against it. Conversely, an official statement should not claim third-party support until the relevant platform has independently completed and published its integration.

19.1.3 Specification, Deployment, and Availability States

A token can exist in several non-equivalent states. “Specified” means the approved identity and supply rules have been documented. “Implemented” means contract code exists and can be tested. “Deployed” means bytecode has been recorded at a particular network address. “Verified” means the deployed bytecode can be reconciled to reviewed source or another reproducible artifact. “Available” means eligible users can lawfully and operationally acquire, hold, transfer, or use the token under effective terms and supported interfaces. “Migrating” or “retired” describes an asset whose canonical status is changing or has ended.

A state should be assigned only when its minimum evidence exists. Code in a repository is not deployed. A deployment transaction is not an audit. A verified source-code match is not proof that administrative privileges are acceptable. A wallet display is not proof of circulation. A liquidity pool is not proof of authorized launch. The state vocabulary should prevent marketing, documentation, support, and analytics systems from silently converting one fact into another.

Chapter 19 assigns POLX the specified state. It does not assign an implemented, deployed, verified, audited, available, migrating, or retired state. Future documents should identify the evidence and effective date of any state transition without rewriting the historical specification.

Table 19.2. POLX identity-state vocabulary

STATE	MINIMUM MEANING	MINIMUM EVIDENCE	PROHIBITED INFERENCE
Specified	Approved token identity, network, standard and supply constraints are documented.	Versioned official specification and responsible publication source.	A contract has been deployed or is available.
Implemented	Code expresses the intended interface and supply policy in a testable form.	Repository or reproducible artifact, tests, version and review record.	The code is the code deployed on a public network.
Deployed	Bytecode exists at a specific address on a specific network.	Chain context, address, deployment transaction, bytecode and deployer record.	The source is verified, secure, canonical or publicly available for use.
Verified	The deployed artifact is reproducibly linked to reviewed source and configuration.	Source-to-bytecode match, compiler and constructor or initializer evidence.	An independent audit found no material issue.

STATE	MINIMUM MEANING	MINIMUM EVIDENCE	PROHIBITED INFERENCE
Available	Eligible users can operationally use the canonical token under effective terms.	Official address publication, supported user path, terms, monitoring and support.	Availability is universal across every jurisdiction, venue, wallet or feature.
Migrating or retired	Canonical status is changing or new use has ended under a controlled process.	Notice, cutoff, mapping, residual treatment, support and archival identity record.	Old and new contracts are interchangeable without an explicit rule.

Source: POLIX editorial asset-identity framework. Chapter 19 confirms only the specified state.

STATE PRINCIPLE **Specified, implemented, deployed, verified, audited, and available describe different facts. A credible disclosure names the state and supplies the evidence; it does not imply the next state.**

19.2 BNB Smart Chain and BEP-20

Official POLIX materials specify BNB Smart Chain as the network and BEP-20 as the token standard. BEP-20 defines a standard interface for fungible token contracts on BNB Smart Chain and is derived from Ethereum's EIP-20 interface. The purpose of a common interface is composability: wallets, applications, exchanges, explorers, indexers, and other contracts can query balances and total supply, transfer units, manage allowances, and observe standardized events without learning a wholly proprietary API (BNB Chain, BEP-20; Vogelsteller and Buterin, 2015).

This standardization is necessary but limited. An interface specifies how software calls a contract; it does not determine the economic allocation, unlock plan, market value, platform utility, regulatory treatment, security of custom logic, correctness of access controls, or suitability of an integration. Nor does the BEP-20 label establish that a particular address is canonical. Those matters require separate evidence.

19.2.1 Network and Standard Scope

BNB Smart Chain is an EVM-compatible execution network. For token specification, the practical consequence is that POLX can be represented by a smart contract using a widely supported fungible-token interface. The native asset used for network transaction fees is BNB, not POLX. A participant may therefore hold POLX but still require BNB to submit an on-chain transaction. This network-level requirement should be explained in any operational user guidance; it should not be mistaken for a POLX fee policy.

The network should be identified explicitly whenever an address or transaction is published. The same hexadecimal address format can appear in several EVM-compatible networks, while the underlying state and asset may differ. A successful transfer on one network does not create a balance on another. Wallet configuration, chain context, contract address, and transaction status must therefore be checked together.

The BEP-20 specification is based on the EIP-20 model and includes standardized methods and events for fungible tokens. Conformance should be evaluated against the exact deployed implementation and supported toolchain. The standard's existence does not guarantee that every wallet, venue, or application will list or support POLX; each integration may apply independent technical, policy, security, and operational requirements.

19.2.2 Interface Semantics and Limits

The core interface exposes metadata and ledger functions such as name, symbol, decimals, totalSupply, balanceOf, transfer, approve, allowance, and transferFrom, together with Transfer and Approval events. Metadata improves usability; balance and supply queries expose contract state;

transfers move units; allowances authorize a spender to transfer within an approved amount; and events permit external systems to reconstruct state changes. The exact implementation, return behavior, revert behavior, and extensions must be tested rather than assumed.

Allowances deserve separate treatment because an approval grants another address permission to move tokens within the approved amount. An allowance is not a transfer and does not prove that a service was delivered. User interfaces should identify the spender, amount, duration or revocation path where supported, and the risks of unlimited approval. Integrations should reconcile on-chain allowance and transfer events rather than relying only on an application database.

Transferability also does not imply unrestricted legal or platform use. The token contract may allow a transfer while an exchange, jurisdiction, platform feature, or contractual relationship applies separate restrictions. Conversely, an off-chain record may show a pending reward or allocation without creating an on-chain balance. The whitepaper should keep contract state, platform ledger state, and legal or operational eligibility distinct.

19.2.3 Deployment and Integration Evidence

Before POLX can be integrated, the canonical deployment record should identify the network, contract address, deployment transaction, bytecode, verified source or reproducible build, compiler and configuration, initialization values, deployer, token metadata, initial supply event, privileges, upgrade path, pause or restriction capabilities, and supported interfaces. A complete record should also explain whether any proxy, implementation contract, multisignature controller, time delay, recovery mechanism, or external contract can materially change behavior.

Integration testing should cover metadata, totalSupply and balance queries, zero and non-zero transfers, insufficient balance, approval and transferFrom flows, allowance changes, event emission, error handling, decimal conversion, unsupported addresses, and any custom behavior. Where a service monitors deposits or distributions, confirmation policy, chain reorganization handling, replay protection, idempotency, duplicate-event handling, and reconciliation should be defined. These are validation categories, not claims that a particular POLX implementation has completed them.

Independent security review or audit, if performed, should identify the exact code version, deployment match, scope, methodology, limitations, findings, remediation status, and date. “Audited” should not be used without the report or sufficient publication to determine what was reviewed. An audit reduces uncertainty within scope; it does not guarantee the absence of defects or future incidents.

19.2.4 Chain, Wrapper, and Migration Boundaries

A token represented on another chain through a bridge, wrapper, custodian, or synthetic mechanism is a separate technical object even if it uses the POLX name. Its security and supply accounting depend on the bridge or issuer, custody or locking mechanism, mint and burn logic, message verification, administrative controls, and failure recovery. No cross-chain POLX representation is established by this chapter.

If a future cross-chain form is approved, the disclosure should identify the canonical origin, representation contract, supported route, backing model, mint and burn authority, caps, reconciliation method, incident process, and treatment of stranded or duplicated units. Aggregate supply reporting should prevent a wrapped representation from being counted as new economic supply when it is fully backed by locked canonical units, while also disclosing unbacked, delayed, impaired, or disputed states where they occur.

Migration from one contract to another likewise requires an explicit conservation rule. Old units may be locked, burned, exchanged, or otherwise retired while new units are issued under a mapped process.

The conversion ratio, snapshot, cutoff, residual claims, unsupported venues, lost-key treatment, double-claim prevention, and final reconciliation should be published. The existence of a later implementation should never silently invalidate the identity record of an earlier one.

Table 19.3. BEP-20 interface and evidence boundary

INTERFACE AREA	WHAT IT ESTABLISHES	WHAT MUST BE VERIFIED	WHAT IT DOES NOT ESTABLISH
Metadata	Human-readable name, symbol and display precision where implemented.	Exact contract values, decimals handling and consistency across interfaces.	Canonical identity without network and address.
Supply and balances	Contract-reported total supply and balance by address.	Initialization, supply-change paths, event history and reconciliation.	Circulating supply, ownership identity, allocation or market availability.
Transfer	A standard path to move fungible units between addresses.	Success and failure behavior, events, restrictions and integration handling.	Service delivery, lawful eligibility, price or final economic purpose.
Approval and allowance	Permission for a spender to transfer up to an authorized amount.	Spender identity, amount, changes, revocation and transferFrom reconciliation.	Payment completion, custody safety or continuing user intent.
Events	Standard observable records for transfers and approvals.	Completeness, indexing, chain finality, duplicate handling and state match.	The reason, counterparty identity or off-chain obligation behind an event.
Extensions and control	Optional implementation behavior beyond the base interface.	Mint, burn, pause, freeze, upgrade, permit, role and proxy behavior.	That any extension is present, absent, secure or policy-approved.

Source: BNB Chain BEP-20, EIP-20, OpenZeppelin Contracts documentation, and POLIX editorial synthesis. The table describes review requirements, not current POLX implementation.

STANDARD PRINCIPLE **BEP-20 provides a common interface, not a security, audit, listing, liquidity, legal-status, or current-deployment guarantee. Every operating claim must be tied to the canonical deployed artifact and its evidence.**

19.3 Fixed Maximum Supply

The confirmed maximum supply is 400,000,000 POLX. Let M denote the policy ceiling. The Chapter 19 specification therefore sets M = 400,000,000 POLX. This is a cardinality constraint on the token system: the amount recognized as POLX should never exceed M. It does not state that all M units have already been minted, distributed, unlocked, sold, listed, or placed in circulation.

A fixed maximum supply can reduce one class of uncertainty—unbounded issuance—but it does not determine value. Demand, utility, distribution, concentration, liquidity, market structure, platform performance, security, governance, and participant expectations remain material. The fixed ceiling should therefore be presented as a supply invariant, not as a promise of scarcity-driven appreciation.

19.3.1 Supply Variables and Non-Equivalence

For time t, let T(t) denote the total supply reported by the canonical contract, B(t) the cumulative amount irreversibly burned through a mechanism that reduces total supply, and C(t) a separately governed estimate of circulating supply. The core ceiling is $T(t) \le M$. If a verified burn reduces contract total supply, the state transition is $T(t+1) = T(t) - b$ for verified amount $b > 0$, subject to transaction finality and reconciliation. These expressions define relationships, not current values.

Circulating supply is not a direct BEP-20 field. It depends on a classification policy: which addresses, locks, distributions, market holdings, contracts, bridges, custodians, and restricted units are counted and at what time. Two data providers can report different circulation using different methodologies even when they observe the same on-chain balances. Any POLIX circulation disclosure should therefore publish the classification rule, data cutoff, included and excluded states, addresses or categories where disclosure is safe, and reconciliation to total supply.

Allocation also differs from issuance. Chapter 20 can assign portions of M to purposes without proving that the corresponding units are minted, held at a particular address, unlocked, distributed, or circulating. Lock-up and vesting in Chapter 21 define when an allocated unit may become transferable or economically available. These later policies must reconcile to the same maximum but should not be collapsed into the token specification.

19.3.2 Conservation and Reconciliation Model

A supply report should use mutually exclusive states. For an adopted state partition S1(t), S2(t), …, Sn(t), the accounting identity is ΣSi(t) = T(t). A unit must not simultaneously be counted as locked, distributed, circulating, and burned. Classification may change over time, but every transition should have a source event, effective time, prior state, new state, quantity, authorization where required, and reconciliation result.

The partition should be designed for the reporting purpose. Allocation reporting may classify units by approved purpose. Contract reporting classifies balances by address. Circulation reporting classifies economic availability. Vesting reporting classifies restriction status. Burn reporting classifies irreversible supply reduction. These partitions answer different questions and should be reconciled through mappings rather than merged into one ambiguous chart.

A robust reconciliation begins with the canonical contract's totalSupply and transfer history, then maps balances and restrictions to the adopted categories. Differences between expected and observed state should be investigated before publication. A dashboard should state its cutoff block or time, methodology version, data source, known limitations, and whether values are on-chain facts, policy assignments, estimates, or third-party classifications.

19.3.3 Maximum Supply and Initialization Evidence

The deployment record should demonstrate how the initial supply is created. Possible implementations include a single initial mint, constructor or initializer allocation, several initialization transfers from one balance, or another bounded procedure. Chapter 19 does not select or assert a method. The relevant question is whether the initialization path and every later supply-changing path can be enumerated and shown to respect M and the no-additional-minting rule.

If the initial total supply is less than M, the no-additional-minting commitment requires special clarity because an unused gap below the ceiling must not be mistaken for authorized future issuance. The implementation and policy would need to define an explicit initialization boundary and show that no actor can fill that gap afterward. If the entire maximum is created at initialization, the public record should still distinguish balances, allocations, restrictions, and circulation.

Metadata values should not be used as supply evidence. A document or interface can display 400,000,000 while the contract reports a different total. Conversely, a block explorer can display a contract total without establishing the circulation or economic status of those units. The maximum-supply claim becomes technically verifiable only when the canonical contract and its complete issuance paths are known.

19.3.4 Concentration, Liquidity, and Value Boundaries

A fixed maximum does not reveal distribution quality. A large share can remain concentrated in a small number of addresses, and address count does not equal independent beneficial ownership. Custodians, contracts, exchanges, bridges, program wallets, participants, and related parties can each control several addresses or aggregate many users. Distribution analysis should therefore be described with appropriate uncertainty and should avoid equating wallet count with decentralization.

Maximum supply also does not create liquidity. Liquidity depends on available inventory, venues, counterparties, order-book or pool depth, spreads, slippage, participant diversity, market-maker behavior, custody and settlement paths, and market conditions. Chapter 20.5 establishes the allocation boundary for Liquidity & Market Stability; any operative liquidity strategy would require a separately approved policy. Chapter 19 limits itself to the supply ceiling and the evidence needed to preserve it.

Finally, neither maximum supply nor a future lower supply guarantees token price, return, purchasing power, platform adoption, or market capitalization. A token may have a fixed or declining supply and still experience weak demand, concentration, operational failure, regulatory restriction, illiquidity, or price loss. The whitepaper should present the invariant accurately without converting it into an investment prediction.

Table 19.4. Supply terms that must remain separate

TERM	DEFINITION FOR POLX ANALYSIS	PRIMARY EVIDENCE	COMMON ERROR
Maximum supply	Approved upper bound: 400,000,000 POLX.	Versioned token specification and contract-level cap or no-mint evidence.	Treated as minted, distributed or circulating.
Total supply	Amount reported by the canonical contract at a defined block or time.	totalSupply query, issuance and burn events, implementation behavior.	Treated as maximum or circulation without methodology.
Allocated supply	Portion of the maximum assigned to an approved purpose.	Allocation policy, category ledger and reconciliation.	Treated as a wallet balance, release or distribution.
Locked or restricted	Units subject to an enforceable transfer or use constraint.	Contract or agreement, schedule, address or account state and effective terms.	Inferred from allocation label or intent alone.
Circulating supply	Units classified as economically available under a published method.	Methodology, included and excluded states, cutoff and reconciliation.	Presented as an automatic on-chain field.
Burned supply	Units irreversibly removed under a verified mechanism and reconciled to supply.	Execution transaction, contract semantics, total-supply change and public record.	Tokens sent elsewhere are assumed burned without proof.

Source: POLIX Token Economy v1.0 EN and POLIX editorial supply-accounting framework. No current total, allocation state, lock state, circulation or burn value is asserted.

SUPPLY PRINCIPLE **The fixed maximum is one invariant: T(t) ≤ 400,000,000 POLX. It does not determine current total supply, circulation, allocation status, liquidity, concentration, price, or return.**

19.4 No Additional Minting

Official POLIX materials state that additional minting is not available. At the policy layer, this requires the implementation to define and verify an initialization boundary after which the system cannot create POLX. The rule is stronger than a numerical maximum alone: a capped mint function can remain below M while still permitting discretionary future issuance. The POLX commitment instead requires that post-initial supply cannot be increased through an authorized mint path.

Because a token standard does not prescribe its supply mechanism, BEP-20 conformance is compatible with fixed, mintable, capped, burnable, pausable, upgradeable, or customized implementations. OpenZeppelin's ERC-20 documentation likewise notes that a supply mechanism is added by derived implementation logic. The no-mint rule must therefore be verified in the POLX implementation; it cannot be inferred from the BEP-20 label.

19.4.1 Technical Meaning of the No-Mint Rule

The review should identify every code path capable of increasing totalSupply. A public function named mint is only the most obvious path. Supply can also change through internal functions called by privileged methods, upgradeable implementations, bridge adapters, migration contracts, initialization

replay, delegate calls, storage corruption, or custom transfer logic. The invariant should be tested at the state-transition level: after the approved initialization is complete, no reachable authorized or unauthorized transition may increase T.

The initial creation event should have a clear boundary. Constructor execution, proxy initialization, staged deployment, migration, or genesis allocation can each define that boundary differently. The record should show when initialization became complete and whether any initializer can be called again. If an upgrade mechanism exists, the no-mint analysis must include what an authorized upgrade could introduce, not only what the current implementation exposes.

Burn-and-remint patterns are inconsistent with a plain-language no-additional-minting commitment unless an explicitly disclosed migration or representation mechanism preserves the same economic units without expanding supply. Even then, old and new units must be reconciled and double use prevented. Chapter 19 does not authorize such an exception.

19.4.2 Privileges, Ownership, and Upgradeability

A privilege inventory should identify owner, administrator, role, multisignature, time-delay, proxy administrator, upgrader, pauser, blocklist, recovery, bridge, or other authority that can alter token behavior or availability. The absence of a mint function is incomplete evidence if an authority can replace the implementation with mintable code. Conversely, immutability can reduce administrative change risk while increasing the cost of correcting defects. The chosen design should be disclosed and evaluated rather than assumed to be inherently safe.

Where privileged controls exist, their purpose, scope, holder, threshold, key custody, rotation, delay, emergency path, monitoring, revocation and public-event behavior should be documented. Renouncing ownership does not automatically remove every privilege, proxy, role, external dependency or hidden upgrade path. A public verification should enumerate actual authority relationships from the deployed state.

The current POLIX source set does not confirm contract ownership, administrative roles, upgradeability, pause controls, recovery mechanisms, proxy architecture, multisignature design, or time delays. Chapter 19 therefore defines the evidence requirement without selecting or implying an implementation.

19.4.3 Verification and Continuous Assurance

Static review should examine source, bytecode match, inheritance, libraries, compiler configuration, initialization, storage layout, modifiers, roles, upgrade mechanics, and every call that can reach a supply-changing operation. Dynamic tests should attempt authorized and unauthorized minting after initialization, repeat initialization, role escalation, upgrade substitution, boundary values, burns, transfers, pauses, and other relevant state transitions. Formal or property-based tests can encode $T(t+1) \leq T(t)$ after initialization, except where an expressly modeled migration preserves aggregate economic supply.

Assurance continues after deployment. Monitoring should compare totalSupply, transfer events from the zero address or other issuance indicators, implementation address, proxy-admin changes, role grants and revocations, ownership changes, pause state, and unusual events against the approved baseline. Alerts should create an incident state, not an automatic public conclusion, until chain context, finality and implementation semantics are confirmed.

A public assertion of no additional minting should state the evidence date and scope. If the contract is upgradeable or depends on external authority, the claim should explain whether it means “no mint function in the current implementation,” “no current role with mint permission,” or “no feasible post-initial path including upgrades.” These are materially different assurance levels.

19.4.4 Exceptions, Migration, and Disclosure Discipline

Operational needs can create pressure to reinterpret fixed-supply commitments after launch: loss recovery, contract defects, chain migration, bridge failure, redenomination, or user-support errors. Such problems should not be solved by silently creating units. Alternatives may include claim processes, migrations with old-unit retirement, insurance or reserve mechanisms, contract upgrades that preserve supply, or case-specific remedies outside the token ledger. Each has costs and may not be feasible.

If an extraordinary event ever requires a proposal that could affect aggregate supply, the proposal should be described as a potential change to a core token commitment and should not be implemented through ambiguous technical language. It would require explicit authority, legal and technical review, independent assurance, public notice, conservation accounting, migration safeguards, and a new specification version. This chapter does not reserve or approve such a power.

The safest disclosure is narrow: the approved POLX design states no additional minting. Contract-level compliance will be asserted only when the deployed implementation, initialization boundary, privileges, upgrade path, and supply history can be verified.

Table 19.5. Evidence ladder for the no-additional-minting rule

EVIDENCE LEVEL	QUESTION	SUFFICIENT RECORD	RESIDUAL RISK
Policy	Does the approved design prohibit post-initial minting?	Versioned specification stating no additional minting.	Implementation may not conform.
Interface and source	Does reviewed code expose or reach a supply-increase path?	Complete source, inheritance and call-path analysis; tests and findings.	Reviewed source may differ from deployed bytecode.
Deployment match	Is the reviewed artifact the canonical deployed implementation?	Address, bytecode or verified source match, compiler and initialization evidence.	Privileges or upgrades may later change behavior.
Privilege and upgrade	Can any actor introduce, call or enable minting?	Role, owner, proxy, upgrader, external-contract and governance inventory.	Keys can be compromised; undisclosed dependencies may exist.
Operating history	Has supply remained non-increasing after initialization?	Time-stamped totalSupply, issuance indicators, changes, alerts and reconciliation.	Past compliance does not by itself prevent future failure.
Independent assurance	Was the complete claim reviewed within a stated scope?	Published report, scope, version, findings, remediation and limitations.	No review can guarantee absence of all defects or attacks.

Source: POLIX Token Economy v1.0 EN, OpenZeppelin Contracts documentation, and POLIX editorial assurance framework. No current contract or audit state is asserted.

NO-MINT PRINCIPLE **“No additional minting” is a post-initial state-transition invariant, not a label. It must survive code-path, deployment-match, privilege, upgrade and operating-history review.**

19.5 Long-Term Burn Objective

Official POLIX token-economy materials state a long-term objective to burn up to 200,000,000 POLX, representing 50% of the 400,000,000 POLX maximum supply. The phrase “up to” is a ceiling on the objective, not a commitment to burn the full amount. “Long-term” does not provide a schedule. The objective therefore expresses a direction for future supply-reduction policy while preserving the need for financial, operational, technical, and governance conditions to be defined separately.

Chapter 19 records the objective because it affects the token specification’s possible future supply state. It does not define the buyback source, percentage of revenue, frequency, price, venue, authorization, wallet, contract method, minimum or maximum transaction, commencement date, completion date, pause conditions, or current progress. Chapter 25 will examine buyback and burn design and execution criteria. Until an operative policy and evidence exist, no burn should be represented as scheduled, funded, guaranteed, or completed.

19.5.1 Objective, Cap, and Non-Guarantee

Let Gmax denote the approved maximum burn objective: Gmax = 200,000,000 POLX. Let Bv(t) denote cumulative burn verified under an adopted method at time t. A responsible progress statement must satisfy 0 ≤ Bv(t) ≤ Gmax and report Bv(t) from transactions and contract semantics; it must not substitute the objective for verified execution. The remaining uncompleted objective, if still effective, is Gmax − Bv(t), but only when Gmax remains formally adopted and both values use the same definition.

A target equal to 50% of maximum supply does not imply that 50% of current circulation will be purchased or removed. Maximum, total, circulation, available liquidity, and burn funding are different quantities. If units are burned from balances that were not circulating, the effect on market-available supply differs from a buyback of circulating units. Any future report should identify the source state and avoid implying a uniform market effect.

The objective also does not guarantee appreciation. Supply reduction can interact with demand, expectations, liquidity, concentration, platform revenue, execution cost, market conditions, and alternative uses of funds. A burn may reduce a supply measure while having uncertain or adverse economic consequences if it compromises operations, incentives, security, liquidity, or development. The whitepaper therefore treats burn as a governed state transition, not a price promise.

19.5.2 What Constitutes a Verified Burn

A verified burn should be irreversible under the adopted token implementation and should have a measurable supply consequence. In a conventional fungible-token implementation, a burn function may reduce an address balance and totalSupply while emitting a Transfer event to the zero address. A transfer to an inaccessible or designated address can make units practically unavailable without reducing totalSupply. These mechanisms should not be reported as equivalent unless the methodology explains the distinction.

The burn record should identify the canonical contract, network, transaction, block or time, amount, source address or program category where appropriate, authorization, implementation method, pre- and post-transaction totalSupply, confirmation state, and cumulative reconciliation. A transaction hash without interpretation is insufficient when the contract uses non-standard behavior, proxies, wrappers, rebasing, or external accounting.

Errors should be correctable without altering historical facts. If a transaction is initially classified as a burn and later shown not to reduce supply, the public record should preserve the original claim, correction reason, affected amount, revised cumulative value, and effective methodology version. Burn dashboards should separate pending, confirmed, reconciled, disputed, and reversed classifications.

19.5.3 Authorization, Funding, and Execution Boundary

A future burn program should separate authorization, funding, acquisition, execution, accounting, disclosure, and review. Authorization decides whether a burn may occur under the effective policy. Funding identifies the approved source and financial constraint. Acquisition, if buyback is used, records venue, execution, custody, conflicts, market impact, and quantity acquired. Execution irreversibly burns the authorized units. Accounting reconciles funds, acquired units, burn transaction, total supply, and remaining balances. Disclosure communicates the verified result and limitations.

No stage should be inferred from another. Platform revenue does not automatically authorize a buyback. An authorized budget is not an executed purchase. A purchase is not a burn while units remain controlled or recoverable. A transfer to a designated address is not necessarily a total-supply reduction. A target announcement is not funding. Each transition requires its own evidence and accountable authority.

Execution policy should also address liquidity and market-integrity risks. Large or predictable transactions can affect price, spreads, slippage and participant behavior. Discretion can create conflicts or information asymmetry. Fixed formulas can become exploitable or financially unsustainable. Chapter 25 will evaluate these trade-offs. Chapter 19 does not choose an execution model.

19.5.4 Supply Reconciliation and Policy Versioning

Every verified burn should reconcile to the maximum-supply narrative and the contract total. If Bv(t) units have been irreversibly removed from a contract initially representing the full maximum, the nominal remaining total would be M − Bv(t). If initial total supply was below M, or if the implementation uses another supply model, the contract-reported total and initialization record govern the calculation. The whitepaper should not publish a remaining-supply figure until these premises are known.

The burn objective may be amended, suspended, completed, or retired only through an accountable versioned process. A new version should state the former policy, reason, decision authority, effective date, financial and supply implications, unresolved commitments, and how historical progress remains interpretable. Policy flexibility should not become an excuse to describe a non-binding objective as a guaranteed outcome.

The current Chapter 19 position is therefore limited and precise: POLIX intends a long-term burn objective of up to 200,000,000 POLX, subject to future operational policy and verifiable execution. The current verified burn amount is not asserted.

Table 19.6. Burn objective, execution states, and required evidence

STATE	MEANING	REQUIRED EVIDENCE	MUST NOT BE DESCRIBED AS
Directional objective	Approved long-term intent to burn up to 200,000,000 POLX.	Versioned official statement and scope.	A schedule, liability, guarantee or completed reduction.
Policy specified	Authorization, funding, limits, method, accounting and review rules are documented.	Effective policy, authority, controls and disclosure method.	Funded or executable unless resources and mechanisms exist.
Authorized	A particular action is approved within the effective policy.	Decision record, amount or cap, funding source and validity period.	Purchased, burned or reflected in total supply.
Acquired or designated	Units are obtained or assigned for possible burn.	Transactions, custody, balances, cost and reconciliation.	Burned while recoverable or totalSupply is unchanged.
Executed	An irreversible burn transaction has occurred under the approved method.	Canonical transaction, implementation semantics and confirmation.	Reconciled final supply before accounting review.
Reconciled and disclosed	Execution, balances, funds and supply change match and are publicly reported.	Pre/post totalSupply, cumulative value, methodology version and exceptions.	Evidence that the remaining objective will be completed or value will rise.

Source: POLIX Token Economy v1.0 EN and POLIX editorial burn-state framework. No current policy, authorization, funding, execution or burn amount is asserted.

BURN PRINCIPLE **The long-term objective is “up to 200,000,000 POLX.” Only an irreversible, confirmed and reconciled supply transition may be counted as a verified burn; the objective itself is not execution or a value guarantee.**

Chapter Synthesis

1. POLX is specified as the fungible token associated with the POLIX ecosystem; POLIX names the platform and POLX names the token.
2. The confirmed network is BNB Smart Chain and the confirmed interface standard is BEP-20.
3. BEP-20 standardizes a fungible-token interface for balances, transfers, allowances, supply queries and events; it does not establish security, audit, listing, liquidity, legal status or current deployment.
4. A canonical deployed token requires network, chain context, contract address, verified implementation and authoritative publication in addition to name and symbol.
5. The POLX contract address, deployment transaction, decimals, source version, privileges, proxy design, audit status and present availability are not asserted in this chapter.
6. Specified, implemented, deployed, verified, audited and available are distinct states and should not be used interchangeably.
7. The confirmed maximum supply is 400,000,000 POLX.
8. Maximum supply is an upper bound; it does not establish current total supply, allocation state, lock state, distribution, circulation, liquidity or market value.
9. For a canonical contract at time t, the core supply constraint is $T(t) \leq 400{,}000{,}000$ POLX.
10. Supply reporting should use mutually exclusive states and reconcile their sum to contract total supply at a stated block or time.
11. Circulating supply is a policy-dependent classification, not a native BEP-20 field, and requires a published methodology.
12. Allocation and issuance are non-equivalent; allocation is addressed in Chapter 20 and lock-up or vesting in Chapter 21.

13. Official POLIX materials state that additional minting is not available; implementation review must define and verify the initialization boundary, mint paths, privileges and upgrade behavior.
14. No additional minting is stronger than a numerical cap because a capped mint path can still permit discretionary future issuance below the cap.
15. Verification must enumerate every supply-increase path, including internal functions, initialization, roles, proxies, upgrades, bridges, migrations and external dependencies.
16. The no-mint claim should identify its assurance scope: current source, deployed bytecode, privilege and upgrade path, and operating history are different evidence levels.
17. The current source set does not establish ownership, administrative roles, multisignature design, upgradeability, pause controls or other contract privileges.
18. The long-term objective is to burn up to 200,000,000 POLX, equal to 50% of the maximum supply.
19. “Up to” defines a maximum objective, not a commitment to burn the full amount, and “long-term” does not create a schedule.
20. The objective does not establish a buyback source, revenue percentage, execution rule, venue, date, funding, current progress or completed burn.
21. A verified burn must be irreversible under the operative implementation and reconciled to the contract supply; a transfer to an inaccessible address may be economically unavailable without reducing totalSupply.
22. Burn authorization, funding, acquisition, execution, accounting and disclosure are separate states and should be evidenced separately.
23. Neither a fixed maximum nor a burn objective guarantees price, return, liquidity, adoption, scarcity effects or economic sustainability.
24. Chapter 19 fixes the token-level specification and evidence boundary; Chapter 20 now maps the 400,000,000 POLX maximum to approved allocation categories without treating allocation as circulation.

TRANSITION TO CHAPTER 20 **Chapter 19 defines the POLX token identity, BNB Smart Chain and BEP-20 alignment, 400,000,000 POLX maximum supply, no-additional-minting constraint, and directional burn objective. Chapter 20 now addresses allocation: how the fixed maximum is assigned across ecosystem purposes, what each category is intended to support, and why allocation must remain distinct from issuance, unlock, distribution and circulation.**

CHAPTER 19 / REFERENCES

References and Source Notes

Official POLIX materials support the POLX token identifier and symbol, BNB Smart Chain network, BEP-20 standard, 400,000,000 POLX maximum supply, no-additional-minting rule, and long-term objective to burn up to 200,000,000 POLX. They do not establish the contract address, deployment state, source-code version, name() metadata, decimals, privileges, proxy or upgrade design, audit status, current total or circulating supply, TGE terms, token price, burn schedule, funding, authorization, method, execution or progress. BNB Chain, EIP-20 and OpenZeppelin sources support general interface and implementation analysis; they do not establish the current POLX contract state.

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CHAPTER 20

Token Allocation

A fixed, reconciled partition of the 400,000,000 POLX maximum across ecosystem purposes—with category ceilings, program controls, evidence states, and disclosure boundaries that prevent allocation from being mistaken for issuance or circulation.

Chapter Thesis

The approved POLX allocation partitions the 400,000,000 POLX maximum supply into six categories: POLIX Ecosystem Growth, 40% or 160,000,000 POLX; Platform Economy, 30% or 120,000,000 POLX; Liquidity & Market Stability, 15% or 60,000,000 POLX; Strategic Growth Reserve, 10% or 40,000,000 POLX; Strategic Partnerships & Listings, 3% or 12,000,000 POLX; and Core Contributors, 2% or 8,000,000 POLX. The categories sum to 100% and reconcile arithmetically to the fixed maximum. They express approved purpose and capacity. They do not prove how many POLX have been created, where any balance is held, when a restriction ends, who has an enforceable entitlement, what has been transferred, what is circulating, or what economic value may result.

Chapter 19 established the token-level boundary: POLX is specified for BNB Smart Chain under BEP-20, with a fixed maximum supply of 400,000,000 POLX and no additional minting under the approved specification. Chapter 20 begins from that fixed ceiling but changes the unit of analysis. It asks how the ceiling is classified by approved purpose, what evidence is necessary before a category can fund a particular program, and how the allocation ledger should remain reconcilable as tokens move through custody, commitment, transfer, use, return, reclassification, or future burn states.

The word “allocation” is frequently used for several non-equivalent events. It may refer to the percentage assigned to a category in a token-economy document, an internal budget approved for a program, an amount reserved for a named counterparty, a contractual entitlement, a balance placed in a controlled wallet, a transfer to a recipient, or a public-supply classification. Chapter 20 uses “category allocation” only for the approved partition of the maximum. Later states are named separately. This vocabulary prevents a headline allocation chart from being misread as a current distribution or circulating-supply table.

Allocation design is also a governance problem. A category can be mathematically correct while operationally weak if permitted purposes are vague, authority is concentrated, custody is opaque, related-party conflicts are unmanaged, transfers cannot be reconciled, or unused balances can be redirected without notice. The purpose of an allocation framework is therefore not merely to add percentages. It is to preserve the connection between quantity, purpose, decision rights, evidence, and accountability over time.

The six-category portfolio balances different time horizons and functions. Ecosystem Growth and Platform Economy together represent 70% of the maximum and emphasize user, creator, community, and platform participation. Liquidity & Market Stability and Strategic Growth Reserve provide specialized capacity for market operations and future resilience. Strategic Partnerships & Listings and Core Contributors address narrower forms of institutional expansion and long-term contribution. This portfolio structure is an approved design direction, not evidence that every program exists or that every category will be deployed at the same rate.

Theoretical token-economy research links token demand and platform adoption through users' transactional activity and network participation (Cong, Li, and Wang, 2021). That literature helps explain why allocation purpose and deployment discipline matter, but it does not validate POLX demand, price, adoption, or program effectiveness. POLIX outcomes will depend on actual services, users, controls, liquidity, governance, compliance, and evidence. Allocation is a capacity plan, not a forecast.

ALLOCATION BOUNDARY **The six-category allocation is a fixed purpose map of the 400,000,000 POLX maximum. It is not a statement of current issuance, wallet custody, unlock, beneficiary entitlement, distribution, circulation, liquidity, price, or return.**

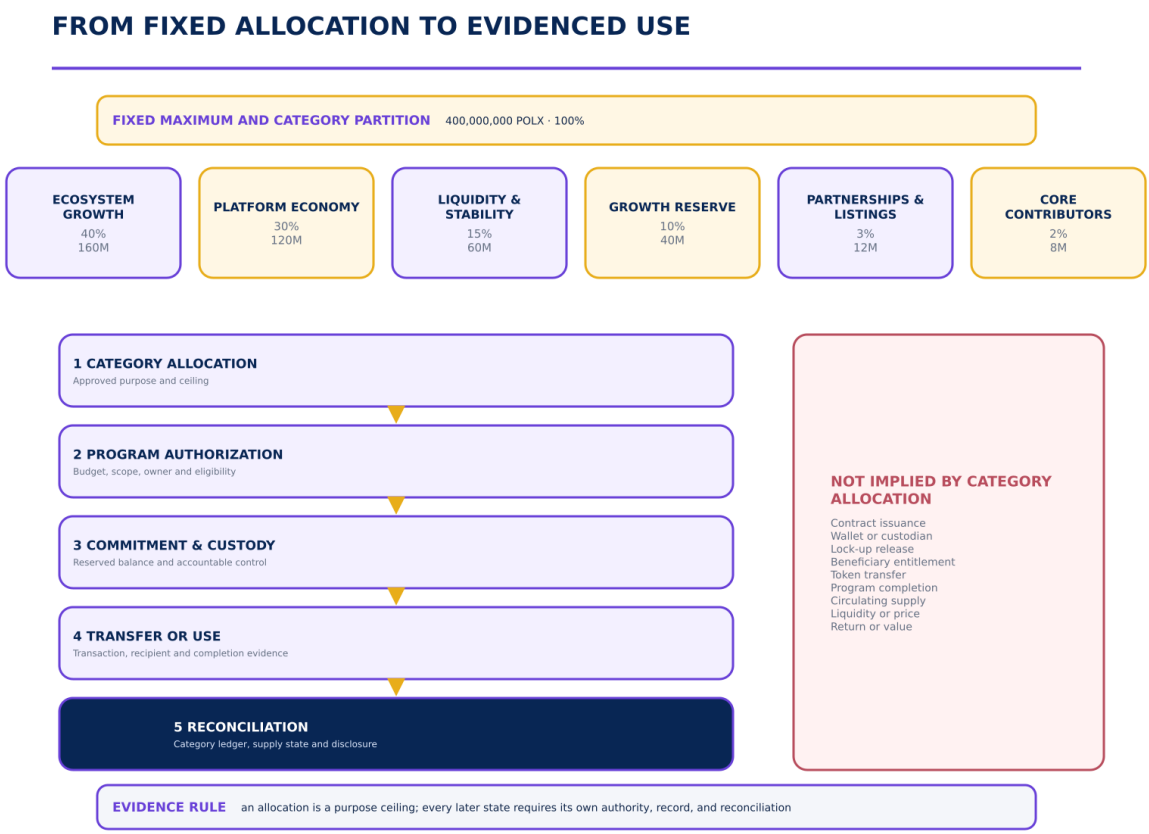

Figure 20.1. POLX allocation and evidence model. The approved category partition becomes operational only through separately evidenced authorization, custody, transfer, use, and reconciliation states.

Source: POLIX editorial synthesis based on POLIX Token Economy v1.0 EN. The figure defines an evidence model; it does not assert a current custody, release, distribution or circulation state.

Table 20.1. Confirmed POLX allocation schedule

ALLOCATION CATEGORY	SHARE	AMOUNT	PRIMARY APPROVED PURPOSE
POLIX Ecosystem Growth	40%	160,000,000 POLX	Global ecosystem expansion, community development, launch initiatives, regional growth and long-term network building.

ALLOCATION CATEGORY	SHARE	AMOUNT	PRIMARY APPROVED PURPOSE
Platform Economy	30%	120,000,000 POLX	Qualified creator, user, market, community, partner-integration and future platform participation programs.
Liquidity & Market Stability	15%	60,000,000 POLX	Approved liquidity provisioning, trading infrastructure, exchange or cross-platform liquidity and market-efficiency support.
Strategic Growth Reserve	10%	40,000,000 POLX	Future strategic initiatives, ecosystem evolution, resilience, emerging opportunities and long-term expansion.
Strategic Partnerships & Listings	3%	12,000,000 POLX	Approved listings, strategic or technology partnerships, institutional relationships and market-access initiatives.
Core Contributors	2%	8,000,000 POLX	Long-term alignment of contributors who support development, operation and sustainable ecosystem growth.
Total	100%	400,000,000 POLX	Complete allocation of the confirmed maximum supply.

Source: POLIX Token Economy v1.0 EN, Token Distribution and category sections. Amounts are approved category allocations, not current contract, custody, release, distribution or circulation balances.

RECONCILIATION PRINCIPLE **160M + 120M + 60M + 40M + 12M + 8M = 400M POLX. Arithmetic completeness is necessary, but operational credibility requires every later movement to preserve category lineage and evidence.**

20.1 Allocation Architecture and Accounting Identity

Let M denote the fixed maximum supply established in Chapter 19. Let A1 through A6 denote the six approved category allocations. The allocation identity is ΣAi = M, with M = 400,000,000 POLX. Each Ai is both a quantity and a purpose ceiling: it defines the maximum amount assigned to that category under the current allocation version. The identity does not depend on whether the underlying units have been created or transferred, but any implementation should reconcile the policy ledger to the canonical token state once deployment evidence exists.

The percentages and amounts are exact at the category layer. Forty percent of M equals 160,000,000; 30% equals 120,000,000; 15% equals 60,000,000; 10% equals 40,000,000; 3% equals 12,000,000; and 2% equals 8,000,000. There is no unallocated residual in the approved table. A later proposal that changes one category without an offsetting change to another would either break the 100% partition or imply a change in maximum supply. Both outcomes would be material and require a new allocation version.

A category allocation is not the same as a wallet. One category may use several wallets, contracts, custodians, program ledgers, or off-chain obligations; one omnibus wallet may contain units associated with several categories. Address-based reporting and purpose-based reporting are therefore different partitions. They can be reconciled through a mapping, but they should not be assumed to coincide. Public disclosure should avoid describing a wallet balance as an allocation unless the mapping, control, cutoff, and exceptions are known.

A category allocation is also not an expense budget in fiat terms. The number of POLX is fixed by the allocation, but the economic cost, accounting treatment, market value, and resource obtained from a future deployment can vary. Program approval should therefore state both token quantity and the relevant non-token budget, valuation or cost methodology where required. Using a token quantity to obscure the economic cost of a program weakens governance.

The allocation ledger should preserve historical versions. If a category is subdivided into programs, the sum of program ceilings and the remaining unassigned balance must not exceed the category ceiling. If unused committed units return to a category, the reversal should be recorded rather than treated as

new capacity. If a reallocation between categories is ever approved, the record should show the source, destination, amount, authority, reason, effective date, restrictions, and effect on prior commitments.

20.1.1 Category Allocation, Program Assignment, and Distribution

Chapter 20 distinguishes three levels. Category allocation assigns part of M to a durable purpose class. Program assignment reserves part of a category for an approved initiative with a scope, owner, budget, eligibility rule, period, and completion test. Distribution or deployment is a later event in which control, entitlement, or use changes under the program. A category can exist with no approved program; a program can be approved with no token transfer; and a transfer can occur without proving that the intended program outcome was achieved.

For category i at time t, an internal control ledger may describe the category ceiling as Ai = Ri(t) + Ci(t) + Oi(t), where Ri is the remaining amount not committed to a program, Ci is the amount committed under approved programs but not yet recognized as an outflow from the category, and Oi is the cumulative amount transferred, spent, delivered, or otherwise moved out of the category under an adopted policy. These variables are conceptual reporting states, not current POLX values. Their definitions must be mutually exclusive, and Oi must not be labeled circulating supply without a separate circulation methodology.

Program assignment should not create hidden double counting. If the same initiative supports a creator, a referral campaign, regional growth, and a partnership, it may touch several objectives but must draw each unit from one authorized source category. Narrative benefits can be multi-dimensional; token accounting cannot. The ledger should identify the controlling category and use cross-tags for secondary objectives rather than charging the same unit to several categories.

20.1.2 Allocation State Vocabulary

A precise state vocabulary is necessary because public communications often compress allocation, reservation, commitment, grant, vesting, release, transfer, and circulation into one word. In the POLX framework, “allocated” without qualification refers only to the category partition. “Program-assigned” means a quantity has been approved for an initiative. “Committed” means a binding or internally reserved obligation exists under defined terms. “Transferred” means a token-state or custody movement has occurred. “Earned,” “vested,” “unlocked,” “claimable,” and “circulating” require separate definitions and evidence.

The official token-economy document sometimes uses “allocated” for deployment through approved programs. Chapter 20 resolves that ambiguity by distinguishing category allocation from program assignment. This is an editorial clarification, not a change to the official percentages or purposes. Future policies and dashboards should adopt one glossary and map older language to it.

A state should be time-stamped and versioned. A program may be proposed, approved, funded, committed, active, paused, completed, cancelled, expired, reconciled, or disputed. Tokens associated with it may remain in a controlled balance, be locked, become claimable, be transferred, be returned, or be subject to recovery. The program state and token state should be linked but not merged.

Table 20.2. Allocation-state vocabulary and evidence boundaries

STATE	MEANING IN THIS CHAPTER	MINIMUM EVIDENCE	DOES NOT ESTABLISH
Category allocated	A fixed amount and share of M are assigned to an approved purpose class.	Versioned allocation schedule and arithmetic reconciliation.	Issuance, custody, program, recipient, release or circulation.
Program assigned	Part of a category is reserved for an approved initiative.	Program decision, source category, ceiling, scope, owner, term and eligibility.	A binding beneficiary right or transfer.

STATE	MEANING IN THIS CHAPTER	MINIMUM EVIDENCE	DOES NOT ESTABLISH
Committed	A defined obligation or internal encumbrance exists under effective terms.	Agreement or decision record, conditions, amount, counterparty class and validity.	Vesting, unlock, delivery or completion.
Custodied or reserved	Units or records are controlled for an identified allocation or program.	Address or account mapping, controller, authorization, restrictions and reconciliation.	Beneficial ownership, entitlement or circulation.
Transferred or distributed	Control or token balance moved to another address or account.	Canonical transaction or ledger entry, recipient basis, amount, time and purpose.	Use, retention, qualification, market sale or economic success.
Circulating	Units meet a separately published economic-availability methodology.	Classification rule, included and excluded states, cutoff and supply reconciliation.	Automatic consequence of allocation or transfer.

Source: POLIX editorial allocation-accounting framework. The states are disclosure definitions; no present program, commitment, custody, transfer or circulation amount is asserted.

STATE PRINCIPLE **Use a different verb for every material transition. Category allocation, program assignment, commitment, custody, transfer, completion, unlock and circulation are not interchangeable states.**

20.2 Portfolio Logic and Category Boundaries

The allocation portfolio is intentionally asymmetric. Seventy percent of the maximum is assigned to POLIX Ecosystem Growth and Platform Economy. This concentration expresses a user- and participation-oriented design: the largest capacity is reserved for expanding the ecosystem and supporting qualified activity inside the platform rather than for a broad company-held category. The statement is descriptive of the allocation table. It does not prove decentralization, user ownership, present distribution, or the quality of any future incentive.

The remaining 30% is divided among liquidity and stability, strategic reserve capacity, partnerships and listings, and core contributors. These categories address functions that can be necessary for a platform to operate and adapt, but they also present distinct conflicts. Liquidity resources can be confused with price support. A strategic reserve can become discretionary. Partnership resources can be used without measurable delivery. Contributor allocations can create related-party concentration. Narrow categories and evidence requirements reduce these risks without eliminating them.

Category boundaries should follow the primary object of expenditure or deployment. Ecosystem Growth primarily acquires or supports external network development. Platform Economy primarily supports qualifying activity and services within the operating platform. Liquidity & Market Stability primarily supports executable markets and trading infrastructure. Strategic Growth Reserve preserves optional capacity for future material needs. Strategic Partnerships & Listings supports identified institutional transactions. Core Contributors supports long-term contributor alignment. Secondary benefits do not change the source category.

Where an initiative plausibly fits more than one category, the approval record should apply a dominant-purpose test. It should identify the direct recipient or controlled object, the measurable output, the risk owner, the duration, and why the selected category is more appropriate than alternatives. If several categories are used, each must fund a separable scope with its own amount and evidence. The system should not select a category merely because it has the largest remaining balance or least restrictive controls.

Allocation categories are capacity constraints, not performance metrics. A higher deployment rate is not automatically better. Rapid use can indicate effective growth, but it can also indicate weak qualification, high subsidy dependence, poor negotiation, or loss of strategic flexibility. Slow use can indicate

discipline, but it can also indicate execution failure or obsolete design. Evaluation must compare outcomes, cost, risk, counterfactuals, and remaining capacity.

20.2.1 The Seventy-Percent Participation Emphasis

The combined 280,000,000 POLX assigned to Ecosystem Growth and Platform Economy provides the largest strategic capacity in the allocation. The two categories nevertheless solve different coordination problems. Ecosystem Growth supports the expansion of the network around the platform: communities, regions, launch initiatives, ecosystem programs, and long-term network development. Platform Economy supports economic activity within the platform: creator, user, market, community, integration, and future service participation.

The distinction matters because acquisition and use are not the same. A regional campaign may attract users but fail to produce recurrent market activity. A platform incentive may increase transactions among existing users but do little to expand geographic or institutional reach. Reporting the categories separately allows POLIX to compare external network formation with internal platform utilization rather than treating every token outflow as generic growth.

Neither category should become a permanent substitute for organic demand or revenue. A program should state the diagnosed coordination problem, why POLX is the appropriate instrument, what behavior is expected to continue after support declines, and what evidence would justify continuation. Chapters 22 and 23 will examine the program-level economics of Platform Economy and Ecosystem Growth. Chapter 20 establishes only the allocation capacity and control boundary.

20.2.2 Specialized Capacity and Strategic Optionality

Liquidity & Market Stability, Strategic Growth Reserve, Strategic Partnerships & Listings, and Core Contributors should not be treated as a homogeneous “other” pool. Each has a different beneficiary structure, time horizon, decision risk, and evidence model. Liquidity activity can involve venues, market makers, pools, inventory, custody, and market-integrity restrictions. Reserve activity concerns uncertain future needs. Partnership activity concerns a particular external relationship. Contributor activity concerns service, accountability, and long-term alignment.

Strategic optionality has value only when controlled. A reserve allows response to opportunities and shocks that cannot be fully specified at the whitepaper date, but vague flexibility can undermine the meaning of the allocation. The reserve should therefore have a higher approval threshold or stronger documentation for uses that were not reasonably contemplated, and material departures should trigger public explanation or formal reallocation rather than semantic expansion of the category.

Specialized categories also protect the two largest participation pools. Without separate liquidity, reserve, partnership, and contributor capacity, these functions might draw unpredictably from ecosystem or platform programs. The partition makes trade-offs visible. It does not prevent a later policy change, but it requires the change to be recognized rather than hidden inside overlapping language.

Table 20.3. Category boundary and downstream specification map

CATEGORY	PRIMARY OBJECT	CORE CONTROL QUESTION	DEFERRED DETAIL
POLIX Ecosystem Growth	External network, community, regional and launch development.	Does the initiative create attributable, durable ecosystem capacity rather than transient activity?	Chapter 23: program design, qualification and outcomes.
Platform Economy	Qualified activity, creation, participation, integration and services within POLIX.	Does the program support useful platform activity under a bounded budget and evidence rule?	Chapter 22: rewards, rates, budgets and completion states.

CATEGORY	PRIMARY OBJECT	CORE CONTROL QUESTION	DEFERRED DETAIL
Liquidity & Market Stability	Executable markets, venues, inventory and trading infrastructure.	Are liquidity purpose, custody, conflicts, market impact and exit conditions controlled?	Chapter 26: reserve management, liquidity, and capital allocation controls.
Strategic Growth Reserve	Future strategic capacity and resilience.	Is use exceptional, authorized, justified and consistent with long-term capacity preservation?	Chapter 26: reserve governance and capital allocation controls.
Strategic Partnerships & Listings	Specific institutional relationship, integration or market-access transaction.	Is consideration tied to documented deliverables, conflicts, rights and termination conditions?	Chapters 16 and 26: integration and financial controls.
Core Contributors	Long-term contributor service and alignment.	Are recipients, performance, restrictions, conflicts and forfeiture conditions governed?	Chapter 21: lock-up and vesting principles.

Source: POLIX Token Economy v1.0 EN and POLIX editorial chapter architecture. Deferred chapters will specify mechanisms; no current program or availability state is asserted here.

PORTFOLIO PRINCIPLE **A category should be chosen by primary purpose and evidence, not by rhetorical fit or available balance. Multi-purpose narratives must never cause the same POLX to be counted twice.**

20.3 POLIX Ecosystem Growth — 40%

POLIX Ecosystem Growth is the largest allocation: 160,000,000 POLX, equal to 40% of the maximum. Official materials describe it as a long-term strategic resource for accelerating early ecosystem growth, expanding the global community, supporting launch initiatives, developing regional markets, working with ecosystem communities and partners, and building a sustainable network. It is not defined as a general reward pool or an immediate market-distribution pool.

The category should be interpreted broadly enough to support ecosystem formation but narrowly enough to remain auditable. Eligible objects may include a regional ecosystem initiative, a community-development program, a launch-support program, an ecosystem partner initiative, an educational or contributor program, or another approved network-building activity. The approval record should specify the direct object, target population or region, delivery period, responsible operator, source category, token ceiling, non-token resources, and evidence of completion.

“Global expansion” is not itself an acceptance criterion. A program should identify what capacity is expected to exist after deployment: qualified and retained participants, localized market supply, partner integration, community stewardship, support coverage, compliant access, or another observable output. Gross impressions, registrations, event attendance, wallet creation, or social engagement may be useful leading indicators but should not be treated as durable ecosystem growth without retention and quality evidence.

The category can overlap narratively with Strategic Partnerships & Listings. The boundary should follow the primary transaction. A broad ecosystem program that includes several collaborators may belong to Ecosystem Growth; a defined listing, technology integration, institutional agreement, or bilateral commercial relationship may belong to Strategic Partnerships & Listings. If one initiative contains both, the scopes and amounts should be separable.

The category can also overlap with Platform Economy. Ecosystem Growth should ordinarily fund the acquisition or development of external network capacity, while Platform Economy should fund qualified behavior or services inside the platform. A user acquired through an ecosystem program may later qualify for a platform-economy incentive, but the two events are distinct and should not be counted as one contribution or funded twice for the same act.

Progressive deployment means that capacity should be assigned in stages as evidence develops. It does not require a predetermined emission curve. A pilot can test qualification, attribution, fraud resistance, retention, operational cost, and regional or cohort differences before a larger program is authorized. Scaling should follow verified results and risk review, not only budget availability.

ECOSYSTEM-GROWTH PRINCIPLE **The 40% allocation funds attributable ecosystem capacity, not undifferentiated promotion. Every program should define what durable network asset or behavior remains after support ends.**

20.4 Platform Economy — 30%

Platform Economy is allocated 120,000,000 POLX, equal to 30% of the maximum. Official materials associate it with creator incentives, user participation, prediction-market incentives, platform engagement, community contribution, partner-platform integration, ecosystem participation, and future platform features or services. It is intended as the principal economic capacity supporting activity within the POLIX platform, not as an assertion that a particular reward rate or program is active.

A platform-economy program should begin with a defined contribution or service relationship. Examples may include creating a market that passes quality and resolution gates, providing qualified liquidity-related services, producing attributable analysis, making a verified referral, completing a defined community contribution, or accessing a token-mediated service. Platform Economy may recognize qualified participant or service contributions related to liquidity or integration; token inventory, paired assets, market-making capital, listing consideration, and bilateral strategic-partnership consideration remain within Sections 20.5 and 20.7 unless a separately approved reallocation under Section 20.10 applies. Chapter 18 defined these utility families and their evidence envelopes. Chapter 22 will specify reward-program design. Chapter 20 does not set rates, formulas, tiers, minimums, schedules, or current eligibility.

The category should not reward raw events that are easy to manufacture. Page views, account creation, trades, referrals, market proposals, messages, or API calls can be duplicated, automated, self-related, or economically empty. Program assignment should identify qualified units of contribution, exclusions, counter-signals, dispute and correction paths, and the point at which a contingent amount becomes earned or distributable.

A program budget does not create an entitlement for every eligible participant. The policy should distinguish eligibility, qualification, calculation, approval, claimability, transfer, and completion. It should also state whether the program can be modified, paused, capped, ended, or corrected, subject to applicable obligations. Historical participation should remain distinguishable from current availability.

Allocation sustainability depends on rate and denominator, not only the size of the pool. A large fixed allocation can be exhausted rapidly if reward intensity scales with manipulable activity, or remain idle if qualification is inaccessible. Scenario analysis should test participation growth, concentration, fraud, price volatility, operating cost, and the transition toward revenue-supported mechanisms discussed in Chapter 24. No token amount should be presented as sufficient for a specific duration without explicit assumptions.

Platform-economy deployment should be measured against counterfactual performance. If equivalent behavior would occur without a subsidy, the program may transfer value without improving platform outcomes. If rewards attract low-quality or transient activity, gross activity can rise while information quality falls. The relevant question is whether POLX changes useful behavior at an acceptable economic and integrity cost.

PLATFORM-ECONOMY PRINCIPLE **The 30% allocation is a bounded source for qualified platform activity and services. It is not an automatic emission pool, participant entitlement, current reward schedule, or proof of sustainable demand.**

20.5 Liquidity & Market Stability — 15%

Liquidity & Market Stability is allocated 60,000,000 POLX, equal to 15% of the maximum. Official materials identify possible purposes including liquidity provisioning, market-stability support, exchange liquidity, trading infrastructure, cross-platform liquidity, market efficiency, and long-term liquidity management. The category is described as a strategic operating resource, not a source for unilateral market selling.

Liquidity deployment is more complex than transferring tokens to a venue. It can involve inventory, paired assets, market-making agreements, pool positions, custody, price bands, spreads, quoting obligations, withdrawal rights, fee treatment, impermanent-loss exposure, counterparty credit, technical integration, and market-abuse controls. The 15% allocation identifies capacity but does not select any mechanism, venue, counterparty, commencement date, price, or depth target.

The phrase “market stability” should not be interpreted as a price guarantee. A liquidity program may reduce transaction costs or improve executable depth under defined conditions, but it cannot ensure a particular price, prevent loss, eliminate volatility, or make markets continuously liquid. Attempting to defend a price can consume inventory, concentrate discretion, create asymmetric information, or conflict with fair-market principles. Chapter 26 will distinguish liquidity objectives from impermissible or unsustainable price support.

Custody and conflicts require heightened control. An operator may hold confidential information about listings, reward changes, reserve or allocation decisions, or future token movements while also managing liquidity. A venue or market maker may receive tokens, fees, rebates, or options under terms not visible to other participants. Agreements should identify role, capacity, compensation, inventory ownership, trading authority, reporting, related parties, information barriers, termination, return of assets, and incident handling.

Liquidity balances should remain identifiable by category and strategy. Transfers to exchanges, custodians, market makers, bridges, or contracts may be economically available in different ways and may be classified differently by circulation methodologies. A balance should not be excluded from circulation solely because it originated in a liquidity allocation, nor included solely because it moved to a venue. The adopted methodology and actual control state govern classification.

Deployment should be evaluated with market-level indicators: quoted and executable depth, spreads, slippage, fill rates, continuity, concentration, inventory utilization, fee and subsidy cost, volatility around program changes, and exit resilience. Platform-wide volume or wallet balances alone cannot establish effective liquidity.

LIQUIDITY-ALLOCATION PRINCIPLE **The 15% allocation creates capacity for controlled liquidity operations. It does not authorize price support, prove a venue or market maker exists, or determine circulating supply.**

20.6 Strategic Growth Reserve — 10%

Strategic Growth Reserve is allocated 40,000,000 POLX, equal to 10% of the maximum. Its approved role is to preserve long-term capacity for future strategic initiatives, ecosystem evolution, resilience,

emerging growth opportunities, business development, and expansion that cannot be fully specified at the current development stage. The category is not a general-purpose balance and should not be treated as automatically available for ordinary operations.

A reserve exists because uncertainty has value as well as cost. Committing every unit at the initial design date can prevent the ecosystem from responding to technology changes, new markets, incidents, regulatory requirements, infrastructure needs, or unusually valuable opportunities. At the same time, an undefined reserve can concentrate discretion and weaken the credibility of every other category. Governance should preserve optionality without eliminating accountability.

A reserve-use proposal should identify why the need could not reasonably be met from an existing category, why the use is material to long-term ecosystem interests, what amount and duration are required, which alternatives were considered, what authority approves it, what restrictions apply, and what evidence closes the decision. Recurring or foreseeable activities should generally migrate to an appropriate operating category or new allocation version rather than repeatedly drawing on exceptional capacity.

Reserve performance should not be measured by deployment rate. Unused capacity can be rational when opportunities do not meet the approval threshold. Conversely, indefinite inactivity can indicate an obsolete allocation or overestimated need. Periodic review should assess remaining strategic rationale, commitments, risks, custody, concentration, and whether a formal reallocation proposal is warranted.

Chapter 21 will address confirmed lock-up and vesting principles. Chapter 26 will address reserve management and capital allocation controls. Chapter 20 records the 10% allocation and its purpose but does not restate a release schedule, assign custody, identify an authority, or declare any amount currently available.

RESERVE PRINCIPLE **Strategic flexibility is not unrestricted discretion. The 10% reserve should be used only through a documented necessity, authority, alternative analysis, restriction, and reconciliation process.**

20.7 Strategic Partnerships & Listings — 3%

Strategic Partnerships & Listings is allocated 12,000,000 POLX, equal to 3% of the maximum. Official materials identify exchange listings, strategic and technology partnerships, business collaborations, ecosystem cooperation, institutional relationships, and global market expansion as possible uses. The category provides capacity for defined external relationships; it does not prove that any listing, partnership, integration, payment, or commitment currently exists.

A partnership label is insufficient evidence for allocation use. The approval record should identify the parties, roles, deliverables, milestones, consideration, token and non-token amounts, valuation method, custody, restrictions, representations, conflicts, confidentiality, data rights, intellectual property, compliance obligations, termination, return or forfeiture conditions, and completion evidence. Public disclosure should be consistent with contractual confidentiality but should not imply delivery before it occurs.

Listing-related uses require special care because the term may cover technically and legally different costs: integration, due diligence, market-making arrangements, liquidity deposits, service fees, promotional support, or another form of consideration. The category should not be presented as a guarantee of exchange acceptance, launch, geographic availability, trading volume, liquidity, or price. A third party controls its own approval and continued-support decisions.

Potential related-party and market conflicts should be identified before approval. A partner may provide data, custody, liquidity, promotion, distribution, or execution while also receiving POLX or trading it. IOSCO's crypto-asset market recommendations emphasize accurate disclosure of roles, capacities, and trading conflicts as part of broader conflict management (IOSCO, 2023). The recommendation is an external governance benchmark, not evidence that a specific POLIX arrangement exists or that a particular legal framework applies.

Partnership outcomes should be evaluated against contracted and counterfactual results. An announcement, memorandum, logo placement, API key, test integration, or nominal listing is not equivalent to durable connectivity, qualified users, executable liquidity, or completed service. Milestone-based authorization can limit exposure and preserve capacity when delivery is uncertain.

PARTNERSHIP-ALLOCATION PRINCIPLE **The 3% allocation supports evidenced transactions, not announcements. No listing, partner payment, integration, market access, liquidity or adoption should be inferred without counterparty and completion records.**

20.8 Core Contributors — 2%

Core Contributors is allocated 8,000,000 POLX, equal to 2% of the maximum. Official materials position it as a long-term incentive for individuals who contribute to development, operations, and sustainable ecosystem growth. The category is intended to align contribution and accountability over time rather than serve as immediate compensation. It does not identify recipients, grant dates, employment or contractor status, performance criteria, custody, current vesting, or distributed balances.

A contributor allocation should be supported by a grant or contractual record that defines the service relationship, quantity or formula, start condition, performance or continued-service expectations, restrictions, decision authority, conflict disclosure, confidentiality and intellectual-property obligations, termination, forfeiture or cancellation conditions where lawful, dispute process, tax and legal responsibility, and reconciliation method. The design should distinguish promised, granted, earned, vested, claimable, transferred, sold, forfeited, cancelled, and returned states.

The 2% category can reduce dilution of purpose by placing contributor incentives in a visible ceiling rather than drawing unpredictably from user or ecosystem pools. The ceiling does not determine whether the category is sufficient, excessive, competitively appropriate, or economically valuable. Those conclusions require workforce plan, role scarcity, compensation benchmarks, contribution evidence, token value, cash compensation, legal review, and concentration analysis.

Recipient concentration and governance conflicts should be disclosed at a level consistent with privacy and legal obligations. A contributor who also controls allocation approval, custody, vesting administration, or dispute resolution can influence personal economic outcomes. Independent approval, recusal, multisignature control, written criteria, or another accountable mechanism may be appropriate depending on the adopted structure.

Chapter 21 will analyze the confirmed lock-up and vesting principles and their evidence states. Chapter 20 deliberately does not reproduce the schedule in detail. Its task is to establish the 8,000,000 POLX purpose ceiling and the minimum allocation-governance boundary.

CONTRIBUTOR-ALLOCATION PRINCIPLE **The 2% category is a long-term alignment ceiling, not an immediate payment pool. Recipient, grant, service, vesting, forfeiture, transfer and circulation states require separate evidence.**

20.9 Program Authorization and Allocation Controls

A category becomes operational only through a program or transaction decision. The decision should answer six questions: What diagnosed need is being addressed? Why is the selected category the correct source? What amount and time horizon are authorized? Who can approve the program, execute transactions, custody the relevant assets, review outcomes, and authorize corrections? What evidence establishes qualification and completion? What happens to unused, disputed, cancelled, or recovered amounts? Missing answers should keep the proposal in a draft or conditional state.

Authority should be separated where practical. Proposal, policy review, budget approval, custody, transaction execution, eligibility determination, measurement, reconciliation, and appeal can create conflicts when one actor controls all stages. Separation does not require a large bureaucracy; it requires explicit roles, thresholds, records, and compensating controls proportional to value and risk. An emergency path should be narrow, time-limited, recorded, and subject to later review.

Program ceilings should be denominated in POLX and, where economically material, accompanied by a valuation or cost methodology. A fixed token amount can represent different economic exposure as market conditions change. A fiat or stable-value budget can require a variable number of tokens. The adopted policy should explain which variable controls, how conversions are determined, what caps apply, and how market impact or conflicts are managed. Chapter 20 does not select a valuation method.

Custody design should map every controlled balance to an allocation or program ledger. The mapping may use dedicated wallets, smart contracts, subaccounts, custody records, or a reconciled combination. Dedicated addresses can improve transparency but may expose strategy or security information; omnibus custody can improve operations but requires stronger internal accounting. The design should balance transparency, security, privacy, and recoverability without losing lineage.

Eligibility and completion should be evidence-based. A program may use identity, role, geography, contribution, market-quality, service-delivery, partner, or other criteria. The criteria should be stated before the relevant decision when feasible and should include exclusions and exception authority. Completion evidence should demonstrate the promised output or accepted state, not only a token movement.

Cancellation and recovery rules protect both participants and the allocation. A cancelled program may release an internal commitment, return a controlled balance, forfeit an unearned grant, or create a dispute. The correct treatment depends on the operative terms and law. The ledger should preserve the original approval, change, reason, affected amount, current control, and final disposition.

Table 20.4. Minimum program-authorization test

CONTROL FIELD	REQUIRED QUESTION	MINIMUM RECORD	FAILURE CONDITION
Purpose and category	What problem is addressed and why is this category the primary source?	Defined objective, direct object, category rationale and excluded uses.	Category selected by convenience or rhetorical overlap.
Quantity and economics	What POLX ceiling and non-token exposure are authorized?	Amount, period, valuation or cost method, caps and sensitivity assumptions.	Open-ended quantity or hidden economic cost.
Authority and conflicts	Who proposes, approves, executes, measures, reconciles and reviews?	Role map, thresholds, recusal, related parties and effective decision record.	One opaque actor controls material personal or market outcomes.
Eligibility and terms	Who or what can qualify and under which versioned conditions?	Criteria, exclusions, evidence, exceptions, change and notice rules.	Eligibility inferred after activity or applied inconsistently.
Custody and execution	Where are units controlled and how can they move?	Address or account map, permissions, transaction path, security and monitoring.	Purpose ledger cannot be reconciled to control state.

CONTROL FIELD	REQUIRED QUESTION	MINIMUM RECORD	FAILURE CONDITION
Completion and exit	What proves delivery and what happens on pause, cancellation or failure?	Milestones, acceptance, dispute, return, forfeiture, correction and closure record.	Transfer is treated as proof of outcome.

Source: POLIX editorial allocation-control framework, informed by IOSCO conflict-management principles and general disclosure practices. It is a proposed governance standard, not a statement of current POLIX operations.

AUTHORIZATION PRINCIPLE **No program should move from allocation capacity to token transfer without a defined purpose, ceiling, authority, conflict treatment, custody path, eligibility rule, completion test and exit record.**

20.10 Reallocation, Amendments, and Material Change

The approved schedule allocates 100% of M. Reallocating capacity between categories is therefore a zero-sum policy change unless the maximum itself changes, which Chapter 19 does not permit under the current specification. A transfer of x from category i to category k should reduce Ai by x and increase Ak by x, leaving ΣAi = M. The decision must also protect prior commitments and explain whether the change affects participants, partners, contributors, liquidity arrangements, or public expectations.

Not every internal update is a category reallocation. Creating a new program within the existing purpose and ceiling is a program assignment. Returning an unused amount to the same category is a release of commitment. Correcting a ledger error restores the intended state. Moving a controlled balance between wallets without changing purpose is a custody transfer. Only a change in the approved purpose ceiling is a category reallocation.

Materiality should be assessed qualitatively as well as quantitatively. A small amount can be material if it creates a new related-party benefit, changes a core purpose, affects market liquidity, modifies contributor treatment, or signals a departure from prior policy. A larger operational movement may be non-material to the category architecture if it stays within approved terms, but it can still require transaction-level disclosure or control.

An allocation amendment should publish or retain the prior version, proposed and approved table, arithmetic reconciliation, rationale, alternatives, authority, conflicts, effective date, treatment of existing programs, implementation steps, and next review. Historical reports should remain interpretable under the version that applied at the time. A revised chart should not erase the fact that an earlier commitment or transfer occurred under a different allocation.

The European Union’s MiCA disclosure framework is not treated here as a conclusion about POLX legal status or geographic applicability. It is a useful external example of why crypto-asset disclosures separate project resources, planned use, offer quantities, retained units, transfer timing, restrictions, conflicts, and risks (European Union, 2023). Chapter 20 adopts the underlying discipline: facts with different legal, economic, and operational meanings should be disclosed separately.

Table 20.5. Change classification and required treatment

CHANGE TYPE	EXAMPLE	CATEGORY TABLE CHANGES?	REQUIRED TREATMENT
Program assignment	Part of Platform Economy is approved for a defined incentive pilot.	No	Program record, commitment ledger, criteria, evidence and reconciliation.
Commitment release	Unused program capacity returns to the same source category.	No	Close or amend program; reverse encumbrance; preserve history.
Custody transfer	Controlled units move between approved wallets without purpose change.	No	Transaction, control, security and balance reconciliation.

CHANGE TYPE	EXAMPLE	CATEGORY TABLE CHANGES?	REQUIRED TREATMENT
Ledger correction	A classification or arithmetic error is corrected.	No, unless source table was wrong	Correction notice, reason, prior and revised state, reviewer and audit trail.
Category reallocation	Capacity moves from Strategic Growth Reserve to another category.	Yes	Versioned approval, offsetting amounts, rationale, conflicts, effective date and prior-commitment treatment.
Specification change	Maximum supply or no-mint rule is proposed to change.	Beyond Chapter 20	Core token-specification process; legal, technical, governance and public review.

Source: POLIX editorial allocation-versioning framework. No current amendment, reallocation, custody movement or specification change is asserted.

CHANGE PRINCIPLE **A wallet movement is not a reallocation, and a reallocation is not a supply change. Classify the change first, then apply the authority, evidence and disclosure appropriate to that state.**

20.11 Reporting, Reconciliation, and Public Disclosure

A public allocation report should distinguish the authoritative, currently approved allocation schedule from time-dependent operating states. The first layer shows each category ceiling and percentage. The second shows program assignments and remaining capacity. The third shows commitments, controlled balances, transfers, returns, cancellations, and other movements under an adopted method. The fourth maps relevant balances to total and circulating supply without assuming equivalence. Each layer should have its own cutoff, source, definition, and assurance status.

The allocation schedule can remain constant while operational states change. A category may have the same 40% ceiling over several years even as programs are approved, completed, cancelled, or reconciled. Reporting only the original chart conceals activity; reporting only wallet balances conceals purpose. Both are needed, connected by lineage.

Reconciliation should proceed in two directions. Policy-to-ledger reconciliation asks whether category and program records sum to the approved ceilings and whether commitments are authorized. Ledger-to-chain reconciliation asks whether controlled balances and transactions match the canonical token and custody records. Neither direction alone is sufficient. A perfectly balanced internal spreadsheet can refer to the wrong contract or omit transfers; a complete chain history can fail to identify purpose, beneficial control, or off-chain obligations.

Reports should state the authoritative token identity, reporting time or block, policy version, category table, program-state definitions, custody perimeter, included and excluded addresses or account classes where disclosure is safe, transactions since the prior report, exceptions, unreconciled differences, corrections, related-party treatment, and responsible reviewer. Security and privacy may justify aggregation, but aggregation should not be used to hide a material conflict or unexplained difference.

Circulation should be reported separately. A transferred token may remain restricted, controlled, held by an intermediary, committed to a liquidity arrangement, or otherwise excluded under a published circulation method. Conversely, some controlled liquidity inventory may be economically available and included. The allocation category describes origin and purpose; circulation describes economic availability. Their relationship must be measured, not assumed.

Disclosure frequency should follow risk and activity. A dormant category with no movements may require only periodic confirmation. An active reward or liquidity program may require more frequent reporting, monitoring, and exception disclosure. A material reallocation, control compromise, erroneous

transfer, program suspension, or inconsistency should trigger event-driven communication rather than waiting for the next routine report.

External standards reinforce the importance of clear, non-misleading disclosure and conflict management. IOSCO recommends disclosure of roles and capacities and management of conflicts in crypto-asset markets; MiCA specifies multiple disclosure fields covering project resources, uses, quantities, transfer timing, retained units, restrictions, conflicts, and risks (IOSCO, 2023; European Union, 2023). These sources do not validate the POLX allocation or determine its legal treatment. They support the general conclusion that a percentage chart is not an adequate operating disclosure.

Table 20.6. Proposed POLX allocation disclosure record

REPORTING FIELD	PURPOSE	MINIMUM CONTENT	PROHIBITED SHORTCUT
Allocation baseline	Preserve the approved fixed partition.	Version, six categories, percentage, amount and 400M reconciliation.	Replacing the schedule with wallet balances.
Program ledger	Show how category capacity is assigned and used.	Program ID, category, ceiling, state, owner, term, commitment, outflow and remaining capacity.	Treating an announcement as an approved or completed program.
Custody map	Connect purpose records to controlled token state.	Address or account class, controller, balance, restrictions, mapping and cutoff.	Assuming one wallet equals one category or owner.
Movement register	Preserve transaction and decision lineage.	Prior state, new state, amount, authorization, transaction or ledger reference, reason and time.	Publishing only aggregate totals with no change history.
Supply reconciliation	Relate allocation to canonical total and circulation.	Contract identity, totalSupply, circulation method, included and excluded states, differences.	Calling allocated or transferred units circulating by default.
Exceptions and assurance	Make uncertainty and control failures visible.	Unreconciled items, corrections, conflicts, incidents, reviewer, scope and date.	Presenting an unaudited estimate as verified fact.

Source: POLIX editorial disclosure framework, informed by POLIX Token Economy v1.0 EN, IOSCO (2023), and European Union (2023). This is a proposed reporting standard, not a claim of current implementation.

DISCLOSURE PRINCIPLE **Publish the fixed allocation, current program ledger, custody mapping, movements, supply reconciliation and exceptions as separate but connected records. A single pie chart cannot perform all six functions.**

20.12 Allocation Risks and Interpretive Limits

Allocation risk begins with purpose dilution. Broad language can allow almost any expenditure to appear consistent with a category. Dominant-purpose tests, excluded uses, program records, and amendment rules protect the semantic boundary. A category that can be reinterpreted without limit is not a meaningful constraint.

Concentration risk exists even when percentages appear participation-oriented. A 70% allocation to ecosystem and platform purposes can still be controlled by a small number of keys, wallets, counterparties, administrators, or recipients. Category labels do not establish independent ownership, decentralization, fair access, or distributed control. Beneficial-control analysis and governance are separate.

Timing risk arises because allocation charts omit release and deployment schedules. Two projects with identical allocations can have very different market effects if one releases tokens rapidly and the other uses long restrictions and program gates. Chapter 21 will address lock-up and vesting principles. Chapter 20 should not infer a present release profile from category purpose.

Execution risk arises when programs reward the wrong behavior, counterparties fail, custody is compromised, a venue becomes unavailable, or a reserve decision is poorly timed. Allocation cannot remove these risks. It can limit exposure, assign authority, and preserve information needed to detect and correct them.

Market risk arises because token quantities have uncertain economic value and can affect liquidity, expectations, and participant behavior. Neither the fixed maximum nor the allocation table guarantees demand, price, return, market capitalization, listing, or liquidity. A purpose allocation can remain unused or be used efficiently without producing the market outcome anticipated by holders.

Legal, tax, accounting, and regulatory treatment can vary by jurisdiction, actor, program, counterparty, and token relationship. Chapter 20 is an allocation and governance framework, not a legal conclusion. Any operative program should be reviewed under applicable requirements before launch and should not rely on the whitepaper as a substitute for terms, contracts, disclosures, licenses, tax treatment, or professional advice.

Finally, whitepaper precision is not implementation. The allocation becomes credible only when governance, custody, program systems, contracts, records, monitoring, reconciliation, and disclosure operate consistently. This chapter identifies the structure and evidence needed for that transition while avoiding claims that the transition has already occurred.

Table 20.7. Allocation risk register and control response

RISK	FAILURE MODE	PRIMARY CONTROL	RESIDUAL LIMIT
Purpose dilution	A broad category funds uses outside its intended object.	Dominant-purpose test, exclusions, versioned approval and reallocation rule.	Judgment remains necessary for novel initiatives.
Double counting	One unit or outcome is charged to several categories or programs.	Single source category, unique program IDs, lineage and reconciliation.	Complex shared programs require careful cost allocation.
Authority concentration	One actor approves, controls, receives and verifies value.	Role separation, thresholds, recusal, multisignature or compensating review.	Collusion, key compromise and hidden influence remain possible.
Custody opacity	Purpose records cannot be matched to wallets or accounts.	Controlled mapping, permissions, monitoring, balance and transaction reconciliation.	Privacy and security can limit public granularity.
Timing and market impact	Release or transfer creates concentration, liquidity or volatility stress.	Chapter 21 restrictions, staged authorization, market-impact and exit analysis.	Market behavior cannot be predicted or guaranteed.
Disclosure drift	Old charts or ambiguous terms conflict with current state.	Version history, state glossary, event updates, corrections and source hierarchy.	Third-party data may remain delayed or inconsistent.

Source: POLIX editorial risk-control framework. Risks and controls are analytical categories; they do not establish current incidents, systems or assurance.

INTERPRETIVE PRINCIPLE **Allocation is evidence of intended purpose and quantity only. It cannot by itself establish decentralization, fairness, custody, release timing, program quality, circulation, liquidity, legal status, price or return.**

Chapter Synthesis

1. The confirmed POLX maximum allocation is 400,000,000 POLX across six categories totaling 100%.
2. POLIX Ecosystem Growth is allocated 40%, equal to 160,000,000 POLX.
3. Platform Economy is allocated 30%, equal to 120,000,000 POLX.
4. Liquidity & Market Stability is allocated 15%, equal to 60,000,000 POLX.

5. Strategic Growth Reserve is allocated 10%, equal to 40,000,000 POLX.
6. Strategic Partnerships & Listings is allocated 3%, equal to 12,000,000 POLX.
7. Core Contributors is allocated 2%, equal to 8,000,000 POLX.
8. The combined 70% for Ecosystem Growth and Platform Economy expresses a participation-oriented allocation emphasis but does not prove distribution, decentralization, adoption or value.
9. Category allocation assigns a purpose ceiling; it is not issuance, custody, program assignment, commitment, entitlement, unlock, transfer, distribution or circulation.
10. One category can map to several wallets or programs, and one wallet can contain several categories; purpose and address partitions require explicit reconciliation.
11. Every program should identify purpose, source category, ceiling, economics, authority, conflicts, custody, eligibility, evidence, completion and exit treatment.
12. The same POLX unit must not be counted in several categories or program outflows; cross-cutting benefits should use tags rather than duplicate accounting.
13. Liquidity allocation does not authorize price support or establish current liquidity, venue, counterparty, circulation or market value.
14. Strategic reserve capacity preserves optionality but should not create unrestricted discretion.
15. Partnership and listing allocation does not establish that a partnership, listing, payment, integration or market access exists.
16. Core Contributor allocation does not identify recipients, grants, vesting, claimability, transfer or circulation.
17. A category reallocation is a zero-sum policy change that requires a new version and offsetting amounts; a custody movement or program assignment is not a reallocation.
18. Public reporting should separate the fixed allocation baseline, program ledger, custody map, movement register, total-supply reconciliation, circulation methodology and exceptions.
19. External academic and policy sources support analysis of platform participation, disclosure and conflict management; they do not validate POLX programs, legal status, demand, price or implementation.
20. Chapter 20 fixes the allocation architecture; Chapter 21 now addresses which confirmed categories are subject to lock-up or vesting and how restriction, release and forfeiture states should be evidenced.

TRANSITION TO CHAPTER 21 **Chapter 20 partitions the 400,000,000 POLX maximum into six approved purpose categories and defines the controls that keep allocation separate from later token states. Chapter 21 now addresses confirmed lock-up and vesting principles: which allocations are restricted, how time and conditions interact, and why lock-up, vesting, unlock, claimability, transfer and circulation must remain distinct.**

CHAPTER 20 / REFERENCES

References and Source Notes

Official POLIX materials establish the six allocation categories, percentages, amounts, stated purposes, progressive-deployment direction, and category-specific high-level policies. They do not establish a deployed contract, category wallets, custody arrangements, current program assignments, commitments, recipients, distributed or circulating amounts, current unlocked state, decision authority, accounting systems, valuation method, assurance, legal treatment, or program performance. Cong, Li, and Wang support general analysis of token-mediated platform adoption. IOSCO and MiCA are used only as external disclosure and

conflict-management benchmarks; they do not determine POLX legal status, geographic applicability, compliance, allocation validity, or operating state.

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POLIX. (2026). POLIX Presentation v1.0 EN. Official project presentation, June 2026. POLX economic layer, utility and ecosystem sections.

POLIX. (2026). POLIX Project Summary 11: POLX Economic System. Internal project source cited in this manuscript.

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CHAPTER 21

Confirmed Lock-up and Vesting Principles

A precise restriction framework for three confirmed POLX allocations—separating policy time, conditional vesting, authorization, claimability, transfer, and circulation so that a published schedule cannot be mistaken for an operating balance or guaranteed release.

Chapter Thesis

POLIX confirms category-specific time restrictions for 60,000,000 POLX in aggregate: Strategic Growth Reserve, 40,000,000 POLX, and Strategic Partnerships & Listings, 12,000,000 POLX, each carry an initial 24-month lock-up; Core Contributors, 8,000,000 POLX, carry a 24-month initial lock-up followed by 36 months of linear vesting, producing a 60-month total alignment period. These schedules are policy constraints, not evidence of current issuance, custody, grants, start dates, claimable balances, transfers, circulation, liquidity, price, or return. Their credibility depends on precise definitions, separately evidenced state transitions, enforceable administration, reconciliation, and disclosure.

Chapter 20 fixed the allocation architecture and purpose ceilings. Chapter 21 changes the unit of analysis from category assignment to time and condition. It asks which confirmed allocations are restricted, what happens when a restriction interval ends, how a contributor interest accrues during linear vesting, which states may be cancelled before completion, and what records are necessary before any token can be described as released or circulating. It deliberately avoids repeating the full six-category allocation analysis.

Lock-up and vesting are related but non-equivalent. A lock-up is a restriction on release, transfer, use, or another defined action during a stated interval. Vesting is the process by which an entitlement or recognized amount accrues under time, service, performance, governance, or contractual conditions. A unit can be allocated but not granted; granted but unvested; vested but not claimable; claimable but not transferred; transferred but still excluded from circulating supply under a published methodology. Compressing these states into “unlocked” conceals decision rights and creates false supply signals.

The official source establishes high-level timing but leaves material implementation fields open. It does not identify the authoritative start event, the exact timestamp or block, whether the contributor curve accrues continuously or in completed monthly tranches, the number and identity of beneficiaries, custody architecture, release mechanism, address map, voting or economic rights during restriction, treatment of late deposits, administrative authority, current elapsed time, or current vested and released balances. Chapter 21 states these gaps explicitly rather than filling them with assumptions.

Time restrictions can support credible commitment by delaying access and linking future value to continued participation. Empirical research on initial coin offerings found that disclosure and credible

commitment signals—including hard-coded insider vesting in the study's setting—were associated with stronger real outcomes (Howell, Niessner, and Yermack, 2020). That finding supports the analytical value of enforceable schedules; it does not establish POLIX performance, market value, legal status, or the sufficiency of any particular duration.

A restriction schedule is therefore best understood as a control specification. It should define the controlled quantity, affected actor or category, authoritative clock, permitted and prohibited actions, conditions, change authority, evidence, and final disposition. Publication alone does not make a schedule effective. A policy, contract, custody arrangement, smart contract, multisignature process, or other adopted mechanism must implement the stated rule and preserve an auditable record.

RESTRICTION BOUNDARY **A confirmed schedule establishes a time-and-condition rule. It does not establish that tokens have been created, assigned to a recipient, placed in a vesting mechanism, unlocked, claimed, transferred, sold, or included in circulating supply.**

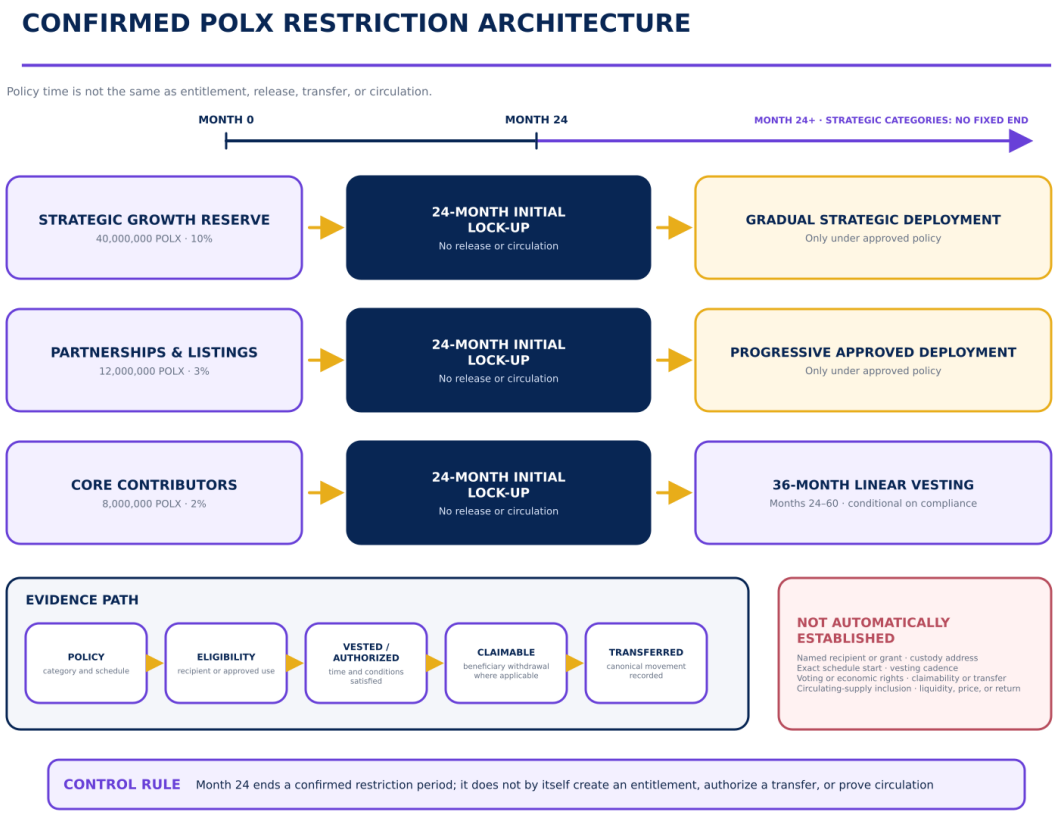

Figure 21.1. Confirmed POLX restriction architecture. The policy timeline defines when a restriction may end or vesting may accrue; the evidence path determines whether a later operating state can be asserted.

Source: POLIX editorial synthesis based on POLIX Token Economy v1.0 EN. The model states confirmed high-level schedules and evidence boundaries; it does not assert current deployment, start time, grants, custody, release or circulation.

Table 21.1. Confirmed POLX lock-up and vesting schedule

ALLOCATION	CONFIRMED AMOUNT	CONFIRMED RESTRICTION	POST-RESTRICTION DIRECTION
Strategic Growth Reserve	40,000,000 POLX 10% of maximum	Initial 24-month lock-up; no release or circulating-supply inclusion during the period.	May be deployed gradually for approved strategic initiatives under predefined operational policy.
Strategic Partnerships & Listings	12,000,000 POLX 3% of maximum	Initial 24-month lock-up; no release or circulating-supply inclusion during the period.	Progressive deployment based on approved collaborations and ecosystem-expansion initiatives.

ALLOCATION	CONFIRMED AMOUNT	CONFIRMED RESTRICTION	POST-RESTRICTION DIRECTION
Core Contributors	8,000,000 POLX 2% of maximum	Initial 24-month lock-up, then 36-month linear vesting; 60-month total period.	Future vesting depends on continued contractual and governance compliance; unvested amounts may be partially or completely cancelled.
Confirmed restricted total	60,000,000 POLX 15% of maximum	Three category schedules are confirmed; their operative start and current state are not established here.	No automatic release, transfer, circulation, liquidity or market effect is asserted.

Source: POLIX Token Economy v1.0 EN, Strategic Growth Reserve, Strategic Partnerships & Listings, and Core Contributors sections. Percentages use the confirmed 400,000,000 POLX maximum.

CONFIRMED-SCOPE PRINCIPLE **The confirmed restriction perimeter is 60,000,000 POLX, or 15% of the maximum. No fixed lock-up or vesting schedule should be inferred for another allocation category unless separately adopted and disclosed.**

21.1 Why Lock-up and Vesting Matter

Time restrictions address several different risks. They can delay discretionary deployment of strategic capacity, sequence partnership-related transfers behind review, align contributor incentives with continued service, reduce immediate control concentration, and create a period in which governance, contracts, custody, and market infrastructure can mature. These purposes overlap, but the correct mechanism depends on the allocation. A reserve lock-up is not a contributor compensation schedule, and a contributor vesting curve is not a partnership milestone plan.

A restriction also changes the information available to the market. A visible lock-up can define the earliest policy date at which release becomes possible. It cannot predict whether a release will occur, its amount, recipient, market destination, or effect. If a schedule is disclosed without its start basis, exceptions, custody, or actual movement record, observers may treat the end date as a guaranteed supply event. The result is false precision: a calendar projection is mistaken for an operating fact.

Lock-up quality depends on enforceability. A narrative promise may express intent but does not prevent an authorized key, custodian, contract owner, or counterparty from moving tokens. A technical lock may constrain movement but can still be bypassed through upgrade authority, beneficiary substitution, transferable ownership of a vesting wallet, late funding, derivative claims, off-chain agreements, or privileged recovery functions. Control assessment should therefore cover both direct token transfer and economically equivalent ways to transfer benefit or influence.

Vesting adds a second dimension: entitlement. The contributor schedule links future accrual to continued contractual and governance compliance. This conditionality is economically meaningful only if the governing agreement defines the obligation, evidence, decision authority, notice, cure, dispute, and cancellation treatment. Time alone should not silently convert an unapproved, ineligible, or cancelled interest into a claim.

A schedule can also affect governance. If locked or unvested balances can vote, delegate, earn distributions, or determine quorum, economic and decision rights may arise before transfer. If they cannot, the restriction can reduce active voting supply and increase the relative weight of other holders. Chapter 21 does not assign either treatment. It requires the adopted mechanism to state it and public governance calculations to separate total, eligible, delegated, and exercised voting units.

The interface standard does not solve these questions. EIP-20 defines balance, transfer, allowance, and event behavior, but it does not prescribe vesting, lock-up, beneficiary eligibility, or circulating-supply classification (EIP-20, 2015). OpenZeppelin's VestingWallet is an example of a technical primitive that can release ERC-20 tokens according to a customizable schedule, including a default linear curve; its

existence does not establish that POLIX uses that contract or any particular deployment topology (OpenZeppelin, n.d.).

21.1.1 State Vocabulary and Non-Equivalence

A durable policy requires a controlled vocabulary. “Allocated” retains the Chapter 20 meaning: a quantity belongs to an approved category ceiling. “Restricted” means a defined action is prohibited under an effective rule. “Granted” means a recipient-specific award or obligation has been validly created. “Vesting” is the accrual process; “vested” is the cumulative amount that has satisfied that process. “Unlocked” means a specified restriction has ended, but the word is incomplete unless it states which restriction and whether another condition remains.

“Claimable” or “releasable” means the beneficiary can invoke an adopted mechanism to receive an amount already eligible for release. “Released” records execution from the restriction mechanism. “Transferred” records movement to another address or account. “Circulating” is a separately defined classification of economic availability at a stated cutoff. “Forfeited” or “cancelled” means an unvested or otherwise conditional interest no longer accrues under the operative terms. Each state needs its own authority and evidence.

The order of states is not always linear. A reserve amount may move from restricted to authorized use without any beneficiary vesting. A partnership commitment may expire before transfer. A contributor grant may be cancelled while unvested, partially vest, remain vested but unclaimed, or be released and then subject to another legal or contractual restriction. The ledger must permit these branches without overwriting history.

Table 21.2. Restriction-state vocabulary and evidence boundary

STATE	CONTROL MEANING	MINIMUM EVIDENCE	NOT ESTABLISHED BY THE STATE
Category allocated	Quantity is assigned to an approved Chapter 20 purpose ceiling.	Versioned allocation schedule and arithmetic reconciliation.	Grant, restriction mechanism, current balance or recipient.
Locked or restricted	A stated action is prohibited until a condition or time boundary is satisfied.	Effective rule, affected amount, clock, controller, prohibited actions and exceptions.	Vesting, beneficiary ownership, automatic release or circulation.
Granted	A recipient-specific conditional award or obligation exists.	Executed grant or contract, quantity, start rule, conditions and authority.	Earned, vested, claimable or transferred amount.
Vested	Time and other adopted conditions have accrued a recognized amount.	Schedule calculation, eligibility evidence, cutoff and approved adjustments.	Custody movement, receipt, sale or circulating-supply inclusion.
Claimable or releasable	An eligible party can invoke a defined withdrawal or release process.	Beneficiary, releasable amount, permissions, mechanism state and applicable checks.	Successful execution or unrestricted downstream use.
Released or transferred	A canonical balance or control movement has executed.	Transaction, amount, source, destination, authorization, timestamp and reconciliation.	Circulation, market sale, liquidity, price or program completion.
Cancelled or forfeited	A conditional unvested interest ceases under adopted terms.	Reason, authority, notice, dispute status, amount and final category treatment.	Burn, reallocation, available capacity or legal finality without further evidence.
Circulating	Units meet a published economic-availability methodology.	Method, cutoff, included and excluded states, address mapping and reconciliation.	Automatic result of lock expiry, vesting, claim or transfer.

Source: POLIX editorial restriction-accounting framework, informed by EIP-20 and OpenZeppelin vesting terminology. The vocabulary is a proposed disclosure standard, not a claim of current POLIX implementation.

STATE PRINCIPLE **Lock-up, vesting, unlock, claimability, release, transfer, and circulation answer different questions. No dashboard, contract, or whitepaper should use one as a shortcut for another.**

21.1.2 The Authoritative Clock

Every time-based restriction needs an origin. Possible origins include token generation, canonical contract initialization, a published network milestone, a policy effective date, a category funding transaction, a beneficiary grant date, a service commencement date, or another adopted event. These dates are not interchangeable. A 24-month interval measured from token generation can end at a different time from a 24-month recipient restriction measured from grant.

The official POLIX material confirms durations but does not identify the authoritative origin in the source reviewed for this chapter. The current manuscript therefore does not publish a calendar unlock date. Before operation, the schedule should define one authoritative event, its timezone and timestamp or block, the evidence that establishes it, treatment of delays or restarts, and whether different grants or category deposits can have separate clocks.

The end convention also matters. “24 months” can mean the corresponding calendar date, a fixed number of days or seconds, or completed monthly intervals. Leap days, month-end dates, block timestamps, chain reorganizations, downtime, and administrative delays can produce edge cases. The adopted policy should use machine-resolvable terms while presenting a human-readable date. If the chain timestamp controls, the interface should show that value rather than recompute from a local device clock.

A time condition should not be retroactively satisfied by late funding unless that outcome is intended. Some vesting implementations calculate vested amount using total assets received, which can cause assets deposited after the schedule starts to participate in the prior accrual curve. OpenZeppelin documents this behavior for its VestingWallet design. Any POLIX implementation should test late deposits, partial funding, replacement wallets, upgrades, and recovered balances explicitly rather than assuming the nominal schedule prevents retroactive availability.

Table 21.3. Minimum clock and schedule specification

FIELD	REQUIRED DECISION	EVIDENCE	UNRESOLVED IF OMITTED
Start event	Which single event begins the interval for each category or grant?	Policy version, event record, timestamp or block and responsible confirmer.	Calendar release date and elapsed period.
Time convention	Calendar months, seconds, days, blocks or completed periods?	Machine-readable rule and human-readable explanation.	Month-end, leap-day and timestamp edge cases.
End boundary	At the boundary, is availability immediate, next-period, or approval-gated?	Comparison operator, execution test and approval state.	Whether month 24 itself permits any action.
Vesting cadence	Continuous linear accrual or discrete periodic tranches?	Formula, rounding, precision, checkpoint and test vectors.	Exact vested amount between checkpoints.
Late funding	How do later deposits or restored balances enter the schedule?	Deposit rule, effective date, separate schedule or exclusion logic.	Retroactive accrual and excess claimability.
Pause and amendment	Can the clock pause, accelerate, restart or change, and by whom?	Authority, conditions, notice, prior-state preservation and appeal.	Enforceability and participant expectations.

Source: POLIX editorial schedule-specification framework. Durations are confirmed; operative origins, cadence, exceptions and current elapsed time are not established by the reviewed official material.

CLOCK PRINCIPLE **A duration without an authoritative start event is not a calendar unlock date. POLIX should publish the clock only when its governing event, convention, evidence, and exceptions are adopted.**

21.2 Strategic Growth Reserve Lock-up

Strategic Growth Reserve is allocated 40,000,000 POLX, equal to 10% of the maximum. The official policy confirms an initial 24-month lock-up during which no tokens are released or become part of circulating supply. After the period, tokens may be deployed gradually for strategic initiatives, subject to predefined operational policies and long-term ecosystem interests. The text creates a minimum restriction and a post-restriction direction; it does not establish a fixed release curve after month 24.

The distinction between “may be deployed” and “will be released” is decisive. Expiry removes one temporal barrier. It does not approve a program, identify a recipient, determine an amount, satisfy applicable review, create a claim, or execute a transfer. A reserve can remain unused after the lock-up, and unused capacity can be a valid outcome when no proposal meets the approval threshold. Release rate is therefore not a performance target.

Reserve deployment should begin with necessity and category fit. A proposal should explain why the need is strategic, long-term, or exceptional; why another approved category cannot reasonably address it; which quantity and economic exposure are required; what alternatives were considered; which authority decides; what restrictions, milestones, and exit rights apply; and how the outcome will be measured and reconciled. Chapter 20 established the allocation-control framework; Chapter 21 adds the time-state requirement.

The reserve schedule should not be described as vesting unless a recipient-specific conditional entitlement is created. The official direction is gradual strategic deployment, not a 36-month or other automatic accrual curve. If a future reserve program uses milestone release, streaming, escrow, or recipient vesting, that transaction-level schedule should be separately adopted and disclosed without replacing the category’s confirmed initial lock-up history.

Circulating-supply treatment requires care. The source states that no reserve tokens become part of circulating supply during the initial lock-up and that reserved tokens are not considered circulating until actually allocated for approved strategic purposes. Under the terminology of Chapters 20 and 21, program authorization is still not automatically equivalent to economic availability. Public circulation reporting should apply a published methodology to the actual custody, restrictions, recipients, and market availability rather than rely on a category label alone.

After the lock-up, staged approvals can limit concentration and market impact. A program may authorize a ceiling but release only on milestone acceptance, service delivery, liquidity need, or another observable condition. Unused or failed commitments should return to the same category unless a separately approved reallocation changes the purpose ceiling. Return to the category is not new issuance and should not reset the allocation history.

Table 21.4. Strategic Growth Reserve post-lock-up decision gate

GATE	REQUIRED QUESTION	MINIMUM EVIDENCE	FAILURE CONDITION
Lock expiry	Has the authoritative 24-month interval actually completed?	Adopted start event, current timestamp or block, calculation and reviewer.	Nominal month assumed without a defined clock.
Strategic necessity	Why is reserve capacity required instead of an existing operating category?	Need, category analysis, alternatives, amount, duration and expected outcome.	Reserve used as general-purpose or recurring funding.
Authority and conflicts	Who proposes, approves, controls, executes and reviews?	Role separation, thresholds, recusal, related parties and decision record.	Unbounded discretion or personal benefit without review.
Release design	What amount may move, when, to whom, and under which condition?	Ceiling, tranche or milestone, recipient class, custody, restrictions and reversal.	Expiry treated as approval for full transfer.
Completion and return	What closes the initiative and how are unused units treated?	Acceptance, outcome evidence, cancellation, return, dispute and reconciliation.	Token movement treated as proof of strategic success.

GATE	REQUIRED QUESTION	MINIMUM EVIDENCE	FAILURE CONDITION
Public classification	How does the movement affect restricted and circulating disclosures?	Transaction record, address mapping, included or excluded state and cutoff.	Program allocation automatically labeled circulating.

Source: POLIX Token Economy v1.0 EN and POLIX editorial reserve-release framework. The table proposes a control gate; no current proposal, authority, custody, release or circulating amount is asserted.

RESERVE LOCK-UP PRINCIPLE **Month 24 is the earliest confirmed policy boundary for reserve deployment, not a mandatory release date. Every post-lock-up use still requires necessity, authority, restriction, execution, and reconciliation evidence.**

21.3 Partnerships & Listings Lock-up

Strategic Partnerships & Listings is allocated 12,000,000 POLX, equal to 3% of the maximum. The official policy confirms an initial 24-month lock-up with no release or circulating-supply inclusion during that period. Afterward, the category is intended for progressive deployment based on approved strategic collaborations and ecosystem-expansion initiatives. As with the reserve, the source does not publish an automatic post-month-24 release curve.

This category differs from the reserve because a post-lock-up transaction is likely to involve an identifiable external relationship. The counterparty may provide an exchange integration, technology, distribution, market access, institutional relationship, business collaboration, or another defined service. The token schedule should follow the underlying transaction risk rather than precede it. Approval of a category does not create a partner entitlement, and announcement of a relationship does not establish delivery.

A transaction-specific restriction may remain necessary after the category lock-up. A partner could receive tokens through milestone tranches, service-based vesting, escrow, performance conditions, transfer restrictions, clawback or return provisions, or another adopted structure. The whitepaper does not select one. It requires the contract and disclosure to state the amount, valuation method, deliverables, dates, dependencies, custody, transferability, termination, and treatment of undelivered or disputed consideration.

Listing-related arrangements require semantic precision. Integration costs, technical fees, liquidity deposits, market-making inventory, promotional services, and strategic consideration have different risk and accounting profiles. A release for one purpose should not be reported as another. No token transfer guarantees exchange acceptance, continued listing, geographic availability, executable liquidity, volume, adoption, or price.

Counterparty conflicts can affect schedule design. A recipient may also provide custody, liquidity, promotion, trading, data, or execution and may benefit from earlier availability. The approval process should disclose roles and capacities, require recusal or independent review where appropriate, limit information asymmetry, and prohibit side arrangements that defeat the published restriction. Confidentiality can protect legitimate commercial detail but should not justify a misleading public statement about status or timing.

The category’s post-lock-up deployment should be progressive because evidence arrives progressively. Due diligence may establish eligibility; execution may establish a binding arrangement; technical integration may establish readiness; milestone acceptance may establish partial performance; and ongoing service may establish retention. A single transfer at signature shifts risk before the corresponding evidence exists unless the contract provides adequate protection.

Table 21.5. Partnership and listing release-evidence matrix

TRANSACTION STATE	TOKEN STATE THAT MAY BE CONSIDERED	REQUIRED EVIDENCE	PROHIBITED INFERENCE
Exploration or term sheet	No binding grant or transfer inferred.	Counterparty screening, purpose, conflicts, non-binding status and authority.	Announced relationship or guaranteed execution.
Executed agreement	Conditional commitment within the category ceiling.	Signed terms, amount, valuation, deliverables, restrictions, termination and dispute rules.	Immediate earned, vested or circulating amount.
Technical or commercial milestone	Defined tranche may become authorized or eligible.	Objective acceptance, dependencies, approver, evidence timestamp and exceptions.	Complete performance or durable market access.
Claim or release readiness	Eligible amount may become claimable under the mechanism.	Restriction expiry, milestone status, recipient verification, compliance and calculation.	Executed transfer or unrestricted resale.
Transfer	Recorded movement under the adopted transaction.	Canonical transaction, source, destination, amount, authorization and custody mapping.	Listing, liquidity, adoption, market sale or success.
Completion or termination	Remaining commitment closes, returns, continues, or is disputed.	Final acceptance, unused amount, recovery, cancellation, dispute and reconciliation.	Unvested balance automatically burned or reallocated.

Source: POLIX editorial transaction-release framework based on the confirmed category lock-up and progressive-deployment direction. No specific partner, listing, contract or transfer is asserted.

PARTNERSHIP LOCK-UP PRINCIPLE **The 24-month category lock-up delays availability; it does not prove a partner right or future listing. Post-lock-up release should follow verified contractual and delivery states, not announcement timing.**

21.4 Core Contributors Schedule

Core Contributors is allocated 8,000,000 POLX, equal to 2% of the maximum. The official policy confirms a 24-month initial lock-up followed by 36 months of linear vesting, for a 60-month total lock-up and vesting period. During the initial 24 months, no tokens are released or become part of circulating supply. Future vesting is strictly contingent on continued fulfillment of contractual obligations and governance requirements, and failure may result in partial or complete cancellation of an unvested allocation.

This is the only confirmed category in the reviewed material with a linear vesting curve. It combines a time barrier with conditional accrual. The 24-month phase prevents release; the next 36 months progressively recognize a potential amount, subject to eligibility. The schedule is best treated as a category-level ceiling until recipient grants, operative contracts, start dates, calculation cadence, and custody are adopted and evidenced.

The word “contributors” does not identify employees, contractors, founders, advisors, vendors, volunteers, or another legal class. Different relationships can require different terms and legal treatment. A grant should identify the person or entity, role, quantity or formula, start rule, service or performance conditions, intellectual-property and confidentiality obligations, conflict treatment, termination, cancellation, dispute, tax responsibility, governing law, and reconciliation. The whitepaper is not a substitute for those terms.

The schedule should be implemented without implying guaranteed compensation or market value. The amount is denominated in POLX, whose price, liquidity, transferability, tax treatment, and legal characterization may change. A vested quantity is not a promise of a particular fiat value, exchange listing, market depth, or ability to sell. Contributors should receive clear disclosures about both token-state and economic uncertainty.

21.4.1 24-Month Initial Lock-up

The initial 24-month phase is a no-release interval for the Core Contributors category. It should not be casually renamed a “cliff.” In common compensation usage, a cliff often means a non-zero portion becomes vested at the cliff date. The confirmed POLIX wording states 24 months of lock-up followed by 36 months of linear vesting. Under the conservative interpretation used here, cumulative linear vesting begins from zero after the lock-up boundary unless an operative grant specifies another adopted treatment.

The start event remains unconfirmed in the source reviewed. A category-level origin and a grant-level origin could differ. If all contributor grants share one system start, late recipients may enter a partially elapsed schedule unless the policy prevents it. If every grant has an individual start, the category can contain several overlapping 60-month schedules. Either model can be designed, but the ledger and public report must identify which model applies.

No release during the initial period should cover both direct and delegated control paths. The mechanism should assess transfer functions, allowances, vesting-wallet ownership, upgrade authority, emergency recovery, beneficiary change, staking or voting wrappers, derivative claims, and off-chain assignments. A token may remain in the same address while its economic benefit or control is transferred through another arrangement. The policy should prohibit circumvention, not merely one transaction type.

Termination or ineligibility during the initial period should be governed by the operative contract and applicable law. The confirmed policy permits partial or complete cancellation of unvested allocations for failure to meet contractual or governance requirements; it does not define automatic cancellation for every departure, a good-leaver or bad-leaver regime, acceleration, or post-termination exercise window. Those details must be adopted separately.

> INITIAL-LOCK PRINCIPLE **The first 24 months establish a zero-release restriction. They do not establish a cliff tranche, recipient ownership, elapsed schedule, or automatic entitlement at the month-24 boundary.**

21.4.2 36-Month Linear Vesting

Let A denote the confirmed Core Contributors category ceiling of 8,000,000 POLX, and let t denote elapsed months from an adopted common schedule origin. For a category-level illustration with no cancellations and with the entire ceiling subject to one curve, the cumulative potential vested ceiling V(t) is zero for $t < 24$; $A \times (t - 24) / 36$ for $24 \le t < 60$; and A for $t \ge 60$. The corresponding unvested ceiling is $U(t) = A - V(t)$. This is a mathematical interpretation of “24-month lock-up followed by 36-month linear vesting,” not a report of current balances.

The formula is continuous in principle. An operating contract may calculate by second, block, day, completed month, or another cadence, and integer arithmetic requires a rounding rule. If vesting occurs in completed monthly tranches, each full month after the lock-up would represent 1/36 of an eligible grant; if it accrues continuously, the amount changes within the month. The official source does not choose between these implementations.

For an individual grant g with approved amount Ag, eligibility multiplier eg(t), and cumulative cancellation cg(t) applied only to the then-unvested portion, let Vg,prev be the cumulative vested amount recognized immediately before the current calculation. A bounded monotonic representation is $Vg(t) = \max\{Vg,prev, \min[Ag - cg(t), Ag \times L(t) \times eg(t)]\}$, where L(t) is the adopted linear time factor, subject to $0 \le eg(t) \le 1$ and $0 \le cg(t) \le Ag - Vg,prev$. The formula cannot reduce a previously vested

amount or exceed the uncancelled grant ceiling. Unless a separately authorized clawback rule applies, cancellation or later ineligibility may stop future vesting but may not reduce an amount already vested. It illustrates the components; it does not determine legal entitlement.

Claimable amount should be calculated separately. If Rg(t) is the cumulative amount already released and Hg(t) is an adopted hold, dispute, compliance, or other valid restriction, a conceptual claimable amount is max[0, Vg(t) − Rg(t) − Hg(t)]. The mechanism must avoid double release, preserve cumulative state, handle partial claims, and state whether the beneficiary or an administrator initiates execution. A vested amount can remain unclaimed indefinitely without becoming a new allocation.

Testing should cover boundary and adversarial cases: one second before and after the start and end; month 24 and month 60; partial funding; late deposits; cancellation before and during vesting; rounding across many grants; repeated claim calls; beneficiary replacement; upgrade or pause; token transfer failure; chain reorganization; and reconciliation after recovery. A visually correct curve is insufficient if the implementation fails at the boundaries.

Table 21.6. Illustrative Core Contributors category-level vesting checkpoints

ELAPSED MONTH	PHASE	POTENTIAL VESTED SHARE	POTENTIAL VESTED CEILING	UNVESTED CEILING
0	Initial lock-up begins	0%	0 POLX	8,000,000 POLX
24	Lock-up boundary; linear phase begins	0%	0 POLX	8,000,000 POLX
30	6 of 36 vesting months elapsed	≈16.67%	≈1,333,333 POLX	≈6,666,667 POLX
36	12 of 36 vesting months elapsed	≈33.33%	≈2,666,667 POLX	≈5,333,333 POLX
42	18 of 36 vesting months elapsed	50%	4,000,000 POLX	4,000,000 POLX
48	24 of 36 vesting months elapsed	≈66.67%	≈5,333,333 POLX	≈2,666,667 POLX
54	30 of 36 vesting months elapsed	≈83.33%	≈6,666,667 POLX	≈1,333,333 POLX
60	Total alignment period completed	100%	8,000,000 POLX	0 POLX

Source: POLIX editorial calculation from the confirmed 8,000,000 POLX ceiling, 24-month lock-up, and 36-month linear vesting. Values assume one common origin, full category eligibility, no cancellation and continuous arithmetic. Intermediate values are rounded to the nearest whole POLX for display; operative precision depends on the adopted token decimals, cadence, and rounding rule. They are illustrative ceilings, not current grants, vested balances or claimable amounts.

LINEAR-VESTING PRINCIPLE **At the conservative category-level interpretation, month 24 begins the 36-month linear phase from zero; month 60 completes the potential curve. Actual recipient vesting still requires an adopted grant, eligibility, cadence, rounding, and evidence.**

21.4.3 60-Month Total Alignment Period

The 60-month total period is the sum of the 24-month no-release interval and 36-month linear vesting interval. Its purpose is temporal alignment, not a promise that a contributor will remain, perform, receive a grant, vest the full ceiling, claim immediately at the end, or realize any economic outcome. Alignment emerges only if continued contribution, governance compliance, cancellation rights, and administration operate consistently across the period.

A long schedule creates its own risks. Contributor roles, organizational structure, applicable law, tax treatment, token value, technical custody, chain infrastructure, and the platform itself can change. The governing terms should therefore include version hierarchy, amendment authority, participant notice, treatment of accrued rights, successor mechanisms, dispute resolution, and migration procedures. Flexibility should not permit retroactive deprivation or concealed acceleration.

Concentration should be monitored over the full horizon. Even a 2% category can create significant voting, information, or market influence if grants are concentrated or if other eligible supply is low. Reports should disclose aggregate grant, unvested, vested, claimable, released, cancelled, and remaining category states while protecting personal information where necessary. Material related-party grants or conflicts may require additional disclosure or independent review.

At month 60, the potential category curve reaches its ceiling under the simplified model. The actual state may be lower because not all capacity was granted, eligibility ended, awards were cancelled, disputes remain, or portions have not become claimable. Completion of the time curve does not close the category ledger. Outstanding claims, released amounts, returned capacity, incidents, and records still require reconciliation and retention.

> ALIGNMENT-PERIOD PRINCIPLE **Sixty months describes the full potential time curve, not a guaranteed payout. Long-term alignment requires continued eligibility, enforceable terms, conflict controls, accurate administration, and preserved rights history.**

21.5 Unvested Allocation Principles

An unvested allocation is not a uniform legal or accounting object. It may be unassigned category capacity, a conditionally granted amount, a recorded service incentive, an asset held by a restriction mechanism, or another state under applicable terms. The whitepaper uses “unvested” only for an amount subject to an adopted vesting process that has not yet satisfied that process. Unassigned category capacity should not be called unvested merely because it is unavailable.

The confirmed contributor policy allows partial or complete cancellation of unvested allocation when contractual obligations or governance requirements are not fulfilled. Cancellation should follow an adopted procedure: defined trigger, supporting evidence, authorized decision maker, conflict treatment, notice, opportunity to respond or cure where applicable, effective time, amount calculation, dispute path, and final ledger treatment. The policy does not authorize arbitrary cancellation or resolve rights under every jurisdiction.

Cancellation is not burn. A cancelled unvested interest can return to unassigned Core Contributors capacity, remain reserved pending dispute, be reassigned within the same category under a new grant, or receive another treatment under adopted policy. Moving it to another category would be a Chapter 20 reallocation and require a new allocation version. Permanently destroying tokens would be a Chapter 25 supply action and require separate authority and evidence.

Unvested amounts should not automatically carry governance, distribution, staking, referral, or other economic rights. If any right is intended before vesting, the operative documents should specify the right, quantity basis, start and end, revocation, delegation, conflicts, and treatment on cancellation. If no right is intended, custody and contract design should prevent the balance or beneficiary from exercising it indirectly.

Privacy and transparency should be balanced. Public reports do not need to disclose sensitive personal details to show category integrity. They can publish aggregate grant counts, amounts, schedule cohorts, unvested and vested totals, releases, cancellations, related-party categories, exceptions, and assurance status. Internal records should retain recipient-level evidence and enable lawful review, tax reporting, dispute handling, and reconciliation.

The same principles apply to disputed and suspended states. A disputed amount should not be counted simultaneously as available category capacity and a beneficiary entitlement. A temporary administrative hold should not be described as cancellation or a new lock-up. The ledger should use mutually

exclusive primary states and supplementary flags for dispute, legal hold, compliance review, security incident, or another overlay.

Table 21.7. Unvested allocation control principles

CONTROL AREA	REQUIRED PRINCIPLE	MINIMUM RECORD	MISSTATEMENT TO AVOID
Classification	Distinguish unassigned capacity, conditional grant, unvested grant, vested and claimable states.	Unique grant or program ID, category lineage, state, amount and cutoff.	Calling all restricted capacity "unvested."
Eligibility	Continued vesting follows adopted contractual and governance requirements.	Obligations, evidence, evaluation period, approver, exception and result.	Time alone treated as sufficient.
Cancellation	Only unvested or otherwise conditional amounts may be cancelled under effective terms.	Trigger, authority, evidence, notice, calculation, dispute and effective time.	Retroactive or unsupported cancellation.
Final disposition	Cancelled amounts receive a separately recorded category treatment.	Return, reassignment, hold or other adopted state with quantity and authority.	Cancellation described as burn or reallocation.
Rights	Voting and economic rights before vesting must be expressly stated and technically controlled.	Eligible balance, delegation, rewards, revocation, conflicts and audit trail.	Wallet balance assumed to equal active rights.
Disclosure	Aggregate reporting preserves integrity without unnecessary personal data.	Grant, unvested, vested, claimable, released, cancelled and exception totals.	Public total that double counts disputed or returned amounts.

Source: POLIX Token Economy v1.0 EN and POLIX editorial unvested-allocation framework. Legal, employment, tax, accounting and privacy treatment depends on adopted terms and applicable requirements.

UNVESTED-ALLOCATION PRINCIPLE **Unvested does not mean ownerless, available, burned, or automatically cancellable. Its rights, controller, conditions, dispute status, and final disposition must be defined and reconciled.**

21.6 Administration and Technical Implementation Boundaries

A schedule can be administered through a smart contract, controlled wallet, custody platform, internal ledger with restricted execution, legal escrow, or a combination. Chapter 21 does not select a deployed architecture. The correct design should be proportional to value and risk and should make the policy enforceable without introducing an opaque control path.

If a smart contract is used, the specification should identify network, contract address, source code or verified bytecode, compiler and library versions, constructor parameters, beneficiaries, start, duration, funding, release functions, ownership, pause, upgrade, cancellation, recovery, and event behavior. An interface such as BEP-20 or ERC-20 supplies transferable-token functions; vesting remains application logic. OpenZeppelin's VestingWallet demonstrates one implementation pattern but also shows why beneficiary ownership, late deposits, and customizable curves require explicit review.

Privileged authority should be minimized and documented. An administrator who can replace beneficiaries, change start dates, accelerate vesting, withdraw locked assets, upgrade code, or redefine eligibility can defeat the public schedule. Some privileges may be necessary for error recovery or legal compliance. The adopted policy should define the exact capability, threshold, delay, notice, emergency scope, review, and tamper-evident audit trail rather than claim that all control has been eliminated.

Custody and beneficial rights must be separated. A contract or custodian may hold legal or technical control while a beneficiary has a conditional claim; an internal category account may show a commitment while the canonical tokens remain elsewhere. Address lists alone cannot resolve beneficial entitlement. The control ledger should map policy category, grant or program, custody address or account, contract state, beneficiary class, restriction, and current amount.

Security assurance should cover code and operations. Review should include access control, initialization, arithmetic and rounding, reentrancy where relevant, token compatibility, partial claims, event completeness, key compromise, upgrade safety, emergency recovery, denial of service, chain

migration, and reconciliation. Independent review or audit can reduce risk but does not guarantee correctness. Test results and limitations should be preserved with the version they assess.

Operational continuity matters because the schedule lasts up to five years. Key rotation, signer succession, custodian failure, chain disruption, contract migration, data retention, contributor departure, organizational change, and regulatory change should have planned responses. Migration must preserve elapsed time, accrued state, released amount, cancellation history, and participant rights; it should not silently restart or accelerate the curve.

Table 21.8. Minimum implementation and assurance record

LAYER	REQUIRED RECORD	ASSURANCE QUESTION	NOT ESTABLISHED HERE
Policy	Category, quantity, duration, start rule, conditions, rights, cancellation and change authority.	Does the operative rule match the published schedule?	Adopted policy version or effective date.
Contract or custody	Network, address or account, controller, code or terms, funding, permissions and recovery.	Can any path bypass, accelerate, redirect or double-release?	Deployment, wallet map or controller.
Grant or program	Recipient or approved use, amount, start, eligibility, milestones, restrictions and dispute terms.	Is the specific interest valid and within the category ceiling?	Named recipient, partner, quantity or commitment.
Calculation	Time source, curve, cadence, rounding, adjustments, released amount and claimable result.	Do boundary and repeated-call tests reconcile exactly?	Current vested or claimable amount.
Execution	Authorization, transaction, source, destination, amount, event and failure handling.	Did the intended movement execute on the authoritative network?	Any current release or transfer.
Monitoring	Balance, exception, incident, upgrade, cancellation, migration and reconciliation history.	Can public and internal records reproduce the state at each cutoff?	Operating dashboard, assurance or incident-free status.

Source: POLIX editorial implementation-assurance framework, informed by EIP-20 and OpenZeppelin Contracts documentation. It is a proposed evidence standard, not a deployment claim.

IMPLEMENTATION PRINCIPLE **The public schedule should be reproducible from policy, contract or custody, grant, calculation, execution, and monitoring records. A calendar graphic alone is not implementation evidence.**

21.7 Disclosure, Reconciliation, and Change Control

A public restriction report should begin with the confirmed schedule and then show the current evidence state. For each affected category, it should state the authoritative policy version, quantity, start event or “not yet established,” elapsed interval, restricted balance, granted or committed amount where applicable, unvested, vested or authorized, claimable, released, cancelled, returned, disputed, and circulating classification under a published method. Unknown fields should be labeled unknown rather than estimated without basis.

The report should reconcile in three directions. Policy reconciliation tests whether affected amounts remain within their category ceilings. Mechanism reconciliation tests whether contract, custody, grant, and release records agree. Supply reconciliation tests whether restricted and released classifications can be connected to canonical total and circulating-supply records. A report can pass one direction and fail another; differences should remain visible until resolved.

Disclosure should distinguish forecast from fact. A projected schedule can show potential dates and amounts under stated assumptions. An actual report should show completed time, satisfied conditions, executed transactions, and current classifications. If the start event is not yet adopted, a diagram should remain relative to month 0 rather than publish calendar dates. If the start is adopted later, the report should identify the evidence and update projections without rewriting the prior status.

Material changes require version control. Changing duration, start, vesting curve, affected quantity, beneficiary rights, cancellation conditions, upgrade authority, or circulation methodology can alter expectations and economic exposure. The change record should preserve the prior rule, rationale, authority, conflicts, effective date, treatment of accrued interests, affected participants, implementation steps, and public notice. Corrections of clerical or calculation errors should be identified as corrections, not concealed as amendments.

The European Union's MiCA framework is not treated as a conclusion about POLX legal status or geographic applicability. Its disclosure fields provide a useful benchmark: offer phases, transfer timing, retained units, transfer restrictions, rights and obligations, conflicts, and risk factors are separately described (European Union, 2023). Chapter 21 adopts the same general discipline—states with different meanings should not be merged into one unlock chart.

Reports should be accessible but not misleadingly simple. A summary may show the three confirmed schedules and aggregate current states. The underlying record should allow a reviewer to trace category, policy, grant or program, custody, calculation, transaction, and exception. Privacy, security, and contractual confidentiality may justify aggregation or delayed detail, but material changes and conflicts should not be hidden behind those limitations.

Table 21.9. Proposed POLX restriction disclosure record

REPORT FIELD	PURPOSE	MINIMUM CONTENT	COMMON ERROR
Confirmed schedule	Preserve the adopted high-level restriction.	Category, amount, duration, sequence, source and policy version.	Duration reported as current countdown without a start.
Clock status	Establish whether and how time has begun.	Start event, timestamp or block, convention, elapsed time, boundary and exceptions.	Calendar date inferred from publication.
State balances	Separate restriction and entitlement stages.	Restricted, committed or granted, unvested, vested or authorized, claimable, released and cancelled.	Unlock, vesting and release merged into one number.
Control map	Connect policy to custody and execution.	Contract or account class, controller, permissions, funding and address mapping where safe.	Wallet balance treated as beneficial ownership.
Movement and exception	Preserve change and failure history.	Transactions, cancellations, returns, disputes, incidents, migrations and corrections.	Only successful releases disclosed.
Supply reconciliation	Connect state to canonical total and circulation.	Network, contract, cutoff, total supply, circulation method, inclusions, exclusions and difference.	Transferred amount automatically called circulating.

Source: POLIX editorial disclosure framework, informed by POLIX Token Economy v1.0 EN and Regulation (EU) 2023/1114. No current reporting system, start, balance, address or release is asserted.

DISCLOSURE PRINCIPLE **Publish both the potential schedule and the evidenced current state. Relative month labels, unknown fields, conditions, and exceptions are more credible than unsupported calendar unlock dates or circulating estimates.**

21.8 Risks and Interpretive Limits

Schedule risk begins with ambiguity. If the start, cadence, boundary, or exception is undefined, two reasonable implementations can produce different vested or releasable amounts. A concise public table should be backed by a machine-resolvable specification and test vectors. Ambiguity should pause a material release until the governing rule is clarified through the adopted process.

Control risk arises when a technical or administrative path can bypass the restriction. Upgrade keys, beneficiary transfer, allowance, emergency withdrawal, hidden custodian rights, or off-chain assignments may defeat the stated purpose. Control does not need to be absent, but it must be identified, bounded, monitored, and reflected in claims about enforceability.

Incentive risk cuts in both directions. A schedule that is too weak may fail to align recipients or may create concentrated early availability. A schedule that is too rigid may impede legitimate strategy, retain unsuitable relationships, or prevent correction after legal, security, or operational change. Duration alone cannot determine optimality. Category purpose, recipient role, market conditions, rights, and enforcement matter.

Market risk is often overstated or understated around unlock dates. A potential release can affect expectations, but its price effect depends on actual amount, recipient behavior, custody, market depth, hedging, information, venue access, and broader demand. The whitepaper does not forecast sell pressure, liquidity, volatility, or price. A transferred unit may not be sold, and a locked economic interest may be transferred indirectly.

Legal, employment, compensation, tax, accounting, privacy, and regulatory treatment varies by actor, jurisdiction, contract, and program. A high-level token schedule does not determine whether an award is compensation, when income or expense is recognized, whether cancellation is enforceable, or which disclosures are required. Operative programs require applicable professional review and participant terms.

Operational risk persists across the five-year contributor horizon. Code defects, key compromise, custody failure, data loss, chain migration, governance conflict, participant dispute, and organizational change can affect the state. Monitoring and continuity design should assume that exceptions will occur and preserve evidence necessary to repair them without falsifying prior history.

Finally, restriction is not scarcity, value, or trust by itself. A long lock-up can be ineffective if control is bypassable, and a shorter schedule can be credible if its purpose, terms, administration, and disclosure are strong. Chapter 21 confirms POLIX durations and supplies an evidence framework; it does not prove that an implementation exists or guarantee any ecosystem or market outcome.

Table 21.10. Lock-up and vesting risk register

RISK	FAILURE MODE	PRIMARY CONTROL	RESIDUAL LIMIT
Clock ambiguity	Start, end, cadence or rounding produces conflicting calculations.	Authoritative event, machine rule, human date, test vectors and versioned calculation.	Edge cases and implementation defects remain possible.
Bypass or privilege	Admin, beneficiary, custodian or wrapper defeats the published restriction.	Capability inventory, least privilege, thresholds, delay, monitoring and independent review.	Key compromise, collusion and novel circumvention cannot be eliminated.
Eligibility dispute	Parties disagree about service, governance compliance or cancellation.	Defined obligations, evidence, notice, cure, recusal, dispute path and preserved state.	Applicable law and facts can produce uncertain outcomes.
Double release	Rounding, migration or repeated claims releases more than eligible.	Cumulative accounting, idempotent logic, invariant tests, transaction monitoring and reconciliation.	Software and integration risk persists.
Market interpretation	Potential vesting is treated as guaranteed circulating supply or sell pressure.	Separate projection, current state, transfer record, circulation method and uncertainty disclosure.	Participant behavior and price cannot be predicted.
Long-horizon change	Chain, custody, organization or rules change during the schedule.	Succession, migration, amendment, accrued-right treatment, notice and historical record.	Future technical and legal conditions remain uncertain.

Source: POLIX editorial risk-control framework. The risks are analytical categories and do not establish current incidents, controls, disputes or assurance.

INTERPRETIVE PRINCIPLE **The confirmed schedules define restrictions, not outcomes. They cannot by themselves establish enforceability, decentralization, contributor retention, partner performance, circulation, liquidity, legal treatment, price, or return.**

Chapter Synthesis

1. POLIX confirms time restrictions for 60,000,000 POLX in aggregate, equal to 15% of the 400,000,000 POLX maximum.

2. Strategic Growth Reserve is 40,000,000 POLX, or 10%, with an initial 24-month lock-up.
3. Strategic Partnerships & Listings is 12,000,000 POLX, or 3%, with an initial 24-month lock-up.
4. Core Contributors is 8,000,000 POLX, or 2%, with a 24-month initial lock-up followed by 36 months of linear vesting and a 60-month total period.
5. The reviewed official material confirms duration but not the authoritative start event, exact calendar dates, cadence, custody, beneficiaries, current elapsed time or current balances.
6. Expiry of a lock-up removes one temporal restriction; it does not approve a program, create a grant, authorize a transfer or prove circulation.
7. Strategic Growth Reserve has a gradual post-lock-up deployment direction, not a confirmed automatic vesting curve.
8. Partnership and listing capacity should be released against counterparty, contract, milestone, custody and completion evidence rather than announcement timing.
9. Core Contributor linear vesting is conditional on continued contractual and governance compliance; unvested amounts may be partially or completely cancelled under operative terms.
10. The conservative category-level illustration begins linear vesting from zero at month 24 and reaches the 8,000,000 POLX ceiling at month 60, assuming full eligibility and no cancellation.
11. Actual grant calculations require a recipient, approved amount, start rule, cadence, rounding, eligibility, adjustments and release history.
12. Unvested, vested, claimable, released, transferred and circulating are distinct states and must not be reported as synonyms.
13. Cancellation of an unvested interest is not automatically a burn, reallocation or newly available balance; its final category treatment needs separate evidence.
14. Voting and other economic rights during restriction should be expressly defined and technically controlled rather than inferred from wallet balance.
15. A technical token interface does not implement vesting; contract, custody, grant, calculation, execution and monitoring records must reproduce the published rule.
16. A restriction report should reconcile policy ceilings, mechanism balances, transactions and canonical supply classifications at a stated cutoff.
17. Projected dates and amounts must be separated from evidenced current states; unknown fields should remain explicitly unknown.
18. External research and standards support credible-commitment, implementation and disclosure principles but do not validate POLIX deployment, legal status or market outcomes.
19. Chapter 21 fixes the confirmed restriction architecture; Chapter 22 now addresses Platform Economy and rewards without treating unconfirmed eligibility, rates or distributions as current facts.

TRANSITION TO CHAPTER 22 **Chapter 21 separates time restriction, conditional vesting, claimability, transfer and circulation for the three confirmed schedules. Chapter 22 now examines the 120,000,000 POLX Platform Economy allocation and the design of creator, user, market, community and partner incentives—while preserving the distinction between planned program capacity and an active reward entitlement.**

CHAPTER 21 / REFERENCES

References and Source Notes

Official POLIX materials establish the three affected category amounts, the two 24-month initial lock-ups, the Core Contributors 36-month linear vesting phase and 60-month total period, the high-level post-lock-up deployment direction, and conditional cancellation of unvested contributor allocation. They do not establish an operative start event, calendar unlock date, cadence, grants, beneficiaries, contracts, custody, addresses, current elapsed period, vested or claimable balance, releases, circulation, voting rights, technical implementation, assurance, legal treatment, or market outcome. External sources are used only for general commitment, interface, implementation, and disclosure analysis; they do not determine POLIX legal status, geographic applicability, compliance, deployment, value, price, or return.

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CHAPTER 22

Platform Economy and Rewards

Platform incentives can accelerate discovery, creation, participation, and integration, but the same incentives can also purchase activity that disappears when payment ends, reward behavior that would have occurred anyway, or invite duplication and manipulation. Chapter 22 defines the program architecture needed to distinguish useful contribution from countable activity.

Marketplace and token incentives can help overcome early coordination and adoption barriers, but their long-run effects depend on platform design, participant response, and the economic role assigned to the token (Bakos and Halaburda, 2022; Cong, Li, and Wang, 2021).

Chapter 20 established the allocation boundary: 120,000,000 POLX, equal to 30% of the 400,000,000 POLX maximum, is assigned to Platform Economy. Chapter 21 then separated allocation, restriction, vesting, claimability, transfer, and circulation. This chapter begins one level later. It asks what must be true before any portion of that capacity can support a creator, user, referral, community, market, integration, or future-service program.

The answer is a controlled sequence rather than an automatic emission. A program requires a stated platform problem, an authorized budget, an eligible scope, an observable contribution, quality and integrity tests, a calculation method, an accountable approval, a distribution mechanism, reconciliation, correction, and evaluation. The allocation provides the maximum category capacity; it does not supply these missing decisions.

Chapter 18 defined the contemplated utility relationships—trading, referral, creator, partner, AI access, and bounded ecosystem participation—and the evidence each relationship would require. Chapter 22 does not restate those feature descriptions. It integrates them into one cross-program operating model and concentrates on economic causality: whether a reward changes useful behavior at an acceptable cost without degrading market quality, fairness, privacy, or long-term sustainability.

Incentive design is necessarily multidimensional. A metric that is easy to observe can become the target participants optimize, even when the underlying platform objective is broader. Research on multitask incentives shows why strong payment for one measurable task may redirect effort away from less measurable but important work (Holmström and Milgrom, 1991). POLIX programs should therefore pair each positive measure with counter-evidence for quality, concentration, abuse, cost, and persistence.

The chapter uses “reward” as a generic economic state, not as evidence of a current payment obligation. Depending on an approved program, the result might be a fixed amount, a capped variable amount, a non-token benefit, an access state, a partner-funded benefit, or no award after review. Only operative terms and executed records can establish what actually applies.

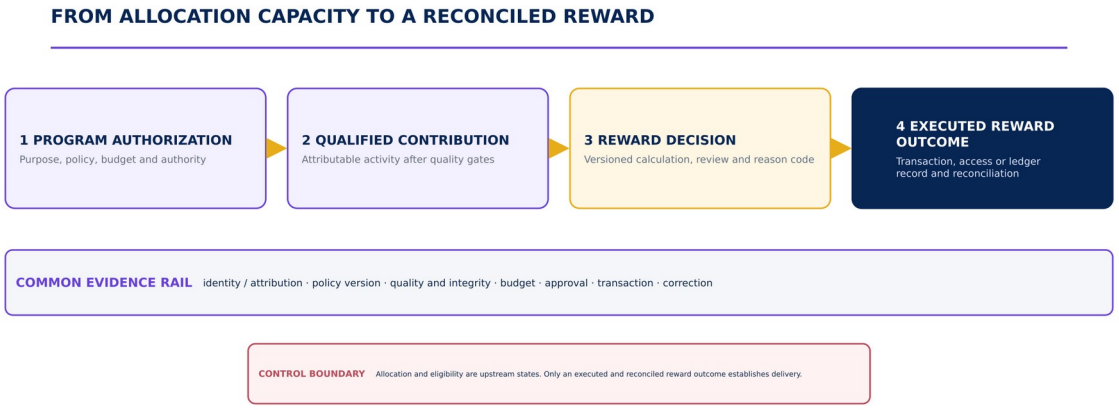

Figure 22.1. Evidence-gated platform-reward cycle. Allocation capacity and observed activity remain upstream states; a reward is delivered only after program authorization, qualification, decision, execution, and reconciliation. Source: POLIX editorial synthesis.

Table 22.1. Confirmed Platform Economy scope and non-inferences

ELEMENT	CONFIRMED IN OFFICIAL MATERIALS	REQUIRED BEFORE OPERATION	NOT ESTABLISHED BY ALLOCATION
Category	Platform Economy; 30% of maximum supply.	Versioned category ledger and program mapping.	A wallet, custody structure or current category balance.
Amount	120,000,000 POLX allocation capacity.	Authorized program budgets, commitments and reconciliation.	Minted, unlocked, claimable, distributed or circulating amount.
Intended scope	Creator, user, market, community, integration and future platform participation.	Named program purpose, eligible object, evidence and exclusions.	That every listed activity earns POLX.
Deployment direction	Progressive and sustainability-oriented use.	Cohorts, caps, stages, review triggers and stop conditions.	A launch date, cadence, rate, duration or guaranteed continuation.
Economic transition	Long-term movement toward sustainable platform economics.	Verified revenue source, cost policy, authority and accounting.	Current revenue, fee, buyback, refill or revenue-funded reward.

Source: POLIX Token Economy v1.0 EN; POLIX Presentation v1.0 EN; editorial evidence boundary. No current program state is assigned.

OPERATING BOUNDARY **Platform Economy is an allocation category, not a single reward program. Every program must have its own purpose, authority, budget, rules, evidence, state, and completion record.**

22.1 The Platform Economy Allocation

The 120,000,000 POLX allocation is a category-level ceiling. Program design begins by translating that ceiling into separable, reviewable mandates without confusing reservation, budgeting, calculation, payment, and circulation.

At the allocation layer, the confirmed statement is simple: the Platform Economy category represents 30% of the maximum supply. At the program layer, the questions multiply. Which platform outcome is being supported? Who may participate? What activity counts? Which evidence is authoritative? Who calculates, reviews, approves, pays, corrects, and reports? How much capacity can the program use, for what period, and under what stop conditions? None of these questions is answered by the category amount alone.

A useful architecture separates at least five quantities. Category capacity is the approved 120,000,000 POLX envelope. Program budget is the maximum amount authorized for a named program and period. Conditional exposure is a provisional estimate generated from observed activity before final review. Authorized payable is the amount approved under operative rules, if any. Executed reward outcome is the amount or benefit delivered and reconciled through a transaction, access-state change, or controlled ledger. These quantities may differ materially and should never share one undifferentiated “rewards” balance.

Let the confirmed Platform Economy capacity be 120,000,000 POLX. For the set P of approved programs, a basic portfolio constraint is:

$$\sum_{p \in P} B_p \leq M_{PE}$$

Each program-budget term is an authorized ceiling. This is an accounting boundary, not a claim that the full amount is available, unlocked, funded in a wallet, or committed. Every program ceiling requires a period, responsible authority, source record, exclusions, amendment rule, and close process.

Inside a program, a conceptual reward decision can be represented by the following bounded notation, subject to integrity review and accountable authority:

$$R_i = g(x_i, q_i, \theta, B_{p,t}^{rem})$$

The terms represent the candidate reward outcome, attributable activity, quality and persistence evidence, the versioned rule set, and remaining approved capacity for program p in period t. The notation deliberately leaves the function unspecified. No official POLIX material reviewed for this chapter establishes an operative formula, multiplier, rate, tier, or denominator.

22.1.1 Allocation, Program Budget, and Reward-Obligation Boundary

A program budget authorizes a maximum scope of expenditure or distribution; it does not by itself create a payable or legal obligation to participants. Any obligation depends on operative terms, satisfied conditions, applicable requirements, approval state, and the ability to correct invalid activity. Interfaces and reports should avoid calling projected, pending, held, or disputed amounts “earned” unless the governing terms support that conclusion.

Portfolio control should prevent double assignment. A creator-referral campaign might advance creation, user acquisition, community activation, and ecosystem growth simultaneously, but each POLX unit should be charged once to one authorized source. Narrative benefits can be multi-purpose; accounting sources cannot be duplicated. Cross-category initiatives should disclose allocation methodology and primary object so Chapter 22 Platform Economy spending remains separable from the Chapter 23 Ecosystem Growth allocation.

Unused budget should not be treated as distributed supply, current circulation, available cash, or a promise to spend. At period close, unused capacity may remain unassigned, be reauthorized, or return to category capacity under approved rules. The whitepaper does not select a policy. It requires the program to disclose which outcome applies and preserve an audit trail from initial authorization through closure.

Table 22.2. Platform-reward state vocabulary

STATE	MEANING	MINIMUM EVIDENCE	PROHIBITED SHORTCUT
Category capacity	Confirmed maximum assigned to Platform Economy.	Approved token-allocation document.	Presented as a current wallet balance or spendable pool.
Program budget	Ceiling approved for a named purpose and period.	Mandate, amount, period, authority and source category.	Treated as owed to participants.
Observed	A potentially relevant event was recorded.	Event provenance, actor or account, time and version.	Raw event called qualified contribution.
Estimated	A provisional amount was calculated.	Versioned method and data snapshot.	Displayed as earned, final or withdrawable.
Qualified	Evidence passed stated eligibility and quality tests.	Rules, exclusions, integrity review and reason code.	Qualification treated as payment.
Authorized	Accountable authority approved an amount or benefit.	Budget, decision, responsible actor and effective state.	Approval presumed from automated calculation.
Delivered / executed	Authorized value or benefit reached its operative outcome.	Transaction, access-state or controlled ledger record.	Delivery assumed complete without reconciliation.
Adjusted / reversed	Prior state was corrected under applicable rules.	Reason, authority, source record, notice and review path.	History overwritten or correction hidden.

Source: POLIX editorial state model. The table is a proposed control vocabulary and does not assign a current state to any POLIX program.

CAPACITY PRINCIPLE **The fixed Platform Economy allocation constrains the portfolio. It does not define a program budget, participant obligation, claimable balance, distributed amount, or circulating supply.**

22.2 Creator Incentives

Creator incentives should purchase qualified market-supply work, not merely increase proposal count. The program object is an attributable contribution to a governed market lifecycle, with separate treatment for authorship, collaboration, stewardship, correction, and economic approval.

Chapter 11 described the creator-led supply model and Chapter 12 defined question quality and curation. Chapter 18 then established that a creator proposal does not automatically create publication, ownership, revenue sharing, or POLX entitlement. Chapter 22 adds the economic program layer: how a creator mandate can define the work being purchased, identify the quality outcome, assign evidence, budget the exposure, and evaluate whether the incentive improves supply after accounting for cost and risk.

A creator program should begin with a contribution taxonomy. Proposal origination, research, source assembly, formulation, localization, accepted revision, audience context, moderation support, lifecycle stewardship,

correction, and resolution assistance are distinct tasks. Combining them into a single “market created” metric invites over-crediting and obscures collaboration. The accepted contribution record should identify who did what, on which version, under what rights and conflicts disclosures.

Program value should be assessed against qualified supply, not output volume. A higher market count can coexist with duplication, ambiguity, weak demand, unreliable sources, unresolved outcomes, or excessive support cost. A creator score, if one is ever adopted, should therefore be explainable as a set of component decisions rather than one opaque rank. The platform should be able to show why a contribution qualified without disclosing private risk controls or personal data beyond what accountability requires.

Creator incentives also create a timing problem. Some value is visible at acceptance, while other value becomes observable only through publication, participant response, stewardship, resolution, and post-resolution review. Progressive recognition can divide the lifecycle into independently reviewable milestones, but the chapter does not prescribe milestone weights or payment dates. Any delay, hold, expiration, cancellation, or adjustment must be disclosed in advance and linked to an evidence state.

Strong payment for a single visible task may reduce effort on harder-to-measure responsibilities. The multitask incentive problem is especially relevant to market creation: paying only for published count can underweight source quality and stewardship; paying only for volume can overvalue sensational markets; paying only for dispute-free resolution can discourage difficult but useful questions. Program design should identify the full task set and use safeguards where measurement remains incomplete.

22.2.1 Contribution Measurement and Attribution

Attribution should be contribution-specific, versioned, and non-exclusive where work is collaborative. A record can assign original proposal, accepted edits, localization, source additions, operational stewardship, and correction to different contributors. Public recognition may use a simplified label, but economic records should preserve the underlying shares or decisions and explain how conflicts or duplicate claims were resolved.

The unit of reward analysis should be chosen before activity occurs. It may be a completed task, accepted version, qualified milestone, market-period, resolved lifecycle, or portfolio contribution. Retrofitting the unit after observing outcomes can create selection bias and unequal treatment. The policy should also state whether negative events affect only the related milestone or the full program record.

22.2.2 Quality, Resolution, and Market-Integrity Gates

Creator programs should remain subordinate to publication, policy, rights, liquidity, resolution, and risk controls. Reward administrators should not approve a weak market to protect program metrics, and creators should not receive authority over settlement because their economic state depends on the result. Separation of duties protects both the market and the creator from the appearance that reward eligibility determined an operational decision.

Useful counter-evidence includes ambiguity, duplicate scope, correction frequency, cancellation, resolution delay, dispute intensity, unreliable sources, policy incidents, concentration, support burden, and abnormal promotion. These are diagnostic inputs, not automatic penalties. A decision process should distinguish creator-caused deficiencies from platform changes, external events, or unavoidable uncertainty.

Table 22.3. Creator-incentive mandate and evidence design

CONTRIBUTION OBJECT	POSITIVE EVIDENCE	COUNTER-EVIDENCE	PROGRAM BOUNDARY
Proposal and research	Novel, relevant, sourced and attributable question input.	Duplication, unsupported claims, rights or conflict failures.	Submission does not guarantee publication or reward.
Formulation and revision	Accepted specification that improves clarity and resolvability.	Meaning drift, hidden ambiguity, unrecorded material changes.	Only accepted, versioned work is reviewable.
Localization and context	Language and jurisdictional context that improves qualified access.	Mechanical translation, duplicated reach or misleading context.	Reach alone is not quality.
Lifecycle stewardship	Timely source updates, clarification and incident cooperation.	Neglect, manipulation, unresolved complaints or source failure.	Creator does not control active contract or settlement.
Resolution support	Traceable evidence supplied under the published rule.	Outcome advocacy, selective evidence or conflicts.	Resolution authority remains separate.
Portfolio contribution	Durable diversity, repeat quality and responsible collaboration.	Quantity concentration, low-value repetition or support cost.	Reputation and economic eligibility remain distinct.

Source: POLIX Creator Economy materials and Chapters 11, 12, and 18. No current creator program, metric, rate, revenue share, or reward is asserted.

CREATOR PRINCIPLE **Creator incentives should reward attributable, lifecycle-relevant work that expands qualified market supply. Proposal count, publication, volume, authorship, and stewardship are related but non-equivalent states.**

22.3 User Participation Incentives

User incentives should be justified by an incremental platform outcome that remains valuable after gross activity, subsidy cost, abuse, concentration, and post-program persistence are considered.

Because participation on one side of a platform can change value for participants on another side, incentive evaluation should examine cross-side network effects as well as the subsidized activity itself (Parker and Van Alstyne, 2005).

A user-participation program can pursue onboarding, discovery, education, repeat responsible use, market coverage, qualified trading, feedback, data contribution, moderation support, or another approved objective. These objectives require different evidence. A program that names only “engagement” leaves participants unable to know what behavior matters and leaves operators unable to distinguish durable value from countable events.

Raw activity is not contribution. Account creation can be duplicated. Page views can be automated. Messages can be low quality. Trades can be split, circular, self-related, or subsidy-seeking. Wallet count can overstate people or organizations, while identity count can understate legitimate multi-role participation. The eligibility unit should match the risk and purpose of the program and be proportionate to privacy and access considerations.

The central economic test is incrementality. A reward may compensate behavior that would have occurred without support, merely shifting value to participants without changing the platform outcome. Because the counterfactual cannot be observed for the same participant at the same time, programs should use pre-specified cohorts, holdouts where appropriate, matched baselines, time-series comparisons, or staged rollout evidence. Each method has limitations and should be disclosed rather than presented as causal certainty.

Persistence is a separate test. Activity that stops immediately when a payment declines may still be useful for a bounded launch objective, but it should not be described as recurring demand. Programs should measure qualified retention, diversity of use, responsible behavior, market outcomes, support load, and concentration after incentives change. The relevant horizon depends on the program purpose and should not be selected only after results are known.

Participant welfare and fairness also matter. A reward should not induce users to take financial risk, trade beyond their preferences, conceal losses, or assume that rewards offset market exposure. Where trading-related activity is in scope, program communications should separate contract outcome, transaction costs, reward state, taxes where applicable, and risk. A participant can qualify for a program yet lose on a market position, or profit on a market position without qualifying for a reward.

22.3.1 Incrementality, Retention, and Anti-Farming

Anti-farming controls should analyze relationships among accounts, devices, funding sources, timing, transactions, referrals, markets, and withdrawal patterns without presuming that every linked account is abusive. Douceur’s account of the Sybil problem demonstrates why one actor presenting as many identities can defeat systems that count nominal participants (Douceur, 2002). POLIX controls should be risk-based, privacy-aware, explainable at the decision level, and supported by correction and review.

Program rules may use caps, diminishing returns, unique-actor tests, cost-to-reward thresholds, completion requirements, cohort limits, or delayed review. These are design categories, not adopted parameters. A control can reduce one abuse vector while shifting activity to another, so monitoring should include counter-metrics and periodic red-team or adversarial testing.

22.3.2 Market Participation versus Trading Outcome

A prediction-market program should reward an approved contribution to market function, not a favorable forecast outcome as such. Paying only winners can confuse skill, luck, risk, information, and platform contribution. Paying only volume can reward turnover without information. Paying only liquidity can invite non-executable or adverse quotes. The program objective should identify the positive externality being purchased and preserve separation from market settlement.

Reward calculation should consume finalized or appropriately stable evidence from the trading and settlement systems but remain an independent ledger. Corrections, reversals, invalid markets, compromised accounts, or policy decisions may affect reward eligibility without rewriting the market record. Conversely, a reward dispute should not alter a valid trade or resolution outcome.

Table 22.4. User-incentive measurement and counterfactual tests

PROGRAM SIGNAL	WHAT IT CAN SHOW	WHY IT IS INSUFFICIENT	REQUIRED COUNTER-EVIDENCE
Qualified onboarding	Completion of an approved entry process.	May be subsidized, duplicated or never lead to use.	Identity integrity, activation, retention and acquisition cost.
Active days	Repeated observed platform use.	Can be scripted or payment-dependent.	Session quality, diversity, post-program persistence and incidents.
Qualified trades	Completed activity in eligible markets.	Count or notional can be split, circular or concentrated.	Independent exposure, related accounts, cost and market-quality effect.
Market coverage	Participation in new or underserved questions.	Activity may remain thin or low quality.	Qualified actors, repeat demand, resolution and information response.
Feedback or contribution	User-supplied improvement or operational evidence.	Volume can exceed usefulness and duplicate prior reports.	Acceptance, novelty, attribution, severity and closure.
Reward distribution	Program cost actually delivered.	Does not prove causal benefit or sustainability.	Incremental outcome, abuse loss, concentration and long-term effect.

Source: POLIX editorial synthesis. The signals are analytical examples; no current program, threshold, identity method, or reward formula is established.

PARTICIPATION PRINCIPLE **The relevant outcome is quality-adjusted incremental participation—not the maximum number of accounts, clicks, trades, wallets, or reward claims.**

22.4 Referral and Ecosystem Contributions

Referral, community, market, and partner contributions can expand platform capacity, but their economic treatment must follow attributable work and incremental outcomes rather than social proximity, promotional visibility, or announcements.

Referral programs sit at the boundary between Platform Economy and Ecosystem Growth. A verified referral that produces a qualified participant inside the platform may fall within an approved Platform Economy mandate. A regional campaign, community launch, external education program, or network-development initiative may instead draw from Ecosystem Growth. The same participant journey can touch both categories, but the acquisition activity and the later qualified platform activity should remain separately authorized and reconciled.

Official POLIX materials support the intended referral-reward direction and tier-based participation concept, but they do not establish current tiers, rates, attribution windows, qualification events, geographic scope, budgets, or distributions. Chapter 8 described the Referral Engine and Chapter 18 defined the referral-token relationship. Chapter 22 focuses on the portfolio rule: how referral, community, and partner programs share attribution, prevent duplicate credit, and prove that a contribution added platform capacity.

Referral evidence should preserve the referrer, referred participant or organization, channel, time, consent, policy version, qualifying event, prior-user status, attribution method, exclusions, and later adjustment. A referral relationship does not grant the referrer control over the referred user, their trading, data, account, or future economic activity. Validation should reveal only the minimum information required for accountability.

Empirical research has found higher value and retention for referred customers in a studied setting, but those results are context-dependent rather than a universal guarantee (Schmitt, Skiera, and Van den Bulte, 2011). POLIX should measure its own cohorts and distinguish selection from causal program effect. A referral channel may attract stronger users because existing participants know whom to invite, because the reward changes behavior, or both.

Community contribution is broader than referral. It may include moderation, education, translation, market research, incident reporting, documentation, event support, regional context, or another approved deliverable. Each mandate should identify an output and acceptance standard. Likes, impressions, posts, group membership, or

event attendance may be leading indicators but should not be treated as completed contribution without evidence of quality and purpose. Durable community programs also require rules that connect participation, accountability, and shared-resource governance (Ostrom, 1990).

Partner contribution can include a verified integration, data service, distribution channel, liquidity service, compliance support, content or research deliverable, or another contracted outcome. Partner incentives should follow an agreement or program mandate, service evidence, conflicts controls, acceptance, and settlement. A partnership announcement does not create a reward, and a token transfer should not substitute for describing consideration and performance.

22.4.1 Referral Causality and Multi-Touch Attribution

Multiple channels may influence the same user or contribution. First-touch, last-touch, verified invitation, proportional credit, or adjudicated attribution can produce different economic outcomes from the same history. The method should be selected prospectively, versioned, and applied consistently. Where attribution is uncertain, the program may limit, split, defer, or deny economic credit under disclosed rules rather than silently choosing the highest-cost interpretation.

Self-referral, related-account chains, paid traffic disguised as personal invitation, scripted activation, account sale, geographic circumvention, and duplicate claims are predictable incentive risks. Detection should combine event and network evidence while allowing legitimate households, organizations, shared infrastructure, and accessibility needs to be reviewed fairly.

22.4.2 Community, Market, and Partner Contributions

Cross-role programs should define whether one contribution can receive several forms of recognition. Public credit, reputation, access, a fixed service payment, POLX eligibility, revenue sharing, and partner consideration are distinct states. A contribution may qualify for one and not another. If multiple benefits are compatible, the combined cost and conflicts should be disclosed and charged to authorized sources without double counting.

Table 22.5. Referral, community, and partner contribution boundaries

ROLE / OBJECT	ATTRIBUTABLE EVIDENCE	INCREMENTAL OUTCOME	NON-INFERENCE
Referrer / qualified participant	Invitation lineage, consent, prior-user check, channel and qualifying event.	New responsible participation attributable under the chosen method.	No ownership or visibility into the referred user.
Community contributor / deliverable	Mandate, accepted output, provenance, quality and completion.	Reusable knowledge, access, moderation or regional capacity.	Reach, membership or posting alone is not completion.
Market contributor / evidence	Accepted research, source, analysis, correction or lifecycle task.	Improved qualified market operation.	Economic credit does not create resolution authority.
Integration partner / milestone	Agreement, technical evidence, service level, acceptance and continuity.	New functioning platform capacity or distribution.	Announcement or test connection is not a completed integration.
Multi-role contributor	Separate role records, funding sources and conflict disclosures.	Complementary contributions without duplicated cost.	One event cannot be counted repeatedly because it has several narratives.

Source: POLIX Referral Engine, Creator Economy, Partner Network, and Ecosystem materials; editorial synthesis. No current program, partner, tier, rate, or distribution is asserted.

ATTRIBUTION PRINCIPLE **Contribution can have several effects, but every economic award needs one traceable object, one applicable rule, one approved source, and one reconciled decision.**

22.5 Progressive Distribution

Progressive distribution is a risk-control strategy: begin with bounded hypotheses and evidence, expand only after integrity and economic tests, and preserve the ability to pause, correct, or close without rewriting history.

A 120,000,000 POLX category allocation is too broad to operate as a single undifferentiated campaign. Progressive distribution divides implementation into program mandates, periods, cohorts, caps, and review gates. It

allows the platform to test whether the measurement system works before economic exposure scales and to observe how participants adapt when rules become known.

A pilot should define the hypothesis being tested, eligible scope, maximum exposure, data requirements, success and failure criteria, integrity review, decision authority, and end state. A pilot is not merely a smaller launch. Its purpose is to reduce uncertainty. If the program cannot identify what evidence would cause revision, pause, or closure, it is not designed as a test.

Scaling should depend on more than gross adoption. A program can meet activity targets while failing quality, concentration, abuse, privacy, support-cost, or retention thresholds. Advancement gates should therefore use a balanced evidence packet and record dissent or uncertainty. An automated dashboard can assemble evidence, but accountable authority should approve material stage changes under a versioned mandate.

Rule changes create temporal fairness issues. Prospective changes should identify the effective time, affected cohort, treatment of activity already observed, treatment of estimated or held amounts, and communication method. Retroactive changes should be exceptional, bounded by applicable terms and obligations, reason-coded, and reviewable. Historical records should retain the rule version that governed each decision.

Caps can operate at program, period, participant, contribution, market, cohort, geography, or risk-cluster level. Diminishing returns can reduce concentration and farming, but they may also disadvantage legitimate high-value contributors. The program should explain the objective of each cap and test distributional effects rather than treating every limit as self-justifying.

22.5.1 Cohorts, Caps, Review, and Appeals

Cohort design can support causal evaluation and operational safety. Staggered access, matched comparison, randomized treatment where appropriate, or geographic and market segmentation can reveal whether outcomes differ from baseline. The method should respect fairness, privacy, legal, and operational constraints and should not expose participants to undisclosed financial risk.

Decision review should be proportionate to the state. A participant may need an explanation for denial, hold, adjustment, or reversal; an operator may need to protect abuse-detection details and third-party information. Reason codes can balance these interests by identifying the applicable rule and evidence category without disclosing sensitive detection logic. Material program decisions should also have an organizational review path separate from individual claims.

22.5.2 Ledger, Reconciliation, and Disclosure

A reward subledger should preserve the chain from program budget to observed event, qualification, calculation, approval, distribution, and correction. It should reconcile to the authorized funding source and, where on-chain transfers occur, to transaction evidence. Off-chain records, claims interfaces, contract events, custody statements, and public disclosures should use consistent state definitions and cut-off times.

Reconciliation should identify opening capacity, new authorization, deauthorization, conditional exposure, authorized amounts, executed reward outcomes—including token distributions where applicable—failed transactions, adjustments, reversals where possible, closing capacity, and unexplained differences. The exact accounting treatment may depend on program terms and applicable standards; Chapter 22 defines the control questions, not a legal or financial-accounting conclusion.

Disclosure can be aggregated to protect participants while still reporting program accountability and market-integrity controls (IOSCO, 2023). Useful fields may include program purpose and version, eligible scope, funding source, period, authorized ceiling, distributed amount, participant or recipient concentration bands, major integrity adjustments, outcome measures, material changes, and review date. Public reporting should not reveal personal activity or security controls unnecessarily.

Table 22.6. Progressive program stages and evidence gates

STAGE	PRIMARY OBJECTIVE	EVIDENCE GATE	PERMITTED DECISION
Design	Specify contribution, policy, authority, budget and measurement.	Legal, technical, economic, privacy and integrity review.	Approve, revise or reject design; no participant reward.
Pilot	Test data, attribution, behavior, cost and abuse under a cap.	Traceable events, decision accuracy, incident and baseline evidence.	Continue, pause, correct, close or propose expansion.
Capped expansion	Test additional cohorts and operational scale.	Quality-adjusted incrementality, concentration and support resilience.	Maintain cap, modify rules or advance within mandate.
Scaled program	Operate a repeatable program under established controls.	Reconciliation, performance, fairness, integrity and budget evidence.	Renew, reduce, pause, retire or replace.

STAGE	PRIMARY OBJECTIVE	EVIDENCE GATE	PERMITTED DECISION
Close / transition	End subsidy or move to another funding model.	Participant notice, final decisions, unresolved claims and close ledger.	Complete, correct, archive and report; no silent continuation.

Source: POLIX editorial progressive-distribution framework. The stages do not establish that a POLIX program is designed, approved, active, scaled, or closed.

Table 22.7. Minimum reward-ledger reconciliation

RECORD	QUESTION ANSWERED	EVIDENCE	CONTROL RISK
Mandate and budget	What purpose and maximum exposure were approved?	Version, authority, period, source and ceiling.	Hidden or duplicate authorization.
Observed contribution	What event or deliverable entered review?	Provenance, actor or account, time and data version.	Fabricated, duplicated or misattributed activity.
Qualification	Why did the event pass or fail?	Eligibility, quality, integrity and exclusion evidence.	Opaque or inconsistent decisions.
Calculation	How was the provisional amount derived?	Rule version, inputs, caps, rounding and snapshot.	Unreproducible or retroactively altered amount.
Authorization	Who approved the economic state?	Decision, reason, accountable authority and budget check.	Automation treated as authority.
Distribution	Was value delivered?	Transaction or controlled ledger record and recipient mapping.	Failed or duplicate transfer counted as complete.
Correction and close	Were errors and residuals resolved?	Adjustment, notice, review, closing balance and exceptions.	History overwritten or capacity overstated.

Source: POLIX editorial control model. Accounting and legal classification remain subject to operative facts and applicable standards.

DISTRIBUTION PRINCIPLE **Scale follows evidence, not the size of the allocation. Every stage should have an exposure limit, decision authority, success and failure tests, correction path, and explicit close state.**

22.6 Transition to Revenue-Funded Incentives

A fixed allocation can finance bounded activation, but it cannot establish perpetual incentives. Long-term platform economics require a disclosed relationship among recurring value creation, recurring revenue or other approved funding, program cost, and retained participation.

The Platform Economy allocation can function as finite strategic capacity. Even a large pool is exhaustible, and its duration depends on reward intensity, eligible population, participation growth, token-denominated amounts, price conditions, fraud loss, operating cost, and program changes. No responsible duration claim can be made without assumptions and scenario analysis.

Revenue-funded incentives are conceptually different from allocation-funded incentives. Allocation-funded programs consume finite approved capacity. Revenue-funded programs, if adopted, use a defined portion of verified revenue or another recurring source under an approved policy. The source, measurement period, deductions, currency conversion, custody, authority, caps, and accounting must be specified. “Revenue sharing” should not be used unless the revenue base and participant right are actually established.

A transition should not assume that revenue automatically rises with rewarded activity. Incentives can generate volume that is economically unprofitable after rebates, support, fraud, market-making cost, infrastructure, payment expense, and risk. Unit economics should therefore compare incremental contribution margin or another approved value measure with the full program cost. Where revenue is volatile or immature, a rolling cap, reserve, or pause mechanism may be necessary, but no such mechanism is confirmed here.

One analytical measure is the recurring funding ratio:

$$\rho_t = F_t / I_t$$

The numerator is incentive cost funded from verified recurring sources during period t, and the denominator is total incentive cost during the same period. The ratio is defined only for $I_t > 0$; when $I_t = 0$, report ρ_t as N/A and disclose F_t and I_t separately rather than assigning a 0% or 100% value. A rising ratio can indicate reduced reliance on the fixed allocation, but it does not by itself prove profitability or sustainability. Revenue quality, concentration, timing, obligations, and the counterfactual effect of incentives remain relevant.

A second measure is subsidy efficiency: incremental qualified outcome divided by total economic cost, including distributed POLX, partner funding, operations, integrity review, fraud loss, support, and opportunity cost where measurable. Because one composite metric can conceal trade-offs, the dashboard should show its numerator and denominator components and include non-economic constraints such as market integrity, privacy, fairness, and resolution quality.

The transition may end in several states. A program can become fully revenue-funded, remain partly allocation-supported under a renewed mandate, convert to a non-token benefit, narrow to a strategic cohort, pause, or close. None is inherently correct. The appropriate state depends on the program purpose and evidence. Historical success does not create a perpetual entitlement to the same funding method or rate unless operative terms establish one.

Chapter 24 will address the broader revenue model and financial sustainability of the POLIX platform. Chapter 22 defines only the reward-side interface: what evidence a revenue-funded program would need before it could replace or supplement finite allocation capacity. It does not state that POLIX currently generates revenue, charges a particular fee, funds rewards from revenue, buys or burns tokens, or operates any replenishment mechanism.

22.6.1 Portfolio Evaluation and Transition Gates

Program evaluation should occur at both program and portfolio level. A program can perform well in isolation while crowding out higher-value activity, concentrating rewards, increasing platform risk, or consuming scarce operational capacity. Portfolio review should compare objectives, funding source, maturity, incrementality, quality, distribution, integrity loss, administrative cost, and transition readiness under a consistent evidence date.

Token-denominated and fiat-denominated views should remain distinct. A fixed POLX amount can change materially in economic value over time, while a fixed fiat budget can consume a variable number of POLX. If conversion is relevant, the policy should state valuation source, timestamp, averaging, rounding, slippage, fees, and who bears variance. The whitepaper does not select a denomination or price source.

Table 22.8. Reward-program evaluation scorecard

DIMENSION	PRIMARY QUESTION	ILLUSTRATIVE EVIDENCE	FAILURE SIGNAL
Incrementality	Did support change a useful outcome versus baseline?	Cohorts, holdout or matched evidence, trend and attribution.	Paid activity with no credible difference from baseline.
Quality	Did the rewarded activity improve platform function?	Market quality, accepted work, retention, resolution and service evidence.	Gross activity rises while useful output declines.
Integrity	Was the outcome independent, non-duplicative and policy-compliant?	Linked-account analysis, anomalies, incidents, reversals and review.	Farming, self-dealing, manipulation or hidden concentration.
Unit economics	Did incremental value justify full program cost?	Distribution, operations, support, fraud loss and recurring value.	Cost grows faster than durable outcome.
Distribution	Was benefit concentrated or access systematically unequal?	Recipient bands, cohort coverage, caps, exclusions and appeals.	A small cluster captures value without proportional contribution.
Persistence	What remains when support changes?	Post-program retention, organic activity and operational capacity.	Outcome disappears immediately without a bounded launch rationale.
Transition	Can the program continue under a sustainable source?	Verified revenue or funding, stress tests, caps and close plan.	Continuation depends on unbounded allocation draw.

Source: POLIX editorial synthesis informed by incentive-contract, platform, referral, and token-adoption literature. No current metric or threshold is asserted.

Table 22.9. Allocation-funded to revenue-funded transition states

STATE	FUNDING DESCRIPTION	EVIDENCE REQUIRED	DISCLOSURE BOUNDARY
Allocation-funded pilot	Finite approved capacity tests a defined hypothesis.	Mandate, cap, attribution, baseline, integrity and close criteria.	Not recurring demand or permanent program.
Mixed funding	Allocation and verified recurring sources jointly support a program.	Source separation, cost allocation, authority and reconciliation.	Funding shares and participant terms cannot be inferred.

STATE	FUNDING DESCRIPTION	EVIDENCE REQUIRED	DISCLOSURE BOUNDARY
Revenue-funded	Approved recurring source covers the defined incentive cost.	Revenue definition, period, deductions, cap, custody and performance.	Does not prove profitability, token demand or perpetual rights.
Reduced or converted	Program narrows, changes benefit type or lowers subsidy.	Prospective notice, cohort treatment, revised economics and review.	Historical rewards do not guarantee unchanged continuation.
Paused or closed	No new qualification after the effective boundary.	Final decisions, claims, corrections, reconciliation and archive.	Unused capacity is not automatically redistributed.

Source: POLIX editorial transition framework. No current POLIX revenue source, funding mix, reward rate, or transition state is established.

SUSTAINABILITY PRINCIPLE **Allocation-funded incentives are finite strategic capacity. Revenue-funded incentives require verified recurring value, explicit authority, full-cost measurement, participant terms, and a close mechanism; they are not established by aspiration alone.**

Chapter Synthesis

1. Platform Economy is a confirmed 120,000,000 POLX allocation, equal to 30% of maximum supply; it is not a current program balance, emission schedule, or participant entitlement.
2. A reward program requires a named platform objective, eligible contribution, evidence, integrity controls, budget, versioned calculation, accountable decision, executed reward outcome, reconciliation, and correction.
3. Creator incentives should recognize attributable lifecycle work and qualified market supply rather than proposal count, authorship, publication, volume, or settlement authority.
4. User incentives should be evaluated by quality-adjusted incrementality and persistence after full program cost, abuse, concentration, and market-risk boundaries are considered.
5. Referral, community, market, and partner contributions require prospective attribution and separable funding; multiple narratives cannot cause the same event or POLX unit to be counted twice.
6. Progressive distribution uses pilots, cohorts, caps, evidence gates, versioned changes, review, reconciliation, and explicit close states to control uncertainty before scale.
7. Estimated, qualified, authorized, delivered or executed, adjusted, and reversed are distinct economic states. Interfaces and disclosures should not collapse them into “earned rewards.”
8. Transition to revenue-funded incentives requires a verified recurring source, complete cost measurement, authority, policy, accounting, stress tests, participant terms, and a pause or close mechanism.
9. This chapter establishes proposed reward-program architecture. It does not assert current programs, rates, tiers, budgets, recipients, contracts, wallets, distributions, revenue, circulation, price, legal rights, or tax treatment.

TRANSITION TO CHAPTER 23 **Chapter 22 defines how Platform Economy capacity could support qualified activity inside the platform. Chapter 23 turns to the separate 160,000,000 POLX Ecosystem Growth allocation and the external network, regional, community, launch, and long-term expansion programs it is intended to support.**

References and Source Notes

Official POLIX materials establish the Platform Economy allocation of 120,000,000 POLX, equal to 30% of maximum supply, and associate the category with creator, user, market, community, integration, ecosystem-participation, and future platform activity. They support progressive and sustainability-oriented deployment direction. They do not establish an active program, wallet, contract, budget, recipient, eligibility rule, tier, formula, rate, campaign, distribution schedule, distributed amount, current balance, recurring revenue, accounting

treatment, legal entitlement, tax treatment, circulation, price, or return. The program architecture, equations, stages, controls, and scorecards in this chapter are proposed analytical standards, not deployed POLIX facts.

Academic and public sources support general incentive, platform, referral, identity-integrity, and disclosure principles. They do not establish POLIX operations, legal status, compliance, program effectiveness, or economic value.

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POLIX. (2026). POLIX Project Summary 11: POLX Economic System. Internal project source cited in this manuscript.

POLIX. (2026). POLIX Project Summary 12: POLIX Ecosystem. Internal project source cited in this manuscript.

EVIDENCE STATUS **Chapter 22 is a proposed operating and disclosure architecture derived from confirmed allocation scope and external analytical principles. Operative POLIX rewards can be described as current only after authoritative policy, implementation, and operating records establish them.**

CHAPTER 23

POLIX Ecosystem Growth

POLIX Ecosystem Growth is the largest approved allocation category: 160,000,000 POLX, equal to 40% of the 400,000,000 POLX maximum. Its intended role is external and developmental - to support global community expansion, regional market development, launch and ecosystem programs, and the long-term formation of a sustainable network.

Chapter 20 established the allocation portfolio and separated category capacity from program assignment, distribution, and circulation. Chapter 21 then distinguished time restriction, vesting, claimability, transfer, and circulation. Chapter 22 defined the evidence-gated architecture for qualified activity inside the Platform Economy category. Chapter 23 addresses a different object: the external capabilities and regional networks required for POLIX to operate beyond a single market, language, community, or launch moment.

The distinction matters because internal platform activity and ecosystem expansion may describe the same visible event from different perspectives. A localized market, community event, creator campaign, integration pilot, or partner introduction can contribute both to platform participation and to ecosystem development. The narrative can be multi-purpose, but the mandate, funding source, decision record, and accounting charge must be singular or explicitly apportioned. The same POLX unit or economic cost cannot be charged to both the 30% Platform Economy category and the 40% Ecosystem Growth category.

This chapter treats an ecosystem as an interdependent set of participants, capabilities, rules, interfaces, and complementary activities rather than a collection of followers or jurisdictions. Ecosystem strategy therefore depends on aligned roles, complementarities, and a coherent value proposition (Adner, 2017; Jacobides, Cennamo, and Gawer, 2018). Platform literature explains why value can depend on participation across different sides of a network and why coordination is difficult during early adoption (Parker and Van Alstyne, 2005; Rochet and Tirole, 2003). Token research further shows that a platform-specific token can affect marketplace coordination and verification costs under particular commitments and expectations, but the existence of an allocation alone cannot establish a favorable equilibrium or durable demand (Bakos and Halaburda, 2022; Catalini and Gans, 2020).

Expansion therefore requires more than promotion. It requires local knowledge, language and taxonomy, defined operating pathways and jurisdiction-specific review, discovery and education, contributor onboarding, partner capacity, dispute and incident response, data provenance, market-quality controls, and a feedback channel into the global product and governance system. These capabilities should be tested before financial exposure grows. A region with a large audience but weak resolution evidence, limited operating support, unclear policy boundaries, or no credible local stewards may be less ready than a smaller region with reliable capability and demand.

The chapter uses “program” generically. A future program might support research, localization, community operations, market-development pilots, events, education, technical integration, developer activity, local partnerships, or another approved ecosystem objective. None is asserted as active. The whitepaper defines the questions, evidence, decision rights, and disclosure necessary before any such program can be described as approved, funded, executed, or successful.

The analytical standard is falsifiable expansion. Every program should state what capability or network condition is missing, why the proposed intervention could address it, what evidence will distinguish progress from paid visibility, how much exposure is authorized, who may decide and correct, and what happens if results do not persist. Growth without a counterfactual, a close state, or a reconciliation record is difficult to distinguish from spending.

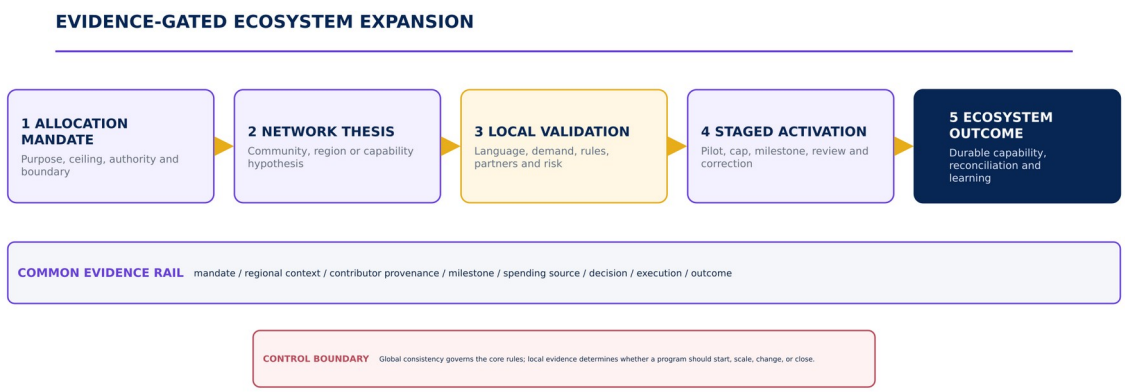

Figure 23.1. Evidence-gated ecosystem expansion. A confirmed allocation becomes an ecosystem outcome only through a bounded mandate, testable network thesis, local validation, staged activation, and reconciled learning. Source: POLIX editorial synthesis.

Table 23.1. Confirmed Ecosystem Growth scope and non-inferences

ELEMENT	CONFIRMED IN OFFICIAL MATERIALS	REQUIRED BEFORE OPERATION	NOT ESTABLISHED HERE
Category	POLIX Ecosystem Growth; 40% of maximum supply.	Versioned category ledger, authority and program mapping.	A wallet, custody model or available current balance.
Amount	160,000,000 POLX allocation capacity.	Program ceilings, funding attribution, approvals and reconciliation.	Minted, unlocked, claimable, distributed or circulating amount.
Purpose direction	Global community, regional market, launch, ecosystem and long-term network development.	Named problem, target capability, eligible scope, evidence and exclusions.	That every geography, community or partner is eligible.
Deployment direction	Controlled, progressive and long-term use.	Stages, caps, milestones, decision rights, correction and close.	A release date, rate, cadence, duration or guaranteed spending.
Outcome	Expansion capacity for the POLIX ecosystem.	Verified capability, adoption quality, persistence and program economics.	Market share, user count, token demand, price or return.

Source: Allocation, purpose and progressive deployment: POLIX Token Economy v1.0 EN. Ecosystem-model context: POLIX Presentation v1.0 EN and POLIX Project Summary 12. Editorial evidence boundary; no current program state is assigned.

OPERATING BOUNDARY **The Ecosystem Growth allocation is a strategic ceiling, not a global marketing budget, automatic community reward pool, regional entitlement, partner reserve, or proof of adoption.**

23.1 Allocation Purpose

The allocation purpose is to create bounded capacity for ecosystem formation where essential network capabilities do not yet exist or remain too weak to support reliable participation. Capacity must be translated into discrete mandates before it can become program exposure.

The 160,000,000 POLX amount is a portfolio-level allocation. It states the maximum share assigned to the purpose category under the approved token-allocation architecture. It does not state how the category is subdivided, whether any amount has been assigned to a program, whether a program has passed review, where tokens are held, or whether an approved distribution path exists. Those are later facts requiring separate records.

Official materials also refer to support for early investors. This reference does not establish a dedicated sub-allocation, investor entitlement, offering, return, preferential access, or current distribution program.

A valid ecosystem mandate should identify the missing capability rather than begin with a spending instrument. “Expand in Region A” is not sufficient because it does not specify the constraint. The operative problem may be

limited language access, weak question supply, absent local resolution sources, insufficient participant education, limited partner integration, policy uncertainty, poor support coverage, fragmented liquidity, or another demonstrable gap. Different constraints require different interventions and measures.

Purpose should also identify the intended beneficiary and ecosystem mechanism. A localization program may benefit participants by reducing language and interpretation costs. A community-stewardship pilot may create trusted channels for feedback and incident escalation. A technical integration program may reduce onboarding or data-access friction. A regional market-research program may improve category selection and resolution design. These are not interchangeable merely because each can be described as “growth.”

Category purpose is narrower than general corporate benefit. Brand awareness, investor interest, token price, exchange visibility, platform revenue, community size, and market participation can move together, but they require different authorities, budgets, evidence, and risk controls. Chapter 23 does not convert all beneficial activity into eligible Ecosystem Growth spending. It requires a documented link between the program object and the approved ecosystem mandate.

For authorized ecosystem programs j, a portfolio control can be written as $\Sigma_j A_j \le M_{EG}$, where M_{EG} is the confirmed 160,000,000 POLX category ceiling and A_j is an approved program ceiling. The expression is an accounting constraint, not proof that the amount is minted, unlocked, held in a particular wallet, committed, or distributable.

The ceiling should be controlled in both token and economic terms. A fixed POLX quantity can vary in external economic value, while a fixed fiat-equivalent program can consume a variable number of POLX. If conversion matters to authorization or reporting, the policy should specify the valuation source, observation time, averaging period, rounding, fees, slippage, custody treatment, and variance authority. No such method is confirmed by this chapter.

23.1.1 Category Mandate and Program Boundary

A program mandate should contain at least the purpose, target capability, geographic or network scope, period, authorized ceiling, funding source, eligible cost or distribution objects, decision authority, evidence requirements, exclusion rules, amendment process, review date, and close condition. The mandate should be versioned before activity begins. Retrospective relabeling weakens both participant expectations and allocation accounting.

Boundary control is essential where other categories could plausibly fund similar activity. Incentives for qualified creators or users ordinarily belong to Platform Economy when the primary object is internal contribution. Exchange or listing activity is not automatically Ecosystem Growth because Strategic Partnerships & Listings is a separate category. Liquidity deployment is not automatically ecosystem development because Liquidity & Market Stability has its own allocation. The primary object and funding rationale should determine classification.

A program may have shared costs or mixed objectives. In that case, the authorization should establish a prospective allocation method, such as direct assignment, measurable usage, or another defensible basis. An event that includes education, partner development, and participant activation can be one initiative, but its costs and POLX exposure should not be charged repeatedly. The program ledger should preserve the allocation method and later adjustments.

Unused category capacity is not revenue, cash, committed expenditure, participant property, or circulating supply. It remains an allocation state until a later authoritative record changes that state. At program close, unused program capacity should return to the disclosed category state or follow another approved treatment; the whitepaper does not select the policy.

Table 23.2. Ecosystem Growth program mandate test

MANDATE FIELD	QUESTION TO ANSWER	MINIMUM EVIDENCE	FAILURE CONDITION
Problem	What ecosystem capability or coordination gap is missing?	Baseline, affected actors, causal rationale and materiality.	Program begins with a channel, event or payout rather than a problem.
Object	What capability, relationship or infrastructure is being built?	Defined deliverable, eligible scope and exclusions.	Brand visibility is treated as sufficient ecosystem capacity.
Boundary	Why does this belong to Ecosystem Growth?	Primary purpose and distinction from other allocation categories.	Same activity or POLX unit is charged to multiple categories.
Authority	Who may approve, change, pause and close?	Named roles, limits, conflicts and escalation.	Operational actor silently expands its own mandate.
Exposure	What token and economic ceiling applies?	Amount, period, valuation rule where relevant and remaining capacity.	Allocation amount is treated as immediately spendable.
Evidence	How will useful outcome and failure be observed?	Data sources, milestones, integrity checks and review date.	Success is defined only by impressions, sign-ups or spending.

MANDATE FIELD	QUESTION TO ANSWER	MINIMUM EVIDENCE	FAILURE CONDITION
Close	What ends qualification, commitment and reporting?	Sunset, final decisions, correction, reconciliation and archive.	Program continues by inertia without renewal evidence.

Source: POLIX editorial mandate framework. It is a proposed control standard and does not establish an approved POLIX ecosystem program.

PURPOSE PRINCIPLE **Ecosystem capacity should be authorized against a specific missing capability. "Growth" is a strategic objective, not an eligible cost category, recipient class, or evidence of success.**

23.2 Global Community Expansion

A global community is valuable when it performs durable ecosystem functions across languages, time zones, domains, and institutions. Membership, followers, impressions, and event attendance are discovery signals; they are not substitutes for capability, trust, contribution, or retention.

Community expansion can reduce several early-market coordination costs. Local participants may explain unfamiliar concepts, identify relevant event domains, translate terminology, surface authoritative resolution sources, test product language, introduce contributors, detect misinformation, and communicate incidents. These functions can make the platform more discoverable and usable, but only if responsibilities, evidence, and escalation boundaries are clear.

The community should not be treated as a uniform audience. A prospective trader, creator, subject-matter contributor, moderator, developer, institutional contact, regional operator, and educator create different forms of value and different risks. One person may occupy several roles, but access, attribution, compensation, conflict, and authority should remain role-specific. Community status should not confer trading privilege, resolution authority, confidential information, or governance power unless an operative policy separately grants it.

Diffusion research emphasizes that adoption moves through communication channels and social systems over time, not by exposure alone (Rogers, 2003). For POLIX, this supports a staged view of community development: awareness, informed exploration, first qualified action, repeated contribution, stewardship, and durable network connection are different states. A community program should identify which transition it seeks to influence and should not label every contact as an activated ecosystem participant.

Network effects also require caution. More participants can increase discovery, content, counterparties, feedback, and complementary activity, but network size can also increase noise, duplication, manipulation, moderation cost, and concentration. Platform literature does not imply that every additional account creates positive value. The relevant measure is quality-adjusted network contribution under capacity and integrity constraints (Katz and Shapiro, 1985; Parker and Van Alstyne, 2005).

Community support should distinguish organic contribution from sponsored activity. A sponsored event, translated guide, ambassador deliverable, or local campaign can be useful, but its output and persistence should be recorded separately from unaided participation. Otherwise the system may mistake purchased visibility for durable network growth. Programs should track what remains after financial or operational support is reduced.

Global community design also requires language integrity. Translation is not word substitution. Prediction markets depend on event scope, outcome labels, dates, sources, exceptions, and resolution logic. A localized summary can simplify explanation, but the operative market specification must preserve meaning. Community contributors should be able to flag ambiguity without acquiring unilateral authority to change a contract or outcome.

23.2.1 Community Capabilities and Network Quality

A capability model is more useful than a popularity leaderboard. The relevant questions are whether the community can discover and interpret markets, contribute differentiated local knowledge, identify trustworthy evidence, onboard qualified participants, surface problems, and sustain communication through changes or incidents. The model should distinguish coverage from depth: many regions with one weak contact do not equal an operating network.

Measurement should pair positive signals with counter-signals. Qualified translations should be paired with correction rates and semantic disputes. Contributor onboarding should be paired with retention, duplication and

abuse. Events should be paired with later qualified activity and full cost. Community support should be paired with response quality, escalation, privacy and staff load. Partner introductions should be paired with diligence, conversion, conflicts and concentration.

Attribution should be prospective and non-exclusive unless justified. Community outcomes often involve multiple contributors and channels. The program can use contribution records, referral windows, accepted deliverables, milestone evidence, or another approved method, but it should not assign all later activity to the most visible person or the last contact. Changes to attribution rules should be versioned prospectively.

The system should preserve a non-payment path for ordinary participation. If every useful action becomes a reward claim, intrinsic participation can be displaced, identity farming can increase, and operational review can become more costly than the contribution. Ecosystem programs should reserve formal economic treatment for defined mandates and evidence, while allowing voluntary participation to remain voluntary.

Table 23.3. Global community capability model

CAPABILITY	USEFUL EVIDENCE	COUNTER-EVIDENCE	AUTHORITY BOUNDARY
Discovery and education	Qualified reach, comprehension, first informed action and source use.	Low comprehension, misleading claims, paid traffic without later activity.	No investment advice, market guarantee or privileged information.
Localization	Accepted terminology, semantic fidelity, correction history and local usability.	Meaning drift, unresolved ambiguity, unversioned edits or unsupported sources.	No unilateral change to operative market specifications.
Contributor development	Accepted work, repeated contribution, diversity and stewardship.	Duplicate work, low retention, concentration or identity farming.	Community status does not guarantee publication or reward.
Feedback and support	Traceable issues, response quality, escalation and closure.	Privacy leakage, unresolved incidents or hidden support burden.	No unsupervised access to protected participant data.
Regional intelligence	Documented local demand, evidence sources, category insight and risk signals.	Anecdote presented as market demand or legal conclusion.	Research informs decisions; it does not authorize launch.
Institutional connection	Qualified introductions, diligence progress and complementary capability.	Conflicts, dependency, unverified claims or one-partner capture.	Introductions do not establish approval, endorsement or contract.

Source: POLIX editorial synthesis informed by diffusion, network-effect, and ecosystem literature. No current community role, program, metric, or authority is established.

COMMUNITY PRINCIPLE **The target is not the largest audience. It is a plural, evidence-producing network that improves discovery, local knowledge, semantic fidelity, contributor development, support, and accountability without creating hidden authority.**

23.3 Regional Market Development

Regional development translates a global platform model into locally executable capability. It should preserve a common semantic, technical, economic, and governance core while testing whether local demand, evidence, rules, operations, and counterparties are sufficient for responsible activation.

A region is not automatically a country, language, or regulatory zone. Depending on the program, the useful unit may be a city, language community, time zone, subject-matter network, payment corridor, institutional cluster, or cross-border audience. The mandate should choose the unit that explains the constraint and data. Treating a broad geography as homogeneous can hide important differences in language, public information, market interest, connectivity, identity, law, and operational support.

Digital distribution reduces some physical entry costs but does not eliminate local friction. International business research uses the concept of liability of foreignness to describe disadvantages associated with unfamiliar social, cultural, institutional, and relational environments (Zaheer, 1995). For POLIX, the practical implication is not that every region requires a separate organization. It is that expansion decisions should not assume the global product automatically supplies local trust, knowledge, evidence, or operating permission.

Regional readiness should be examined across at least six dimensions. Demand asks whether there are identifiable decisions or events for which participants seek a probability signal. Content and evidence ask whether questions can be specified and resolved using authoritative sources. Participation asks whether creators, analysts, traders, communities, and counterparties can form a useful market. Operations ask whether support, incident response, localization, and stewardship are available. Policy asks whether the proposed activity has an appropriate operating path. Economics asks whether full costs and funding are bounded.

The global core should include token identity, market-specification principles, resolution integrity, security, data provenance, risk controls, allocation accounting, and material disclosure. Local expression may include language, examples, content taxonomy, educational materials, support hours, contributor programs, evidence sources, and market priorities. A local program should not silently redefine global token facts, participant rights, settlement rules, or core integrity controls.

Local input should flow back into the global system. If a language repeatedly creates ambiguity, a jurisdiction exposes a new event type, or local contributors identify missing resolution sources, the response should not remain an isolated workaround. Versioned learning can improve global templates, taxonomies, interfaces, risk tests, and program design. Without this feedback loop, localization becomes fragmented maintenance rather than system validation.

Regional sequencing should favor reversible steps. Desk research, community interviews, evidence mapping, language testing, and bounded content pilots can precede broader activation. A successful educational campaign does not prove market readiness; a successful market pilot does not prove regional economics; a partner introduction does not prove operational capacity. Each stage should authorize only the next bounded question.

23.3.1 Market Readiness and Capability Gates

Readiness is a decision state supported by dated evidence, not a permanent ranking. A region can be ready for research but not trading, ready for selected categories but not broad market creation, or ready for a partner pilot but not public expansion. Capability gates should specify the object and stage to prevent a favorable result in one area from being generalized to the whole region.

Evidence should distinguish absence from failure. Low activity may reflect weak demand, poor discovery, limited language access, unsuitable categories, insufficient liquidity, technical friction, or a short observation window. A pilot should be designed to separate these explanations where practical. A negative result can still be valuable if it narrows uncertainty and prevents larger exposure.

Policy and legal assessment should remain jurisdiction-specific and current. A community opinion, partner statement, competitor presence, or prior event does not establish that POLIX may offer a particular product, token activity, promotion, payment path, or participant access. Qualified advice, approved policy, implementation controls, and continuing monitoring may be required; this chapter makes no legal conclusion for any region.

Market readiness also depends on exit capability. Programs should know how to stop new onboarding, communicate changes, preserve records, handle unresolved matters, and protect participants if a pilot is paused or closed. Expansion that cannot be reversed safely is not genuinely progressive.

Table 23.4. Regional readiness and activation gates

DIMENSION	READINESS QUESTION	ILLUSTRATIVE EVIDENCE	STOP OR NARROW SIGNAL
Demand	Is there a defined forecasting or decision need?	Interviews, search and community evidence, repeat topics and use cases.	Interest is broad but no actionable market demand is identifiable.
Question supply	Can local events become clear, resolvable markets?	Event map, source map, sample specifications and review outcomes.	Sources are unavailable, ambiguous, delayed or politically unsafe.
Participation	Can complementary roles form a useful market?	Qualified creators, analysts, participants and counterparties.	One subsidized cohort dominates without durable complements.
Operations	Can the platform support and correct activity?	Language coverage, response times, incidents, escalation and stewardship.	No reliable support, correction or resolution capacity.
Policy and risk	Is the proposed stage permitted and controllable?	Qualified assessment, policy version, access and promotion controls.	Material uncertainty cannot be bounded for the proposed stage.
Economics	Is exposure justified by the learning or capability created?	Full-cost budget, milestone value, scenarios and close cost.	Cost or concentration grows without corresponding evidence.

Source: POLIX editorial regional-readiness framework. The table does not establish readiness, launch approval, or legal availability in any jurisdiction.

REGIONAL PRINCIPLE **Global access is not regional readiness. A market becomes expansion-ready only for the specific stage whose demand, evidence, operating capacity, policy pathway, economics, and exit controls have been demonstrated.**

23.4 Strategic Ecosystem Programs

Strategic programs should purchase a defined ecosystem capability or resolve a documented coordination gap. Program labels such as ambassador, grant, launch, education, partner, event, or developer do not determine eligibility, funding source, authority, or success.

A program taxonomy helps prevent one broad category from absorbing unrelated spending. Research and intelligence programs create evidence. Localization and education programs reduce interpretation and onboarding friction. Community-capability programs develop stewardship and feedback. Regional market-development programs test demand, question supply, operations, and local relationships. Technical ecosystem programs develop interfaces, tools, data connections, or integrations. Launch programs coordinate a bounded set of capabilities for an initial stage. Each object requires different deliverables and measurement.

Strategic importance should not be inferred from visibility. A public event may produce significant reach but little durable capability. A less visible source-mapping project, taxonomy review, or support workflow may materially reduce later operating risk. Portfolio decisions should compare the missing capability, uncertainty reduced, reusable output, duration, dependencies, cost, and failure consequences rather than favoring promotional outputs by default.

Programs may involve external organizations or individuals, but ecosystem participation does not equal partnership approval. An introduction, pilot, co-hosted event, community affiliation, data test, or technical evaluation should not be described as an official partnership, endorsement, listing, integration, or contractual commitment unless the underlying authority and record support that description. Public claims should match the actual state.

Where third parties receive funding or POLX, diligence should be proportional to the role, amount, access, geography, data, technical permissions, and reputational risk. Relevant evidence may include identity, authority, conflicts, beneficial control where appropriate, capability, prior work, rights to deliverables, security, privacy, sanctions or other required screening, and payment or distribution instructions. The exact process depends on the program and applicable obligations; no current procedure is asserted.

Deliverable ownership and reuse should be explicit. Translations, research, taxonomies, software, market templates, event materials, data, designs, and training content can create future value only if provenance, rights, licenses, source files, versions, and update responsibilities are clear. A program can complete its event or payment while failing to leave usable ecosystem assets.

Programs should also disclose dependency. A region dependent on one promoter, data source, partner, community leader, payment route, liquidity source, or technical operator may appear successful while remaining fragile. Concentration can be acceptable during an exploratory stage, but the mandate should identify it, set a review threshold, and avoid treating temporary dependency as a diversified ecosystem.

23.4.1 Program Taxonomy and Funding Attribution

The primary program object determines the initial classification. If the object is qualified activity inside the platform, Platform Economy may be the relevant category. If the object is liquidity deployment or stability operations, Liquidity & Market Stability should be evaluated. If the object is a strategic listing or partnership, the specialized allocation may apply. If the object is building external regional or network capability, Ecosystem Growth may be appropriate. The final determination requires an approved policy and facts, not this illustrative taxonomy.

Mixed programs should separate direct economic benefits from ecosystem deliverables. A creator may be paid for a qualified market contribution and separately contracted to produce a regional source map. A partner may receive technical support and also participate in a listing process. One person or organization can have multiple relationships, but each relationship should have its own purpose, evidence, authority, amount, and accounting treatment.

Program selection should be contestable where feasible. Open calls, published criteria, documented sourcing, comparative review, conflict disclosure, and reason-coded decisions can reduce favoritism. Some opportunities may require targeted selection because capability is scarce or information is sensitive; the reason and approval should then be recorded. Openness is a control option, not a universal substitute for judgment.

Program changes should preserve participant expectations prospectively. A revised milestone, budget, geography, deliverable, attribution rule, or payment instrument may materially change incentives and risk. The effective date, affected cohort, transition treatment, authority, and notice should be documented. Historical records should remain tied to the policy version that governed them.

Table 23.5. Strategic ecosystem program taxonomy and allocation boundary

PROGRAM OBJECT	PRIMARY ECOSYSTEM OUTPUT	POSSIBLE EVIDENCE	BOUNDARY QUESTION
Research and intelligence	Demand map, source map, risk analysis or regional thesis.	Versioned study, sources, methods, review and reusable outputs.	Is the object evidence creation rather than promotion?
Localization and education	Semantically reliable access and informed participation.	Accepted assets, comprehension, corrections, usage and rights.	Does localization preserve operative meaning and authority?
Community capability	Stewardship, feedback, support, contributors and trusted channels.	Role records, accepted work, response, retention and integrity.	Is this network capability rather than a general user reward?
Regional market development	Validated local market, evidence and operating capability.	Readiness gates, pilots, incidents, economics and close evidence.	Is the program stage narrower than a regional launch claim?
Technical ecosystem	Interface, integration, tool, data pathway or developer capacity.	Specifications, tests, security, provenance, rights and operation.	Is this external ecosystem capability, not an unapproved product claim?
Launch coordination	Bounded activation across approved capabilities.	Dependencies, stage plan, cap, authority, readiness and rollback.	Are specialized listing, liquidity and reward costs separately attributed?

Source: POLIX editorial program taxonomy. Examples are illustrative and do not establish current programs, recipients, funding, partnerships, integrations, launches, or allocation eligibility.

PROGRAM PRINCIPLE **Fund the ecosystem object, not the label. Every program should leave a traceable capability, reusable asset, validated relationship, reduced uncertainty, or documented reason to stop.**

23.5 Progressive Distribution

Progressive distribution means that ecosystem exposure increases only after the prior stage produces decision-useful evidence. It is a portfolio-deployment rule, not a promise to distribute the allocation over time or a substitute for vesting, unlock, claimability, or transfer controls.

Chapter 22 applied progressive distribution to participant incentive programs. Chapter 23 applies the same general discipline to a different object: the deployment of ecosystem-development capacity across programs, regions, and network stages. A research grant, local pilot, technical integration, community-capability program, and launch initiative should not share one undifferentiated release schedule because their uncertainty, milestones, cost, reversibility, and evidence differ.

A useful sequence begins with exploration, where the objective is to map the problem and test the regional or network thesis. A bounded pilot then tests whether the proposed intervention can create the target capability. Validation examines whether results are reproducible, useful, non-manipulated, and operationally supportable. Capped expansion tests additional cohorts or geographies. Portfolio scale requires mature controls and recurring evidence. Renewal, conversion, pause, or close should follow explicit review rather than inertia.

Tranches should be tied to evidence and authority, not merely dates. Time can be one condition, but a calendar milestone does not prove that deliverables were accepted, local capability exists, risks remain bounded, or prior funds were reconciled. Conversely, a completed deliverable does not automatically authorize the next tranche if the governing authority, policy, restriction, or remaining capacity does not permit it.

The state vocabulary should distinguish reserved, authorized, committed, conditionally eligible, executed, reconciled, adjusted, and closed. “Allocated” is too broad to describe all of these. A regional dashboard should not present a future ceiling as distributed value, a signed agreement as completed performance, an approved invoice as an executed token transfer, or a completed transfer as evidence of ecosystem impact.

Program exposure should account for concentration. If one region, organization, participant, channel, or program object consumes a large share of capacity, portfolio optionality declines and dependency increases. A

concentration limit can be useful, but no threshold is confirmed here. The policy should define the unit of concentration, aggregation across related parties or programs, treatment of shared costs, and escalation authority.

Token-denominated budgeting introduces additional uncertainty. The same program ceiling can have different external economic value across authorization, commitment, and execution dates. Programs should specify which date and source governs valuation where relevant, whether the deliverable is denominated in POLX or another unit, who bears variance, and how unused or excess capacity is treated. Price movement is not program performance.

Progressive deployment also requires correction. A milestone may be accepted using incomplete information and later require adjustment. The program should define what can be corrected, whether future tranches can be withheld, whether distributed value can be recovered where legally and technically possible, how disputes are reviewed, and how public reports identify material changes without rewriting history.

23.5.1 Tranches, Milestones, and Portfolio Reconciliation

Milestones should represent observable states linked to the program object. “Community built,” “region launched,” “partnership completed,” and “ecosystem expanded” are too broad. Better milestones identify accepted assets, qualified contributors, verified source coverage, completed integration tests, supported service levels, policy approval, resolved incidents, retained activity, or another program-specific result. Evidence should be dated and attributable.

Reconciliation should connect the category ledger to every program and tranche. A minimum roll-forward identifies opening unassigned capacity, new program authorizations, amendments, reservations, commitments, executed distributions, non-token spending where relevant to full program cost, cancellations, corrections, returned capacity, closing unassigned capacity, and unexplained variance. Token-state records and economic program records should be reconcilable without being conflated.

Regional comparison should avoid a simplistic league table. Different regions may be in different stages, face different costs, and pursue different capabilities. Portfolio review should compare each program against its own mandate and also examine cross-program concentration, reusable learning, duplicate infrastructure, shared dependencies, integrity incidents, and opportunity cost. A smaller successful experiment can be more valuable than a large campaign if it resolves an important uncertainty.

Disclosure should be sufficient to explain mandate, source, stage, decision, spending or distribution state, concentration, material exceptions, outcome evidence, and next review without exposing personal data, security controls, confidential commercial information, or sensitive local relationships. Aggregation and delayed disclosure may be appropriate, but material program facts should not be replaced by promotional totals.

Table 23.6. Progressive ecosystem-deployment stages

STAGE	PRIMARY QUESTION	EVIDENCE GATE	PERMITTED DECISION
Exploration	Is there a material ecosystem gap and plausible intervention?	Problem map, local context, demand, sources, risks and alternatives.	Research further, narrow, reject or propose a capped pilot.
Pilot	Can the intervention create the target capability under a limit?	Deliverables, attribution, incidents, cost, integrity and baseline.	Continue, correct, pause, close or seek validation.
Validation	Is the result useful, reproducible and operationally supportable?	Independent review, repeated evidence, support load and persistence.	Maintain cap, modify design or approve bounded expansion.
Capped expansion	Does capability hold across added scope?	Cohort or region evidence, concentration, controls and economics.	Scale within mandate, reduce, pause or return to validation.
Portfolio operation	Can the program operate under mature controls and review?	Reconciliation, outcomes, policy, resilience and full cost.	Renew, convert, resize, consolidate or close.
Close and learn	Are obligations, records, residuals and lessons complete?	Final decisions, notice, correction, ledger, archive and review.	Close, preserve assets, return capacity and publish bounded findings.

Source: POLIX editorial progressive-deployment framework. No POLIX Ecosystem Growth program is assigned to any stage.

Table 23.7. Ecosystem portfolio reconciliation and disclosure

RECORD	QUESTION ANSWERED	MINIMUM EVIDENCE	CONTROL RISK
Category opening	What allocation capacity enters the period?	Approved allocation, prior closing and amendments.	Maximum allocation treated as available current balance.
Program authorization	Which purpose, scope and ceiling were approved?	Mandate, authority, period, source and policy version.	Hidden or duplicate funding across categories.
Tranche state	What was reserved, committed, conditional or authorized?	Milestone, amount, date, decision and remaining ceiling.	Future exposure reported as executed distribution.

RECORD	QUESTION ANSWERED	MINIMUM EVIDENCE	CONTROL RISK
Execution	What value or support was actually delivered?	Transaction, invoice, ledger, recipient mapping and acceptance.	Failed, duplicate or unrelated transfer counted as complete.
Outcome	What capability or uncertainty changed?	Program-specific measures, baseline, persistence and counter-evidence.	Spending, reach or token price used as proof of impact.
Correction	What was changed, disputed, cancelled or returned?	Reason, authority, notice, review and linked original record.	History overwritten or capacity silently restated.
Closing	What capacity, obligations and exceptions remain?	Reconciliation, residuals, unresolved items and archive.	Unexplained variance or automatic rollover.

Source: POLIX editorial portfolio-control model. Legal and accounting treatment depends on operative facts and applicable standards.

DISTRIBUTION PRINCIPLE **Progressive distribution authorizes the next bounded question, not the automatic release of the next tranche. Evidence, authority, remaining capacity, restrictions, execution, and correction remain separate conditions.**

23.6 Governance Principles

Ecosystem governance should combine a stable global core with bounded local discretion. The purpose is not to centralize every regional decision or delegate unrestricted authority, but to place each decision with an accountable role while preserving common standards, evidence, conflict controls, review, and reversibility.

Complex ecosystems are rarely governed effectively by one universal rule or by unbounded local autonomy. Ostrom's institutional work emphasizes the importance of rules fitted to context, monitoring, graduated responses, conflict resolution, and nested organization (Ostrom, 1990, 2010). POLIX can draw an analytical lesson without claiming to be a commons: local knowledge is valuable, but it should operate inside explicit boundaries and reviewable authority.

The global governance layer should control token facts, allocation definitions, core market and resolution integrity, security, protected data, material disclosures, policy architecture, program approval limits, and consolidated reconciliation. Local or program roles may propose markets, conduct research, translate, educate, operate approved community processes, manage deliverables, and surface risk within their mandate. They should not infer powers that were not granted.

Separation of duties should reflect the risk and amount. The person who proposes a program should not always be the sole approver, evidence reviewer, recipient validator, payer, and reconciler. Small exploratory activity may use simpler controls, while larger or higher-risk programs require stronger independence. The policy should define thresholds and exceptions; this chapter does not prescribe an organizational chart.

Conflicts should be disclosed before decisions. Relevant conflicts may include recipient relationships, commercial interests, token holdings, referral benefits, political affiliations where material to the program, competing roles, data access, vendor ownership, or authority over evidence. Disclosure does not automatically disqualify a participant, but it allows recusal, independent review, limits, or another control.

Governance should protect dissent and negative evidence. Local stewards and partners may face incentives to report success, preserve funding, or avoid reputational cost. Decision records should allow program staff, community contributors, reviewers, and affected participants to flag quality problems, policy concerns, conflicts, misuse, or failure without requiring public confrontation. Material issues should reach an accountable review path.

Appeal and dispute procedures should be proportionate to the state. A rejected proposal, disputed deliverable, failed milestone, withheld tranche, corrected attribution, or closed program raises different questions. The procedure should identify the contestable decision, deadline, evidence, reviewer, potential outcomes, and whether operation continues during review. Appeal is not automatic approval or indefinite delay.

Governance also needs change control. Expansion programs operate in changing markets, laws, communities, technologies, and token conditions. Amendments should be prospective where possible, tied to a policy version and effective date, and accompanied by treatment of existing commitments. Emergency action may precede full

explanation when necessary to protect participants or systems, but the reason, authority, scope, duration, and later review should be recorded.

Public transparency should focus on material accountability rather than exhaustive operational exposure. Useful disclosures may include category capacity, program purpose, stage, regional or network scope, authority class, approved ceiling, funding source, distribution state, concentration bands, major changes, incidents, outcome evidence, and review date. Personal data, security-sensitive details, confidential negotiations, and protected commercial information may require aggregation or delayed release. These controls are consistent with the broader emphasis on conflicts, custody, disclosure, and accountable conduct in IOSCO's policy recommendations for crypto and digital-asset markets (IOSCO, 2023).

23.6.1 Decision Rights, Review, and Ecosystem Learning

Decision rights should be explicit at four levels: category governance defines the allocation boundary; portfolio governance authorizes programs and concentration; program governance approves stages, milestones and changes; operational roles execute approved work and preserve evidence. A local role can be highly influential without owning the token category, controlling platform policy, or having authority to promise distributions.

Review should examine both compliance with the mandate and continued strategic relevance. A program can execute every deliverable yet no longer address the most important constraint. Conversely, a pilot can miss a target but generate valuable evidence that prevents a larger error. Renewal decisions should distinguish operational completion, ecosystem outcome, learning value, and future priority.

Learning should be versioned and reusable. Research, translations, source maps, taxonomies, partner evaluations, incident patterns, support workflows, technical artifacts, and regional assumptions should enter a controlled knowledge base with provenance and rights. This reduces duplicate spending and allows later programs to test what changed instead of repeating the same discovery work.

A governance record should also preserve non-decisions: why a region was not activated, why a program was narrowed, why a tranche was not approved, why evidence was insufficient, or why capacity remained unused. These records discipline future narratives and demonstrate that progressive control can produce a rational decision not to spend.

Chapter 24 will examine revenue-based sustainability. Chapter 23 does not assert that Ecosystem Growth programs produce revenue, replenish allocation capacity, create token demand, fund buybacks or burns, or become self-financing. It defines how finite growth capacity should create verifiable ecosystem capability and learning before recurring economics are evaluated.

Table 23.8. Ecosystem governance decision-rights matrix

DECISION LEVEL	PRIMARY RESPONSIBILITIES	REQUIRED RECORD	PROHIBITED INFERENCE
Category governance	Define purpose boundary, allocation ceiling, amendment and consolidated disclosure.	Approved policy, allocation ledger and material-change record.	Category authority owns or may freely spend the allocation.
Portfolio governance	Select programs, control concentration, assign ceilings and review performance.	Comparative decision, conflicts, source, stage, cap and review date.	Program approval proves regional launch or success.
Program governance	Approve milestones, tranches, changes, disputes, pause and close.	Versioned mandate, evidence, reason, authority and remaining capacity.	Milestone completion automatically authorizes distribution.
Local or specialist review	Provide contextual evidence, translation, diligence, quality and risk assessment.	Provenance, scope, qualifications, conflicts and recommendation.	Expert input is final policy, legal advice or resolution authority.
Operations	Execute approved activity, safeguard records, monitor incidents and reconcile.	Transaction, deliverable, access, acceptance, incident and close records.	Operational access creates discretionary program authority.
Independent or escalated review	Examine conflicts, material disputes, exceptions and high-risk changes.	Review scope, evidence, decision, recusal and follow-up.	Review guarantees correctness or removes accountability.

Source: POLIX editorial governance model informed by institutional and ecosystem-governance literature. No current POLIX body, role, committee, delegation, or authority is asserted.

Table 23.9. Ecosystem Growth evaluation scorecard

DIMENSION	PRIMARY QUESTION	ILLUSTRATIVE EVIDENCE	FAILURE SIGNAL
Capability	What durable ecosystem function now exists?	Accepted assets, operating roles, service evidence and reuse.	Only visibility, spending or temporary activity is observable.
Regional fit	Did the intervention address a documented local constraint?	Baseline, local evidence, adoption path and resolved friction.	Global assumptions were copied without local validation.

DIMENSION	PRIMARY QUESTION	ILLUSTRATIVE EVIDENCE	FAILURE SIGNAL
Network quality	Did complementary and independent participation improve?	Role diversity, repeated contribution, trust and concentration.	One subsidized actor or channel captures the network.
Integrity	Were claims, identities, evidence and spending controlled?	Diligence, anomalies, incidents, corrections and conflicts.	Farming, duplication, misrepresentation or hidden relationships.
Economics	Was uncertainty reduced or capability created at justified full cost?	Token and economic exposure, operations, support and alternatives.	Cost grows faster than reusable or persistent outcome.
Persistence	What remains after support is reduced or changed?	Retained contributors, assets, demand, operations and organic activity.	Outcome disappears immediately without bounded launch rationale.
Governance	Were authority, change, review and disclosure effective?	Versioned decisions, appeals, reconciliations and material reporting.	Unexplained discretion, silent change or unresolved variance.
Learning	Can later programs reuse the evidence and avoid repetition?	Provenance, rights, archive, updated assumptions and lessons.	Program closes without reusable knowledge or reasoned decision.

Source: POLIX editorial ecosystem-growth scorecard. No current target, threshold, score, region, or program result is asserted.

GOVERNANCE PRINCIPLE **A mature ecosystem can distribute work and judgment without distributing undefined authority. Every local discretion should remain bounded by purpose, evidence, conflict controls, review, change management, reconciliation, and a reversible state.**

Chapter Synthesis

1. POLIX Ecosystem Growth is a confirmed 160,000,000 POLX allocation, equal to 40% of maximum supply; it is not a current wallet balance, spending authorization, regional entitlement, release schedule, distribution, or circulating amount.
2. The category supports the formation of external network, community, regional, launch, and long-term ecosystem capabilities, while Chapter 22 separately governs qualified activity inside the Platform Economy category.
3. A valid program begins with a documented ecosystem constraint and a defined capability, not with a promotional channel, recipient class, event, partnership label, or payout instrument.
4. Global community quality should be measured through discovery, semantic fidelity, differentiated contribution, support, trusted feedback, regional intelligence, and durable connection rather than membership or reach alone.
5. Regional readiness is stage-specific and requires evidence of demand, resolvable question supply, complementary participation, operations, policy and risk controls, economics, and safe exit capability.
6. Strategic programs should be classified by their primary object and funding source so Ecosystem Growth is not conflated with Platform Economy, liquidity, listings, partnerships, reserves, or general corporate benefit.
7. Progressive deployment links each tranche or expansion stage to milestones, authority, remaining capacity, restrictions, execution, reconciliation, correction, and an explicit decision to continue, change, pause, or close.
8. A stable global core can coexist with bounded local discretion when decision rights, conflicts, versioned policies, appeals, change control, disclosure, and learning records are explicit.
9. This chapter establishes a proposed ecosystem-program architecture. It does not assert current regions, programs, communities, ambassadors, grants, partners, contracts, wallets, recipients, rates, releases, distributions, revenues, legal rights, adoption, token demand, price, or return.

TRANSITION TO CHAPTER 24 **Chapter 23 defines how finite Ecosystem Growth capacity can build verifiable network and regional capability. Chapter 24 turns to revenue-based sustainability: how recurring platform value and verified revenue could support long-term operations without assuming perpetual allocation-funded expansion.**

References and Source Notes

Official POLIX materials establish the Ecosystem Growth allocation of 160,000,000 POLX, equal to 40% of the 400,000,000 POLX maximum, and associate the category with global community expansion, launch initiatives, regional market development, ecosystem communities and partners, and long-term network growth. They support controlled and progressive deployment direction. They do not establish an active program, region, market, community role, ambassador, grant, event, partner, listing, integration, wallet, contract, recipient, rate, budget, release, distribution, current balance, revenue, accounting treatment, legal entitlement, circulation, adoption, token demand, price, or return. The program models, equations, stages, controls, matrices, and scorecards in this chapter are proposed analytical standards, not deployed POLIX facts.

Academic and public sources support general principles concerning marketplaces, network effects, platform ecosystems, diffusion, international expansion, and polycentric governance. They do not establish POLIX operations, legal status, regional availability, program effectiveness, compliance, or economic value.

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EVIDENCE STATUS **Chapter 23 is a proposed ecosystem-expansion, allocation-control, and disclosure architecture derived from confirmed category scope and external analytical principles. A POLIX region, community, program, partner, release, distribution, or outcome can be described as current only after authoritative policy, implementation, and operating records establish it.**

CHAPTER 24

Revenue-Based Sustainability

A sustainable platform economy should be able to fund useful operations and bounded ecosystem support from verified economic activity rather than depend indefinitely on new token issuance or repeated releases from finite allocations. The test is not whether revenue is mentioned, but whether every transition from product utility to authorized use of funds is observable, governed, and correctable.

Chapter 23 defined how the finite Ecosystem Growth allocation could create verifiable external capabilities through staged programs and reconciliation. Chapter 24 addresses the next economic question: what must be true before recurring platform activity can replace allocation-funded expansion as the primary source of ongoing incentives and development. The answer requires a revenue architecture, not a promise that growth automatically finances itself.

POLIX Token Economy v1.0 EN states that the project is designed to create long-term token value through sustainable platform economics rather than continuous token emissions. It describes an early stage in which strategic allocations may accelerate user acquisition, liquidity, and ecosystem growth, followed by a progressive transition toward revenue-funded ecosystem incentives as sustainable business revenue increases. It also connects platform-generated revenue with platform development and possible long-term buyback and burn initiatives. These statements establish intended design direction. They do not establish present revenue, an accounting policy, a fee schedule, a bank balance, profitability, a current incentive budget, or an executed token action.

The central discipline is to keep unlike economic objects separate. Transaction volume is not revenue. A participant deposit or collateral balance is not platform revenue. A token allocation is not cash income. A token sale receipt is not necessarily recurring operating revenue. An invoice is not collected cash. Collected cash is not necessarily surplus after refunds, taxes, vendor obligations, security reserves, and previously authorized commitments. Even verified residual capacity does not create an automatic claim for users, creators, contributors, token holders, buybacks, or burns.

Revenue recognition depends on the operative contract and accounting policy. IFRS 15, for example, uses a contract-based model that identifies performance obligations, determines and allocates a transaction price, and recognizes revenue when or as obligations are satisfied. Chapter 24 does not select an accounting framework or provide accounting advice. It adopts the narrower control principle that a POLIX revenue claim should identify the customer or counterparty, promised good or service, transaction price, recognition event, deductions, currency or asset treatment, and reconciliation evidence.

Platform economics also require cross-side analysis. A prediction-market platform can create value for market creators, participants, liquidity providers, data consumers, partners, and other actors whose incentives and costs differ. Platform research shows that one side may be subsidized while another is charged because the system must be assessed as a connected business model rather than as isolated transactions (Rochet and Tirole, 2003; Parker and Van Alstyne, 2005). This can justify bounded early support, but it does not make every subsidy sustainable or every activity monetizable.

Token economics adds another boundary. A platform may generate revenue while its token has no defined economic linkage to that revenue. Conversely, a token may have utility, transactional demand, or coordination value without granting a legal or contractual share of platform income. Research on token adoption and valuation emphasizes network use and transactional demand rather than treating a token as an ordinary residual cash-flow claim (Cong, Li, and Wang, 2021). Chapter 24 therefore separates value creation by the platform, value capture by the operating model, allocation of economic capacity, and any later token linkage.

The proposed standard is evidence-gated sustainability. A claim advances only when the previous state is established and the next decision is authorized. Useful product activity can support a revenue hypothesis; an executed contract can support recognition; settlement records can support cash collection; cost and reserve records can support capacity; and a versioned policy can support reinvestment. Missing evidence stops the chain. It should not be filled by projections, token price, community enthusiasm, or an unverified dashboard.

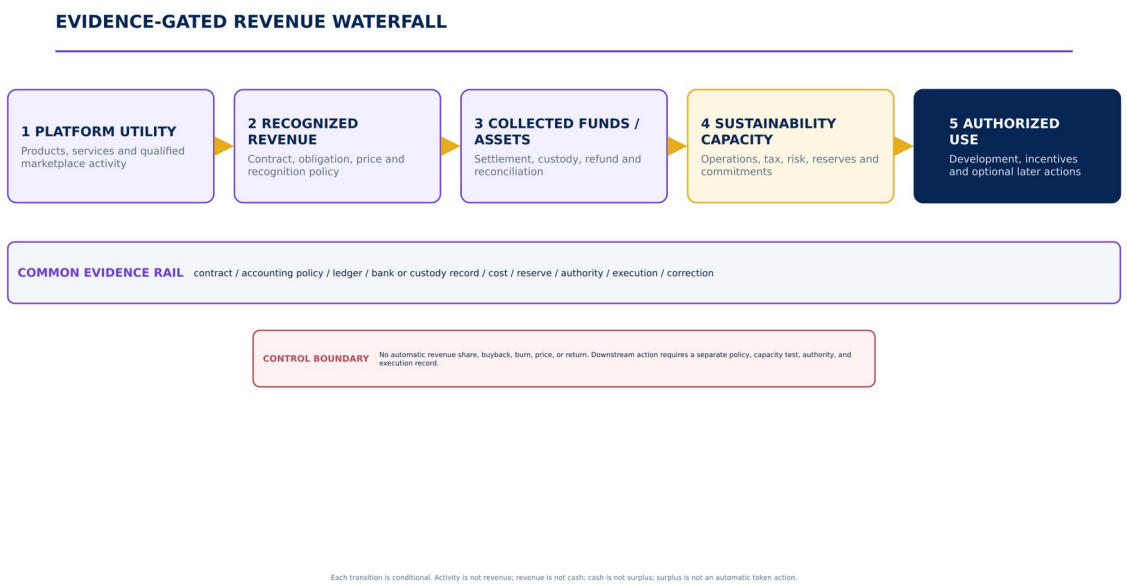

Figure 24.1. Evidence-gated revenue waterfall. Each transition requires different records and authority; no stage automatically creates a revenue share, incentive, buyback, burn, token demand, price, or return. Source: POLIX editorial synthesis informed by POLIX Token Economy v1.0 EN and revenue-control principles.

Table 24.1. Confirmed sustainability direction and non-inferences

ELEMENT	CONFIRMED DIRECTION	REQUIRED BEFORE OPERATION	NOT ESTABLISHED HERE
Funding transition	Progress from strategic token allocations toward revenue-funded incentives as sustainable business revenue increases.	Defined maturity gates, revenue and cash evidence, program authority, budget and reconciliation.	A transition date, completed transition, revenue amount or active funded program.
Distribution discipline	Reserved allocations support predefined strategic purposes rather than continuous market distribution.	Program mandate, release state, eligibility, restriction, execution and correction records.	A wallet, available balance, release rate, recipient or circulation amount.
Supply protection	The approved policy fixes the maximum at 400,000,000 POLX and prohibits post-initialization minting above that maximum.	Canonical network and contract evidence, implementation controls, monitoring and incident process.	Current total, circulating supply, contract address, ownership, upgradeability or guaranteed scarcity.
Value capture	Platform-generated revenue is intended to support incentives, development and possible long-term buyback and burn initiatives.	Accounting method, collected funds, obligations, capacity test, policy, authority and execution.	Revenue sharing, token-holder entitlement, current buyback, burn, price support or return.
Sustainable cycle	Activity, revenue, ecosystem support and supply management are intended to reinforce long-term development.	Causal measures, time period, counter-metrics, attribution, review and correction.	That each link occurs, is linear, is positive or creates token value.

Source: POLIX Token Economy v1.0 EN; POLIX editorial evidence boundary. The chapter does not establish current operating or financial facts.

EVIDENCE BOUNDARY **Report activity, recognized revenue, collected cash, residual capacity, authorization, execution, and evidenced ecosystem or token outcome as separate states, each supported by its own evidence.**

24.1 Beyond Continuous Token Emissions

Continuous token emissions can make an early ecosystem appear economically active while transferring the cost of participation to future supply, reserves, or later participants. Revenue-based sustainability changes the funding source and the proof standard: recurring support must be justified by useful demand and an operating model, not by the availability of another tranche.

A finite allocation can be strategically useful during market formation. New marketplaces face a coordination problem because creators, participants, liquidity, information, and complementary services may each wait for the others. Research shows that cryptographic tokens can help a marketplace overcome early coordination barriers under particular commitments and expectations (Bakos and Halaburda, 2022). Critical-mass research similarly explains why launch-stage subsidies may be rational when they help both sides of a platform form a viable network (Evans and Schmalensee, 2010). These findings support bounded activation logic, not an assumption that permanent subsidies are efficient.

The sustainability risk arises when a temporary instrument becomes the operating model. Token-denominated rewards can stimulate measurable activity without proving willingness to pay, persistent contribution, or efficient cost. Participants may optimize for rewards, split identity, duplicate actions, create low-quality supply, concentrate activity around campaigns, or leave when rewards fall. Reported volume can increase while information quality, retention, resolution reliability, and net economics deteriorate. A program should therefore measure the counterfactual: what useful behavior persists after support is reduced, changed, or removed?

Emission dependence is broader than on-chain minting. POLIX official materials state a no-additional-minting policy, but an ecosystem can still depend on repeated releases from preallocated reserves. The maximum supply may remain fixed while circulating exposure, selling pressure, concentration, or opportunity cost changes. A sustainable transition should therefore examine both the supply invariant and the funding source of each program. A no-additional-minting policy does not mean “no dilution of circulating holders,” and “allocation-funded” does not mean “free.”

The appropriate transition is not abrupt withdrawal. Early programs may fund discovery, creator onboarding, localized operations, liquidity formation, or another validated constraint. Removing them before a viable alternative exists can destroy useful network capacity. Conversely, extending them because historical spending created expectations can conceal failure. A transition policy should establish stages, reduction tests, service continuity, participant notice, exceptions, and a return path if verified demand or operating reliability falls.

A maturity gate should combine demand, quality, operations, and economics. Demand evidence asks whether actors use or pay for a valuable service without being fully compensated to do so. Quality evidence asks whether markets, information, resolution, and participation meet standards. Operational evidence asks whether security, support, custody, accounting, and incident response can handle the activity. Economic evidence asks whether recognized and collected revenue can support the full incremental cost and risk of the program. Passing one dimension does not substitute for the others.

Subsidy dependence should be measured by cohort and program, not only in aggregate. Mature activity can mask a new program that remains fully funded by allocations, while one costly region can be hidden inside platform-wide revenue. The record should connect each incentive object to an eligible actor, qualifying event, funding source, economic amount, period, and outcome. Aggregation is useful for public reporting, but decision makers need enough segmentation to identify where the transition is real.

24.1.1 Subsidy Dependence and the Economic Boundary

A proposed subsidy-dependence ratio can compare allocation-funded and revenue-funded support for a defined program and period. The denominator should include the full support cost, not only tokens transferred: operations, review, fraud loss, liquidity support, infrastructure, customer support, and settlement costs can be material. The result is diagnostic, not a universal target. A high ratio can be appropriate during a validated launch stage; a low ratio can still be unsustainable if revenue is volatile, costs are omitted, or quality is poor.

Economic exposure should be reported in both native units and a documented reporting currency when valuation matters. Token quantity, fiat-equivalent authorization, realized settlement value, accounting expense, and opportunity cost are different. A policy should state the source, timestamp or averaging period, rounding, fees, slippage, and variance treatment. Chapter 24 does not prescribe a valuation method or assert any current POLX market value.

The end state is not necessarily zero incentives. A marketplace can rationally use continuing incentives when they purchase a defined service, correct a verified externality, or support a strategic network side. Sustainability requires that the service, eligible actor, price or formula, funding source, duration, and review are explicit. A recurring payment for verified work is not the same as an open-ended emission intended to manufacture activity.

Table 24.2. Allocation-dependence transition test

DIMENSION	QUESTION	MINIMUM EVIDENCE	FAILURE SIGNAL
Problem validity	What coordination or service gap still requires support?	Baseline, affected actors, causal rationale and updated materiality.	Funding continues because a prior program existed.
Organic demand	What useful activity persists without full subsidy?	Cohort retention, repeat use, willingness to pay and counterfactual.	Only rewarded events or campaign-period volume persist.

DIMENSION	QUESTION	MINIMUM EVIDENCE	FAILURE SIGNAL
Quality	Does activity meet market and evidence standards?	Resolution quality, disputes, manipulation signals and corrections.	Low-quality or self-referential activity rises with rewards.
Full cost	What is the complete economic cost of support?	Token, cash, operations, review, infrastructure, loss and overhead basis.	Transfer amount is treated as total cost.
Funding source	How much support is allocation-funded versus verified revenue-funded?	Source ledger, period, authorization, settlement and reconciliation.	Token reserves and platform revenue are combined.
Exit or conversion	When does support reduce, convert to service payment, pause or close?	Milestones, notice, continuity, exception and decision authority.	No close state or indefinite rollover.

Source: POLIX editorial sustainability model informed by marketplace critical-mass and token-coordination research. No current ratio, target, program, cohort or outcome is asserted.

TRANSITION PRINCIPLE **The goal is not to eliminate every incentive. It is to stop using finite token capacity as an unexamined substitute for product value, verified service demand, full-cost economics, and accountable funding decisions.**

24.2 Revenue-Funded Ecosystem Incentives

A revenue-funded incentive is not merely an incentive paid when the platform has revenue. It is a bounded program whose source, eligibility, amount, accounting treatment, authorization, execution, and outcome can be traced to verified economic capacity without impairing operating obligations or participant protections.

Official POLIX materials contemplate platform-generated revenue becoming the primary source of ecosystem incentives as the platform matures. They do not define current revenue streams or rates. The POLIX presentation describes intended concepts such as premium AI access, creator rewards, creator revenue and rewards, and platform activity. These may inform future business-model hypotheses, but they should not be reported as active products, fee schedules, earned revenue, contractual rights, or approved revenue-sharing programs without separate evidence.

Illustrative monetization hypotheses should be defined by the underlying good or service rather than by a label. A service charge may compensate a platform function; premium access may grant a specified product capability; an integration fee may fund a technical service; a data or analytics arrangement may provide a licensed output; a partner arrangement may allocate consideration for a defined obligation. Each model creates different recognition, refund, tax, data-rights, conflict, and participant-protection questions.

Gross marketplace activity should be excluded unless the platform has an enforceable right to consideration and has satisfied the corresponding obligation under the applicable method. Trading volume, notional contract value, collateral, deposits, customer funds, liquidity capital, rewards transferred, token allocation value, unrealized token gains, and assets held for others can be economically important without being operating revenue. Public reporting should avoid combining them into a single “ecosystem value” figure.

Revenue should also be separated from cash collection. Payment may precede, coincide with, or follow recognition. Amounts can be refundable, disputed, chargeable back, restricted, held by an intermediary, denominated in a volatile asset, or subject to performance and service periods. A revenue-funded program should rely on a policy-defined cash or liquidity basis appropriate to its risk, not merely on a booked amount or an invoice.

The incentive budget should follow a waterfall. Collected resources first support settlement, refunds, taxes, security, infrastructure, personnel or vendors, compliance and legal obligations, customer support, incident response, and other operating requirements. Risk reserves and previously authorized commitments may also need funding. Only after these items are measured can residual capacity be considered for development, incentives, or other strategic uses. The ordering is a proposed governance standard; it is not a claim about POLIX accounts or priorities currently in force.

A proposed period-level capacity test can be written as $C_s = \max(0, K - O - T - R - D)$, where K is verified collected cash attributable under policy, O is operating obligations, T is tax and mandatory settlement, R is required risk and liquidity reserves, and D is previously authorized commitments. O excludes amounts counted in T, R, or D;

the deductions O, T, R, and D must be mutually exclusive, and all inputs must use the same reporting period, base currency, and cutoff. C_s is analytical sustainability capacity, not an accounting standard, distributable profit, token-holder claim, or automatic authorization.

The capacity test should be conservative and period-specific. Forecast revenue can guide planning but should not be treated as collected capacity. Non-cash revenue, restricted cash, customer assets, or volatile token receipts may require separate treatment. A program can be authorized conditionally, but execution should remain gated by the defined liquidity and evidence conditions. Emergency obligations should be able to pause or reduce later-stage uses under an approved policy.

Revenue-funded does not mean revenue-sharing. An incentive can be budgeted from revenue without granting participants a percentage claim on revenue. If a future creator or partner arrangement uses a share formula, the operative contract should define the base, exclusions, period, adjustment rights, tax treatment, disputes, data access, and settlement. This whitepaper does not establish such a right, formula, rate, or program.

24.2.1 Funding Waterfall and Program Authorization

An authorization should identify the program objective, service or behavior purchased, eligible actors, qualifying events, evidence, fraud controls, amount or formula, source account, maximum exposure, period, payment state, amendment rights, and close process. The decision should show why revenue funding is appropriate and why the program does not impair essential operations, risk buffers, or existing commitments.

Budget authority and payment authority should be separable where practical. A business or ecosystem role may propose an incentive, finance may validate the capacity basis, policy or governance may approve the mandate, operations may verify qualifying events, and an authorized payment function may execute. The appropriate separation depends on risk and scale. No particular POLIX organization or committee is asserted.

The program ledger should reconcile authorized capacity, committed amounts, qualified events, approved payments, executed payments, failed or returned transfers, corrections, and remaining capacity. If POLX is used as a payment instrument, the ledger should preserve both token units and the policy-defined economic amount. If another asset or currency is used, the same evidence discipline applies. Funding source and payment instrument should not be conflated.

Outcome review should examine more than spending completion. An incentive can be correctly authorized and paid yet fail economically. Decision records should compare the intended service, quality, participant mix, persistence, full cost, fraud or concentration, and alternative mechanisms. Renewal should not be automatic. A failure can still be valuable if it produces reusable evidence and prevents larger exposure.

Table 24.3. Economic-state vocabulary for revenue claims

STATE	DEFINITION FOR CHAPTER 24	PRIMARY EVIDENCE	COMMON ERROR
Platform activity	Qualified product or marketplace event measured under a stated method.	Event log, actor, object, time, quality and correction record.	Treated as revenue or economic value by itself.
Billed or priced amount	Amount presented or contractually calculated before recognition and settlement.	Contract, price, invoice, discounts, taxes and amendments.	Treated as earned and collected.
Recognized revenue	Amount recognized under the applicable accounting policy for satisfied obligations.	Contract, obligation, transaction price, allocation and recognition record.	Volume, deposits or token receipts labeled revenue.
Collected cash or asset	Settled resource received and controlled, subject to restrictions and reversals.	Bank, custody or settlement record; reconciliation and ownership.	Gross receipt treated as unrestricted surplus.
Contribution capacity	Collected amount less directly attributable delivery and risk costs under a defined method.	Cost basis, refunds, loss, support, infrastructure and allocation method.	Gross revenue treated as margin.
Sustainability capacity	Residual analytical capacity after operating, mandatory, reserve and prior-commitment needs.	Period close, obligations, reserve policy, approvals and scenario test.	Cash balance treated as freely deployable.
Authorized reinvestment	Bounded amount approved for a defined program and period.	Mandate, source, cap, authority, conditions and close state.	Capacity treated as automatic payment.
Executed incentive	Verified transfer or benefit delivered under an approved program.	Eligibility, event, approval, transaction, acceptance and correction.	Failed or ineligible transfers counted as outcomes.

Source: IFRS 15 revenue principles and POLIX editorial economic-control taxonomy. Definitions are analytical and do not determine legal, tax or accounting treatment.

Table 24.4. Revenue-funded incentive authorization record

FIELD	DECISION REQUIREMENT	REQUIRED EVIDENCE	CONTROLLED EXCEPTION
Revenue basis	Identify source, contract, recognition and collection basis.	Accounting policy, period, ledger and reconciliation.	Conditional planning may use forecasts if not treated as executable capacity.
Capacity	Demonstrate that operations, mandatory items, reserves and commitments remain covered.	Cost, liquidity, reserve and scenario records.	Emergency use may supersede later allocations under recorded authority.
Program object	Define the service, behavior or ecosystem result being purchased.	Mandate, eligible scope, quality test and exclusions.	Exploration may use learning milestones instead of outcome targets.
Amount or formula	Set ceiling, unit, valuation, period, adjustment and variance rules.	Approved calculation, source data and examples.	Manual adjustment requires reason, authority and audit trail.
Eligibility	Identify actors and qualifying events without hidden discretion.	Identity or role, event provenance, conflict and anti-manipulation checks.	Privacy or security may limit public detail, not internal evidence.
Execution	Separate qualification, approval, settlement and correction states.	Decision, payment or benefit record, failure and return handling.	Operational urgency may accelerate process with later review.
Outcome	Assess quality, persistence, concentration and full economics.	Baseline, counter-metrics, review and close decision.	A pilot may close for learning even without scale.

Source: POLIX editorial revenue-funded program standard. No current POLIX revenue source, incentive program, rate, recipient or payment is asserted.

FUNDING PRINCIPLE **A revenue-funded incentive should be traceable to recognized and collected economic capacity, but it is still a policy purchase of a defined service or outcome—not an automatic distribution of platform revenue.**

24.3 Controlled Token Distribution

Revenue-based sustainability does not remove the need for token-distribution controls. It changes the rationale for support while preserving the separation between allocation, program authority, release, claimability, transfer, and circulation established in Chapters 20 and 21.

POLIX official materials state that reserved token allocations are released only for predefined strategic purposes under transparent policies and governance procedures and are not intended for continuous market distribution. Chapter 24 applies that rule to the transition period. A revenue-funded program can use POLX as an instrument only if the program mandate authorizes it and the applicable supply, custody, eligibility, restriction, valuation, execution, and disclosure controls are satisfied.

The source of economic funding and the source of token units may differ. A program can be economically funded from verified revenue while using POLX acquired under a later authorized mechanism, transferred from an approved inventory, or delivered through another disclosed route. Conversely, a program can distribute preallocated POLX without being revenue-funded. Reporting should identify both dimensions so “revenue-funded” is not used to conceal allocation releases and “token-funded” is not used to imply new minting.

Token denomination introduces price and execution risk. If a program promises a fixed POLX quantity, its economic cost can vary. If it promises a fixed economic amount payable in POLX, the token quantity can vary. A policy should define the unit of obligation, conversion method, observation time, slippage, fees, failed settlement, tax documentation, and variance authority. A participant should be able to understand what is promised without assuming a guaranteed fiat value.

Distribution should remain progressive and demand-based. A revenue budget does not require the program to spend its entire ceiling or transfer tokens on a fixed cadence. Qualified events, program need, remaining capacity, token inventory or acquisition route, concentration, market conditions, restrictions, and risk can affect execution. A decision not to distribute can be a valid sustainability outcome when the service is not needed, evidence is insufficient, or another instrument is more appropriate.

Concentration requires special attention. Revenue-funded POLX rewards can still accumulate among a small set of creators, affiliates, liquidity providers, vendors, or related accounts. A program should test identity and beneficial relationships where appropriate, track exposure at relevant aggregation levels, and distinguish concentration caused by high-quality specialized work from manipulation or structural exclusion. Public disclosure may use bands to protect privacy and security.

Corrections should preserve history. If an event is invalidated, a recipient is ineligible, a transaction fails, a return is required, or a valuation is corrected, the record should link the change to the original authorization and execution. Accounting, token, program, and public records may update at different times. Their differences should be reconciled rather than silently overwritten.

24.3.1 Distribution Decision and Reconciliation

The distribution decision should identify five states: economic funding source, token-unit source, program eligibility, transfer authority, and post-transfer restriction or circulation status. None can be inferred from another. A program may have revenue capacity but no approved token inventory; it may have token capacity but no qualified recipient; it may have an executed transfer subject to lock-up; or it may have a freely transferable payment without evidence that it entered active circulation.

Reconciliation should operate across the revenue ledger, program ledger, token inventory or acquisition ledger, and on-chain or custody record. Differences can arise from timing, valuation, fees, failed transactions, returns, corrections, restrictions, or accounting treatment. A close report should explain material variance, remaining obligations, unused capacity, and unresolved exceptions.

Table 24.5. Controlled POLX distribution decision matrix

CONTROL OBJECT	REQUIRED QUESTION	EVIDENCE	INVALID INFERENCE
Economic source	Is the program allocation-funded, revenue-funded or mixed?	Source ledger, period, approved basis and reconciliation.	Payment in POLX proves revenue funding.
Token-unit source	Where do deliverable POLX units lawfully and operationally originate?	Inventory, acquisition, custody, restriction and authority record.	Maximum supply is an available program balance.
Obligation unit	Is the approved obligation fixed in POLX or another economic unit?	Contract, formula, valuation method, time and variance rule.	POLX quantity guarantees external value.
Eligibility	Did a named actor and event satisfy the program rule?	Identity or role, provenance, quality, conflicts and approval.	Activity volume alone creates entitlement.
Transfer state	Was the amount approved, attempted, settled, failed, returned or corrected?	Decision, transaction, custody and linked correction.	Authorization or transaction hash proves final delivery.
Restriction state	Is the delivered amount locked, conditional, claimable or transferable?	Contract or policy version, dates, conditions and enforcement.	Delivery equals circulating supply.
Concentration	What related exposure and market impact result?	Aggregation method, relationships, thresholds and review.	Many addresses equal many independent recipients.

Source: POLIX editorial distribution-control model. Chapters 20 and 21 govern allocation and circulation states in greater detail.

DISTRIBUTION PRINCIPLE **Revenue funding answers where economic capacity comes from. It does not by itself answer where POLX units come from, who is eligible, what value is promised, when transfer is permitted, or whether delivered tokens become circulating supply.**

24.4 Fixed Supply Protection

POLIX official materials establish an approved maximum-supply policy of 400,000,000 POLX and a policy prohibition on post-initialization minting above that maximum. This is a fundamental policy invariant, but technical enforcement requires implementation evidence, monitoring, allocation discipline, and change control in addition to the headline number.

A maximum supply limits the number of units that may exist under the approved policy. It does not establish current total supply, circulating supply, distribution, holder concentration, liquidity, contract control, network identity, or the absence of operational risk. Chapter 19 defined the evidence required before identity and supply claims can be

treated as operating facts. Chapter 24 uses the fixed maximum as an economic boundary while preserving those implementation conditions.

The no-additional-minting policy is intended to prevent one form of funding substitution: an operating shortfall should not be solved by creating new POLX above the approved maximum. It does not prevent depletion of existing allocations, rapid release of reserved units, acquisition of tokens in a market, use of other assets, debt, equity, fees, or reductions in service. Sustainability analysis should therefore track both the supply invariant and the financing decisions made inside it.

Fixed supply can reduce one source of nominal inflation, but it does not guarantee economic scarcity. Scarcity depends on demand, substitutability, accessibility, concentration, restrictions, liquidity, utility, and participant expectations. A fixed maximum also does not guarantee token price, appreciation, yield, protection from loss, or return. Whitepaper language should avoid converting a verifiable supply fact into an investment outcome.

Supply protection requires authorization controls over any function or role capable of changing total supply, transfers, pauses, restrictions, upgrades, custody, treasury movement, or burn. The applicable controls depend on the deployed contract and network. If a contract is upgradeable or controlled by privileged roles, the governance, delay, approval, monitoring, incident, and disclosure process should be explicit. No current POLX contract address, role structure, audit, owner, or upgrade status is asserted here.

Revenue-funded token use should not circumvent allocation governance. If revenue is used to acquire POLX, the policy should define venue or route, counterparty controls, execution limits, custody, conflicts, accounting, market-integrity safeguards, and later use. If existing inventory is used, its allocation and restriction state should remain traceable. Chapter 25 will address buyback and burn mechanics; Chapter 24 establishes only the prerequisite that any acquisition or supply action must be subordinate to verified capacity and separate authority.

Incident handling is part of supply protection. A discrepancy between expected and observed supply, unauthorized mint path, compromised key, erroneous transfer, failed burn, unexpected upgrade, bridge issue, or misleading public figure should trigger a defined response. The record should identify detection, containment, authority, participant impact, correction, disclosure, and later review. Supply data should be time-stamped and source-specific rather than presented as an eternal fact.

24.4.1 Supply Invariants and Change Control

An invariant register should distinguish policy invariants from implementation evidence. “Maximum supply is 400,000,000 POLX” and “no additional minting” are approved policy statements. Whether a deployed contract enforces them requires authoritative network, address, bytecode, role, event, and audit evidence. A future implementation should publish the necessary identifiers and verification path before operational claims are made.

Change control should define what cannot change, what may change through authorized governance, what requires participant notice, and what triggers emergency action. A policy can preserve a fixed maximum while allowing operational parameters to change; alternatively, contract immutability may limit correction. The whitepaper does not choose an implementation. It requires that the difference between policy commitment and technical enforcement remain legible.

Table 24.6. Fixed-supply protection control stack

LAYER	CONTROL OBJECTIVE	REQUIRED EVIDENCE	FAILURE CONDITION
Policy	Preserve the 400,000,000 POLX maximum and no-additional-minting commitment.	Approved specification, version, authority and amendment boundary.	Marketing statement has no authoritative policy source.
Identity	Bind POLX to the correct network and deployed implementation.	Network, contract address, bytecode, metadata and publication source.	Name or symbol alone is used to identify the asset.
Implementation	Verify supply logic, roles, permissions and upgrade behavior.	Source, build, tests, role map, audit or review and deployment record.	Standard name is treated as proof of supply security.
Operations	Monitor total supply, events, privileges, custody and anomalies.	Node or indexer method, event reconciliation, alert and review.	Dashboard figure is accepted without method or timestamp.
Allocation	Prevent fixed supply from becoming uncontrolled circulation.	Category ledger, restrictions, program authority and reconciliation.	Reserved units are treated as automatically available.
Change and incident	Control authorized changes and respond to discrepancies.	Proposal, approval, delay, execution, notice, containment and post-review.	History or supply figures are silently restated.
Disclosure	Communicate facts, limits and uncertainty without implying return.	Source, effective date, definitions, material changes and corrections.	Fixed supply is presented as guaranteed scarcity or price support.

Source: POLIX Token Economy v1.0 EN and POLIX editorial software-assurance framework. Current deployment and operating fields require separate evidence.

SUPPLY PRINCIPLE **A fixed maximum protects one invariant. It does not finance operations, establish circulation, prove contract enforcement, create demand, prevent concentration, or guarantee scarcity, price, or return.**

24.5 Value Capture Mechanism

Value creation, business-model capture, reinvestment, and token linkage are four different questions. Sustainable design keeps them separate so platform success is not automatically translated into a token claim or an investment promise.

Value creation begins with a useful outcome for an actor: better market discovery, clearer questions, reliable resolution, decision support, creator capability, data access, integration, liquidity, or another service. A platform can create value without monetizing it, particularly during early adoption or on a strategically subsidized side. The first measurement question is therefore who receives what benefit and how it can be observed without relying on token price or promotional reach.

Value capture asks how the operating system receives consideration for part of that benefit. The answer may involve a fee, subscription, premium capability, service agreement, integration, data arrangement, or another model. Each must identify the customer, obligation, unit, price, cost, rights, risks, and competitive alternative. A business model can capture revenue while destroying ecosystem value if fees degrade participation, resolution quality, liquidity, trust, or creator supply. Counter-metrics are necessary.

Economic allocation asks how collected resources are used after operating and risk obligations. Reinvestment can improve product, security, support, creator tools, data, regional capability, or ecosystem incentives. It can also accumulate reserves or preserve flexibility. The priority should be disclosed at the policy level without implying that every period produces capacity or that a fixed percentage must be spent. Different maturity and risk states can justify different allocations.

Token linkage asks whether and how POLX is involved. POLX may serve intended utility, payment, access, incentive, coordination, governance, or supply-management functions depending on approved implementation. Platform revenue alone does not establish any of them. A credible linkage should identify the actor, required or optional role of POLX, value or service exchanged, funding source, contract or policy, qualifying event, economic risk, and evidence. The linkage should remain understandable even if token price changes.

A revenue-funded incentive can create token demand if POLX must be acquired for an approved payment, but that is not automatic and should not be assumed. Existing inventory could be used; recipients could sell; acquisition could be offset by distribution; activity could decline; another instrument could be chosen; or market structure could dominate the effect. Likewise, a buyback could change supply ownership or liquidity without creating durable platform utility. Chapter 25 will examine the conditions and evidence for buyback and burn.

Revenue sharing requires special caution. If a future arrangement pays creators or partners based on market-generated economics, it should be described as a contractual service arrangement with defined calculation and rights, not as a general entitlement of token holders. The arrangement should state whether the base is gross or net, which amounts are excluded, when amounts are earned, how reversals and disputes work, what data participants can inspect, and how policy changes affect existing periods. No such POLIX arrangement is established here.

A value-capture mechanism should also disclose negative externalities. Monetization can encourage excessive trading, low-quality market creation, privacy loss, conflicts, manipulation, exclusion, or concentration. Incentive design can shift risk to creators or users. Data or AI products can create provenance, accuracy, and access concerns. Revenue should be evaluated together with market integrity, participant outcomes, legal obligations, and system resilience, not as an isolated growth metric.

24.5.1 Value Linkage and Claim Boundaries

The strongest disclosure format is a linkage table that distinguishes confirmed specification, intended design direction, policy condition, operating evidence, and outcome uncertainty. A statement such as “revenue supports ecosystem incentives” is incomplete unless readers can see the eligible revenue base, priority order, approval, period, program, payment instrument, and reconciliation. A statement such as “revenue supports token value” is materially stronger and should not be made without a defined mechanism and evidence of the causal chain.

Token holders should not infer equity, debt, dividend, profit share, redemption, reserve claim, ownership, voting, or governance rights from sustainability language. Any such right would require an authoritative instrument and applicable legal analysis. Chapter 24 grants none. It defines an economic architecture for responsible operations and bounded program funding.

Management or governance should preserve discretion only within disclosed boundaries. Unlimited discretion makes a mechanism unfalsifiable; rigid automatic formulas can impair operations or create predictable market behavior. A balanced policy can set eligibility, priority, capacity, caps, review, conflicts, execution controls, emergency authority, and reporting while allowing period-specific decisions based on verified conditions. Reasons should be recorded when capacity is not used or a downstream action is deferred.

Table 24.7. Value creation, capture, allocation, and token linkage

LAYER	PRIMARY QUESTION	EVIDENCE	CLAIM BOUNDARY
Value creation	What useful outcome does the platform enable, and for whom?	User or creator outcome, quality, counter-metric and persistence.	Activity or reach alone is not value.
Business-model capture	What obligation earns consideration from which counterparty?	Contract, price, recognition, cost, collection and retention.	Volume or deposits are not automatically revenue.
Sustainability capacity	What remains after operating, mandatory, risk and prior commitments?	Period close, liquidity, reserve, scenario and authority records.	Cash or profit does not create automatic distributable capacity.
Economic allocation	Which approved purpose receives bounded capacity?	Priority, program mandate, cap, decision, execution and close.	Budget capacity is not a participant entitlement.
POLX utility linkage	What service, access, payment or coordination role requires or permits POLX?	Specification, actor, object, event, contract and operating proof.	Platform success does not prove token demand.
Supply linkage	Does an authorized action acquire, distribute, restrict or permanently remove POLX?	Source, route, custody, amount, execution, reconciliation and disclosure.	Announcement is not buyback or burn execution.
Outcome	Did the mechanism improve durable system quality and economics?	Time series, counterfactual, integrity, concentration and risk.	Supply change guarantees scarcity, price or return.

Source: POLIX editorial value-linkage framework informed by platform and token-economics literature. No current POLIX mechanism or outcome is asserted.

Table 24.8. Proposed revenue-waterfall priorities

PRIORITY	PURPOSE	DECISION TEST	EVIDENCE BEFORE RELEASE
1. Participant and settlement integrity	Meet refunds, settlement, custody and customer-asset obligations.	Are amounts owned, due, restricted or reversible?	Reconciliation, ownership, due dates and exception record.
2. Mandatory obligations	Meet tax, legal, contractual and other binding requirements.	What is due, probable or reserved under the applicable method?	Policy, estimate, authority, payment and later true-up.
3. Secure operations	Fund infrastructure, security, support, resolution and incident response.	What service level and resilience are required?	Budget, vendor or personnel basis, capacity and risk review.
4. Risk and continuity capacity	Maintain approved liquidity, loss, contingency and continuity buffers.	What scenario and recovery need justifies the reserve?	Reserve policy, threshold, access, review and release rule.
5. Committed development	Complete previously authorized product and ecosystem obligations.	Are milestones, benefits and remaining costs still valid?	Mandate, contract, progress, change and close record.
6. Revenue-funded incentives	Purchase defined qualified services or ecosystem outcomes.	Does capacity exist and is the program economically justified?	Program policy, eligibility, cap, funding, execution and outcome.
7. Optional downstream token action	Consider acquisition, buyback or burn only under separate policy.	Does residual capacity remain after higher priorities and risk tests?	Chapter 25 policy, authority, route, execution and disclosure.

Source: POLIX editorial proposed waterfall. Priority ordering is an analytical governance standard, not a current POLIX financial policy, account, budget or commitment.

VALUE-CAPTURE PRINCIPLE **Platform value, platform revenue, residual economic capacity, POLX utility, and token-market outcomes are related only through defined mechanisms and evidence. None should be used as a proxy for another.**

24.6 Sustainable Value Cycle

The official simplified cycle—Platform Activity → Platform Revenue → Revenue-funded Ecosystem Incentives → Ecosystem Growth → Buyback & Burn → Long-term Token Value—is best understood as a strategic hypothesis. Chapter 24 replaces the appearance of an automatic loop with a sequence of testable transitions, controls, and possible stop states.

The first transition asks whether platform activity represents useful demand and a delivered service. Activity can be manipulated, subsidized, duplicated, or economically irrelevant. Evidence should separate qualified creators, participants, markets, resolution events, data or AI use, and partner services as appropriate. Quality, retention, dispute, concentration, and incident measures should accompany volume.

The second transition asks whether the activity generates recognized and collected revenue. A price or fee schedule is insufficient. The record should connect the activity to a contract, performance obligation, transaction price, recognition event, settlement, deduction, refund, and reconciliation. If an activity is deliberately free or subsidized, that can be strategically valid, but it should not be counted as revenue-producing.

The third transition asks whether collected resources create sustainability capacity after full costs, mandatory obligations, risk buffers, and commitments. Revenue growth can coexist with negative contribution, cash stress, security underinvestment, or concentrated counterparty exposure. Decision makers should examine margins, cash conversion, volatility, concentration, loss, service quality, and downside scenarios without converting any single metric into a public guarantee.

The fourth transition asks whether a revenue-funded incentive produces durable ecosystem capability. More rewards can increase activity while weakening quality or attracting transient actors. Each program should have a baseline, theory of change, eligible object, unit economics, counter-metrics, stage, review, and close state. Ecosystem Growth should be evidenced by retained capabilities, relationships, knowledge, reliability, or demand—not merely by token distribution.

The fifth transition asks whether any downstream buyback or burn is authorized and financially sustainable. This is not a required output of every profitable period. Operations, reserves, development, incentives, market conditions, legal and tax considerations, execution risk, and policy priorities may justify deferral. Chapter 25 will define the evidence and governance required before an acquisition or permanent supply reduction is claimed.

The final transition asks whether the mechanism produces long-term token value. That outcome is uncertain. Token utility, adoption, circulating supply, concentration, liquidity, substitutability, market expectations, regulation, security, and broader conditions can affect demand and price. The whitepaper can describe intended alignment and disclosed actions, but it should not promise appreciation, yield, capital protection, or return.

A sustainable cycle must allow reversal and correction. Revenue can decline; a product can lose relevance; a fee can damage participation; a reserve target can rise; an incentive can be manipulated; a program can fail; or an incident can suspend activity. The policy should define thresholds for reducing exposure, pausing programs, restoring buffers, changing instruments, and communicating material changes. A cycle that can only expand is not sustainable governance.

Maturity should be staged. In an allocation-supported stage, the principal task is to validate useful participation and critical capability under finite exposure. In a hybrid stage, allocation and verified revenue may jointly fund bounded programs with explicit attribution. In a revenue-primary stage, recurring incentives rely mainly on verified capacity. In a resilient stage, operations, reserves, development, and optional token actions can be considered within a tested governance and disclosure framework. These are proposed states, not a POLIX launch timeline.

24.6.1 Maturity Gates, Reporting, and Correction

A maturity decision should be made by program or economic unit before it is generalized platform-wide. The decision record should identify the period, scope, data quality, revenue method, collection, full cost, risk, funding mix, program outcomes, concentration, exceptions, and reviewer. A platform can have multiple maturity states at once. A mature service should not be used to label an experimental program self-financing.

Public reporting should distinguish confirmed policy, current operating facts, period metrics, forecasts, and targets. Useful disclosures may include revenue categories and recognition method, funding mix, incentive authorization and execution, allocation releases, cost and reserve methodology, material concentration, policy changes, incidents, and corrections. Exact amounts may require commercial, legal, privacy, or security limits, but those limits should not justify ambiguous claims.

Governance should manage conflicts. Roles that set fees, recognize revenue, approve incentives, verify qualifying events, execute token transfers, arrange acquisitions, or publish performance may have different incentives. Separation of duties, recusal, independent review, audit trails, and market-integrity controls should be proportionate to the amount and risk. IOSCO’s crypto-asset policy recommendations reinforce the importance of conflicts,

disclosure, custody, operational risk, and market-integrity controls; they do not determine POLIX legal status or implementation.

The sustainability record should preserve negative evidence and non-actions. A program not launched, revenue not recognized, cash not collected, incentive not renewed, distribution not executed, reserve not released, or buyback not performed can be the correct decision. Reasons and conditions should be recorded so later communications do not rewrite caution as delay or failure as success.

Table 24.9. Revenue-based sustainability maturity gates

STAGE	FUNDING PATTERN	REQUIRED GATE	PROHIBITED CLAIM
1. Allocation-supported validation	Bounded strategic allocation supports tested coordination or capability gaps.	Defined hypothesis, cap, quality, counterfactual, full cost and close.	Rewarded activity proves product-market fit or revenue.
2. Hybrid transition	Verified revenue funds part of a program while allocation support remains explicit.	Source attribution, cash basis, cost, capacity, separate ledgers and review.	Any platform revenue makes the program self-funding.
3. Revenue-primary program	Recurring support is funded mainly from verified sustainability capacity.	Persistent demand, collection, margin, risk buffers, quality and authorization.	Revenue-primary means permanent or guaranteed funding.
4. Portfolio sustainability	Operations and multiple programs are evaluated through a consolidated waterfall.	Concentration, scenarios, commitments, reserves, governance and disclosure.	One profitable service proves platform-wide sustainability.
5. Optional token-action readiness	Residual capacity may be considered under a separate token policy.	Higher priorities satisfied; legal, tax, market, custody and execution review.	Readiness is execution, burn, price support or holder return.

Source: POLIX editorial maturity model. Stages are analytical, not a current POLIX operating status, date, commitment or forecast.

Table 24.10. Sustainability scorecard and counter-metrics

DIMENSION	PRIMARY MEASURE	COUNTER-METRIC	DECISION USE
Useful activity	Qualified repeat use, creator output or service consumption.	Subsidized, duplicate, low-quality or disputed activity.	Validate that activity represents a service outcome.
Revenue quality	Recognized revenue by source, obligation and cohort.	Refunds, reversals, concentration, non-cash and one-time items.	Assess repeatability and accounting quality.
Cash conversion	Collected unrestricted amount and collection timing.	Receivables, restrictions, volatility, chargebacks and custody risk.	Determine liquidity available for capacity tests.
Full economics	Contribution after delivery, support, risk and infrastructure costs.	Omitted overhead, losses, security debt and opportunity cost.	Evaluate whether growth strengthens operations.
Funding transition	Share of eligible support funded from verified capacity.	Hidden allocation releases, token-value dependence and rollover.	Measure dependence by program and period.
Ecosystem quality	Persistent capability, diversity, resolution quality and retention.	Concentration, manipulation, complaints and rapid post-reward decay.	Approve, modify, reduce or close incentives.
Supply discipline	Compliance with maximum, allocation, restriction and execution rules.	Unexpected events, privileged changes, discrepancies and concentration.	Protect the fixed-supply policy and records.
Resilience	Coverage, reserve adequacy, incident recovery and downside capacity.	Stress losses, vendor or counterparty dependence and unresolved events.	Protect operations before discretionary uses.
Disclosure	Timely policy, method, state, decision and correction reporting.	Ambiguity, stale figures, promotional inference and missing provenance.	Keep claims aligned with evidence.

Source: POLIX editorial sustainability scorecard. No current target, metric value, performance, revenue, cost, reserve, program or outcome is asserted.

SUSTAINABILITY PRINCIPLE **A sustainable value cycle is not a promise that activity inevitably becomes revenue or that revenue inevitably becomes token value. It is a governed sequence in which every transition can be evidenced, limited, deferred, corrected, or stopped.**

Chapter Synthesis

1. POLIX official materials establish a strategic transition from continuous token-funded support toward platform-revenue-funded incentives; they do not establish current revenue, profitability, programs, or execution.

2. Activity, billed amounts, recognized revenue, collected cash, contribution capacity, sustainability capacity, authorized reinvestment, and executed incentives are different states with different evidence.
3. Early allocation-funded support can help solve coordination and critical-mass problems, but continued support should be tied to a defined service gap, full economics, persistent quality, and an explicit reduction, conversion, or close path.
4. Revenue-funded incentives are bounded purchases of qualified services or ecosystem outcomes; they do not automatically create revenue-sharing or token-holder rights.
5. The source of economic funding, source of POLX units, obligation unit, recipient eligibility, transfer state, restriction state, and circulation must remain separately traceable.
6. The 400,000,000 POLX maximum and no-additional-minting policy protect a supply invariant, not current supply, circulation, implementation security, demand, scarcity, price, or return.
7. Value creation, business-model capture, residual economic capacity, allocation, POLX utility, and token-market outcomes should be connected only through defined mechanisms and operating evidence.
8. A proposed revenue waterfall prioritizes participant and settlement integrity, mandatory obligations, secure operations, risk and continuity capacity, and existing commitments before discretionary incentives or later token actions.
9. The sustainable value cycle is a falsifiable sequence with maturity gates, counter-metrics, conflicts, change control, public state distinctions, and the ability to pause or reverse.
10. Chapter 24 is a proposed revenue, funding, distribution, supply, and disclosure architecture. It does not assert current fees, revenue, cash, costs, reserves, profitability, wallets, programs, recipients, releases, distributions, buybacks, burns, adoption, token demand, price, or return.

TRANSITION TO CHAPTER 25 **Chapter 24 establishes when verified residual economic capacity could exist and why no token action follows automatically. Chapter 25 will examine the separate Buyback and Burn Mechanism: authorization, acquisition, custody, execution, permanent removal, reconciliation, market-integrity controls, disclosure, and the boundary between a long-term objective and an accomplished burn.**

References and Source Notes

Official POLIX materials establish a 400,000,000 POLX maximum, an approved no-additional-minting policy, an intended transition from strategic allocations toward revenue-funded ecosystem incentives, controlled strategic distribution, reinvestment direction, possible revenue-linked buyback and burn, and a simplified sustainable value cycle (POLIX Presentation v1.0 EN, 2026; POLIX Token Economy v1.0 EN, 2026). They do not establish current platform revenue, a revenue source or rate, accounting policy, fee schedule, customer contract, bank or custody balance, cost, margin, reserve, profitability, incentive program, recipient, payment, token acquisition, buyback, burn, circulating supply, legal right, adoption, token demand, price, or return. The waterfall, equations, priorities, maturity gates, matrices, controls, and scorecards in this chapter are proposed analytical standards, not deployed POLIX facts.

External sources support general principles concerning revenue recognition, marketplace critical mass, platform pricing, token coordination and valuation, cash-flow governance, and crypto-asset conduct controls. They do not establish POLIX accounting treatment, operations, legal status, financial sustainability, token value, or compliance.

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CHAPTER 25

Buyback and Burn Mechanism

A buyback and a burn are separate economic, operational, and technical events. A buyback changes who owns existing POLX; it does not by itself reduce token supply. A burn becomes a permanent supply reduction only when the canonical implementation irreversibly destroys units, the transaction is confirmed, the before-and-after supply state is reconciled, and the result is disclosed without overstating its effect.

Chapter 24 established the conditions under which verified residual economic capacity could exist after participant and settlement obligations, mandatory costs, secure operations, risk buffers, and prior commitments. It also established that no token action follows automatically. Chapter 25 begins at that boundary. It asks what additional evidence, authority, market controls, custody records, smart-contract behavior, and public disclosures would be required before POLIX could describe a buyback as executed or a burn as accomplished.

POLIX Token Economy v1.0 EN states four relevant directions. First, POLX has a fixed maximum supply of 400,000,000 units. Second, the approved policy prohibits post-initialization minting above the 400,000,000 POLX maximum; technical enforcement remains unverified until the canonical implementation is evidenced. Third, a portion of platform revenue may be allocated to token buybacks and long-term burn programs in accordance with predefined operational policies and financial sustainability. Fourth, the long-term objective is to burn up to 200,000,000 POLX, representing 50% of the maximum supply, while retaining flexibility for sustainable ecosystem growth. The official document also states that amount and timing may vary with revenue, ecosystem development, market conditions, and sustainability objectives rather than follow a fixed or arbitrary schedule.

These statements define direction, not current state. They do not identify a revenue source, accounting period, distributable amount, acquisition budget, formula, venue, broker, counterparty, wallet, contract address, execution function, transaction hash, burn schedule, completed amount, current total supply, current circulating supply, or legal and tax treatment. Chapter 25 therefore uses conditional language and an evidence-gated lifecycle. A planned action, an authorized action, an order, a trade, a settlement, a custody balance, a burn submission, a confirmed burn, and a reconciled public result are different states.

The technical distinction is equally important. BEP-20 provides a standard interface for fungible tokens on BNB Smart Chain, derived from ERC-20, but interface compatibility does not by itself define a burn mechanism or governance policy. OpenZeppelin's ERC20Burnable extension illustrates one implementation in which holders can destroy their own tokens or tokens for which an allowance exists, with events that can be analyzed off-chain. A deployed POLX burn can be described only after the authoritative network, contract, bytecode or verified source, callable function, permissions, events, total-supply semantics, and transaction evidence are known.

Sending tokens to a commonly labeled "dead" address is not automatically equivalent to a contract-level burn. The address may be assumed inaccessible, yet the tokens can remain included in totalSupply; control assumptions, chain conventions, bridge mechanics, or implementation changes can also complicate the claim. Locking, reserving, vesting, transferring, retiring in an internal ledger, moving to a treasury wallet, and burning are therefore separate classifications. Only the mechanism's actual semantics determine whether supply has been irreversibly reduced.

The economic distinction also matters. Corporate-finance literature associates some equity repurchases with payout, capital structure, or signaling decisions (Dittmar, 2000; Brav et al., 2005). A token buyback is not automatically equivalent to a share repurchase. POLX does not thereby become equity, a residual claim, a dividend right, or a contractual share of platform revenue. Any analogy must be limited to the narrower questions of discretionary acquisition, execution cost, information asymmetry, and governance. Token utility, demand, liquidity, concentration, adoption, regulation, and broader market conditions remain independent determinants of market outcomes.

Market integrity is therefore part of the mechanism, not an external afterthought. A buyback announcement or predictable execution pattern can influence expectations and trading behavior. Applicable rules may address inside information, misleading signals, artificial prices, conflicts, order conduct, and market manipulation. IOSCO's crypto-asset recommendations and the European Union's Markets in Crypto-Assets Regulation provide general examples of these concerns. This chapter does not determine where those rules apply to POLIX; it adopts the control principle that acquisition should not be designed or communicated as artificial price support and should be reviewable for conflicts, misuse of information, self-dealing, and misleading disclosure.

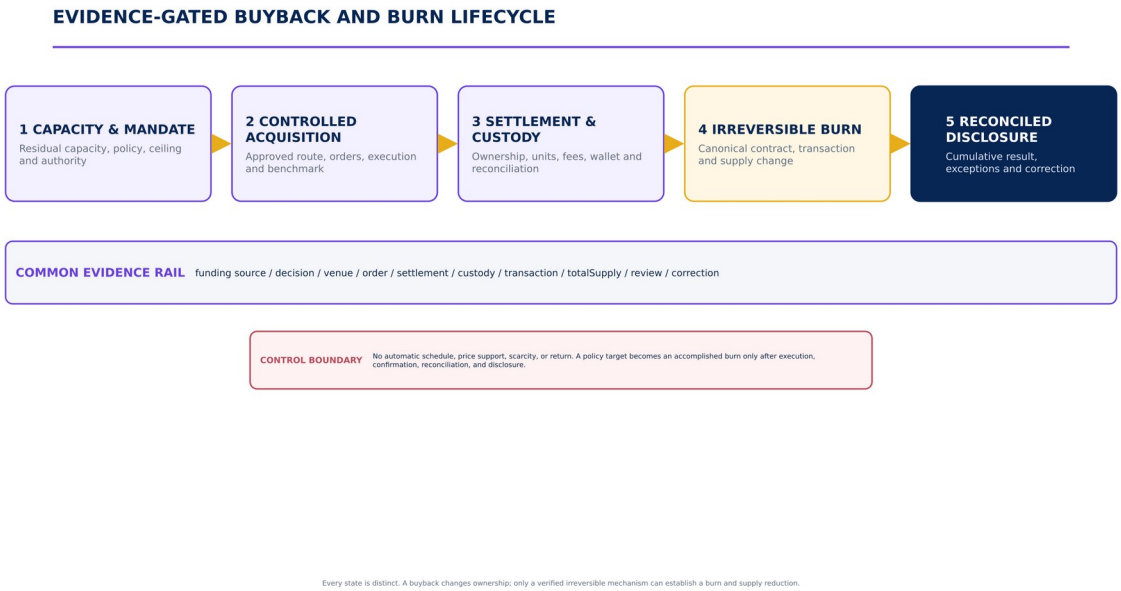

Figure 25.1. Evidence-gated buyback and burn lifecycle. Acquisition changes ownership; only an authorized, confirmed, irreversible and reconciled mechanism establishes a burn and supply reduction. Source: POLIX editorial synthesis informed by POLIX Token Economy v1.0 EN, BEP-20 and ERC-20 implementation principles, and market-integrity controls.

Table 25.1. Confirmed buyback-and-burn direction and non-inferences

ELEMENT	CONFIRMED DIRECTION	REQUIRED BEFORE OPERATION	NOT ESTABLISHED HERE
Supply policy	Approved policy: 400,000,000 POLX maximum; post-initialization minting above that maximum is prohibited.	Canonical contract, initialization boundary, role and privilege review, totalSupply and mint-path verification.	Deployment, address, current supply, circulating supply, ownership, upgradeability or implementation security.
Revenue linkage	A portion of platform revenue may support buyback and long-term burn programs.	Recognized and collected funding, residual-capacity test, budget authority and source reconciliation.	A current revenue stream, percentage, formula, cash balance, budget or holder entitlement.
Execution flexibility	Amount and timing may vary with revenue, ecosystem development, market conditions and sustainability.	Versioned policy, period ceiling, readiness gates, route, stop conditions and reviewer.	A fixed cadence, date, amount, price threshold or guaranteed execution.
Permanent reduction	Burned POLX is intended to be permanently removed and not reissued or reminted.	Canonical burn semantics, permissions, confirmed transaction, supply delta and assurance.	That a transfer, lock, treasury balance or labeled address has reduced total supply.
Long-term objective	Burn up to 200,000,000 POLX, equal to 50% of maximum supply.	Cumulative verified-burn ledger, target version, reconciliation and public state reporting.	A deadline, minimum burn, completed percentage, remaining policy headroom, scarcity, price or return.

Source: POLIX Token Economy v1.0 EN; POLIX editorial evidence boundary. The chapter does not assign a current operational, technical, financial or market state.

EVIDENCE BOUNDARY **Report the lifecycle as separate states: residual capacity, authorization, order, trade, settlement, burn custody, canonical supply-reducing burn, reconciliation, and verified disclosure. Only a confirmed canonical burn qualifies as supply reduction.**

25.1 Purpose and Long-Term Objective

The purpose of the POLIX Burn Policy is disciplined long-term supply reduction connected to sustainable platform economics, not short-term market intervention. The long-term objective is a policy ceiling of up to 200,000,000 POLX burned, not a deadline, an unconditional obligation, or a forecast of market value.

A durable objective should be stated in the unit that the policy can actually govern. POLIX can define the maximum cumulative number of units eligible for confirmed permanent removal. It cannot predefine future token demand, liquidity, price, market capitalization, holder return, or the economic value of each remaining unit. Those outcomes depend on both supply and demand and may change for reasons unrelated to burn activity.

The policy objective can be represented as $0 \le B_t \le 200{,}000{,}000$ POLX, where B_t is cumulative POLX whose permanent removal has been confirmed and reconciled by time t. The expression is a target boundary, not evidence of current B_t, a deadline, a minimum burn, a purchase commitment, or a price outcome.

The word “up to” is material. It preserves the ability to defer, reduce, pause, or terminate discretionary token action when verified revenue is insufficient, operating needs rise, security or legal risks change, liquidity is poor, market integrity is threatened, or alternative uses of funds are more important. It should not be rewritten as “will burn 200,000,000” or “will reduce supply to 200,000,000” unless the starting supply, implementation, cumulative execution, and remaining target are established by authoritative evidence.

The objective should also be distinguished from an authorization ceiling. A policy may permit cumulative burns up to a long-term limit while each program requires a separate period mandate and each transaction requires execution authority. A ceiling is not a budget. A budget is not an instruction to spend. A completed purchase is not necessarily burn-eligible. A burn-eligible custody balance is not burned until the irreversible action succeeds. This hierarchy prevents a high-level target from bypassing financial, technical, and market controls.

Long-term supply reduction should be evaluated alongside utility and ecosystem capacity. Burning units can reduce the quantity outstanding under a verified method, but it cannot substitute for useful products, reliable markets, resolution quality, security, liquidity, community trust, or sustainable revenue. An aggressive burn that weakens operations, market depth, incident reserves, or future development can conflict with the sustainability objective it is meant to support.

The target should therefore remain versioned and reviewable. Material changes should identify the prior policy, new policy, effective date, authority, rationale, treatment of prior executions, and impact on future eligibility. A target revision does not alter the historical burn ledger. Confirmed burns remain historical facts; planned future actions remain policy choices.

Table 25.2. Buyback-and-burn state ladder

STATE	MEANING	PRIMARY EVIDENCE	PROHIBITED INFERENCE
Policy objective	Long-term direction and cumulative upper boundary.	Approved policy version, scope, authority and effective date.	Execution, funding, schedule or supply change.
Program authorization	Bounded period mandate to consider or execute acquisition and burn.	Residual-capacity test, budget ceiling, rules, roles and conditions.	That the full budget will be spent or target units obtained.
Executed acquisition	Orders traded under the approved route.	Order and fill records, venue or counterparty, price, quantity and fees.	Settlement, ownership, burn eligibility or supply reduction.
Settled custody	Purchased units received and controlled in an identified state.	Settlement, wallet or custodian record, provenance and reconciliation.	Permanent removal or lower totalSupply.
Confirmed burn	Canonical irreversible action accepted by the network.	Transaction, block, function, event, status and supply delta.	Final cumulative public total before reconciliation.
Reconciled result	Burn matched to funding, custody, supply and disclosure ledgers.	Signed report, exceptions, reviewer, correction state and publication.	Scarcity, price support, appreciation or holder return.

Source: POLIX editorial lifecycle model. No state in this table is assigned to a current POLIX program.

25.1.1 Scarcity, Utility, and the Non-Guarantee Boundary

Scarcity is relational. A lower verified supply can increase relative scarcity only in conjunction with demand, substitutability, availability, concentration, and market access. If useful demand falls faster than supply, a burn does not prevent adverse market outcomes. If most units remain concentrated or unavailable, a burn can coexist with weak liquidity. If market participants already anticipated the action, the announcement and completion may convey different information. The whitepaper should therefore report supply facts without converting them into price predictions.

A buyback can also have multiple economic effects that should not be collapsed into one narrative. It can change treasury or custody balances, absorb available liquidity, create transaction costs and slippage, affect concentration, alter the composition of token holders, and signal management priorities. Some effects may be temporary. A later burn can make the acquired units permanently unavailable if the implementation is valid. None of these states proves stronger utility or product adoption.

The corporate-repurchase analogy has further limits. Equity repurchases concern claims in a corporate and legal framework; token acquisition may concern a utility asset with different rights, venues, disclosures, custody, and technical supply semantics. Research on corporate repurchases is useful for identifying signaling, free-cash-flow,

and timing questions, but it does not establish that POLX buybacks create the same rights or outcomes. The policy should avoid labels such as dividend, yield, earnings distribution, redemption promise, or guaranteed capital return unless independently established under applicable law and contract.

Tokenomics research likewise shows that adoption and valuation can depend on platform activity, user expectations, and the interaction between token supply and network demand (Cong, Li, and Wang, 2021). A burn affects only part of that system. The strongest disclosure therefore pairs supply metrics with utility, participation quality, liquidity, concentration, and ecosystem-risk context rather than presenting a cumulative burn total as a complete measure of value.

Table 25.3. Claimed effect, required evidence, and non-guarantee

CLAIMED EFFECT	WHAT CAN BE MEASURED	REQUIRED CONTEXT	WHAT MUST NOT BE PROMISED
Supply reduction	Confirmed units burned and before-and-after totalSupply.	Canonical contract, transaction, supply semantics, mint controls and corrections.	That every transfer to an inaccessible address reduces total supply.
Reduced availability	Units no longer spendable or held for circulation under a stated method.	Custody, locks, address control, restrictions and classification policy.	That reduced availability is permanent unless mechanism proves it.
Market absorption	Units acquired, execution price, fees, slippage and venue share.	Market depth, benchmark, concentration, route and period.	A permanent demand floor or price support.
Relative scarcity	Supply and availability metrics compared with demand indicators.	Utility, adoption, liquidity, substitutes, concentration and expectations.	Appreciation, market-cap increase or return.
Long-term alignment	Compliance with policy, sustainability gates and target progress.	Operations, reserves, program outcomes, governance and disclosure quality.	That a burn is always the highest-value use of funds.

Source: POLIX editorial supply-and-demand evidence framework informed by tokenomics and repurchase research. No market outcome is asserted.

OBJECTIVE PRINCIPLE **The 200,000,000 POLX figure is a long-term policy boundary. It becomes historical progress only through confirmed and reconciled burns, and it never becomes a guarantee of scarcity, adoption, liquidity, price, market capitalization, or return.**

25.2 Revenue-Linked Buyback

Revenue-linked means that a buyback may be funded only from verified residual economic capacity under an approved policy. It does not mean that a fixed percentage of gross revenue, every profitable period, or every cash receipt automatically becomes a token-purchase obligation.

The funding source should be traced through the Chapter 24 waterfall. A platform activity must first support a recognized revenue claim; revenue must be collected and controlled; refunds, taxes, settlement duties, operating costs, risk reserves, security needs, and prior commitments must be covered; and the residual amount must be authorized for a discretionary token action. A public claim should identify which of these states has been reached. Gross volume, billed amount, token deposits, customer collateral, restricted cash, or a wallet balance should not be described as buyback capacity.

A buyback mandate should be bounded by both economic and operational limits. The decision record should identify the policy version, period, funding source, maximum budget, maximum units if applicable, eligible routes, permitted venues or counterparties, execution operator, custody destination, benchmark, fee and slippage treatment, conflict rules, blackout conditions, pause authority, burn path, reporting method, and close state. Exact live order parameters may remain confidential when disclosure could increase manipulation or execution cost, but the governing method and ex-post result should remain reviewable.

The budget should preferably be controlled in the economic unit of the approved capacity rather than as a promised number of POLX. A fixed token quantity can create self-referential pressure to spend more when price rises or can force concentration when liquidity falls. The acquired quantity should be an execution result subject to the budget and controls. If policy instead uses a quantity ceiling, it should also include an economic ceiling, market-depth test, and stop condition.

Funding and payment assets should not be conflated. Revenue may be collected in fiat currency, stable assets, or another settlement form; POLX may be acquired through a different instrument or venue. Conversion, custody, counterparty, settlement, fee, and foreign-exchange or stable-asset risks can exist before POLX is received. The ledger should preserve each asset, amount, valuation source, timestamp, ownership state, and transaction cost rather than reporting only the final POLX quantity.

Separation of duties should be proportionate to risk. A business or finance role can establish capacity; policy or governance can authorize the mandate; an execution role can place orders; a custodian or controlled wallet can receive assets; a technical role can submit a burn; and an independent reviewer can reconcile and disclose. Combining roles may be unavoidable in an early organization, but compensating controls, dual approval, transaction limits, key management, audit trails, and after-the-fact review should be explicit. No current POLIX organization, committee, wallet architecture, or service provider is asserted.

The buyback should not be presented as an entitlement owed to token holders. Revenue linkage describes a potential funding source and governance choice. It does not create a claim on platform income, a redemption right, a guaranteed buyer, a minimum price, or a commitment to exhaust the authorized budget. Non-execution can be the correct result when readiness gates fail.

Table 25.4. Revenue-linked buyback authorization record

FIELD	DECISION REQUIREMENT	MINIMUM EVIDENCE	CONTROLLED EXCEPTION
Funding basis	Identify recognized and collected source and residual-capacity method.	Period close, ledger, ownership, costs, reserves, commitments and reconciliation.	Conditional planning may use forecasts if not treated as executable funds.
Program ceiling	Set maximum economic amount, optional unit cap, period and unused-balance treatment.	Approved calculation, currency or asset, valuation source and examples.	Emergency reduction or cancellation may occur under recorded authority.
Execution scope	Define route, eligible venues or counterparties, benchmarks and order controls.	Market assessment, conflicts, permissions, limits and stop conditions.	Specific live parameters may remain confidential to protect execution.
Custody path	Identify settlement destination, ownership, signer roles and burn eligibility.	Wallet or custodian record, key controls, allowlist and reconciliation.	Temporary settlement accounts may be used if traceability is preserved.
Burn instruction	Define when settled units become eligible and who may authorize permanent removal.	Canonical contract review, function, permissions, transaction plan and reviewer.	Burn may be deferred without converting custody into completed supply reduction.
Disclosure	Separate authorized, executed, settled, burned and reconciled states.	Versioned report, source records, exceptions, corrections and publication date.	Timing may be delayed when required by applicable law or integrity controls.

Source: POLIX editorial buyback-control standard. No current POLIX funding source, ceiling, execution route, custodian, wallet or disclosure schedule is established.

FUNDING PRINCIPLE **A revenue-linked buyback is a discretionary use of verified residual capacity under a separate mandate. It is not a charge against gross revenue, a standing percentage, a holder distribution, a redemption facility, or a requirement to purchase regardless of liquidity and risk.**

25.2.1 Execution Routes and Market Integrity

An execution policy should choose a route based on the mandate, liquidity, market structure, custody, counterparty, information sensitivity, and applicable rules. No route is universally superior. Immediate market execution offers speed but can produce price impact and information leakage. Limit or staged execution can constrain price and participation but may remain incomplete. Auctions or requests for quotation can aggregate liquidity and document counterparties but may concentrate information. Over-the-counter execution can reduce visible market impact while introducing counterparty, pricing, settlement, and disclosure risks.

Route choice should be documented before execution and assessed afterward. The record should include eligible venues, selection method, order types, time zone, benchmark window, participation ceiling, price or slippage guardrails, cancellation rules, failed or partial fills, fees, settlement timing, and concentration. An independent benchmark should be defined without cherry-picking a favorable interval after the result is known. Where markets are fragmented, the policy should explain whether and how prices and depth were consolidated.

Pre-trade controls should address available funds, approved instrument, venue and counterparty eligibility, wallet and settlement instructions, duplicate orders, market depth, concentration, sanctions or restricted-party screening where applicable, conflicts, restricted information, and change authorization. In-trade controls should address size, price, participation, self-trade prevention, order persistence, venue incidents, volatility, abnormal spreads, market outages, and stop authority. Post-trade controls should address allocations, confirmations, fees, settlement failures, custody receipt, benchmark analysis, suspicious patterns, and exceptions.

Information controls are especially important when buyback decisions could be price sensitive. Authorization lists, blackout periods, need-to-know access, communication logs, recusal, and controlled release can reduce misuse. Public disclosure should not be combined with misleading promotion, and internal or related-party trading around nonpublic decisions should be governed under applicable policy and law. The chapter adopts these principles as risk controls, not as a conclusion about POLIX's legal classification or jurisdiction.

Market-integrity surveillance should look for wash or self-trading, related-party execution, front-running, spoofing, layering, circular transfers, artificial volume, dominant-position effects, abnormal spreads, venue anomalies, and transactions inconsistent with the mandate. MiCA provides one jurisdictional example by prohibiting misleading supply, demand, or price signals and artificial price levels for covered crypto-assets. IOSCO likewise emphasizes conflicts, fair and orderly markets, custody, operational risk, and disclosure. POLIX implementation would require its own jurisdictional analysis.

Table 25.5. Execution-route decision matrix

ROUTE	POTENTIAL USE	PRINCIPAL EVIDENCE	PRINCIPAL RISK
Market execution	Small or urgent acquisition in demonstrably adequate depth.	Order, fill, depth, timestamp, price impact, fees and settlement.	Slippage, signaling, concentration and adverse selection.
Limit or staged orders	Price-bounded or time-distributed acquisition.	Limits, windows, participation, modifications, cancellations and completion.	Predictability, non-completion, stale orders and gaming.
Auction or RFQ	Competitive price discovery from eligible counterparties.	Invitation, eligibility, quotes, selection, conflicts and settlement.	Information leakage, collusion, concentration and opaque benchmarks.
OTC negotiated trade	Large block where visible-market impact is a concern.	Counterparty, pricing basis, legal terms, source of assets and settlement.	Counterparty default, off-market pricing, provenance and disclosure gaps.
Liquidity-provider or algorithmic route	Rule-based access across venues or periods.	Configuration, venue map, safeguards, logs, overrides and review.	Model error, routing conflict, self-trade, venue failure and hidden discretion.

Source: POLIX editorial execution taxonomy informed by market-microstructure and crypto-asset conduct principles. No route, provider, venue or counterparty is selected.

Table 25.6. Buyback market-integrity controls

RISK	PREVENTIVE CONTROL	DETECTIVE EVIDENCE	PAUSE OR CORRECTION TRIGGER
Inside or restricted information	Need-to-know access, blackout, recusal and controlled disclosure.	Access logs, approvals, communications and related-account review.	Unauthorized access, leakage or suspicious related trading.
Artificial price or volume	Participation caps, self-trade prevention, venue rules and benchmark discipline.	Order-book, fill, counterparty, venue and surveillance analysis.	Misleading signal, abnormal price effect or mandate-inconsistent behavior.
Conflict or self-dealing	Related-party disclosure, independent approval and counterparty restrictions.	Beneficial-ownership checks, recusal and comparative pricing.	Undisclosed relationship, noncompetitive price or personal benefit.
Execution leakage	Confidential parameters, staggered access and secure channels.	Timing analysis, unusual pre-trade activity and communication audit.	Pattern indicating front-running, gaming or information compromise.
Venue or counterparty failure	Eligibility review, exposure caps, settlement controls and alternatives.	Failed trades, delayed withdrawal, solvency or operational alerts.	Frozen assets, material delay, loss, outage or rule breach.
Misleading disclosure	State labels, evidence review and separation of facts, targets and forecasts.	Publication approval, source links, revision history and complaints.	Incorrect amount, premature completion claim or promotional inference.

Source: IOSCO (2023), Regulation (EU) 2023/1114 as a jurisdictional example, and POLIX editorial controls. Applicability and legal requirements require separate advice.

25.3 Permanent Token Burn

A permanent burn is a technical and accounting event, not a label. The mechanism must make the units irrecoverable under the canonical system, reduce the relevant supply measure as defined, prevent reissuance under the approved no-additional-minting policy, and produce evidence that can be independently reconstructed.

BEP-20 standardizes core token interfaces such as totalSupply, balances, transfers, approvals, and allowances. It is derived from ERC-20 and supports consistent interaction across wallets and exchanges. The standard does not require every token to expose the same burn function or governance. OpenZeppelin's ERC20Burnable is one common extension: burn destroys the caller's tokens, while burnFrom destroys tokens from an account within an approved allowance, and the action can be recognized through event analysis. POLX's actual implementation may differ and is not established here.

A contract-native burn generally provides the strongest evidence when it reduces the holder balance and totalSupply under verified code and emits an attributable event. Even then, reviewers should inspect proxy or upgrade structure, privileged roles, mint or supply-adjustment paths, pause behavior, bridge mechanics, event semantics, and the authoritative network. A transaction hash without code and state context does not prove permanent supply reduction.

A transfer to an assumed inaccessible address may reduce economic availability but can leave totalSupply unchanged. The claim depends on whether control is provably impossible, whether the address has special semantics, whether the implementation can later move or recreate units, and whether public reporting defines "burn" as contract-level destruction or address-based retirement. The safer taxonomy reports the mechanism exactly: protocol burn, transfer to a designated inaccessible address, lock, escrow, treasury retirement, or another state. It should not use one term for all.

Cross-chain systems add another risk. A bridge may burn or lock units on one chain and mint or release representations on another without changing aggregate economic supply. A chain-specific burn can therefore be part of a transfer process rather than a net reduction. POLIX official materials identify BNB Smart Chain and BEP-20, but no deployed bridge, wrapped token, secondary network, or aggregate-supply method is asserted. Any future multi-chain reporting should reconcile canonical and represented supply without double counting.

Permanent means that correction cannot consist of reversing the burn. If an amount was burned under a mistaken authorization, the response is an incident record, governance review, accounting correction, and possibly a separate future policy decision; it is not silent reminting. The no-additional-minting policy strengthens this boundary, but only verified implementation and operating controls can show that no privileged path can recreate supply.

Burn execution should use a controlled source wallet with traceable provenance. The record should show how units entered custody, whether they are free of third-party claims or restrictions, who approved the burn, how the destination contract and function were verified, which signer or multisignature rule applied, the gas asset and fee, transaction status, block and confirmation basis, event output, balance change, totalSupply change, and reviewer. Failed, replaced, dropped, reverted, or reorganized transactions should remain in the audit trail and should not be counted as burned.

Table 25.7. Token-removal classifications

CLASSIFICATION	OBSERVABLE STATE	SUPPLY TREATMENT	REQUIRED CLAIM LANGUAGE
Contract-native burn	Verified burn function or equivalent irreversibly destroys units.	Reduces totalSupply if confirmed by implementation and state.	"Burned" only with canonical transaction and supply reconciliation.
Designated inaccessible address	Units transferred to an address represented as unusable.	May remain in totalSupply; economic availability depends on control assumptions.	State the address method and whether totalSupply changed.
Lock or escrow	Units remain owned but transfer or use is restricted.	No burn; supply remains, availability may be limited temporarily.	Describe lock, owner, term, release and enforcement.
Treasury or custody retirement	Units are held under an internal non-use policy.	No burn; policy can potentially be changed unless technically constrained.	Describe custody, restriction, authority and review.
Bridge burn or lock	Units removed or immobilized on one chain while represented elsewhere.	May be supply-neutral across chains.	Report canonical and represented units and aggregate method.
Failed or pending burn	Transaction submitted but unconfirmed, reverted, replaced or unresolved.	No confirmed reduction.	Report pending or failed state; do not include in cumulative burn.

Source: BEP-20, ERC-20/OpenZeppelin implementation principles and POLIX editorial supply taxonomy. The deployed POLX mechanism is not established.

25.3.1 Reconciliation and Supply Accounting

Burn accounting should reconcile three linked ledgers. The funding ledger records approved economic capacity and acquisition cost. The custody ledger records POLX units acquired, settled, transferred, held, burned, returned, or otherwise disposed. The token-supply ledger records the authoritative totalSupply state and confirmed supply-changing events. A public cumulative number should agree with all three where applicable, with explained differences for timing, fees, partial settlement, failed transactions, or non-burn removals.

A transaction-level control is: opening burn-custody balance + settled acquisitions + verified inbound - confirmed protocol burns - authorized outbound = closing burn-custody balance. A supply control is: opening totalSupply - confirmed protocol burns + verified supply-increasing events = closing totalSupply. Under the approved POLX policy, post-initialization minting above the 400,000,000 POLX maximum is prohibited; technical enforcement remains unverified until the canonical implementation is evidenced.

The opening and closing points should be explicit. A block number or timestamp is required for on-chain state; an accounting period and time zone are required for off-chain records. Units should be stated in base units and human-readable POLX using the verified decimals field when known. Rounding, token dust, gas fees, price conversion, and network finality should be treated consistently. Chapter 25 does not assert POLX decimals, contract address, block finality rule, or explorer source.

Supply terms must remain distinct. Maximum supply is the approved upper bound. totalSupply is the amount reported by the canonical contract at a defined state. Circulating supply is a methodology-dependent subset. Allocated, reserved, locked, vested, claimable, custodial, buyback-acquired, burn-eligible, and burned amounts are classifications with different evidence. A decrease in one classification does not automatically change another.

Cumulative burn reporting should be event-sourced rather than manually overwritten. Each confirmed event should have an immutable identifier, amount, source wallet, destination or function, transaction and block, supply before and after, policy and authorization reference, reviewer, disclosure link, and correction status. A period summary should be reproducible by summing valid events. If a previously reported event is later invalidated by a chain reorganization or evidence error, the correction should preserve the original publication and explain the revised cumulative amount.

Table 25.8. Minimum burn evidence packet

EVIDENCE OBJECT	REQUIRED FIELDS	VALIDATION TEST	FAILURE CONDITION
Policy and authorization	Version, period, ceiling, source, authority, conditions and decision time.	Action falls within active mandate and residual-capacity approval.	Expired, exceeded, ambiguous or unauthorized mandate.
Asset provenance	Acquisition, settlement, source wallet, ownership, restrictions and balance.	Burned units are controlled and traceable to eligible custody.	Third-party claim, unresolved settlement or unexplained balance.
Canonical implementation	Network, chain identifier, contract, code or source, function, roles and supply semantics.	Reviewed function irreversibly changes the intended supply state.	Wrong network or contract, unknown proxy, privileged recreation path or unclear semantics.
Transaction record	Hash, sender, amount, gas, status, block, confirmations, events and timestamp.	Successful canonical execution with attributable amount.	Pending, reverted, replaced, failed, duplicate or noncanonical transaction.
Supply delta	totalSupply and relevant balances immediately before and after.	Delta agrees with the confirmed burn amount under implementation rules.	No supply change, inconsistent delta or unexplained concurrent event.
Independent reconciliation	Funding, custody, supply, cumulative total, exceptions, reviewer and sign-off.	All ledgers agree or differences are explicitly resolved.	Unreconciled difference, stale cumulative total or missing correction.
Public disclosure	State, period, units, method, transactions, supply effect, caveats and revision history.	Public claim can be reconstructed without promotional inference.	Premature, incomplete, misleading or unverifiable claim.

Source: POLIX editorial assurance framework informed by ERC-20/BEP-20 event and supply semantics. No current POLIX evidence packet or burn is asserted.

BURN PRINCIPLE **A purchase does not reduce supply. Custody does not reduce supply. A labeled destination does not necessarily reduce totalSupply. Count only canonical, successful, irreversible and reconciled events under the disclosed burn definition.**

25.4 Sustainable Execution Principles

Sustainable execution makes buyback and burn subordinate to the platform's ability to operate safely and meet prior obligations. The mechanism should expand only when evidence supports it and should pause automatically or by authority when funding, liquidity, integrity, custody, technical, legal, or disclosure conditions fail.

POLIX official materials reject fixed or arbitrary burn schedules. That position is economically important because revenue, cost, reserves, market depth, and risk are variable. A calendar commitment can force acquisition during weak liquidity, after an operating shock, or before material information is disclosed. A sustainable policy instead uses readiness gates and period ceilings. It may authorize no action even when a long-term objective remains active.

The readiness test should begin with capacity. Participant assets, refunds, taxes, settlements, vendors, payroll, infrastructure, security, incident response, legal obligations, liquidity and continuity reserves, and approved development should remain protected. A forecast should not be substituted for collected funds without a separately approved risk method. The policy should define minimum coverage, stress scenarios, concentration limits, and the authority to preserve or rebuild buffers before discretionary acquisition.

The second test is market capacity. Expected purchase size should be compared with observable depth, turnover quality, venue fragmentation, spreads, volatility, concentration, and counterparty availability. Reported volume can be artificial or transient; it should not be the sole participation base. A route that is acceptable at one size or period can be unacceptable at another. Execution should stop when price impact, spread, volatility, market anomaly, or venue exposure exceeds the approved boundary.

The third test is information and conduct. Material nonpublic information, pending disclosures, token or platform incidents, listings, integrations, policy changes, security events, or related-party conflicts may justify a blackout or enhanced review. The organization should not trade first and disclose later merely because the transaction is described as a buyback. Applicable legal advice should determine exact restrictions; the operational policy should at least make restricted-information and conflict review mandatory.

The fourth test is technical readiness. Canonical contract identity, burn semantics, wallet and key controls, gas funding, transaction simulation, signer authority, address allowlists, monitoring, and incident procedures should be verified before acquisition if the stated purpose is eventual burn. Otherwise the platform can acquire units that it cannot safely or legally burn, creating custody exposure and misleading expectations.

The fifth test is disclosure readiness. The program should be able to distinguish policy, authorization, execution, settlement, burn, reconciliation, and target progress. If public reports cannot be generated accurately, the program should not create a data trail that later invites speculative or inconsistent claims. Silence is not a substitute for a disclosure method; nor is real-time disclosure always safe. The policy should predefine what is published before, during, and after execution.

Table 25.9. Readiness gates and stop conditions

GATE	MINIMUM READINESS	STOP OR DEFER CONDITION	REQUIRED DECISION RECORD
Financial capacity	Verified residual capacity after obligations, reserves and prior commitments.	Cash stress, reserve breach, uncertain ownership, forecast dependence or material new obligation.	Period basis, scenario, ceiling, reviewer and unused-capacity treatment.
Market capacity	Sufficient quality-adjusted liquidity for the proposed route and size.	Abnormal spread, volatility, impact, concentration, venue failure or unreliable volume.	Depth and benchmark analysis, limits, route and pause authority.
Information and conduct	Restricted-information, conflict, related-party and applicable-law review complete.	Material nonpublic information, leakage, conflict, suspicious activity or misleading communication.	Clearance, recusals, blackout state, escalation and rationale.
Operational and custody	Eligible venue or counterparty, secure settlement, controlled wallet and monitoring.	Settlement failure, withdrawal restriction, key compromise, custody discrepancy or incident.	Controls, signer roles, allowlist, backup and exception record.
Technical burn	Canonical contract, function, permissions, simulation and supply semantics verified.	Unverified address, unclear proxy, recreation path, failed simulation or inconsistent supply result.	Technical review, version, test evidence and independent check.
Disclosure and assurance	State model, reconciliation and publication method ready.	Cannot reproduce amounts, missing source records, unresolved exception or premature claim.	Report template, evidence links, reviewer, timing and correction path.

Source: POLIX editorial sustainable-execution model. No gate is represented as currently passed.

25.4.1 Governance, Conflicts, and Operational Controls

Governance should define both positive authority and prohibited discretion. A role may be permitted to propose a program, validate funding, approve a ceiling, execute within limits, hold assets, submit a burn, verify supply, or publish a report. The same role should not silently redefine the objective, funding source, route, benchmark, custody state, or burn definition after execution. Material exceptions require named authority, reason, time, scope, and later review.

Wallet and key governance should be treated as an operating control. Signer eligibility, threshold, device or module security, transaction simulation, destination verification, spending limits, allowlists, emergency pause, key rotation, recovery, compromised-key response, and change logs should be documented. A public wallet label is useful but not sufficient; ownership and authority should be supported by signed or operational evidence. No POLIX wallet, multisignature configuration, custodian, hardware module, or recovery process is asserted.

Conflicts can arise across platform revenue, token holdings, execution fees, venue relationships, listings, market making, communications, and personal accounts. Disclosure alone may not be enough. Depending on risk, controls can include recusal, restricted lists, independent pricing, counterparty competition, beneficial-ownership checks, surveillance, trading windows, preclearance, role separation, and post-trade review. Compensation should not reward short-term purchase volume, apparent price movement, or burn count without risk and execution-quality counter-metrics.

Operational resilience also requires a non-action path. If a trade is canceled, settlement fails, a venue freezes withdrawals, a custody balance is disputed, a burn transaction reverts, or a disclosure is delayed, the system should preserve funds and records without forcing the next stage. Each exception should have an owner, severity, escalation, containment, resolution, and closure test. Failed activity should remain visible in internal records while being excluded from completed totals.

Table 25.10. Separation of duties and evidence ownership

ROLE FUNCTION	PERMITTED RESPONSIBILITY	REQUIRED EVIDENCE	INCOMPATIBLE OR CONTROLLED ACTION
Capacity owner	Validate residual economic capacity and funding source.	Period close, obligations, reserves, scenarios and reconciliation.	Should not alone authorize or execute token purchases.
Policy authority	Approve objective, program ceiling, rules, exceptions and close.	Versioned decision, quorum or authority, conflicts and effective date.	Should not rewrite execution records or technical results.
Execution operator	Place and manage orders within approved controls.	Order and fill logs, benchmarks, fees, venues and exception reports.	Should not set capacity, self-approve exceptions or certify its own performance.
Custody controller	Receive, safeguard and transfer settled POLX.	Wallet or custodian ledger, signer events, balances and provenance.	Should not classify custody as burn without canonical evidence.
Technical burn operator	Verify destination and submit authorized burn transactions.	Code and address review, simulation, signer approval, transaction and supply delta.	Should not determine financial capacity or public market claims.
Independent reviewer	Reconcile funding, execution, custody, supply and disclosure.	Source access, exception testing, sign-off and correction record.	Should disclose conflicts and avoid reviewing its own execution.
Disclosure owner	Publish accurate state, evidence links, caveats and revisions.	Approved report, source map, publication time and change history.	Should not convert objectives or pending actions into completed facts.

Source: POLIX editorial governance model. The table defines functions, not a current POLIX organization or assignment.

EXECUTION PRINCIPLE **A sustainable program can authorize less than capacity, acquire less than authorized, burn less than acquired, or execute nothing. The correct amount is the amount that passes every financial, market, conduct, custody, technical and disclosure gate - including zero.**

25.5 Long-Term Supply Reduction Target

The long-term target should be managed as a cumulative, evidence-based policy objective. Progress is the sum of valid reconciled burns under the approved definition; it is not the sum

of announcements, authorizations, purchases, custody balances, address transfers, or projected future actions.

The policy boundary is up to 200,000,000 POLX, equal to 50% of the approved maximum supply. Maximum supply and actual totalSupply should not be merged. The 400,000,000 figure remains the approved maximum; a contract-level burn may reduce actual totalSupply below its prior level. A completed 200,000,000-unit burn objective could imply a different outstanding amount only if the authoritative starting supply, mint history, burn history, bridge treatment, and contract semantics are known. Those operating facts are not established here.

Target reporting should use a stable denominator and a versioned numerator. “50%” refers to 200,000,000 divided by the 400,000,000 maximum, not necessarily 50% of a later totalSupply or circulating-supply estimate. Progress percentages should be based on cumulative confirmed burns divided by the 200,000,000 policy ceiling, with both values shown. If the target is amended, reports should preserve the original basis and explain the new denominator rather than retroactively rewriting history.

The remaining policy headroom at time t is max(0, 200,000,000 − B_t), where B_t includes only valid reconciled events. Buyback-acquired but unburned units should be reported separately. So should pending burns, failed burns, address-based retirements, bridge events, and corrections. A target dashboard that combines these states into one “removed” number would prevent independent verification.

Milestones can improve transparency but should not become arbitrary spending schedules. A milestone can define a review point, evidence package, or maximum cumulative state; it should not force market execution when readiness gates fail. Policy can specify that progress is conditional on sustainable revenue, operations, market integrity, and technical assurance. The absence of a burn in a period should be reported neutrally rather than framed as a missed promise unless a binding commitment actually exists.

Target completion should have a close rule. Once cumulative valid burns reach the active ceiling, further burning should stop unless a new policy is approved under the applicable authority and disclosed before execution. Overshoot controls should be implemented at both authorization and transaction levels. Because on-chain actions are irreversible, unit precision, concurrent transactions, pending states, and cumulative calculations should be checked before signing.

Target revision, suspension, and termination should also have state labels. Revision changes future policy; suspension temporarily stops new authorization or execution; termination closes the objective; completion means the active ceiling has been reached by valid events. None changes historical transactions. Public archives should preserve every policy version, effective period, rationale, and transition rule.

Table 25.11. Long-term target dashboard fields

FIELD	DEFINITION	EVIDENCE SOURCE	NON-INFERENCE
Approved maximum supply	400,000,000 POLX policy upper bound.	Official token specification and verified implementation when deployed.	Current total or circulating supply.
Active burn objective	Up to 200,000,000 POLX under the current policy version.	Approved Burn Policy, effective date and authority.	Deadline, minimum execution or current progress.
Cumulative acquired	Settled POLX purchased under valid buyback mandates.	Execution, settlement and custody reconciliation.	Burned or permanently removed units.
Cumulative confirmed burn	Sum of valid canonical and reconciled burn events.	Transaction-event ledger and totalSupply reconciliation.	Price support, scarcity or value creation.
Burn-eligible custody	Settled units controlled and approved for possible burn but not yet burned.	Custody ledger, provenance, restrictions and authorization.	Future completion or lower current supply.
Pending or failed burn	Submitted or attempted action not yet valid for cumulative counting.	Mempool or transaction status, receipt, failure and resolution.	A completed supply reduction.
Remaining policy headroom	Active ceiling minus cumulative confirmed burn, floored at zero.	Versioned target and reconciled cumulative total.	Future funding, schedule or ability to complete.
Corrections and exceptions	Changes caused by evidence error, reorganization, duplicate or classification issue.	Original report, reason, reviewer, revised value and publication.	That historical records may be silently overwritten.

Source: POLIX Token Economy v1.0 EN and POLIX editorial target-accounting standard. No current value is assigned beyond the approved maximum and objective.

TARGET PRINCIPLE **Report the maximum, active objective, cumulative acquisitions, burn-eligible custody, confirmed burns, pending or failed events, remaining policy headroom, and corrections as separate states. Never count future intent or temporary unavailability as accomplished permanent reduction.**

25.6 Transparency Principles

Transparency should make the mechanism reconstructable without publishing live information that invites front-running or manipulation. The policy should disclose rules before execution, verified results after execution, and corrections whenever evidence changes, while keeping objectives, authorizations, pending states and completed facts clearly separated.

Pre-program disclosure can identify the policy purpose, approved maximum, funding principle, authorization method, eligible period, route categories, market-integrity controls, custody and burn method, target definition, suspension rules, risk factors, and reporting cadence. It need not disclose exact order times, sizes, price limits, venues, counterparties, or algorithms when doing so would increase execution risk. The policy should explain which information is withheld and when ex-post disclosure will occur.

Post-execution disclosure should connect economic and token units. Useful fields include the authorization period and ceiling; funding source category; economic amount deployed; POLX units acquired and settled; fees and other transaction costs; route and venue categories; benchmark method; average or range where appropriate; custody destination or verifiable wallet; burn transaction identifiers; confirmed units burned; before-and-after totalSupply; cumulative progress; exceptions; and reviewer. Exact commercial detail may be limited by law, security, or contract, but public claims should remain sufficiently precise to be checked.

State labels prevent premature reporting. “Planned” means under consideration. “Authorized” means a bounded mandate exists. “In execution” means eligible orders may be active. “Acquired” means trades occurred. “Settled” means ownership and custody are confirmed. “Burn submitted” means a transaction has been sent but is not yet valid for cumulative counting. “Burn confirmed” means the canonical action succeeded under the finality method. “Reconciled” means funding, custody and supply records agree. “Disclosed” means the reviewed result is public. These labels should not be shortened into “burned” before the relevant state is reached.

Disclosure should distinguish exact facts from analytical commentary. A factual notice can report units, transactions, supply changes and policy progress. Commentary can explain strategic purpose and risks. Marketing should not imply that the action guarantees scarcity, demand, price, yield or return. MiCA provides one jurisdictional example by separating prompt, complete and correct public information from promotional communication and by addressing inside information and market manipulation. Applicability to POLIX requires separate analysis, but the communication discipline is broadly useful.

Corrections should be additive and traceable. A revised report should identify the original publication, affected field, prior value, corrected value, reason, evidence, reviewer, and date. The original should remain accessible or clearly linked. Common correction sources include duplicate counting, wrong network or contract, decimals or rounding error, failed settlement, transaction replacement, chain reorganization, bridge classification, address-control evidence, and a changed definition. A correction is a sign of control when made promptly and transparently; hidden revision is not.

Internal and public ledgers may have different detail, but their aggregates should reconcile. Internal records can include order-level data, counterparties, restricted information, key events and confidential review. Public records can aggregate sensitive fields while linking to on-chain evidence and method. The public report should state its cutoff, time zone, network, contract, unit precision, valuation method, and whether figures are gross or net of fees. No POLIX reporting channel, dashboard, explorer, cadence or assurance provider is asserted.

Table 25.12. Buyback-and-burn disclosure matrix

DISCLOSURE STAGE	PUBLIC MINIMUM	MAY REMAIN CONTROLLED	REQUIRED CORRECTION PATH
Policy publication	Purpose, objective, funding basis, authority, gates, method, risks and version.	Internal deliberation, security-sensitive details and legal advice.	Version notice, effective date, rationale and prior-policy archive.
Program authorization	Period, economic ceiling, state and material conditions when disclosure is appropriate.	Live routes, order timing, price limits, venues and counterparties.	Cancellation, reduction, extension or suspension notice with authority.
Acquisition result	Period, deployed amount, acquired and settled units, cost and benchmark.	Order tactics, sensitive counterparty data and security controls.	Trade, settlement, fee, benchmark or classification correction.
Burn confirmation	Network, contract, transaction, units, method, status and supply delta.	Signer-security and internal incident details.	Reorganization, wrong-state, duplicate or totalSupply correction.
Cumulative target report	Maximum, active objective, confirmed burn, eligible custody, pending states, policy headroom and version.	Internal forecasts and unapproved future programs.	Revised cumulative ledger with event-level reason and date.

DISCLOSURE STAGE	PUBLIC MINIMUM	MAY REMAIN CONTROLLED	REQUIRED CORRECTION PATH
Incident or exception	Material nature, affected state, containment, impact and required correction.	Exploit, personal-data, privileged-investigation and security details.	Final cause, resolution, residual risk, affected reports and lessons.

Source: POLIX editorial disclosure standard informed by IOSCO and Regulation (EU) 2023/1114. Exact legal disclosure duties depend on jurisdiction and status.

25.6.1 Assurance, Incidents, and Transition to Reserve Controls

Assurance can be layered. Management attestation can confirm policy and records. Technical review can confirm contract and transaction semantics. Financial reconciliation can confirm funding, cost and custody. Market review can assess execution and integrity. Independent assurance can test selected statements against source evidence. The level should be proportionate to amount, complexity and public reliance. The whitepaper does not claim an audit, assurance engagement, legal opinion, smart-contract review, or current provider.

Incident procedures should cover incorrect authorization, unauthorized trading, venue or counterparty failure, custody loss, compromised keys, wrong address or contract, failed or duplicate transactions, unexpected supply change, bridge mismatch, disclosure error, suspected market abuse, and unavailable evidence. The response should prioritize containment and truthfulness: stop new actions, preserve logs, secure assets, identify affected states, notify authority, reconcile impact, correct disclosures, and document restoration criteria.

Chapter 25 depends on the idea of residual capacity but does not define how much capital and reserve protection the platform must maintain before discretionary token action. That question belongs to Chapter 26. Reserve Management and Capital Allocation Controls will distinguish operating cash, participant or restricted assets, settlement needs, liquidity and continuity buffers, incident reserves, approved capital, discretionary capacity, and the governance required to prevent a buyback or burn from weakening platform resilience.

Chapter Synthesis

1. POLIX official materials establish a revenue-linked buyback-and-burn direction, a 400,000,000 POLX maximum, an approved no-additional-minting policy, and a long-term objective to burn up to 200,000,000 POLX; they do not establish current execution.
2. Residual economic capacity, program authorization, order, trade, settlement, custody, burn submission, confirmed burn, reconciliation and disclosure are different states with different evidence.
3. A buyback changes ownership of existing POLX. It does not by itself reduce totalSupply, create scarcity, establish token utility, or guarantee a market outcome.
4. A permanent burn must be defined by canonical implementation semantics and confirmed through transaction, event, balance, totalSupply, privilege, and reconciliation evidence.
5. Transfers to assumed inaccessible addresses, locks, escrow, treasury retirement, bridge events and failed transactions should not be counted as protocol burns unless the disclosed method and supply effect support that classification.
6. Revenue linkage is a funding discipline, not a standing percentage of gross revenue, token-holder entitlement, redemption promise, dividend, yield, or guaranteed buyer.
7. Execution routes should be selected and reviewed for liquidity, price impact, information leakage, conflicts, self-dealing, venue and counterparty risk, restricted information, and misleading market signals.
8. The sustainable amount in any period may be below capacity, below authorization, below the acquired amount, or zero when financial, market, conduct, custody, technical or disclosure gates fail.
9. Target progress is cumulative confirmed and reconciled burn divided by the active 200,000,000 POLX policy ceiling; acquisitions, custody, pending events and corrections remain separate.
10. Transparency requires versioned policy, state labels, ex-post evidence, supply reconciliation, archived corrections, and clear separation between facts, objectives, forecasts and promotional interpretation.
11. Chapter 25 is a proposed control, assurance and disclosure architecture. It does not assert current revenue, capacity, budget, schedule, route, venue, counterparty, wallet, contract, transaction, burn, supply, adoption, demand, price or return.

TRANSITION TO CHAPTER 26 **Chapter 25 defines how a discretionary token acquisition and permanent burn could be authorized, executed, verified, and disclosed without treating the long-term objective as a current fact. Chapter 26 will define the Reserve Management and Capital Allocation Controls that must protect operations, settlements, liquidity, incidents, commitments, and resilience before any residual capacity can be considered discretionary.**

References and Source Notes

Official POLIX materials establish the token name POLX, BNB Smart Chain, BEP-20, a 400,000,000 POLX maximum, an approved no-additional-minting policy, revenue-linked buyback-and-burn direction, flexible execution according to revenue, ecosystem development, market conditions and sustainability, permanent-removal intent, transparent policy updates, and a long-term objective to burn up to 200,000,000 POLX. They do not establish a deployed contract or address, current total or circulating supply, revenue, residual capacity, budget, formula, schedule, venue, counterparty, order, settlement, wallet, technical burn method, transaction, completed amount, price effect, or return. The lifecycle, equations, gates, matrices, role separations, assurance packet, target dashboard, and disclosure standard in this chapter are proposed analytical controls, not deployed POLIX facts.

External sources support general principles concerning token interfaces and burn functions, token adoption and valuation, corporate-repurchase governance, crypto-asset market integrity, and disclosure. They do not establish POLIX implementation, legal status, compliance, financial capacity, market outcome, or token value.

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CHAPTER 26

Reserve Management and Capital Allocation Controls

Reserve management converts uncertain future needs into explicit ownership boundaries, minimum protection layers, decision gates, and auditable state transitions. Its purpose is not to maximize idle balances or accelerate token release. It is to ensure that obligations, continuity, recovery, and approved strategic options remain fundable under normal conditions and severe but plausible stress before any capacity is treated as discretionary.

Chapter 25 established that a revenue-linked buyback or burn can begin only after verified residual capacity exists and a separate mandate is approved. Chapter 26 defines what must remain protected before that residual capacity can be calculated. The same logic applies to ecosystem programs, liquidity support, partnerships, listings, acquisitions, emergency response, or any other strategic use. A plan can be economically attractive and still fail the reserve gate because the relevant assets are restricted, illiquid, volatile, unavailable in the required time bucket, committed elsewhere, or needed for operational resilience.

POLIX Token Economy v1.0 EN assigns 40,000,000 POLX, equal to 10% of maximum supply, to a Strategic Growth Reserve. It describes the allocation as a long-term resource for future strategic initiatives, ecosystem evolution, emerging growth opportunities, business development, sustainability, and expansion. It also states an initial 24-month lock-up, progressive deployment after that period subject to predefined operational policies and long-term ecosystem interests, use only for approved strategic initiatives, and exclusion from circulating supply until actual approved allocation. These statements define policy direction. They do not identify the lock-up commencement event, elapsed period, wallet, holder, contract, balance, release mechanism, approval body, recipient, valuation, current circulation state, or executed program.

The word reserve can refer to materially different objects. A token-allocation reserve is a policy classification within fixed supply. A treasury reserve is an asset pool controlled by an operating entity. A liquidity buffer is held to meet near-term cash or settlement needs. An incident reserve supports response and recovery. Restricted, collateral, participant, escrow, safeguarded, or fiduciary assets may be held or administered but may not be available to the platform at all. Regulatory own funds or prudential capital, if applicable, are legal requirements rather than discretionary strategy. Combining these categories in one number would overstate capacity and weaken accountability.

International standards provide useful design analogies without determining POLIX status. The Basel Committee emphasizes governance, stress testing, liquidity cushions, intraday and contingent needs, and a tested contingency funding plan for banks (BCBS, 2008). The CPSS-IOSCO Principles for Financial Market Infrastructures (PFMI; now maintained under CPMI-IOSCO) require financial market infrastructures to manage legal, credit, liquidity, custody, investment, and operational risks and to plan for timely recovery of critical operations (CPSS-IOSCO, 2012). IOSCO recommends segregation, custody controls, conflicts management, disclosure, and reconciliation for crypto-asset activities (IOSCO, 2023). POLIX is not characterized here as a bank, financial market infrastructure, crypto-asset service provider, or regulated reserve issuer; the chapter adopts only the broader control lessons appropriate to a prediction-market ecosystem.

Reserve adequacy is therefore multidimensional. A POLX balance cannot directly pay a fiat-denominated vendor, tax, refund, or legal obligation without an executable conversion route, time, liquidity, and price risk. Cash in one legal entity may not be transferable to another. Assets on one network or custodian may be inaccessible during an outage. A nominal amount may be exposed to concentration, volatility, counterparty failure, key compromise, legal restraint, or settlement delay. Measurement must preserve denomination, location, ownership, restriction, maturity, and confidence instead of collapsing them into an optimistic converted total.

Internal capital-use control begins by identifying restricted assets, protected obligations, required authority, and pause conditions. Residual capacity should be estimated only after those boundaries are established. This ordering addresses agency and information problems that otherwise encourage managers to treat available-looking balances as deployable. Research on corporate cash holdings similarly frames liquidity as a trade-off among transaction needs, precaution, financing frictions, governance, and opportunity costs rather than as a simple surplus (Opler et al., 1999; Bates, Kahle, and Stulz, 2009). The analogy does not make POLX equity or transform token reserves into corporate cash.

The proposed standard is an evidence-gated reserve stack. It is conservative in classification, but not permanently inert. The objective is to protect minimum conditions for trustworthy operation while preserving option value for high-quality strategic uses. A reserve can support adaptability only if its release conditions are clear enough to prevent opportunistic depletion, flexible enough to respond to new evidence, and transparent enough to distinguish policy, authorization, execution, circulation, and outcome.

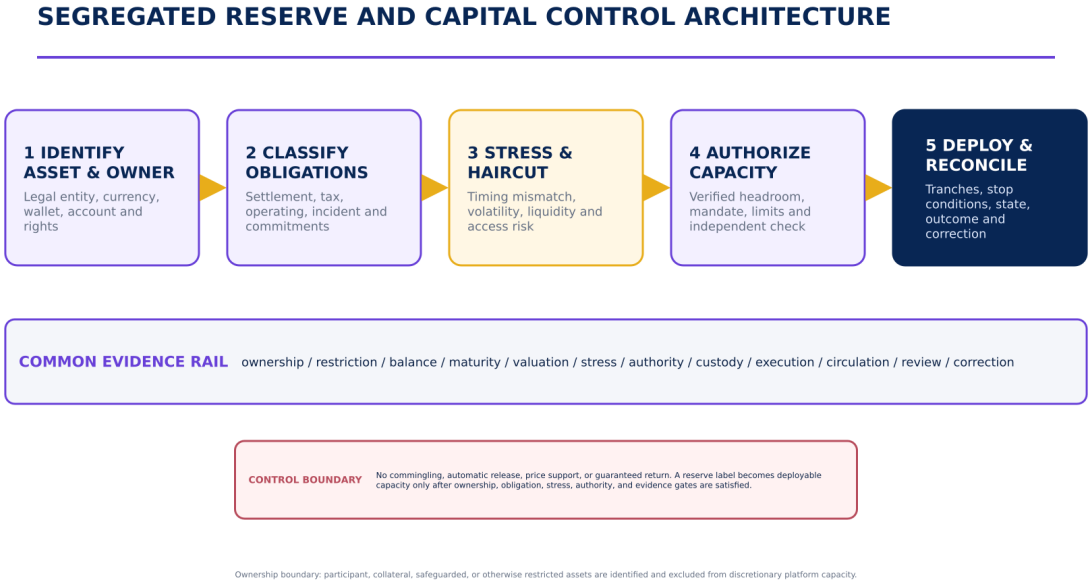

Figure 26.1. Segregated reserve and capital-allocation-control architecture. Participant or restricted assets are excluded before obligations, stress, discretionary headroom, authority, deployment, circulation, and correction are evaluated. Source: POLIX editorial synthesis informed by POLIX Token Economy v1.0 EN, BCBS liquidity principles, CPSS-IOSCO risk principles, and IOSCO crypto-asset recommendations.

Table 26.1. Confirmed Strategic Growth Reserve direction and non-inferences

ELEMENT	CONFIRMED DIRECTION	REQUIRED BEFORE OPERATION	NOT ESTABLISHED HERE
Allocation	40,000,000 POLX, equal to 10% of the 400,000,000 POLX maximum supply.	Canonical token specification, allocation ledger, custody location, ownership, restrictions and balance reconciliation.	A minted, controlled, available, vested, released, distributed or circulating balance.
Purpose	Future strategic initiatives, ecosystem evolution, emerging growth opportunities, business development, sustainability, and expansion.	Versioned mandate, eligible-use rule, decision evidence, expected outcome, budget and monitoring.	A standing entitlement for any team, partner, listing, acquisition, incentive or token action.
Lock-up	Initial lock-up of 24 months.	Defined commencement event, effective time, enforceable mechanism, exception rule, monitoring and release test.	The start date, elapsed period, unlock date, current status or ability to transfer.
Deployment	Gradual post-lock-up use for approved strategic initiatives under predefined policies and long-term ecosystem interests.	Stage gates, authority, tranche ceiling, recipient due diligence, execution, vesting or use restriction, reconciliation and stop conditions.	An automatic release, fixed schedule, program, recipient, transaction or circulation event.
Circulation	Reserved units are excluded from circulating supply until actually allocated for approved strategic purposes.	Published methodology, state classification, wallet and transaction evidence, control analysis, cutoff and correction process.	A current circulating-supply figure, market float, liquidity, demand, scarcity, price or return.

Source: POLIX Token Economy v1.0 EN; POLIX editorial evidence boundary. The chapter does not assign a current implementation or operating state.

EVIDENCE BOUNDARY **Report token allocation, treasury balance, unrestricted capital, deployable headroom, authority, release, circulation, and productive use or market outcome as separate states. Each state requires its own evidence and decision rule.**

26.1 Purpose of Strategic Reserves

The Strategic Growth Reserve should preserve long-term adaptability without becoming an unbounded discretionary pool. Its purpose is to hold a defined part of fixed supply outside ordinary circulation until a qualified strategic need, an approved authority, an evidence package, and a controlled deployment path exist.

The official purpose includes future ecosystem initiatives, strategic platform initiatives, ecosystem evolution, emerging growth opportunities, strategic business development, long-term sustainability, and expansion. These categories are intentionally broad, which makes control design more important. A purpose label does not demonstrate that an initiative is necessary, incremental, cost-effective, legally permissible, technically ready, or superior to retaining the reserve. Each proposal should translate the broad purpose into a bounded object, beneficiary, mechanism, timeline, evidence standard, downside, and completion state.

Reserve value comes partly from non-use. A locked allocation reduces immediate distribution capacity and preserves optionality for conditions that cannot be fully specified at inception. That option is lost when tokens are released without enforceable milestones or recovery rights. Conversely, indefinite non-use can impose opportunity costs if valuable capabilities remain unfunded. The appropriate policy is therefore neither automatic deployment nor permanent paralysis; it is progressive commitment proportional to evidence and reversibility.

The reserve must also be separated from minimum operating protection. A strategic token reserve can support future programs, but it should not be represented as cash runway, participant protection, settlement coverage, tax capacity, cyber recovery funding, legal capital, insurance, or a guarantee of continuity. If a future program requires fiat, stablecoins, services, or other assets, the proposal should identify how those inputs will be funded. A token-denominated budget should state whether it transfers POLX, sells POLX, pays a vendor in POLX, provides liquidity, or uses another mechanism, because each creates different circulation, execution, accounting, tax, conduct, and market risks.

Strategic reserve policy should answer five questions. What risk or opportunity is the reserve intended to address? What conditions must remain protected before deployment? What evidence shows that the proposal is qualified? What authority can approve, pause, change, or terminate it? What records prove the final token and economic state? Answers should be versioned before execution so that later success does not retroactively justify an uncontrolled decision and later failure does not erase the original rationale.

Table 26.2. Reserve taxonomy and control boundary

RESERVE OR ASSET CLASS	PRIMARY PURPOSE	AVAILABILITY RULE	MINIMUM EVIDENCE	COMMON CLASSIFICATION ERROR
Participant or restricted assets	Meet rights of participants, counterparties, beneficiaries or legal restrictions.	Excluded from discretionary capacity unless an authoritative rule establishes a different status.	Owner, legal basis, account or wallet, restriction, liability, reconciliation and access control.	Treated as platform capital because it is held or visible.
Settlement and mandatory obligations	Complete trades, payouts, refunds, taxes, payroll and due commitments.	Protected by amount, asset and maturity; not released by a strategic decision.	Due date, beneficiary, currency, amount, dispute state, settlement route and buffer.	Netting unlike obligations without executable offset.
Operating liquidity	Fund critical services through a defined horizon.	Available for approved operating use, not automatically for token or strategic programs.	Run-rate method, critical-service map, forecast, access, concentration and stress result.	Nominal balance presented as unrestricted surplus.
Continuity and incident reserve	Respond to outages, security events, legal response and recovery.	Released only by incident or resilience authority under defined triggers.	Scenario, recovery objective, vendor and response needs, decision log and replenishment rule.	Used for ordinary growth because no incident is active.
Approved commitments	Honor prior budgets, contracts, grants, vesting or signed obligations.	Deducted before new discretionary headroom.	Authority, amount, state, milestones, cancellation rights and remaining exposure.	Ignored because payment or token release is future-dated.
Strategic Growth Reserve	Preserve POLX capacity for approved long-term ecosystem initiatives.	Locked for the defined initial period; thereafter eligible only through policy and progressive approval.	Allocation ledger, lock evidence, proposal, gates, custody, transaction, circulation and outcome records.	Treated as cash, market liquidity, automatic circulation or guaranteed program funding.

Source: POLIX Token Economy v1.0 EN and POLIX editorial reserve taxonomy informed by BCBS, CPSS-IOSCO, FSB, and IOSCO control principles. Exact legal classification depends on the operative structure and jurisdiction.

For asset a and time bucket t, proposed deployable headroom is $D_{a,t} = \max(0, U_{a,t} - O_{a,t} - H_{a,t})$. U is verified unrestricted capacity; O is due or stress-adjusted obligations; and H is an additional governance haircut for valuation, access, concentration, model and execution risk. The formula must be run separately by asset, legal entity, custody location and maturity. It is an analytical control, not an accounting standard, regulatory capital rule, current POLIX balance, or automatic authorization.

The additional haircut H should not be a hidden management plug. It should have a disclosed method and owner. Relevant components may include price volatility, liquidation depth, conversion cost, counterparty concentration, custody or bridge risk, legal uncertainty, data quality, forecast error, access delay, correlation in stress, and execution impact. A haircut can be zero only when the risk has been examined and the governing method permits zero. It cannot convert a restricted asset into an unrestricted one.

RESERVE PRINCIPLE **Measure reserve adequacy by ownership, restriction, denomination, location, maturity, access, and stress behavior - not by a single headline balance. Run the capacity test separately for each asset and time bucket, and require an executable conversion path before one asset is allowed to cover an obligation in another.**

26.1.1 Time Horizons, Stress, and Minimum Protection

A reserve is adequate only relative to a horizon and a scenario. Near-term obligations require immediately accessible assets in the correct form. Medium-term operating capacity depends on a credible forecast, contract flexibility, concentration, and funding alternatives. Long-term strategic capacity depends on the platform's ability to survive adverse paths without forcing distressed token distribution or abandoning critical commitments. A single reserve ratio cannot answer all three questions.

Stress tests should be severe enough to reveal interactions. Lower revenue can coincide with higher withdrawals, dispute costs, liquidity fragmentation, token-price volatility, vendor demands, cyber response, legal expenses, and reduced access to counterparties. Tests should model timing as well as amount: an asset may cover an obligation eventually but fail when needed. Reverse stress testing can ask which combination of shocks would exhaust a protection layer or force use of the Strategic Growth Reserve for an unapproved purpose.

The Basel liquidity principles and PFMI are designed for regulated institutions and market infrastructures, not automatically for POLIX. Their transferable lesson is that governance should define risk tolerance, maintain a cushion, consider contingent needs, diversify access, test adverse scenarios, and keep a usable contingency plan (BCBS, 2008; CPSS-IOSCO, 2012). A POLIX-specific method would require later legal, accounting, treasury, product, security, and operational design.

Table 26.3. Reserve horizons and test questions

HORIZON	PROTECTED NEED	ILLUSTRATIVE STRESS	DECISION TEST	EVIDENCE OUTPUT
Immediate / intraday	Settlements, withdrawals or payouts where applicable, critical vendors and incident containment.	Payment or chain delay, custody outage, wrong asset, surge in due obligations.	Can the obligation be met on time without restricted assets or forced conversion?	Asset-by-asset due ledger, access test, settlement route and exception status.
Short term	Critical operations, refunds, taxes, payroll, security and committed programs.	Revenue interruption, market closure, counterparty failure, volatility and cost increase.	Does accessible capacity cover stressed outflows with required haircuts?	Forecast, assumptions, buffer, stress result, authority and contingency actions.
Medium term	Platform continuity, contract renewal, remediation, regulated or legal response and capability maintenance.	Prolonged low activity, vendor concentration, legal restriction, infrastructure migration.	Can critical services continue without premature reserve release or distressed token distribution?	Runway method, service priorities, contractual flexibility and recovery plan.
Long term	Strategic adaptability, ecosystem evolution and high-quality expansion.	Structural demand change, technology shift, regulatory constraint or business-model revision.	Does the reserve preserve options while preventing indefinite or opportunistic deployment?	Strategic thesis, scenario set, target outcomes, review cadence and termination rule.

Source: POLIX editorial synthesis informed by BCBS (2008), CPSS-IOSCO (2012), and NIST CSF 2.0. Scenarios and horizons are proposed controls, not current POLIX parameters.

26.1.2 Reserve Register and Evidence Ownership

A reserve register should connect policy classification to source evidence. Each record should identify the asset, unit, network or institution, legal entity, beneficial and record owner, custody location, access roles, restriction, purpose, maturity, valuation method, haircut, balance cutoff, reconciliation status, linked obligation or program, and reviewer. For on-chain assets, a public address may support balance observation but does not by itself prove ownership, control, restrictions, encumbrances, or purpose. For off-chain assets, a ledger entry is not enough without authoritative account and reconciliation evidence.

Evidence ownership should be separated from approval. Treasury can prepare balances and forecasts; operations can identify critical needs; security can define incident resources; accounting can classify and reconcile; legal can assess rights and restrictions; product or ecosystem teams can sponsor proposals; governance can authorize within policy; custody operators can execute; and assurance can test the record. The same person should not be able to create a proposal, classify assets as available, approve it, release tokens, and certify completion without independent control.

Table 26.4. Minimum reserve-register fields

FIELD GROUP	REQUIRED FIELDS	CONTROL PURPOSE	FAILURE SIGNAL
Identity and ownership	Asset, unit, legal entity, owner, beneficial interest, network or institution, account or wallet.	Prevent use of an asset merely because it is observable or technically accessible.	Unknown owner, omnibus balance, unverified address or cross-entity assumption.
Restriction and purpose	Legal, contractual, policy, technical or fiduciary restriction; approved purpose and priority.	Exclude ineligible assets and preserve priority of claims.	Blank restriction, generic “reserve” label or purpose changed after decision.
Access and custody	Custodian, keys or signers, role threshold, recovery method, transfer limits and service dependency.	Test practical availability and unauthorized-transfer risk.	Single actor, untested recovery, unsupported bridge or unavailable provider.
Value and timing	Native amount, valuation source, cutoff, maturity, conversion route, haircut and confidence.	Preserve denomination and time-bucket adequacy.	Stale price, no executable route, netting across dates or no stress haircut.
Obligation linkage	Protected obligation, beneficiary, due date, priority, scenario and remaining exposure.	Prevent double use of one asset for several claims.	Unlinked balance, duplicate coverage or omitted commitment.
Reconciliation and review	Source records, variance, status, preparer, reviewer, date, correction and policy version.	Make current and historical capacity reconstructable.	Silent adjustment, unreconciled difference, stale review or missing version.

Source: POLIX editorial reserve-register standard. No current POLIX register, account, wallet, custodian, valuation or balance is asserted.

26.2 Approved Use Principles

An approved use should be strategically relevant, legally and technically feasible, incremental to existing commitments, proportionate to evidence, bounded in amount and time, resistant to conflicts, measurable after deployment, and reversible before irreversible value leaves the reserve whenever practicable.

The official allocation principles permit future ecosystem initiatives, platform initiatives, ecosystem evolution, emerging growth opportunities, business development, sustainability, and expansion. Because these categories can overlap, policy should use an eligibility test rather than rely on labels. A qualified proposal should identify the problem, beneficiary, causal mechanism, unit economics, required POLX and non-POLX resources, alternatives, milestones, circulation effect, conflicts, downside, monitoring, recovery rights, completion standard, and public disclosure class.

Strategic relevance is necessary but insufficient. A proposal can fit a broad purpose yet duplicate another allocation, subsidize ordinary operating expenses, finance a related party without a fair process, create unbounded token distribution, expose the platform to market conduct risk, or depend on unverified infrastructure. The reviewer should test additionality: what capability, access, resilience, or ecosystem outcome exists because of the reserve use that would not otherwise exist at comparable cost?

Unit selection changes the risk. A POLX grant transfers token exposure and may affect circulation. A market sale converts POLX into another asset and introduces price impact, execution, disclosure, and market-integrity concerns. A liquidity position creates inventory, venue, impermanent-loss, custody, and unwind risk. A vesting award creates a contingent commitment. A service contract priced in fiat but paid in POLX introduces valuation and settlement questions. Policies should not treat these mechanisms as interchangeable merely because each reduces the reserve balance.

Table 26.5. Approved-use tests by proposal category

PROPOSAL CATEGORY	POTENTIAL STRATEGIC RATIONALE	REQUIRED GATE EVIDENCE	PROHIBITED INFERENCE
Ecosystem capability	Create infrastructure, data, tools, localization, education or integrations with durable ecosystem utility.	Defined users, deliverable, rights, security, maintenance, alternatives, milestones and adoption evidence.	That activity, downloads or token transfers prove durable value.

PROPOSAL CATEGORY	POTENTIAL STRATEGIC RATIONALE	REQUIRED GATE EVIDENCE	PROHIBITED INFERENCE
Strategic partnership	Obtain distribution, expertise, infrastructure, market access or complementary capability.	Counterparty diligence, contribution, conflicts, commercial terms, rights, dependencies, exit and attribution.	That a name, memorandum, listing discussion or announcement proves delivery.
Regional or market expansion	Test a qualified geography, segment or use case under applicable rules.	Demand evidence, legal analysis, localization, operating model, budget, risk limits and measurable pilot.	Global availability, regulatory approval or guaranteed adoption.
Liquidity infrastructure	Support orderly access or integration under a separately approved liquidity policy.	Venue, pair, inventory, custody, market-conduct, loss, concentration, unwind and reporting controls.	Price support, floor, stable value, guaranteed liquidity or return.
Resilience or strategic recovery	Restore or replace critical capability after an approved severe event.	Incident authority, necessity, alternatives, budget, containment, recovery objective and after-action review.	Use of participant assets or waiver of ordinary accountability.
Acquisition or strategic investment	Acquire a capability or long-term option not efficiently built internally.	Valuation, legal and technical diligence, governance, conflicts, integration, downside limit and exit terms.	Ownership, control, profit, synergy or token value before completion and evidence.

Source: POLIX Token Economy v1.0 EN and POLIX editorial eligibility standard. Categories are illustrative; no program, counterparty, geography, listing, liquidity activity, acquisition or investment is asserted.

USE PRINCIPLE **Approve a strategic reserve use only when its purpose, beneficiary, mechanism, amount, non-token resources, conflicts, circulation effect, downside, milestones, recovery rights, evidence, and completion state are explicit. A broad purpose label never substitutes for proposal-level qualification.**

26.2.1 Authority, Conflicts, and Decision Records

Authority should be bounded by object and state. A policy authority defines eligible uses and limits. A proposal authority approves a specific initiative. A release authority confirms that conditions are met. A custody authority executes the transfer. A monitoring authority evaluates evidence. A suspension authority can stop further tranches. A correction authority can revise classification and disclosure. One body may hold several roles, but the record should show how conflicts and concentration are controlled.

Related-party proposals require enhanced review. The decision record should identify beneficial interests, employment or advisory relationships, token holdings where relevant, prior transactions, shared controllers, and any role in the proposing, reviewing, or executing process. Recusal should remove decision influence, not merely be noted after approval. Comparative alternatives and commercial terms should be preserved so that strategic purpose does not conceal self-dealing or preferential allocation.

FSB and IOSCO recommendations emphasize clear accountability, conflicts controls, separation of functions, custody safeguards, and risk management in crypto-asset activities (FSB, 2023; IOSCO, 2023). Applicability depends on POLIX structure and jurisdiction, but the governance logic is useful: multi-function platforms should not rely on informal trust where the same group controls inventory, market access, custody, execution, valuation, and reporting.

Table 26.6. Decision-right and evidence matrix

DECISION	ACCOUNTABLE FUNCTION	INDEPENDENT CHALLENGE	REQUIRED RECORD	EXPIRY OR REVIEW
Reserve policy	Governing authority designated by operative documents.	Legal, finance, risk, security and ecosystem review.	Purpose, eligibility, exclusions, limits, roles, disclosure and correction rules.	Scheduled review and material-change trigger.
Proposal qualification	Program or strategic approval authority.	Conflict-free finance, legal, technical, risk and impact reviewers.	Proposal, alternatives, diligence, budget, milestones, risks and recommendation.	Proposal validity period; re-review on material change.
Capacity certification	Treasury or finance control under policy.	Independent reconciliation and obligation owners.	Asset register, obligations, forecast, stress, haircuts, headroom and exceptions.	Short validity tied to cutoff and market conditions.

DECISION	ACCOUNTABLE FUNCTION	INDEPENDENT CHALLENGE	REQUIRED RECORD	EXPIRY OR REVIEW
Tranche release	Release authority separate from custody execution.	Milestone owner and control reviewer.	Gate evidence, amount, recipient, restrictions, circulation effect and signers.	Single tranche; unused authority expires.
Pause or termination	Named risk, incident or governance authority.	Prompt escalation and later full review.	Trigger, containment, remaining exposure, custody state and communications.	Until documented restoration or closure.
Completion and correction	Program owner with assurance review.	Accounting, custody, technical and outcome evidence owners.	Final state, variances, unused return, circulation, outcome, lessons and corrections.	Archive retention and post-completion review.

Source: POLIX editorial governance standard informed by FSB (2023) and IOSCO (2023). No current POLIX governing body, committee, officer, signer or authority is asserted.

26.2.2 Exclusions, Non-Substitution, and Priority Rules

A reserve policy should state what cannot be financed. Participant losses or rights should not be socialized through discretionary token releases without a lawful and approved process. Restricted assets should not be replaced by a promise that future revenue will replenish them. Ordinary expenses should not be reclassified as strategic merely to bypass a budget. A prior commitment should not be ignored because its payment date is later. A market-support narrative should not justify manipulation, undisclosed dealing, or misleading price expectations.

Priority rules matter when several qualified uses compete. Mandatory legal and participant obligations come before discretionary programs. Critical continuity and incident needs come before growth. Signed commitments come before new proposals unless lawful cancellation exists. Among discretionary proposals, priority can consider strategic relevance, evidence quality, irreversibility, downside, concentration, option value, time sensitivity, and expected ecosystem benefit. The scoring method should support judgment, not create false precision or a right to funding.

Table 26.7. Reserve exclusions and escalation triggers

CONDITION	DEFAULT TREATMENT	PERMITTED EXCEPTION	EVIDENCE BEFORE RECONSIDERATION
Unclear ownership or restriction	Exclude asset from capacity and stop release.	Only after authoritative ownership and restriction resolution.	Legal basis, source record, control evidence and independent reconciliation.
Participant, collateral or safeguarded asset	Never treat as discretionary platform capital.	Only an applicable rule and rights analysis can establish another classification.	Client terms, law, account structure, segregation and approved opinion or determination.
Unfunded mandatory obligation	Protect or fund obligation before strategic approval.	None through strategic-label reclassification.	Complete due ledger, source of coverage and settlement readiness.
Material incident or control failure	Pause new deployment and preserve recovery capacity.	Emergency action within a predefined incident mandate.	Incident authority, scope, necessity, limits, containment and later review.
Stale or adverse stress result	Recalculate capacity; expire prior certification.	No release until current evidence restores the gate.	Updated balances, forecasts, haircuts, scenarios and independent challenge.
Conflict or related-party concern	Suspend decision or require enhanced process and recusal.	Only after conflict controls and fair-term evidence are complete.	Relationship map, alternatives, valuation, recusal, approval and disclosure class.
Expected price support or promotional pressure	Reject or redesign proposal under market-integrity review.	Legitimate liquidity or strategic purpose must be independently established.	Purpose, route, conduct controls, communications, metrics and legal review.

Source: POLIX editorial capital-allocation-control standard informed by CPSS-IOSCO (2012), FSB (2023), IOSCO (2023), and Regulation (EU) 2023/1114 as non-exhaustive reference points. Applicability requires separate analysis.

26.3 Progressive Deployment

Progressive deployment means that strategic intent becomes exposure only in bounded increments after evidence is produced. The 24-month initial lock-up is one policy gate; it is not sufficient by itself. Expiry of time creates eligibility for review, not automatic release, transfer, circulation, sale, or program funding.

The lock-up must be operationally defined before it can be verified. The policy should identify the commencement event, time standard, included allocation, enforceable mechanism, authorized roles, prohibited transfers, monitoring, exceptions, and the state that follows expiry. A calendar statement without a commencement event and implementation record cannot establish whether the lock-up has begun or ended. This chapter does not select an event or assert that any period has elapsed.

Deployment planning may begin during the lock-up, but any eventual post-lock-up deployment should be governed through distinct states: concept, qualified proposal, approved envelope, reserved tranche, released tranche, received assets, activated use, milestone accepted, completed, suspended, terminated, returned, or corrected. These states prevent an approved ceiling from being reported as distributed and a transfer from being reported as productive use. Unused authority should expire; unneeded or recoverable tokens should return to controlled custody under a defined rule.

Tranche size should reflect evidence and reversibility. Early stages can fund diligence, prototypes, audits, integration design, or a limited pilot. Later stages can expand only after the preceding deliverable, control state, and outcome signal are reviewed. Irreversible commitments require stronger ex-ante evidence because later monitoring cannot recover value. Where contractual recovery, vesting, escrow, milestone release, or termination rights are feasible, they should be evaluated as control mechanisms rather than assumed.

Table 26.8. Progressive deployment states

STATE	MEANING	PERMITTED ACTION	EVIDENCE TO ADVANCE	PUBLIC WORDING BOUNDARY
Locked	Allocation remains under the active initial or policy lock.	Monitor and prepare policy evidence; no ordinary release.	Commencement, mechanism, balance, control and time evidence.	“Reserved under policy”; not unlocked or available.
Eligible for review	Time gate is satisfied, subject to all other gates.	Accept and assess proposals.	Lock expiry, current policy, ownership and reserve reconciliation.	Not approved, allocated, released or circulating.
Qualified proposal	Purpose, diligence and feasibility meet review minimums.	Seek approval within defined validity.	Proposal packet, alternatives, conflicts, budget, risks and milestones.	Not funded or committed.
Approved envelope	Authority establishes a maximum and conditions.	Reserve capacity; no transfer beyond a released tranche.	Decision record, capacity certificate, conditions and expiry.	Approved ceiling; not distributed amount.
Released tranche	A bounded transfer or commitment is authorized and executed.	Use only under approved restrictions.	Gate certificate, custody instruction, transaction and receipt.	Released or committed; circulation depends on methodology.
Activated use	Recipient or program begins the approved function.	Perform monitored work under limits.	Use evidence, access state, controls and early metrics.	Activity is not milestone acceptance or outcome.
Milestone accepted	Defined deliverable and control conditions are verified.	Release next tranche or continue within authority.	Deliverable, testing, cost, exceptions, reviewer and decision.	Accepted milestone; not final success.
Closed or corrected	Program completes, terminates, returns value or revises records.	Reconcile, disclose, archive and learn.	Final custody, circulation, outcome, variance, recovery and correction.	State exact result; do not rewrite prior states.

Source: POLIX editorial progressive-deployment standard. No current lock, eligibility, proposal, approval, release, program or circulation state is asserted.

DEPLOYMENT PRINCIPLE **Lock-up expiry does not release tokens. It only removes one time-based restriction. Every proposal, capacity certificate, approval, tranche, custody instruction, circulation classification, milestone, suspension, return, and correction remains a separate state with separate evidence.**

26.3.1 Tranche Gates and Capacity Re-Certification

Capacity should be re-certified at each material release. A proposal approved months earlier may no longer fit because obligations, revenue, market liquidity, token valuation, legal conditions, custody access, security posture, or strategic priorities changed. Re-certification should use current cutoffs and preserve the prior certificate. It

should test both the overall reserve and the specific asset to be released. A program-level approval cannot waive ownership or restriction failures.

Gate evidence should be binary where possible. The lock is either satisfied under the defined rule or not. Ownership is evidenced or unresolved. A required conflict review is complete or incomplete. A milestone is accepted, rejected, or conditionally accepted with explicit remediation. Quantitative measures should include thresholds and data sources. Qualitative judgments should identify the accountable reviewer and reasons. “Strategic,” “urgent,” “high impact,” or “community supported” are not substitutes for a gate.

Table 26.9. Release-gate certificate

GATE	QUESTION	PASS EVIDENCE	FAIL OR DEFER CONDITION
Policy and lock	Is the use eligible and the active lock or restriction satisfied?	Policy version, purpose mapping, commencement and elapsed-time evidence, exception status.	Purpose outside policy, unresolved time basis or unenforceable restriction.
Ownership and custody	Are the exact units controlled, unencumbered and transferable under valid authority?	Wallet or account, control test, signers, balance, restriction and transaction readiness.	Unknown ownership, omnibus ambiguity, encumbrance, compromised access or unsupported route.
Capacity	Does current stress-adjusted headroom remain after obligations and prior commitments?	Current register, forecast, stress, haircuts, obligation coverage and independent review.	Negative or stale headroom, double allocation, unpriced risk or missing time bucket.
Proposal quality	Are objective, mechanism, budget, milestones, downside and alternatives adequate?	Approved proposal packet and review reasons.	Undefined outcome, weak additionality, open-ended budget or no credible implementation.
Legal, conduct and security	Are applicable restrictions, conflicts, market-integrity and technical risks addressed?	Relevant reviews, controls, residual risks, disclosures and accountable acceptance.	Prohibited use, unresolved conflict, misleading communication or unacceptable security risk.
Prior milestone	Has the previous tranche produced the required deliverable and evidence?	Acceptance test, expenditure and custody reconciliation, metrics, incidents and remediation.	Missed milestone, unsupported cost, material variance, incident or incomplete evidence.
Execution and disclosure	Can release, receipt, circulation and public status be recorded correctly?	Instruction, recipient, wallet or account, state labels, reporting and correction path.	No executable route, unverified recipient, ambiguous circulation or unsupported claim.

Source: POLIX editorial release-gate standard. The certificate is a proposed control, not evidence that a POLIX release process or authority currently exists.

26.3.2 Monitoring, Stop Conditions, and Recovery

Monitoring should cover inputs, controls, outputs, outcomes, and counter-metrics. Token transfers and expenditures are inputs. Milestones and rights are control states. Delivered infrastructure or access is an output. Qualified adoption, resilience, revenue capacity, or strategic learning may be outcomes. Concentration, complaints, security incidents, market impact, dependency, cost growth, and circulation pressure are counter-metrics. A program can produce activity while failing its strategic purpose or increasing risk.

Stop conditions should be explicit enough to act before the next tranche. They may include a material control breach, missed milestone, unresolved conflict, prohibited use, inability to verify custody, adverse legal determination, compromised keys, sanctions or counterparty concern, market-integrity risk, capacity deterioration, severe incident, data fabrication, material budget variance, or a change that invalidates the proposal. Emergency suspension may precede full reasons when security or law requires, but the later record should identify authority, evidence, duration, impact, and restoration criteria.

Recovery does not mean every released token can be recovered. Rights depend on the mechanism and counterparty. Escrow, vesting, staged custody, termination, refund, return, collateral, or clawback terms may reduce exposure but introduce enforcement and operational risks. The policy should state what is technically and legally recoverable, who can act, how returned units are classified, whether they leave circulation, and how unsuccessful recovery is reported.

Table 26.10. Monitoring and stop-condition matrix

SIGNAL	THRESHOLD DESIGN	IMMEDIATE ACTION	REQUIRED RESOLUTION RECORD
Custody or signer anomaly	Unauthorized access, lost control, wrong destination or failed threshold.	Pause all releases; preserve evidence; secure keys and accounts.	Incident scope, containment, balances, transactions, control restoration and assurance.
Milestone failure	Defined test missed, evidence incomplete or deliverable unusable.	Withhold next tranche; classify remediation, redesign or termination.	Test result, reasons, cure period, decision, remaining exposure and disclosure.

SIGNAL	THRESHOLD DESIGN	IMMEDIATE ACTION	REQUIRED RESOLUTION RECORD
Capacity deterioration	Headroom falls below policy minimum or stress breach occurs.	Expire certificate; stop new discretionary commitments.	Updated register, stress cause, protected actions, replenishment and reapproval.
Conflict or misconduct	Undisclosed interest, self-dealing, manipulation concern or false evidence.	Suspend decision or program; isolate involved actors and records.	Investigation, recusal, affected decisions, remediation, recovery and notification.
Material legal or policy change	Use, recipient, geography, token transfer or communication becomes restricted.	Stop affected action and seek authoritative review.	Change, applicability, affected states, lawful options and approval.
Adverse market or liquidity condition	Execution or circulation would exceed impact, depth, concentration or conduct limits.	Delay, reduce, redesign or cancel the tranche.	Market data, method, decision, withheld details, later execution or closure.
Outcome underperformance	Causal or strategic outcome remains below threshold after defined period.	Review continuation; do not substitute activity metrics.	Outcome analysis, counterfactual limits, learning, redesign, termination or scale decision.

Source: POLIX editorial monitoring and recovery standard informed by NIST CSF 2.0 and NIST SP 800-61r3. No current POLIX thresholds, incident process, recovery right or monitoring system is asserted.

26.4 Separation from Circulating Supply

Reserved supply and circulating supply are different policy states, but the boundary is not established by a label alone. A defensible classification requires a published methodology, identified control and availability conditions, transaction and custody evidence, a cutoff, and a correction process.

POLIX Token Economy v1.0 EN states that reserved tokens do not automatically become part of circulating supply and enter circulation only through predefined allocation policies and approved operational programs. For the Strategic Growth Reserve, the document states that units are not considered circulating until actually allocated for approved strategic purposes. This is the governing editorial direction. It does not resolve every future edge case, such as a transfer to escrow, a revocable grant, a vesting contract, liquidity inventory, a bridge, a controlled market-maker account, an unclaimed distribution, or returned tokens.

Circulation is a methodology, not a synonym for totalSupply, minted supply, an allocation table, a treasury balance, or tokens outside a burn address. The method should define which control states and economic availability conditions count as circulating. It should state how founder, contributor, reserve, vesting, liquidity, custodial, bridge, lost, restricted, and program wallets are treated. It should also distinguish internally controlled inventory from units that are transferable by external holders, while recognizing that control and economic availability can change.

The cleanest record preserves several quantities rather than forcing one number to answer every question: maximum supply; current totalSupply if verified; allocated supply by policy category; minted and unminted units if applicable; locked or restricted units; platform-controlled units; third-party controlled units; released but restricted units; circulating supply under the published method; liquid market float if separately defined; burned units; and disputed or unclassified states. Some categories overlap conceptually, so the reconciliation model should state whether fields are mutually exclusive or analytical overlays.

A transfer should trigger classification review, not automatic circulation. Relevant facts include sender and receiver control, contractual restrictions, vesting, transferability, program purpose, market access, revocation, custody, bridge representation, and whether the units can be sold or used without further approval. A program expenditure can leave platform custody yet remain restricted; conversely, platform-controlled inventory may affect market availability. The published method should choose rules in advance and apply them consistently.

Table 26.11. Strategic reserve state and circulation treatment

STATE	CONTROL CONDITION	INDICATIVE CIRCULATION TREATMENT	EVIDENCE REQUIRED	NOT EQUIVALENT TO
Policy allocated	40,000,000 POLX is designated to the Strategic Growth Reserve in the official allocation.	Excluded under the stated policy until actual approved allocation.	Approved allocation table, token specification and reconciliation.	Minted, held, locked or available balance.
Locked reserve custody	Identified units are controlled under an enforceable active lock.	Excluded while the published method and evidence support restriction.	Wallet or account, owner, lock mechanism, commencement, balance and monitoring.	Burned supply or cash reserve.
Approved envelope	Authority sets a maximum but no release occurs.	No circulation change solely from approval.	Decision, capacity certificate, conditions and expiry.	Distributed, vested or spent units.

STATE	CONTROL CONDITION	INDICATIVE CIRCULATION TREATMENT	EVIDENCE REQUIRED	NOT EQUIVALENT TO
Escrowed or committed tranche	Units move or become committed but remain subject to enforceable conditions.	Method-dependent; report separately until the rule determines status.	Transaction, escrow control, beneficiary rights, transferability and recovery terms.	Unrestricted third-party circulation.
Released to recipient	Recipient gains the rights defined by the program or contract.	May enter circulation under the published method, subject to continuing restrictions.	Receipt, control, restrictions, vesting, transferability and cutoff.	Productive use, sale, liquidity or outcome.
Liquidity or market inventory	Units are placed where trading or market access may occur.	Requires explicit methodology and inventory transparency; may affect effective float.	Venue, controller, mandate, restrictions, balances, orders and reporting.	Price support, stable value or public free float.
Returned or recovered	Units return to controlled reserve custody or restriction.	Reclassification requires evidence and the published method; history remains.	Return transaction, control, restriction, reason, prior state and correction.	A burn or reversal of past circulation.
Burned	Canonical irreversible mechanism reduces supply under verified semantics.	Excluded from total and circulation according to verified supply effect.	Network, contract, transaction, event, totalSupply delta and reconciliation.	Lock, reserve, lost keys or dead-address assumption.

Source: POLIX Token Economy v1.0 EN and POLIX editorial circulation-state framework. Treatments are methodological proposals; current POLIX supply states are not asserted.

CIRCULATION PRINCIPLE **Report allocation, custody, restriction, approval, commitment, release, transferability, circulation, return, and burn as separate states. A reserve decreases when units leave it; circulating supply changes only when the published methodology and evidence support that classification.**

26.4.1 Wallet, Ledger, and Reconciliation Architecture

Wallet architecture should express roles, not merely addresses. Separate control domains can include locked reserve custody, approved-but-unreleased commitments, escrow or vesting, program disbursement, liquidity operations, returned units, and incident quarantine. Address separation supports observation but does not replace governance: the policy still needs owner, signer roles, thresholds, recovery, allowed destinations, transaction limits, monitoring, upgrade or contract dependencies, and linkage to the off-chain decision record.

Reconciliation should connect four layers. The policy ledger explains why units are reserved or eligible. The authorization ledger records approved envelopes and tranches. The custody ledger records controlled balances and movements. The circulation ledger applies the published classification method. Differences can be valid - for example, an approved envelope without a transfer - but they must be explainable. Total movements should reconcile from opening state through releases, returns, corrections, bridge events, and burns to closing state.

Cross-chain or bridge representations require a conservation model. Lock-and-mint, burn-and-mint, liquidity-network, or custodial bridge designs create different evidence and risks. A mirrored token should not be counted twice merely because balances appear on two networks. The authoritative supply and circulation method should identify canonical units, representations, backing or lock evidence, bridge control, outstanding claims, incident handling, and reconciliation. No POLIX bridge or multi-chain deployment is asserted.

Table 26.12. Reserve custody and reconciliation controls

CONTROL	DESIGN REQUIREMENT	EVIDENCE	EXCEPTION RESPONSE
Role-separated custody	Distinct proposal, approval, signing, monitoring and reconciliation responsibilities.	Role map, signer threshold, key inventory, access review and transaction log.	Freeze or reduce access; investigate concentration or unauthorized role.
Destination allowlist	Transfers only to verified networks, contracts, counterparties and program addresses.	Due diligence, address verification, test transfer where appropriate and approval.	Stop transfer; quarantine unexpected receipt; correct mapping.
Balance reconciliation	Opening balance plus verified inflows minus verified outflows equals closing balance by asset and location.	On-chain or custodian record, internal ledger, cutoff, variance and reviewer.	Investigate variance before capacity or circulation reporting.
Authorization linkage	Every transfer references an active tranche and cannot exceed remaining authority.	Proposal ID, decision, tranche, amount, purpose, recipient and expiry.	Reject, reverse where possible, escalate and disclose material unauthorized action.

CONTROL	DESIGN REQUIREMENT	EVIDENCE	EXCEPTION RESPONSE
Restriction monitoring	Lock, vesting, escrow and use conditions are technically and legally observable.	Contract state, agreement, control test, milestone and exception report.	Reclassify uncertainty; pause release; seek authoritative determination.
Supply and bridge reconciliation	Canonical supply and representations are not double counted.	Contract and bridge events, locked backing, network balances and conservation check.	Suspend classification; investigate mismatch or bridge incident.
Circulation classification	Method applies consistently to current control and availability states.	State ledger, methodology version, cutoff, calculation and correction history.	Publish correction and preserve original classification.

Source: POLIX editorial custody and reconciliation standard informed by IOSCO (2023) custody recommendations and CPSS-IOSCO (2012) custody, investment, operational, and settlement-risk principles.

26.4.2 Circulating-Supply Disclosure and Corrections

Disclosure should show both the number and the method. A circulating-supply statement should identify the network and token, cutoff and time zone, maximum and verified total supply where available, excluded categories, included categories, treatment of restrictions and platform-controlled inventory, bridge treatment, data sources, preparer, reviewer, policy version, and material uncertainty. Historical series should use the method effective at each date or clearly identify restatement; silent retrospective changes destroy comparability.

A reserve dashboard should avoid turning uncertainty into false precision. Where ownership, restriction, or control is unresolved, units should be reported as disputed or unclassified under the method rather than forced into an available or circulating category. Corrections should identify the prior value, corrected value, reason, affected period, evidence, and whether the change is a factual correction or a methodology revision. The original publication should remain accessible or traceably linked.

Table 26.13. Minimum reserve and circulation dashboard

FIELD	DEFINITION	EVIDENCE SOURCE	NON-INFERENCE
Policy allocation	40,000,000 POLX Strategic Growth Reserve under the official allocation.	Approved token-economy document and policy version.	Minted, controlled or available balance.
Verified reserve custody	Units proven controlled in identified reserve accounts or wallets at cutoff.	Ownership, custody, balance and restriction evidence.	Unrestricted or deployable capacity.
Active lock or restriction	Units subject to a verified policy, contractual or technical restriction.	Commencement, terms, mechanism, current state and exception record.	Burned or permanently unavailable supply.
Approved unexpired envelope	Maximum reserved under valid decisions but not necessarily released.	Approval, capacity certificate, conditions, expiry and remaining authority.	Distributed or circulating units.
Released units	Units transferred or committed under executed tranches.	Authorization, transaction, recipient, receipt and restriction state.	Unrestricted circulation or strategic outcome.
Returned or recovered units	Previously released units restored to controlled custody or restriction.	Return transaction, control, classification and correction.	Burn or erasure of historical release.
Circulating supply	Units classified as circulating under the published method at cutoff.	Method, state ledger, calculation, network data and review.	Liquidity, float, demand, price or value.
Disputed or unclassified	Units whose ownership, restriction, control or bridge state is unresolved.	Issue record, evidence gap, responsible owner and resolution status.	Zero balance or permission to choose a favorable classification.
Corrections and method changes	Traceable factual corrections or versioned methodology revisions.	Original and revised values, reasons, evidence, approval and dates.	Permission to silently rewrite history.

Source: POLIX editorial disclosure standard. No current dashboard, wallet, lock, release, circulating supply or other field value is assigned.

26.5 Long-Term Ecosystem Alignment

Long-term alignment means that reserve deployment strengthens capabilities, resilience, access, and ecosystem quality that can outlast the expenditure. It does not mean that every release must raise token price, maximize near-term activity, or preserve the reserve nominally at all costs.

The Strategic Growth Reserve should be managed as a portfolio of strategic options under a finite-supply constraint. Options can include building, partnering, localizing, integrating, acquiring, recovering, or waiting. Waiting can be rational when uncertainty is high and the opportunity is not perishable; action can be rational when a credible time-sensitive opportunity has strong evidence and bounded downside. The decision record should

compare these alternatives and explain why the selected timing improves expected ecosystem capacity rather than merely responding to market sentiment.

Alignment should be assessed across multiple stakeholders and horizons. A program can benefit users but impose unmanageable operational cost; benefit a partner while weakening platform control; increase activity while degrading market quality; expand circulation without productive demand; improve a short-term metric while creating long-term dependency; or preserve tokens while losing a strategic window. The scorecard should therefore pair benefits with counter-metrics and identify whose welfare, rights, or obligations are affected.

No reserve policy can guarantee token value. Token outcomes depend on utility, adoption, market structure, liquidity, concentration, regulation, security, competition, macroeconomic conditions, and expectations. Reserve release may increase available supply; retaining the reserve may preserve scarcity under one method but does not create demand. A strategic program may improve capability without producing a measurable token-market result. Communications should describe the approved purpose, state, evidence, risk, and outcome without converting long-term alignment into a price, yield, liquidity, or return promise.

Portfolio discipline can limit concentration by category, counterparty, geography, network, maturity, and strategic thesis. It can also preserve a minimum undeployed policy reserve or require enhanced authority beyond a cumulative threshold. These parameters should be selected only when governance, legal structure, implementation, and evidence exist. The chapter does not set a reserve floor, annual deployment limit, sector allocation, valuation model, target return, or diversification requirement for POLIX.

Table 26.14. Long-term alignment scorecard

DIMENSION	CORE QUESTION	POSITIVE EVIDENCE	COUNTER-METRIC OR RISK
Strategic relevance	Does the proposal create a capability or option tied to approved long-term objectives?	Clear causal thesis, alternatives, time sensitivity and decision rights.	Narrative fit without additionality or a bounded object.
Ecosystem utility	Who gains a usable capability, access, information, resilience or coordination benefit?	Qualified users, deliverable use, retention, interoperability and feedback.	Raw activity, vanity reach, dependency or low-quality participation.
Economic sustainability	Can the initiative operate or conclude without repeated uncontrolled reserve use?	Total-cost model, co-funding, revenue or cost logic, maintenance and exit.	Open-ended subsidy, hidden non-token cost or optimistic token valuation.
Risk and resilience	Does the proposal preserve obligations and improve or avoid weakening critical resilience?	Stress result, security, continuity, concentration and recovery controls.	Reduced runway, single provider, fragile custody or correlated exposure.
Supply and market integrity	Are release, circulation and market effects understood and controlled?	State method, vesting or use restrictions, depth analysis, conduct controls and disclosure.	Price-support expectation, avoidable impact or opaque inventory.
Governance quality	Can authority, conflicts, milestones, changes and corrections be reconstructed?	Versioned records, independent challenge, recusal, evidence and public state labels.	Founder discretion, after-the-fact reasons or silent modification.
Learning and optionality	Does the design create information before larger irreversible commitment?	Pilot, staged rights, decision thresholds, comparable evidence and archive.	Large early release, sunk-cost escalation or no termination rule.

Source: POLIX editorial alignment framework informed by reserve-option and risk-governance literature. The scorecard guides judgment and does not establish a current POLIX scoring system.

ALIGNMENT PRINCIPLE **Preserve the reserve when evidence is weak, obligations are exposed, or the option to wait is valuable. Deploy progressively when a qualified opportunity is time-sensitive, capacity is independently verified, downside is bounded, circulation effects are understood, and each tranche can produce evidence before the next commitment.**

26.5.1 Portfolio Limits, Stress, and Replenishment Logic

A finite token reserve cannot be replenished through additional minting under the approved POLIX direction. Returned or recovered units may restore reserve custody, but they do not recreate an expended strategic opportunity or reverse a period of circulation. Cash or other assets generated by a program are economically different from POLX units and should be recorded separately. “Replenishment” should therefore specify the asset, source, authority, restriction, circulation treatment, and accounting rather than imply that any economic gain restores the original token reserve.

Stress testing should cover the reserve portfolio and the platform together. A program can perform as planned while the platform's broader capacity deteriorates. Tests should examine concurrent program commitments, token-price and liquidity shocks, lower revenue, higher critical costs, counterparty failure, custody or bridge incidents, regulatory change, and inability to recover released units. The objective is to reveal forced choices before they occur: which commitments are protected, paused, reduced, terminated, or funded from another source?

Concentration limits can prevent the reserve from becoming dependent on one thesis, counterparty, geography, technology, or market-access channel. Yet mechanical diversification can fund weak proposals merely to fill categories. Limits should be risk controls, not deployment targets. Unused capacity should remain reserved when no proposal meets the standard.

Table 26.15. Reserve stress scenarios and management response

SCENARIO	TRANSMISSION CHANNEL	PROTECTED PRIORITY	MANAGEMENT RESPONSE	DISCLOSURE BOUNDARY
Revenue interruption plus cost increase	Lower unrestricted capacity while critical operating outflows rise.	Participant and mandatory obligations, critical services and incident capacity.	Expire headroom; pause new tranches; revise forecast and protect continuity.	Report material program state; do not imply insolvency or recovery without evidence.
POLX volatility and shallow liquidity	Fiat value, execution cost and circulation impact become unstable.	Correct-unit obligations and market-integrity limits.	Avoid optimistic conversion; increase haircut; delay or redesign token-funded action.	No price floor, support, liquidity or return claim.
Custody, signer or bridge incident	Assets may be inaccessible, lost, duplicated in reporting or exposed to attack.	Containment, evidence, participant rights and recovery.	Freeze affected domain; quarantine state; reconcile networks; activate incident authority.	Disclose verified scope without exposing exploitable security detail.
Counterparty or partner failure	Milestones, rights, return of units or service continuity may fail.	Critical capability and recoverable claims.	Stop tranches; exercise rights; replace service; classify loss and lessons.	Partnership announcement is not protection or successful recovery.
Regulatory or legal restriction	Transfer, custody, service, market access or communication may become limited.	Lawful operation and affected rights.	Pause affected use; isolate jurisdiction or function; seek authoritative resolution.	No compliance or permission claim without applicable determination.
Multiple programs underperform	Finite reserve is consumed without durable outcomes; sunk-cost pressure rises.	Remaining option value and critical commitments.	Portfolio review; terminate weak programs; preserve unused authority and learn.	Do not aggregate activity as success or hide terminated programs.

Source: POLIX editorial stress-testing framework informed by BCBS (2008), CPSS-IOSCO (2012), NIST CSF 2.0, and NIST SP 800-61r3. Scenarios are illustrative, not current POLIX conditions.

26.5.2 Assurance, Public Reporting, and Transition to Governance

Assurance should test the full chain, not only the final balance. Relevant procedures can examine allocation authority, ownership, lock commencement and mechanism, custody and signers, restriction state, reserve register, obligations, stress assumptions, headroom, proposal decisions, conflicts, tranche evidence, recipient receipt, milestone acceptance, circulation classification, returns, corrections, and disclosures. Management attestation, internal control review, technical verification, legal analysis, financial reconciliation, and independent assurance address different questions. The whitepaper does not claim any current audit, assurance engagement, legal opinion, custody review, stress test, or provider.

Public reporting can be layered. Policy disclosure can state allocation, purpose, lock rule, eligibility, decision framework, circulation method, risk factors, and correction policy. Periodic reserve reporting can show verified state fields and cumulative deployment without exposing signer security, live transfer timing, privileged legal advice, personal data, or commercially sensitive negotiations. Program reporting can identify approved purpose, ceiling, tranches, state, milestones, outcomes, exceptions, remaining authority, and closure. Withholding sensitive details should be explained and should not prevent verification of material public claims.

The European Union's MiCA framework provides one jurisdictional example of safeguarding ownership rights, segregation, own-funds and organizational expectations for certain crypto-asset service providers. IOSCO and FSB provide broader international recommendations on custody, conflicts, governance, risk management, and

disclosures. This chapter does not determine POLIX legal status, licensing, capital requirement, custody duty, or geographic availability. Any operative reserve framework must be mapped to the actual entity, product, participant relationship, asset flow, and jurisdiction before launch.

Reserve management ultimately depends on governance: who sets risk tolerance, confirms ownership, defines required buffers, approves a proposal, certifies capacity, controls custody, classifies circulation, pauses a program, resolves conflicts, corrects disclosures, and changes the policy. Chapter 27 will convert these responsibilities into decision rights, operating governance, allocation oversight, transparency, and any future participation process. Chapter 26 establishes the objects and gates those authorities must govern; it does not assign them to current POLIX actors.

Chapter Synthesis

1. POLIX official materials establish a 40,000,000 POLX Strategic Growth Reserve, equal to 10% of maximum supply, an initial 24-month lock-up, progressive approved deployment, and exclusion from circulation until actual approved allocation; they do not establish a current implementation state.
2. A strategic token allocation, treasury asset, operating-liquidity buffer, participant or restricted asset, incident reserve, approved commitment, regulatory capital requirement, and discretionary headroom are different objects.
3. Ownership and restriction are tested before valuation. Participant, collateral, safeguarded, escrowed or otherwise restricted assets are not discretionary platform capital merely because they are held or visible.
4. Reserve adequacy must be measured by asset, legal entity, custody location, maturity, access, obligation, stress behavior, and disclosed haircut rather than by a single converted balance.
5. The 24-month lock-up requires a defined commencement event and enforceable evidence. Expiry removes one time gate; it does not automatically release, allocate, distribute or circulate POLX.
6. Approved uses require proposal-level purpose, additionality, mechanism, total resources, conflicts, circulation effect, downside, milestones, recovery rights, evidence, and completion rules.
7. Policy, proposal approval, capacity certification, tranche release, custody execution, monitoring, suspension, completion and correction should have bounded and reviewable decision rights.
8. Progressive deployment limits irreversible exposure and uses each tranche to create evidence before a larger commitment. Unused authority should expire and recoverable value should return under a defined rule.
9. Reserved, approved, committed, escrowed, released, restricted, circulating, returned and burned states must remain separate. Circulation depends on a published methodology and evidence, not on a label alone.
10. Long-term alignment is assessed through ecosystem utility, economic sustainability, resilience, supply and market integrity, governance quality, learning and optionality - not by guaranteed token price or return.
11. Stress tests should combine lower revenue, higher obligations, token volatility, liquidity limits, custody or bridge incidents, counterparty failure, legal change and program underperformance before discretionary capacity is certified.
12. Chapter 26 is a proposed reserve, capital-allocation-control, deployment, custody, circulation and disclosure architecture. It does not assert current balances, runway, ratios, wallets, locks, releases, programs, legal status, compliance, liquidity, price or return.

TRANSITION TO CHAPTER 27 **Chapter 26 defines the assets, ownership boundaries, obligation layers, reserve states, capacity tests, release gates, circulation classifications, stress scenarios, and assurance records that require authority. Chapter 27 will define Governance and Decision Rights: who may set policy, approve allocations, control execution, challenge evidence, disclose results, resolve conflicts, correct history, and structure any future ecosystem participation.**

References and Source Notes

Official POLIX materials establish the 40,000,000 POLX Strategic Growth Reserve, its 10% allocation, long-term strategic purpose, initial 24-month lock-up, progressive post-lock-up deployment subject to policy and ecosystem interests, approved-use requirement, and exclusion from circulating supply until actual approved allocation. They do not establish the lock commencement event, current status, wallet, holder, contract, balance, cash reserve, participant-asset structure, operating runway, liquidity buffer, incident reserve, capital ratio, proposal, authority, recipient, transaction, circulation amount, outcome, price or return. The taxonomy, formulas, gates, registers, state

models, stress tests, role separations, scorecards, assurance procedures, and disclosure fields in this chapter are proposed analytical controls, not deployed POLIX facts.

External sources support general principles concerning liquidity governance, custody and asset safeguarding, segregation, conflicts, operational resilience, incident response, crypto-asset risk governance, circulating-state transparency, and the precautionary role of liquid resources. They do not establish that POLIX is a bank, financial market infrastructure, crypto-asset service provider, regulated issuer, custodian, investment, security, or subject to any particular capital, reserve, safeguarding, disclosure, or licensing rule. Applicability requires separate analysis of the actual entity, service, rights, asset flows, technology, and jurisdiction.

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CHAPTER 27

Governance and Decision Rights

Governance turns mission, policy, risk tolerance, and stakeholder expectations into answerable questions: who may decide, about which object, in which state, on what evidence, under what limits, with whose challenge, and with what route to correction. A system is not well governed because many people can express preferences. It is well governed when authority is legitimate and bounded, records are complete enough to reconstruct the decision, conflicts are managed, execution remains within mandate, and outcomes can change future policy.

Chapters 20 through 26 defined fixed-supply allocation, lock-up, ecosystem programs, market-support boundaries, revenue-state controls, buyback and burn eligibility, and reserve management. Those chapters repeatedly separated a policy category from a spendable balance, an observed event from qualified evidence, capacity from authorization, and authorization from execution. Chapter 27 supplies the common governance layer across those distinctions. It does not reopen the economic model or create a new source of token supply. It defines how a policy could be adopted, applied, challenged, amended, disclosed, and retired without collapsing the underlying states.

The official POLIX Token Economy states that the Ecosystem Growth, Platform Economy, Liquidity & Market Stability, Strategic Growth Reserve, and Strategic Partnerships & Listings allocations are governed by predefined policies and long-term strategic objectives. It also states that reserved allocations are released only for predefined strategic purposes under transparent allocation policies and governance procedures, and that reserved tokens do not automatically enter circulating supply but do so only through predefined allocation policies and approved operational programs. The burn and circulating-supply sections commit to public communication of material policy or operational-standard changes. These statements confirm a governance direction but do not name the policy instruments, authorities, review bodies, thresholds, wallets, contracts, or present operating status.

The official presentation lists “Participate in ecosystem decisions” as an intended governance utility for POLX. That phrase should be read as a future design direction. It does not itself grant a vote, define eligible decisions, establish voting power, create a fiduciary or legal relationship, or promise decentralized control. The difference matters because governance rights affect incentives, information asymmetry, security, legal characterization, and the ability to act during incidents. Any future mechanism requires a separately adopted specification that identifies the governed objects, eligible participants, proposal and challenge process, decision rule, execution boundary, appeal or correction route, and transition plan.

External frameworks reinforce the value of role clarity and proportionality without determining POLIX status. The G20/OECD Principles describe governance as the structure through which objectives are set, attained, and monitored, supported by checks, balances, objective judgment, and timely disclosure (OECD, 2023). The CPSS-IOSCO Principles for Financial Market Infrastructures call for clear, transparent arrangements and direct lines of responsibility and accountability (CPSS-IOSCO, 2012). FSB and IOSCO crypto-asset recommendations emphasize disclosed governance frameworks, conflicts controls, functional separation, risk management, records, and clear communications (FSB,

2023; IOSCO, 2023). POLIX is not characterized here as a listed corporation, financial market infrastructure, issuer, service provider, or regulated entity under those sources; their principles are used only as analytical design inputs.

The proposed lifecycle begins with a governed object and a policy state, not with a vote. A proposal then identifies the requested change, evidence, alternatives, beneficiaries, costs, risks, conflicts, and reversibility. Independent challenge tests eligibility, evidence quality, capacity, and external constraints. A bounded authority records the decision; an operator executes only the granted mandate; monitoring compares execution and outcomes with the approved case; correction changes records, controls, or policy when evidence changes. Public communication exposes the appropriate state and limitations without disclosing information that would create security, privacy, legal, or market-integrity risk.

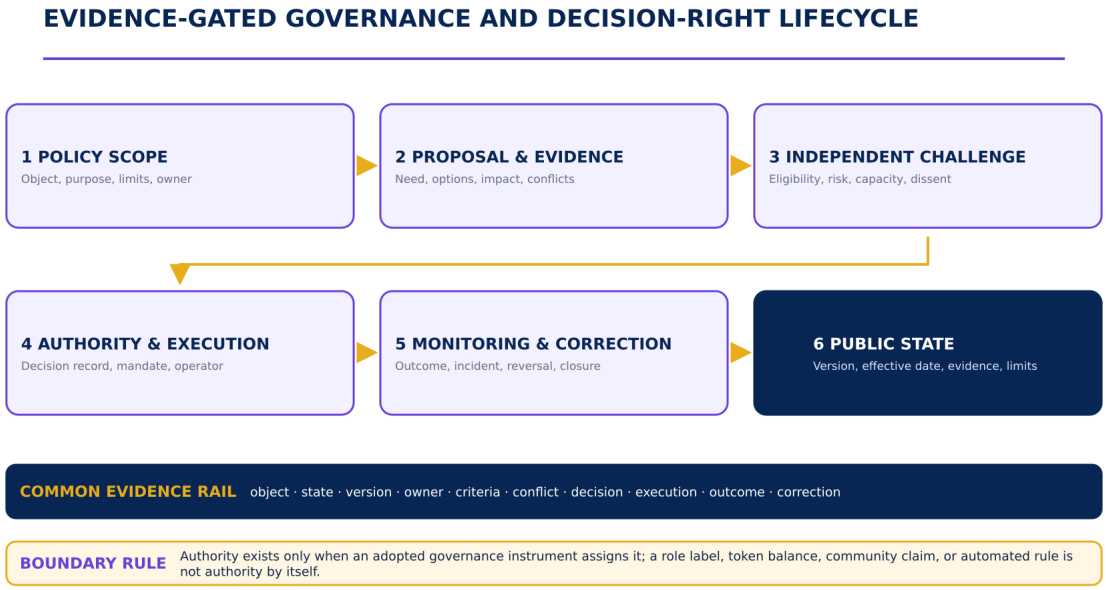

Figure 27.1. Evidence-gated governance and decision-right lifecycle. Each stage produces a distinct state and record; automation may execute an authorized decision but does not create the authority that precedes it.

Table 27.1. Confirmed governance direction and prohibited inferences

ELEMENT	CONFIRMED DIRECTION	REQUIRED BEFORE OPERATION	NOT ESTABLISHED HERE
Allocation governance	Reserved categories are managed under predefined policies and long-term strategic objectives.	Adopted policy, scope, version, authority, evidence standard, limits, and records.	Current policy text, body, signer, wallet, balance, program, or transaction.
Controlled distribution	Reserved units are released only for defined strategic purposes through transparent procedures.	Eligibility, approval, capacity, execution, reconciliation, circulation, and correction controls.	Automatic entitlement, available budget, recipient, release date, or circulating amount.
Material policy updates	Material burn and circulation-policy changes are intended to be communicated publicly.	Materiality rule, owner, version archive, effective date, channel, and correction method.	Existing notice policy, dashboard, cadence, notice period, or legal disclosure regime.
Future participation	Participation in ecosystem decisions is an intended token utility direction.	Rights specification, eligible objects and participants, integrity controls, legal review, security testing, and transition gate.	Current vote, governance token right, proposal portal, quorum, delegation, or on-chain execution.
Decision authority	Authority should be explicit, bounded, reviewable, and evidenced.	A formally adopted governance instrument and verified assignment to an accountable role.	Authority inferred from title, access, token balance, community status, code, or past practice.

Source: POLIX Token Economy v1.0 EN; POLIX Presentation v1.0 EN; POLIX editorial evidence boundary. No current governance implementation or legal right is assigned.

EVIDENCE BOUNDARY **Report governance direction, adopted instrument, assigned authority, decision, execution, and outcome as separate states, each with its own evidence, owner, version, and correction path.**

27.1 Governance Objectives

POLIX governance should protect mission fidelity, market and supply integrity, accountability, resilience, contestability, proportionality, and learning. These objectives can conflict. Speed may reduce challenge; broad participation may increase legitimacy while imposing coordination and information costs; transparency may improve accountability while exposing security-sensitive or execution-sensitive information; reversibility may preserve safety while weakening commitment. Governance design should make those trade-offs explicit rather than allowing the word community to hide them.

Mission fidelity asks whether a decision advances the prediction-market ecosystem described in confirmed materials rather than a manager's, partner's, or large holder's private interest. Integrity asks whether the decision preserves truthful state, fixed-supply constraints, allocation boundaries, participant protections, resolution independence, and reliable records. Accountability asks whether a named authority can explain the decision and whether independent evidence can test it. Resilience asks whether critical operations and correction remain possible under incident, absence, conflict, or failure. Contestability asks whether a materially affected party can surface relevant evidence and obtain an answer without receiving a guaranteed outcome.

A decision right should therefore be defined as a bounded permission over a governed object in a named state. It is not a general status. A role may approve a program envelope but not execute a transfer; release a tranche but not amend the allocation ceiling; suspend an automated process but not permanently change the underlying policy. The same person or system can perform multiple functions only when the combination is deliberately authorized, proportionate, conflict-tested, and subject to compensating review. Silence, habit, administrator access, possession of a key, or a token balance should never be treated as implicit authority.

Table 27.2. Governance objective and failure-signal matrix

OBJECTIVE	CONTROL QUESTION	FAILURE SIGNAL	PROPOSED RESPONSE
Mission fidelity	Does the decision fit the confirmed ecosystem purpose and policy scope?	Purpose is rewritten after a preferred beneficiary or outcome is selected.	Require purpose mapping, alternatives, exclusions, and an explicit non-fit decision.
Integrity	Are source data, supply states, allocation boundaries, and market controls preserved?	A label substitutes for ownership, qualification, authorization, or circulation evidence.	Separate states, reconcile sources, and block execution when a prerequisite is unresolved.
Accountability	Can an accountable role explain the basis, limits, conflicts, and outcome?	Shared responsibility produces no identifiable owner or answerable decision record.	Assign one accountable authority and preserve contributors, challengers, and dissent separately.
Resilience	Can the process continue, pause safely, recover, and correct under failure?	A single key, person, vendor, model, or channel becomes indispensable.	Use substitution, threshold controls, tested emergency routes, and recovery evidence.
Contestability	Can relevant evidence be challenged before irreversible harm or after new facts emerge?	Objections disappear into informal channels or retaliation risk.	Define submission, acknowledgment, review, response, appeal, and anti-retaliation controls.

OBJECTIVE	CONTROL QUESTION	FAILURE SIGNAL	PROPOSED RESPONSE
Proportionality	Do burden, authority, assurance, and disclosure reflect the object's risk and reversibility?	Trivial changes stall while material changes bypass independent review.	Tier decisions by impact, irreversibility, urgency, conflict, and affected stakeholders.
Learning	Do outcomes and corrections update future policy and evidence standards?	Programs repeat despite missed outcomes or unresolved exceptions.	Close decisions with outcome review, lesson owner, policy-change test, and archive.

Source: POLIX editorial governance framework informed by OECD (2023), CPSS-IOSCO (2012), FSB (2023), IOSCO (2023), and NIST CSF 2.0. Objectives are proposed, not current POLIX performance claims.

27.1.1 Governed Objects, States, and Decision Rights

Governance should begin with an object register. Objects can include a policy, allocation category, program, reserve proposal, circulating-supply methodology, burn standard, market or resolution rule, data or AI model, access control, vendor, incident, disclosure, or future participation mechanism. Each object needs an owner, authoritative source, version, current state, allowed transitions, decision class, evidence requirements, and retention rule. Without object-level scope, broad authorities such as "manage the ecosystem" create overlap and allow operational actions to become policy by accumulation.

Decision states should preserve the difference between information and power. Draft means an idea exists. Submitted means a complete package entered the governed process. Qualified means evidence and eligibility passed defined tests. Challenged means a material objection remains open. Approved means a bounded authority granted a mandate. Executable means dependencies, capacity, and technical controls were re-certified. Executed means the authorized action occurred. Effective means the change is operative under its effective-date rule. Suspended, corrected, superseded, expired, and closed describe later conditions. A public label should never skip from announced to completed when intermediate evidence is absent.

Table 27.3. Decision-right state vocabulary

STATE	MINIMUM EVIDENCE	PERMITTED ACTION	PROHIBITED SHORTCUT
Draft	Author, object, requested change, rationale, version.	Develop options and gather evidence.	Promote the idea as approved direction.
Submitted	Complete package, timestamp, sponsor, conflicts, dependencies.	Enter qualification and publish the appropriate notice.	Treat submission volume or support as authority.
Qualified	Eligibility, source quality, impact, risk, capacity and constraints tested.	Advance to challenge and decision.	Infer approval from technical or economic feasibility.
Challenged	Objection, evidence, materiality, owner and response due state.	Investigate, revise, reject, or escalate.	Delete dissent or proceed as if resolved.
Approved	Authority, rule, reasons, limits, conflicts, expiry, dissent, conditions.	Reserve capacity and prepare execution.	Expand scope or amount through operational discretion.
Executable	Dependencies, capacity, security, legal and technical readiness re-certified.	Issue a bounded execution instruction.	Assume an old approval remains executable indefinitely.
Executed / effective	Transaction or change record, reconciliation, effective date, public state.	Monitor controls and outcomes.	Treat execution as proof of benefit or policy success.
Suspended / corrected	Trigger, authority, containment, revised state, affected records and notice.	Pause, reverse where possible, repair, disclose and learn.	Overwrite history or conceal a material error.
Superseded / expired / closed	Replacement or expiry basis, residual obligations, archive and outcome review.	Retire authority and preserve records.	Reuse authority or capacity without re-approval.

Source: POLIX editorial decision-state model. No current POLIX portal, workflow, authority, threshold, approval, execution, or correction state is asserted.

27.1.2 Proportionality, Subsidiarity, and Evidence Thresholds

Not every decision requires the same process. Subsidiarity places routine, reversible, low-impact decisions with the closest competent operating role, while reserving high-impact, cross-boundary, irreversible, conflicted, or precedent-setting decisions for broader challenge and higher authority.

Proportionality prevents both governance theater and governance gridlock. The classification should be rule-based: affected assets and stakeholders, economic and supply impact, duration, reversibility, security and legal exposure, data sensitivity, market sensitivity, conflict, novelty, and whether the decision changes policy rather than applying it.

A proposed admissibility gate can be expressed as $G(d) = P(d) \times E(d) \times R(d) \times C(d) \times H(d)$, where each term is binary: an adopted policy covers decision d; required evidence is present; an accountable role has authority; capacity and external constraints are satisfied; and mandatory challenge is complete. If any required term equals zero, the decision is not executable. This notation is an analytical control, not a current POLIX formula, score, or automated rule. It deliberately prevents a high score in one dimension from compensating for a missing legal, policy, authority, or integrity prerequisite.

Table 27.4. Proposed proportionality tiers

TIER	ILLUSTRATIVE OBJECT	MINIMUM GOVERNANCE	ESCALATION TRIGGER
Tier 1 — routine	Reversible formatting, scheduled report production, or execution within a narrow approved playbook.	Named operator, source evidence, checklist, logging, supervisor sampling.	Exception, failed control, repeated error, conflict, or material external effect.
Tier 2 — bounded	Program milestone, vendor change, model update, or tranche action within an approved envelope.	Sponsor, evidence owner, independent challenge, bounded authority, reconciliation and notice as applicable.	Ceiling change, material risk, unresolved dissent, precedent, concentration, or weak reversibility.
Tier 3 — material	Policy amendment, significant allocation use, circulation-method change, market-integrity rule, or major incident action.	Enhanced evidence, cross-functional challenge, conflicts/recusals, formal reasons, assurance, versioned public communication.	Policy boundary exceeded, rights affected, emergency extension, or unmitigated legal/security risk.
Tier 4 — constitutional / transition	Future participation rights, control transfer, voting mechanism, core supply rule, or governance-system replacement.	Separate design instrument, legal and security review, economic simulation, broad consultation, minority protection, staged testing and explicit adoption.	Readiness gate failure, capture risk, unverifiable identity, unsafe execution, or inability to reverse.

Source: POLIX editorial proportionality framework. Examples organize review burden and do not allocate a current authority or classify a current POLIX decision.

OBJECTIVE PRINCIPLE **Govern the object and its state, not the prestige of a title or the popularity of a proposal. The minimum credible decision identifies what changes, who is accountable, which evidence is authoritative, which limits remain protected, how dissent is handled, and how the result can be corrected.**

27.2 Operational Governance

Operational governance converts policy into repeatable decisions without allowing operators to create policy through execution. The design should separate sponsorship, evidence production, challenge, approval, execution, monitoring, disclosure, and correction as functions even when a small organization assigns several functions to the same people. Separation clarifies which conflict or failure each control addresses. Where full organizational separation is not practical, compensating controls can include threshold signatures, independent review, post-action assurance, narrow limits, expiry, append-only, tamper-evident records, and public state.

A policy authority determines eligible objects, objectives, limits, prohibited uses, materiality, and amendment rules. A proposal sponsor develops a specific case but should not certify its own evidence. An evidence owner maintains source integrity and identifies uncertainty. An independent challenger

tests eligibility, alternatives, risks, conflicts, dependencies, and capacity. An approval authority decides within a granted scope and records reasons. An execution operator performs only the authorized instruction. Monitoring and assurance compare action and outcome with the mandate. A disclosure and correction owner maintains the public state and repair trail. These are functions, not assertions about a current POLIX organization chart.

Table 27.5. Operational governance function matrix

FUNCTION	PRIMARY DUTY	EVIDENCE PRODUCED	INCOMPATIBLE OR CONTROLLED COMBINATION
Policy authority	Adopt scope, objectives, limits, materiality, amendment and retirement rules.	Versioned governance instrument and authority map.	Should not silently amend policy through a single proposal or execution exception.
Proposal sponsor	Define need, alternatives, beneficiaries, resources, risks and outcome case.	Proposal package and conflict declaration.	Should not self-qualify evidence or certify own outcome.
Evidence owner	Maintain authoritative sources, methods, versions, lineage and uncertainty.	Evidence index, snapshots, methodology and exceptions.	Should not suppress contrary data to secure approval.
Independent challenger	Test eligibility, proportionality, capacity, security, conflicts and external constraints.	Challenge memorandum, conditions, dissent and closure state.	Needs independence from sponsorship and performance reward where material.
Approval authority	Approve, reject, return or condition a decision within scope.	Decision record, reasons, limits, expiry and recusals.	Should not execute or benefit without compensating controls and disclosure.
Execution operator	Translate the approved mandate into a verified transaction or change.	Instruction, approvals, technical evidence and reconciliation.	Cannot expand amount, recipient, timing, route, or policy intent.
Monitoring / assurance	Test controls, execution, outcomes, incidents, concentration and policy compliance.	Monitoring record, exception, assurance result and recommendation.	Should not certify evidence it created or erase an unresolved exception.
Disclosure / correction owner	Maintain public state, archive, update, incident and correction communications.	Release package, version map, correction link and distribution log.	Cannot rewrite the decision history to match later outcomes.

Source: POLIX editorial role-separation standard informed by OECD (2023), CPSS-IOSCO (2012), FSB (2023), IOSCO (2023), and NIST (2024b). No current POLIX person, body, key holder, or authority is named.

27.2.1 Separation of Functions, Conflicts, and Recusal

Conflicts arise from more than direct financial benefit. A sponsor may be committed to a public promise, an operator may prefer a familiar vendor, an evidence owner may have designed the metric under review, a large participant may benefit from a rule change, or a reviewer may have privileged information or a relationship with an affected party. The conflict record should distinguish the interest, affected object, timing, materiality, mitigation, recusal scope, replacement decision-maker, information restrictions, and later change. Disclosure alone is not always sufficient; some conflicts require exclusion, independent evidence, modified authority, delayed action, or rejection.

Recusal must preserve both independence and continuity. The conflicted person should not select the replacement reviewer, control the evidence channel, shape the final record invisibly, or retain execution access inconsistent with the recusal. At the same time, necessary technical knowledge can be captured through documented questions, limited factual input, or an advisory role without decision power. The final record should show who participated, who was excluded, what information each person provided, and whether the mitigation changed after new facts emerged.

Table 27.6. Conflict, recusal, and challenge record

FIELD	MINIMUM CONTENT	CONTROL PURPOSE	FAILURE TO AVOID
Interest	Economic, relational, employment, advisory, authorship, access, reputation, prior commitment, or other relevant interest.	Make the source and direction of possible bias testable.	Limiting conflicts to direct token ownership.

FIELD	MINIMUM CONTENT	CONTROL PURPOSE	FAILURE TO AVOID
Affected object	Policy, program, counterparty, market rule, model, data, transaction, communication, or participation decision.	Bound the recusal and information controls.	Using a blanket disclosure with no decision linkage.
Materiality	Likelihood, magnitude, timing, public perception, and effect on independent judgment.	Match mitigation to the actual risk.	Treating self-declared immateriality as final.
Mitigation	Recusal, replacement, independent evidence, restricted access, enhanced approval, abstention, or rejection.	Prevent the interest from controlling outcome or evidence.	Assuming disclosure alone resolves every conflict.
Challenge	Question, source, affected criterion, response owner, due state and closure evidence.	Preserve dissent until it is answered or explicitly overruled.	Deleting objections after a decision.
Decision trail	Participants, excluded persons, reasons, conditions, dissent, later change and public treatment.	Enable reconstruction and assurance.	Anonymous consensus with no accountable authority.

Source: POLIX editorial conflicts standard informed by OECD (2023) and IOSCO (2023). No current conflict register, recusal body, participant, or case is asserted.

27.2.2 Delegation, Automation, and Emergency Authority

Delegation transfers a defined permission, not accountability for the governance system as a whole. A delegation should identify grantor, delegate, object, state, decision class, quantitative and qualitative limits, start and expiry, subdelegation rule, reporting, monitoring, revocation, conflict restrictions, and continuity plan. Standing delegations should be reviewed when the policy changes, the delegate's role changes, a material incident occurs, or repeated exceptions indicate that the original scope is no longer reliable. Dormant authority should expire rather than remain available indefinitely.

Automation can collect evidence, test deterministic conditions, route approvals, enforce limits, issue a pre-authorized transaction, monitor events, or publish an approved state. It should not be anthropomorphized as a governing authority. Code executes rules written and deployed by people under legal, technical, and operational constraints; an AI model produces outputs from data and design choices. An automated output is therefore evidence or execution only to the extent that an adopted instrument defines it, the source and version are controlled, overrides and incidents are governed, and a human or legally cognizable authority remains answerable. NIST AI RMF similarly separates governance, mapping, measurement, and management and emphasizes documented accountability and roles (NIST, 2023).

Emergency authority should preserve the ability to contain imminent harm without turning urgency into permanent discretion. Permitted actions may include pausing a process, narrowing access, rotating credentials, rejecting an unsafe transaction, preserving evidence, or issuing a preliminary incident notice. The instrument should define trigger, scope, maximum duration, eligible users, technical path, logging, notification, retrospective review, renewal, reversal, compensation or remediation analysis, and transition back to ordinary governance. An emergency should not silently authorize token distribution, change fixed-supply policy, erase records, resolve contested markets, or create lasting participation rights.

Table 27.7. Delegation, automation, and emergency controls

CONTROL AREA	MANDATORY BOUNDARY	EVIDENCE	STOP OR REVIEW TRIGGER
Delegation	Object, state, limits, duration, subdelegation, conflicts, reporting, revocation.	Signed or otherwise adopted grant, authority map, actions and reviews.	Expiry, role change, policy change, incident, breach, inactivity, or concentration.
Threshold authority	Required approvers, independence, replacement, key or access lifecycle.	Approval identities, timestamps, credential state, instruction digest and outcome.	Unavailable signer, compromised key, anomalous pattern, or threshold circumvention.

CONTROL AREA	MANDATORY BOUNDARY	EVIDENCE	STOP OR REVIEW TRIGGER
Rules automation	Only deterministic rules and pre-authorized actions within verified scope.	Code/version, inputs, tests, deployment approval, logs and exception path.	Version drift, failed test, unexpected output, source failure, or override.
AI assistance	Advisory classification, summarization, anomaly detection, or decision support unless separately authorized by law and policy.	Model/version, prompt or task, sources, confidence, human review and corrections.	Material error, bias, unsupported output, data leakage, drift, or affected-party harm.
Emergency action	Containment only within defined trigger, object, duration and prohibited-action list.	Trigger evidence, actor, action, timestamp, affected scope, notice and review.	Trigger ends, maximum duration, repeated renewal, material side effect, or unresolved dissent.
Reversion	Restore ordinary authority, reconcile every emergency action, and retire temporary access.	Post-incident review, credential closure, corrections, residual risk and lessons.	Unreconciled action, lingering access, missing record, or unresolved affected-party issue.

Source: POLIX editorial operating-control framework informed by NIST CSF 2.0, NIST AI RMF 1.0, and NIST SP 800-61r3. No current POLIX delegation, automation, emergency power, model, key, or incident process is asserted.

27.2.3 Records, Appeals, and Correction

The decision record is the minimum unit of accountability. It should connect the governed object and policy version to the proposal, authoritative sources, uncertainty, alternatives, conflicts, challenge, authority, reasons, conditions, execution, outcome, disclosure, and later correction. Records must be tamper-evident enough for their risk, but tamper evidence should not prevent privacy controls or factual correction. A corrected record should preserve the prior value, reason, authorizing basis, timestamp, affected downstream records, and link to the new state rather than overwriting history.

An appeal is not a second vote by default. It is a defined route to test process failure, authority, new evidence, conflict, error, disproportionate impact, or inconsistent application. The appellant should identify the affected decision and ground; the reviewer should be sufficiently independent; the process should state whether execution pauses, which remedies are available, and how frivolous or abusive use is handled. Some decisions are practically irreversible, so the remedy may be correction, mitigation, compensation analysis, policy change, or future prevention rather than reversal. No chapter statement promises a current appeal right; the architecture defines what one would require.

Table 27.8. Minimum decision and correction record

RECORD GROUP	REQUIRED FIELDS	WHY IT MATTERS	PUBLIC TREATMENT
Identity and scope	Decision ID, object, state, policy/version, class, owner, materiality, jurisdictional or technical perimeter.	Prevents authority and evidence from drifting across objects.	Publish identifiers and scope unless a justified restriction applies.
Case and evidence	Requested change, alternatives, beneficiaries, resources, sources, methods, uncertainty, dependencies and counter-metrics.	Separates advocacy from the factual basis and exposes missing assumptions.	Publish a decision-useful summary and source map; protect sensitive details.
Integrity review	Conflicts, recusals, challenge, dissent, legal/security/data review, capacity and policy fit.	Shows that mandatory gates were not collapsed into approval.	Publish material limitations, dissent treatment, and unresolved dependencies.
Decision	Authority, rule, reasons, conditions, limits, expiry, vote if applicable, and signature or adoption evidence.	Makes the mandate bounded and answerable.	Publish the operative decision and effective-date state.
Execution and outcome	Instruction, actor/system, transaction/change evidence, reconciliation, incidents, outputs, outcomes and counter-effects.	Prevents execution from being represented as success.	Publish appropriate execution and outcome status on the promised cadence.
Correction and closure	Error, trigger, old/new state, affected records, authority, notice, remedy, lessons, residual obligations and archive.	Preserves trust through visible repair and prevents silent history rewriting.	Publish material corrections with durable links to prior and replacement records.

Source: POLIX editorial decision-record standard informed by OECD (2023), FSB (2023), IOSCO (2023), and NIST (2024b). No current POLIX record system, appeal, or correction case is asserted.

OPERATING PRINCIPLE **Policy sets the boundary; evidence qualifies the case; challenge tests it; authority decides; operations execute; monitoring observes; correction repairs. Combining these words in one role or dashboard must never erase the distinct state and evidence produced by each function.**

27.3 Allocation and Policy Oversight

Allocation oversight connects the fixed 400,000,000 POLX maximum-supply architecture to proposal-level decisions without treating category amounts as cash, current balances, or standing spending authority. Chapter 20 established category ceilings and Chapter 21 established lock-up as a restriction rather than a release promise. Chapters 22 through 24 defined attributable ecosystem-program states; Chapter 25 separated economic capacity from buyback or burn authorization; Chapter 26 separated strategic token reserve, treasury assets, obligations, buffers, commitments, custody, and circulating-supply state. Chapter 27 governs the chain across those layers.

Oversight should operate at four levels. The constitutional layer preserves fixed maximum supply, approved allocation architecture, fundamental rights boundaries, and the amendment rule. The policy layer defines category purpose, eligibility, exclusions, limits, state methodology, and reporting. The portfolio and program layer selects and monitors specific uses within available category capacity. The technical execution layer applies custody, signatures, contract or system controls, reconciliation, circulation classification, and disclosure. A lower layer cannot amend a higher layer by operational convenience.

For category c at cutoff t, approved program envelopes should satisfy $\Sigma_j E_{c,j,t} \le C_{c,t} \le A_c$, where A_c is the fixed category ceiling, $C_{c,t}$ is verified available category capacity under the adopted methodology, and $E_{c,j,t}$ is the approved envelope for program j at that cutoff. Executed units, committed units, returned units, restricted units, circulating units, and burned units must remain separate states. The inequality is a proposed control expression, not a claim that POLIX has current envelopes, balances, programs, or execution records. It also does not prove that an economically or legally usable asset exists; ownership, restrictions, custody, denomination, liquidity, and external obligations still apply.

Table 27.9. Policy hierarchy and amendment authority

LAYER	GOVERNED CONTENT	ALLOWED DECISION	PROHIBITED DOWNWARD SUBSTITUTION
Constitutional direction	Maximum supply, allocation architecture, fundamental decision-right boundary, governance transition and amendment rule.	Adopt, affirm, or amend only through the highest applicable process and evidence standard.	A program, operator, contract, or dashboard cannot silently change the foundational direction.
Allocation / reserve policy	Category purpose, ceiling, lock or restriction, eligible use, exclusions, circulation treatment, evidence and reporting.	Adopt or amend policy within the constitutional boundary.	A proposal cannot redefine category purpose or turn reserve capacity into general budget.
Portfolio standard	Concentration, sequencing, capacity reservation, assurance cadence, stop conditions, program comparison.	Prioritize qualified cases and maintain headroom within policy.	A portfolio target cannot override eligibility, ownership, obligations, or fixed supply.
Program mandate	Specific objective, beneficiary, mechanism, envelope, tranche, milestones, recovery, expiry and outcome.	Approve, condition, suspend, correct or close a bounded program.	A program cannot borrow authority or capacity from another category without amendment.

LAYER	GOVERNED CONTENT	ALLOWED DECISION	PROHIBITED DOWNWARD SUBSTITUTION
Technical instruction	Address, network, asset, amount, route, timing, system version, approvals and checks.	Execute exactly the authorized mandate and reconcile result.	Possession of a key, role, contract admin right, or automated rule cannot create purpose or authority.
Public state	Policy, approval, commitment, execution, circulation, outcome, incident and correction labels.	Publish the verified state with method, cutoff, limits and links.	Communications cannot accelerate the underlying state or imply success, price support, or entitlement.

Source: POLIX Token Economy v1.0 EN and POLIX editorial policy hierarchy. No current governance instrument, program, technical instruction, or public state is assigned.

27.3.1 Policy-to-Program Authorization Chain

A qualified allocation proposal should map its purpose to one primary source category and disclose any secondary benefits. This prevents the same activity from being charged to several allocations or counted repeatedly as creator, referral, community, market, platform, and strategic growth. The proposal should identify incremental work, total resources across token and non-token units, beneficiaries, conflicts, dependency on other programs, circulation effect, market and security risks, legal and tax uncertainty, milestones, outcome method, counter-metrics, stop conditions, recovery rights where applicable, and unused-authority treatment.

Authorization should be staged. Policy fit and evidence qualification occur before capacity reservation. Capacity reservation prevents competing approvals from exceeding the category ceiling but should expire if dependencies are not met. Tranche release requires current ownership, restriction, lock, custody, authority, technical, counterparty, and circulation checks. Execution then produces a transaction or system record. Receipt, activation, delivery, milestone acceptance, outcome, closure, return, correction, and circulation remain later states. No announcement or approval should be described as distribution, adoption, ecosystem value, or circulating supply before the respective evidence exists.

Table 27.10. Allocation oversight matrix

CONTROL	PROPOSAL EVIDENCE	APPROVAL CONDITION	ONGOING OVERSIGHT
Source category	Primary category, purpose mapping, secondary benefits, cross-category dependencies and prior charges.	One accountable classification and no double allocation or attribution.	Reconcile costs and benefits to the approved source; correct misclassification.
Capacity	Ceiling, prior envelopes, commitments, releases, returns, restrictions, circulation treatment and non-token resources.	Verified available capacity in the correct state and unit.	Re-certify before material release; expire unused authority.
Eligibility and additionality	Qualified work, beneficiary, alternatives, baseline, incremental contribution and exclusions.	Evidence supports an approved purpose without subsidizing prohibited or ordinary obligations.	Test delivery and incremental outcome; stop if the premise changes.
Integrity	Conflicts, market effect, information advantage, participant impact, related parties, security, data and legal constraints.	Mandatory challenge completed and residual risk accepted by a competent authority.	Monitor incidents, concentration, side effects and conflict changes.
Execution	Asset/network, recipient, route, timing, custody, technical version, signatures, rollback and reconciliation.	Instruction matches mandate and all dependencies are current.	Reconcile policy, authorization, custody, transaction and circulation ledgers.
Outcome and correction	Milestones, evidence owner, counter-metrics, stop/recovery rules, cadence and public state.	Outcome is measurable enough to govern continued exposure.	Distinguish output from outcome; suspend, correct, recover or close with reasons.

Source: POLIX editorial allocation-oversight standard drawing on Chapters 20–26. No current POLIX budget, wallet, envelope, commitment, release, recipient, transaction, or outcome is asserted.

27.3.2 Portfolio Limits, Amendments, and Reconciliation

Portfolio oversight should protect optionality and prevent correlated exposure. Limits can address category, counterparty, beneficial owner, geography, network, custody domain, strategic thesis, maturity, liquidity, technical dependency, data source, and approval authority. A program that fits its own ceiling may still create unacceptable portfolio concentration or operational load. Conversely, mechanical diversification can fund weak proposals. Limits should therefore combine hard prerequisites with reasoned judgment, disclose exceptions, and preserve the option to wait when evidence is weak.

Amendments require state discipline. A clarification can improve language without changing rights, amount, purpose, timing, or risk. A bounded amendment changes a program within an existing policy and available envelope. A material amendment changes exposure, beneficiary, category, objective, circulation effect, risk, duration, or outcome method and should be re-qualified. A policy amendment changes the governing rule; a constitutional amendment changes the foundational direction. Splitting one material change into several small changes should not evade the higher process.

Reconciliation should connect at least five records: policy allocation, authorization and commitment, custody or account control, on-chain or off-chain transaction, and circulation or public-state methodology. Differences can be timing, classification, valuation, technical, or error-related. They should be aged, owned, investigated, corrected, and disclosed when material. An on-chain transfer is strong evidence that a transaction occurred on a network; it does not by itself establish beneficial ownership, approved purpose, legal validity, receipt of consideration, circulation, program outcome, or absence of conflicting records.

Table 27.11. Amendment, reconciliation, and assurance packet

PACKET	MINIMUM CONTENT	AUTHORITY / REVIEW	PUBLIC CONSEQUENCE
Change classification	Old/new state, object, reason, rights, amount, purpose, beneficiary, timing, risk, reversibility and precedent.	Independent classification; escalate if any material dimension changes.	Publish material change and effective date; link superseded version.
Capacity certificate	Category ceiling, prior approvals, commitments, releases, returns, restrictions, obligations, valuation/cutoff and exceptions.	Prepared independently of approval; approved by bounded capacity authority.	Disclose methodology and material uncertainty, not an unsupported available balance.
Execution packet	Mandate, recipient, asset/network, amount, route, approvals, technical checks, transaction/change evidence and receipt.	Operator executes; separate reviewer reconciles.	Update approved, committed, released, executed and received states distinctly.
Ledger reconciliation	Policy, authorization, custody, transaction, circulation and reporting records; differences and aging.	Evidence owner investigates; assurance tests resolution and access.	Correct affected public states with durable history where material.
Outcome review	Outputs, outcomes, counter-metrics, incidents, costs, concentration, residual obligations and lessons.	Sponsor reports; independent reviewer challenges; authority closes or changes policy.	Report limitations and avoid equating expenditure or transfer with value creation.
Assurance statement	Scope, period, criteria, sources, sampling, limitations, exceptions, management response and unresolved items.	Sufficiently independent assurance appropriate to risk.	Describe what was and was not tested; do not imply legal, financial, or technical guarantees.

Source: POLIX editorial change-control and reconciliation standard informed by IOSCO (2023), FSB (2023), and CPSS-IOSCO (2012). No current POLIX ledger, certificate, assurance provider, or result is asserted.

ALLOCATION PRINCIPLE **A category ceiling is not a wallet balance, a wallet balance is not unrestricted capacity, capacity is not authorization, authorization is not execution, and execution is not ecosystem value. Oversight must reconcile each transition without borrowing evidence from the next state.**

27.4 Transparency and Public Communication

Transparency should make material decisions reconstructable without turning every internal fact into a public broadcast. Credible communication identifies the object, source, state, method, cutoff, owner, decision, effective date, limitations, correction route, and archive. It also explains what the communication does not establish. Total disclosure can undermine privacy, security, contractual duties, investigation integrity, market fairness, or safe execution. Controlled transparency therefore publishes enough to support accountability while restricting details only for a stated reason, owner, duration, and review date.

The official POLIX token-economy material states that material updates to burn policies, execution standards, long-term burn objectives, circulation policies, or operational standards will be communicated publicly. This creates an editorial commitment to material public communication, not a fully specified notice regime. Before operation, POLIX would need to define materiality, responsible owner, approval, channel, language, effective date, advance-notice or incident exception, version archive, affected records, correction method, and evidence retention. A future dashboard should consume authoritative records rather than becoming a parallel source of truth.

Communication states should match decision states. Under consideration signals that no authority has decided. Submitted identifies a proposal and its sponsor. Qualified means evidence tests passed but approval has not occurred. Approved states the mandate and conditions. Scheduled or executable means dependencies are satisfied. Executed identifies an action; effective identifies the operative rule; observed reports measured results; corrected identifies a repaired error; suspended, expired, superseded, and closed describe continuing authority. Marketing language such as launched, unlocked, available, distributed, community governed, or revenue-generating should not replace these controlled states.

Table 27.12. Public disclosure state matrix

PUBLIC STATE	MINIMUM DISCLOSURE	MUST NOT IMPLY	UPDATE TRIGGER
Under consideration	Object, question, scope, sponsor, process, input route and no-decision statement.	Endorsement, entitlement, budget, vote, launch or execution.	Submission, withdrawal, scope change, qualification result or closure.
Qualified / challenged	Evidence standard, completed gates, material limitations, open challenge and next decision state.	Approval or resolution of dissent.	Challenge response, new evidence, material conflict, approval or rejection.
Approved	Authority, reasons, object, limits, conditions, expiry, conflicts/recusals, dissent and dependencies.	Immediate execution, delivery, circulation, outcome or value effect.	Executable state, amendment, expiry, suspension, execution or correction.
Executable / scheduled	Current dependencies, planned window, controlled scope and security-sensitive limitations.	Guaranteed completion or market effect.	Execution, delay, stop condition, incident or authorization expiry.
Executed / effective	Action or rule, time, authoritative evidence, reconciliation status, effective date and remaining conditions.	Program success, unrestricted ownership, circulation or economic benefit unless separately evidenced.	Receipt, activation, outcome, incident, correction, suspension or supersession.
Observed outcome	Method, period, baseline, output, outcome, counter-metrics, uncertainty and evidence owner.	Causality, permanence, return, price support or universal benefit.	New period, corrected data, changed method, closure or policy review.

PUBLIC STATE	MINIMUM DISCLOSURE	MUST NOT IMPLY	UPDATE TRIGGER
Corrected / suspended	Old/new state, error or trigger, affected records, authority, remedy, residual risk and next review.	Deletion of history or final resolution when impacts remain.	Restoration, further correction, compensation/remediation decision, supersession or closure.

Source: POLIX Token Economy v1.0 EN and POLIX editorial public-state model informed by OECD (2023), FSB (2023), and IOSCO (2023). No current POLIX disclosure platform or state is asserted.

27.4.1 Version Control, Material Updates, and Controlled Transparency

A public governance artifact should carry a stable identifier, title, version, status, adoption and effective dates, authority, applicable object and scope, change summary, source links, superseded version, review date, and correction channel. The archive should preserve the rule that applied when a decision occurred. A later whitepaper or website edit cannot retroactively change the mandate, evidence threshold, or public meaning of an earlier action. When several channels summarize the same state, each should link to one authoritative record and identify its own cutoff.

Materiality should reflect decision usefulness and harm, not only numerical size. A change can be material because it alters rights, decision authority, eligibility, supply or circulation method, lock or restriction, program purpose, market or resolution integrity, security, personal data, AI use, conflicts, counterparty exposure, incident response, or the reliability of prior communications. Aggregated small changes can be material together. If immediate disclosure would worsen an incident or enable exploitation, a preliminary notice can state the event class, affected scope, protective action, uncertainty, next update, and reason for temporary restriction without revealing exploitable detail.

Table 27.13. Material update and correction schema

FIELD	CONTENT STANDARD	CONTROL OWNER	QUALITY TEST
Identity	Stable ID, artifact/decision, version, status, date/time, time zone and authoritative location.	Disclosure owner with source-system validation.	Can a reader identify exactly which state and version applies?
Change	Old/new rule or state, reason, affected objects, rights, stakeholders, dependencies and effective date.	Policy or decision authority confirms scope.	Does the summary reveal the decision-useful difference rather than promotional framing?
Evidence	Sources, methodology, cutoff, uncertainty, assurance, unresolved items and restricted-detail rationale.	Evidence owner and independent challenger.	Can another reviewer reconstruct the basis and see what remains unknown?
Authority	Adopting authority, decision rule, participation if any, conflicts, recusals, dissent, conditions and expiry.	Governance-record owner.	Is authority evidenced rather than inferred from title, access, code, or token balance?
Correction	Error, discovery, affected prior statements, old/new value, impact, remedy, downstream records and prevention.	Correction owner with independent validation.	Is history preserved and are all dependent states repaired?
Distribution	Channels, languages, audience, publication log, acknowledgment where required and next update.	Communication owner.	Did the update reach the same or a more appropriate audience than the original claim?

Source: POLIX editorial disclosure and correction standard. No current POLIX notice channel, archive, language set, cadence, materiality threshold, or responsible person is asserted.

27.4.2 Incidents, Corrections, and Communication Integrity

An incident communication should distinguish detection, assessment, containment, service or governance impact, data confidence, affected decisions, temporary authority, remediation, restoration, and post-incident review. The first notice may be incomplete, but uncertainty should be explicit and updates should be time-stamped. A security event should not be described as fully resolved merely because access is restored; a data error should not be closed before affected decisions and public states are re-evaluated; a governance failure should not be reduced to a technical bug when authority or conflicts were involved.

Communication integrity also requires a source map. Whitepaper prose can explain design; a policy repository can hold operative instruments; a decision register can hold approvals and corrections; a technical explorer can evidence on-chain events; a financial or supply report can apply methodologies; and a status page can report incidents. These channels answer different questions. Cross-links, common identifiers, effective dates, and reconciliation are necessary so that a transaction is not mistaken for policy, a dashboard estimate for legal ownership, a marketing page for an adopted right, or an archived proposal for a current rule.

TRANSPARENCY PRINCIPLE **Publish enough to reconstruct the decision and its limits, not enough to endanger people, systems, investigations, or fair execution. When detail is restricted, disclose the reason, owner, duration, review date, and the public evidence that remains available.**

27.5 Future Governance Participation

Future participation should expand decision quality and legitimacy only where the mechanism is fit for the governed object. The POLIX presentation's intended utility—participation in ecosystem decisions—does not require every decision to become token-weighted, public, binding, or on-chain. Participation can range from access to information and consultation, through agenda setting and signaling, to expert review, delegated representation, bounded approval, or other mechanisms. The appropriate mode depends on who is affected, who possesses relevant knowledge, what conflicts exist, how identity or eligibility can be verified, how quickly action is required, and whether the result can be reversed.

Token-weighted voting creates specific risks. Tradable voting power can concentrate, participation can be low, delegation can shift power toward visible or well-connected actors, and holders can face incentives unrelated to long-term ecosystem quality. Empirical research on nine DeFi projects found highly concentrated tokenized voting rights and low exercise of those rights (Barbereau et al., 2023). Research on blockchain governance also distinguishes on-chain execution from off-chain decision formation and emphasizes decision rights, accountability, incentives, membership, communication, and conflict resolution (Schädler, Lustenberger, and Spychiger, 2023). A 2025 scoping review found that delegation can reduce participation burden while also worsening concentration, collusion, and complexity (Weidener et al., 2025). These studies describe other systems; they do not establish POLIX participation, ownership, concentration, or behavior.

Participation should be object-specific. Users may provide evidence on product experience; creators may advise on market-supply quality; liquidity or distribution partners may identify implementation constraints; experts may challenge security, economics, law, data, AI, or resolution methodology; affected participants may surface harms; POLX holders may express long-term ecosystem preferences where a future instrument makes that relevant. None of these constituencies should receive universal authority merely because they contribute, hold tokens, use the platform, or are described as community. The governance instrument should identify standing, scope, conflict, privacy, confidentiality, and how input affects the final decision.

Table 27.14. Future participation mode ladder

MODE	PARTICIPANT EFFECT	SUITABLE OBJECT	PREREQUISITE / LIMIT
Information	Receives timely, understandable policy, decision, risk, outcome and correction information.	All material governance states, subject to controlled transparency.	No claim of influence; accessibility, versioning and correction are required.
Consultation	Submits evidence, impact, alternatives, preferences or objections for a documented response.	Product, program, policy, data, market, community and affected-party questions.	Input criteria, acknowledgment, moderation, privacy, conflicts and response method.
Agenda / signal	Prioritizes issues or demonstrates support without binding authority.	Research backlog, policy review, feature or ecosystem priorities.	Identity/eligibility, anti-manipulation, disclosure of non-binding effect and sponsor duty.
Expert / steward review	Produces qualified analysis, challenge, recommendation or conditional clearance.	Security, resolution, economic, legal, risk, data, AI, treasury or assurance decisions.	Competence, independence, conflicts, term, accountability, dissent and replacement.
Delegated representation	Entrusts a defined participation right to a representative for a period and scope.	High-volume or knowledge-intensive decisions where direct attention is costly.	Revocation, concentration limits, transparency, conflicts, compensation, privacy and performance review.
Bounded formal approval	Contributes to a specified decision rule whose result may authorize a defined change.	Only objects that pass legal, technical, economic, security and integrity readiness gates.	Explicit rights instrument, eligibility, weights, quorum/threshold, challenge, execution, emergency and correction rules.
Constitutional transition	Participates in changing foundational governance or transferring control.	Governance-system adoption, replacement, or fundamental rights/supply architecture.	Highest evidence standard, minority protection, staged testing, exit, rollback and authoritative legal implementation.

Source: POLIX Presentation v1.0 EN and POLIX editorial participation ladder informed by blockchain-governance research. No current POLIX participation right, token vote, delegate, council, or decision rule is asserted.

27.5.1 Rights Boundaries, Integrity, and Minority Protection

A future rights specification should answer at least twelve questions: what object is governed; which decisions are eligible; who has standing; how eligibility and identity are established; what information is available; how proposals enter and are filtered; how conflicts and private information are handled; how preferences are aggregated; what quorum, threshold, veto, delegation, or challenge applies; who executes the result; what emergency power can pause it; and how the right is amended, suspended, corrected, or retired. The specification should also state whether the right is contractual, organizational, technical, consultative, or purely informational and obtain separate legal analysis for the actual entity and jurisdiction.

Integrity controls should be organized across five domains: representation and concentration; identity and eligibility; conflicts and influence; participation quality; and execution and correction. Within those domains, design review should test risks such as concentrated or borrowed voting power, duplicate identities, undisclosed conflicts, manipulation or coercion, low-quality participation, rule changes, execution divergence, key compromise, and fatigue. No single voting formula addresses all domains. Token caps can be bypassed through identities; quadratic methods require strong anti-Sybil assumptions; reputation can entrench insiders; delegation can concentrate power; one-person-one-vote requires defensible personhood and privacy; expert bodies can become closed and self-reproducing. The design should expose assumptions and measure real distributions of proposal, attention, voting, delegation, and execution power.

Minority protection is not a guarantee that every objection prevails. It ensures that affected interests and material evidence cannot be erased by aggregate preference alone. Controls can include notice, understandable reasons, separate class or affected-party consultation, conflict and concentration disclosure, independent challenge, supermajority for specified objects, time delay, reversible pilot, appeal on defined grounds, emergency suspension, and exit or grandfathering where appropriate. A majority should not authorize prohibited conduct, misstate evidence, seize restricted assets, alter fixed

supply by implication, resolve a market contrary to the evidence standard, or eliminate the correction trail.

Table 27.15. Future-governance integrity and readiness gate

GATE	PASS EVIDENCE	MATERIAL RISK IF ABSENT	READINESS RESULT
Object and rights	Eligible objects, participant standing, legal/organizational/technical nature, limits, amendment and retirement.	Participants infer universal or property-like rights from a broad governance label.	Do not launch; publish only the intended design direction.
Identity and eligibility	Threat model, privacy, duplicate/collusion resistance, enrollment, recovery, exclusion and auditability.	Sybil capture, exclusion, coercion, surveillance, account trade or unverifiable electorate.	Limit to information/consultation or a controlled pilot.
Power distribution	Holdings/weights where relevant, proposal power, delegation, turnout, concentration, related parties and borrowed influence.	Minority rule, whale or delegate capture, hidden coordination and low legitimacy.	Apply limits, redesign aggregation, add classes/challenge, or stop.
Information quality	Proposal template, sources, alternatives, conflicts, plain-language summary, independent analysis and correction.	Low-information choice, bundled decisions, misinformation or insider advantage.	Delay decision until the evidence package is decision-useful.
Decision mechanism	Rule, quorum/threshold, tie, abstention, delegation, veto, timing, finality and manipulation tests.	Ambiguous result, strategic abstention, last-minute power, or outcome not matching intent.	Simulate and test with adversarial scenarios before binding use.
Execution and emergency	Authority link, timelock, technical checks, signer/contract controls, stop power, expiry and reconciliation.	A valid preference cannot execute safely, or emergency power becomes permanent control.	Keep outcome advisory until execution and containment are verified.
Minority and affected parties	Notice, separate impact review, dissent, appeal grounds, delay, remedies and prohibited-action boundary.	Aggregate preference externalizes harm or suppresses evidence.	Add safeguards or exclude the object from participatory approval.
Assurance and transition	Pilot results, incidents, turnout, concentration, cost, accessibility, independent assurance, rollback and migration plan.	Irreversible governance lock-in based on a successful demonstration rather than sustained evidence.	Progress from consultation to bounded authority only after explicit adoption.

Source: POLIX editorial readiness framework informed by Barbereau et al. (2023), Schädler, Lustenberger, and Spychiger (2023), and Weidener et al. (2025). No current POLIX electorate, voting power, turnout, delegation, or launch readiness is asserted.

27.5.2 Progressive Governance and Transition Discipline

Governance participation should progress through evidence-generating stages. A research stage maps decisions, stakeholders, rights, risks, legal constraints, and existing operational authority. A consultation stage tests information quality, accessibility, moderation, privacy, conflicts, and response discipline without binding effect. A signaling stage tests agenda formation and manipulation resistance. A sandbox or shadow stage runs the proposed decision rule against real or synthetic cases while ordinary authority remains accountable. A bounded pilot grants limited effect over reversible, low-risk objects with caps, time limits, monitoring, and rollback. Broader authority requires explicit adoption after demonstrated integrity, operational resilience, assurance, and an exit path.

Each stage should have entry criteria, success and failure measures, incident handling, evaluation period, independent review, public report, and a decision to continue, modify, pause, or stop. Participation volume alone is not success. Relevant measures include representativeness, concentration, information quality, time and cognitive burden, accessibility, conflict disclosure, challenge resolution, execution fidelity, affected-party outcomes, correction speed, manipulation attempts, and whether the mechanism improves decisions compared with the baseline. Rewards, if ever considered, should not pay for a preferred vote or convert low-quality activity into apparent legitimacy.

Transition also requires authority reconciliation. The new mechanism must identify which existing authority it replaces, constrains, advises, or leaves untouched; how pending decisions are treated; how keys, contracts, access, archives, policies, and legal responsibilities migrate; what happens if the mechanism is unavailable; and who can trigger rollback. A technical deployment without institutional adoption creates a shadow system. An institutional announcement without safe execution creates

symbolic governance. Credible transition aligns the rights instrument, operating process, technical controls, public communication, and correction path at the same effective state.

PARTICIPATION PRINCIPLE **Participation should be earned by design evidence, not inferred from a token label. Begin with information and consultation, test integrity in bounded stages, and grant formal effect only to clearly defined objects after rights, identity, power distribution, execution, minority protection, emergency control, and correction all pass explicit readiness gates.**

Chapter Synthesis

1. POLIX official materials confirm predefined policy governance for reserved allocations, public communication of material burn and circulation-policy changes, and an intended future direction for participation in ecosystem decisions.
2. Those materials do not establish a current DAO, legal body, officer, committee, proposal system, vote, voting weight, quorum, delegate, signer, wallet, smart contract, budget, or enforceable token-holder governance right.
3. Governance allocates authority, evidence, challenge, execution, monitoring, correction, and disclosure across specific objects and states; it is not a synonym for token voting or community branding.
4. A decision right is a bounded permission over a named object in a named state under an adopted instrument. Titles, administrator access, keys, token balances, code, automation, habit, and prior practice do not create authority by themselves.
5. Policy, proposal, evidence qualification, challenge, approval, executability, execution, effectiveness, outcome, suspension, correction, expiry, supersession, and closure require distinct records and must not be collapsed into one status.
6. Proportionality and subsidiarity place reversible low-impact decisions near competent operators while escalating material, conflicted, irreversible, cross-boundary, precedent-setting, or constitutional decisions.
7. Conflicts include financial, relational, authorship, access, reputation, prior-commitment, and information interests. Disclosure, recusal, independent evidence, authority restriction, or rejection should match materiality.
8. Delegation transfers a defined permission for a defined period; automation executes or informs only within an adopted mandate; emergency authority should contain imminent harm and expire into ordinary governance and retrospective review.
9. Allocation oversight preserves the hierarchy from fixed-supply direction to policy, portfolio, program, technical execution, reconciliation, circulation methodology, outcome, and correction. A category ceiling is not a current balance or standing budget.
10. Transparency means reconstructable decisions and visible correction, not indiscriminate disclosure. Security, privacy, investigation, legal, and fair-execution restrictions require a reason, owner, duration, review, and public evidence boundary.
11. Future participation can include information, consultation, agenda signaling, expert review, delegated representation, bounded approval, or constitutional transition. Each mode should fit the governed object and affected stakeholders.
12. Token-weighted and delegated governance can concentrate power and suffer low participation, collusion, information asymmetry, manipulation, and governance fatigue. No voting formula eliminates the need for rights boundaries, conflict controls, minority protection, safe execution, and correction.
13. Progressive governance should move from research and consultation to signaling, shadow tests, bounded pilots, and broader authority only after explicit legal, technical, economic, security, operational, and integrity readiness gates are passed.

14. Chapter 27 is a proposed governance and decision-right architecture. It does not assert current POLIX governance performance, deployed roles, adopted policies, participation, voting, delegation, automation, disclosure systems, or legal status.

TRANSITION TO CHAPTER 28 **Chapter 27 defines who may decide, on what evidence, under which limits, and how authority, execution, disclosure, and correction remain accountable. Chapter 28 applies that governance discipline to security-by-design, market and resolution integrity, wallet and transaction awareness, data and AI integrity, and operational resilience.**

References and Source Notes

Official POLIX materials establish predefined-policy governance for reserved allocations, transparent allocation and governance procedures, public communication of material burn and circulation-policy changes, and participation in ecosystem decisions as an intended future utility direction. They do not establish a current DAO, legal entity, governance body, officer, committee, proposal, vote, voting weight, quorum, delegate, contract, signer, wallet, balance, program, execution, circulating amount, public dashboard, appeal, or enforceable governance right. The objects, states, roles, formulas, tiers, gates, registers, conflict controls, delegation rules, disclosure fields, participation modes, readiness tests, and transition stages in this chapter are proposed analytical controls, not deployed POLIX facts.

External sources support general principles concerning governance structure, accountability, objective challenge, conflicts, functional separation, risk management, records, disclosure, cybersecurity and AI governance, and the design risks of blockchain-based participation. They do not establish that POLIX is a corporation, listed company, financial market infrastructure, crypto-asset issuer or service provider, decentralized autonomous organization, regulated entity, investment, security, or subject to any particular governance, disclosure, licensing, voting, fiduciary, or organizational rule. Applicability requires separate analysis of the actual entity, services, rights, assets, technology, participants, communications, and jurisdictions.

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CHAPTER 28

Security, Integrity and Risk Controls

A prediction-market ecosystem combines questions, evidence, probabilities, users, assets, transactions, data sources, models, interfaces, operators, partners, and public claims. Trust can fail even when no single component is technically compromised: an ambiguous market can be admitted, a reliable source can be interpreted incorrectly, a user can approve an unintended action, a model can be over-trusted, a dependency can become unavailable, or a correction can remain invisible. Chapter 28 treats security, market integrity, data integrity, user safety, and operational resilience as one governed control system rather than separate technical checklists.

Chapter 27 established that authority must be explicit, bounded, evidenced, challengeable, and correctable. Chapter 28 applies that governance discipline to protective controls. A security owner may classify an asset or approve a risk treatment but should not silently redefine a market rule. A resolver may determine an outcome under an adopted evidence standard but should not alter wallet authorization. A model may prioritize review but should not create authority, finality, or truth. An incident lead may contain imminent harm under a time-limited mandate but should not convert emergency access into permanent policy.

The official POLIX presentation describes a wallet experience for asset management, secure transactions, wallet overview, transparent transaction records, and account activity and asset-movement tracking. It also describes AI processing of news, social, on-chain, and market data to produce forecasts, signals, insights, risk analysis, and decision support, with additional copy-and-follow concepts. These are relevant control objects because they affect user intent, provenance, manipulation risk, model limitations, and safe execution. They do not establish who holds keys, how transactions are signed, which networks or contracts are used, which models are deployed, or whether any control has passed independent assurance.

The official token-economy document adds fixed-supply, allocation, controlled-distribution, and circulation-state constraints. Security controls should preserve those policy states rather than create an alternative supply or allocation system. A compromised credential, incorrect label, internal override, replayed request, model output, or vendor response must not transform a category ceiling into an available balance, an observed event into an approved distribution, or a recorded transaction into a correct and final economic state.

NIST Cybersecurity Framework 2.0 organizes cybersecurity risk management around Govern, Identify, Protect, Detect, Respond, and Recover. NIST’s Secure Software Development Framework treats secure development practices as a way to reduce vulnerabilities and their impact. CISA’s Secure by Design guidance places responsibility on technology producers to make secure outcomes a core business requirement. These sources provide useful control vocabulary; they do not demonstrate POLIX adoption, conformity, certification, or performance.

Market and AI integrity require additional perspectives. IOSCO’s 2023 crypto-asset market recommendations address conflicts, market abuse, custody and client-asset risks, operational and

technological risk, disclosures, and cross-border cooperation. IOSCO's 2026 supervisory toolkit addresses AI-related opportunities and risks to investor protection, market integrity, and financial stability. NIST's AI Risk Management Framework structures AI governance around Govern, Map, Measure, and Manage. POLIX is not characterized here as an exchange, financial market infrastructure, issuer, broker, adviser, regulated market, or supervised institution under those materials; the sources are used only as analytical inputs.

The proposed architecture follows a closed evidence loop. Govern identifies the object, owner, authoritative policy, risk tolerance, and prohibited shortcuts. Build and change translates that scope into requirements, separation of duties, tests, release evidence, rollback, and versioned records. Observe collects relevant market, wallet, transaction, data, model, service, and dependency signals. Decide and authorize applies stated criteria through bounded human or automated roles. Respond and recover contain harm, restore services and trustworthy states, reconcile consequences, and communicate appropriately. Learn and disclose converts incidents, exceptions, near misses, and outcomes into corrected controls and public state where disclosure does not create greater security, privacy, legal, or market-integrity risk.

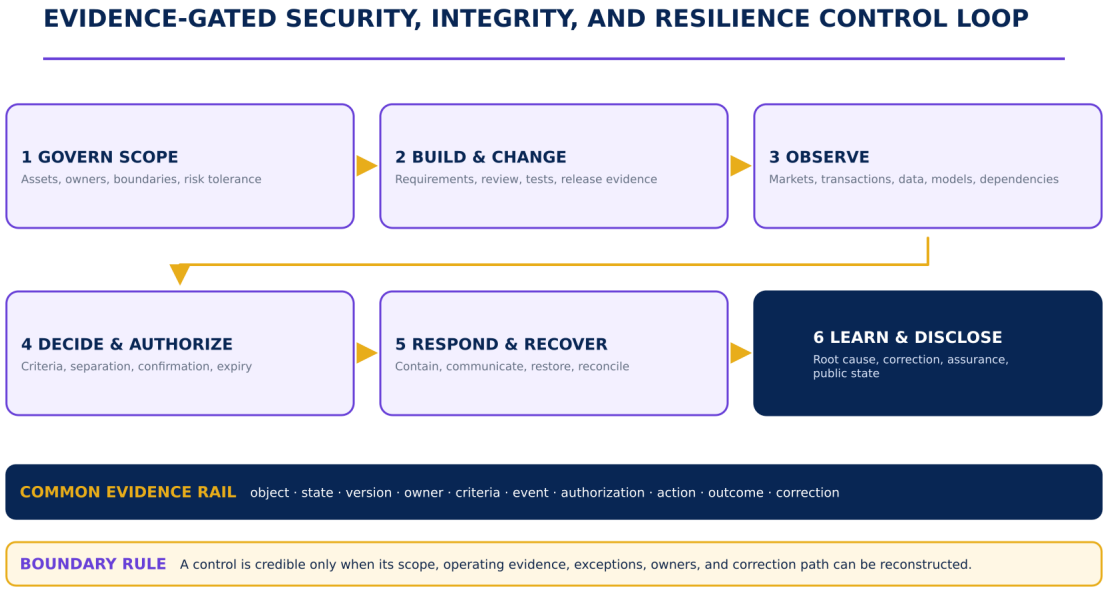

Figure 28.1. Evidence-gated security, integrity, and resilience control loop. The loop connects design-time controls with operating evidence, response, recovery, correction, and appropriately bounded disclosure.

Table 28.1. Confirmed product direction and prohibited security inferences

OBJECT	CONFIRMED DIRECTION	REQUIRED BEFORE OPERATION	NOT ESTABLISHED HERE
Wallet experience	Asset management, wallet overview, transaction records, account activity, asset-movement tracking and secure-transaction direction.	Custody and trust model, authorization flow, recovery, transaction states, network controls, monitoring, support, privacy and assurance.	Custodial or non-custodial status, key location, signer, network, contract, authentication level, recovery capability or deployed wallet.
Markets and resolution	Prediction markets, user-created markets, probability forecasting and ecosystem connectivity are intended product directions.	Admission standard, manipulation controls, evidence hierarchy, resolver authority, disputes, correction, finality and public records.	Live market, surveillance rule, oracle, resolver, dispute body, outcome, volume, liquidity, fee, jurisdiction or compliance status.
Data and AI	News, social, on-chain and market data may feed forecasts, signals, insights, risk analysis and decision support.	Source rights and provenance, quality tests, model purpose, evaluation, monitoring, human oversight, action boundary and correction.	Named source contract, dataset, model, accuracy, latency, training method, production deployment, automated trading or suitability determination.

OBJECT	CONFIRMED DIRECTION	REQUIRED BEFORE OPERATION	NOT ESTABLISHED HERE
Transactions and supply	Transparent transaction records and controlled token distribution are confirmed directions.	Authoritative identifiers, state transitions, approval, signing, broadcast, confirmation, reconciliation, circulation classification and exception handling.	Current wallet balance, transaction, contract address, circulating amount, release, burn, buyback, price, listing or settlement design.
Resilience	Secure, reliable user experience is a necessary design objective for the described ecosystem.	Service map, dependencies, risk assessment, incident roles, recovery objectives, exercises, backup and restore evidence, communications and lessons.	Availability percentage, recovery time, recovery point, operating center, audit, certification, penetration test, incident history or present capability.

Source: POLIX Presentation v1.0 EN; POLIX Token Economy v1.0 EN; POLIX editorial evidence boundary. Product descriptions are not evidence of deployed controls or operating performance.

EVIDENCE BOUNDARY **Report security intention, requirement, implemented control, operating control, and measured effectiveness as separate states. Design, implementation, operation, outcome, exception, assurance, and correction each require distinct evidence.**

28.1 Security-by-Design Principles

Security-by-design begins before code, infrastructure, or a vendor is selected. It identifies what must remain confidential, accurate, available, authorized, traceable, private, recoverable, and explainable; which actors and systems may affect those properties; what harms can result; and which decisions require stronger evidence or separation. The objective is not to remove all risk. It is to prevent avoidable harm, keep residual risk within adopted tolerance, detect deviations early, fail safely, and preserve the evidence needed for response and correction.

The design unit should be a governed asset or service, not a generic platform. Assets can include market definitions, resolution criteria, source evidence, user and account data, wallet connections, authorization requests, transaction records, token-state records, model inputs and outputs, credentials, signing material, source code, build artifacts, configuration, logs, backups, recovery instructions, vendor connections, public disclosures, and incident records. Each asset needs an owner, authoritative source, sensitivity, integrity and availability requirement, retention rule, dependency map, allowed users and systems, and a method for detecting unauthorized change.

Trust boundaries describe where identity, authority, data format, confidentiality, integrity, timing, or failure assumptions change. Examples include a user device to an interface, an interface to an application service, an internal service to a chain or data provider, a model pipeline to a decision workflow, a market-definition tool to a resolver, and an operator to privileged administration. A boundary should define authentication, authorization, validation, encryption or other protection where appropriate, logging, rate and abuse controls, error handling, availability behavior, and the evidence expected when the boundary is crossed.

Risk should be evaluated as a scenario with an object, threat or error, vulnerability or exposure, event, consequence, existing control, residual uncertainty, accountable owner, treatment, due state, and acceptance authority. A generic label such as high risk is insufficient if it does not identify why the scenario matters and what would change the decision. Risk acceptance should be explicit, time-

bounded where uncertainty is material, linked to compensating controls, and revisited when the design, usage, threat environment, dependency, incident history, or external obligation changes.

Table 28.2. Security objective and failure-signal matrix

OBJECTIVE	CONTROL QUESTION	FAILURE SIGNAL	PROPOSED RESPONSE
Confidentiality and privacy	Is access limited to the minimum data and purpose required?	Sensitive data appears in broad logs, analytics, prompts, tickets or support channels.	Minimize collection, separate purposes, restrict and review access, redact, retain deliberately and investigate exposure.
Integrity	Can unauthorized or erroneous change be prevented, detected and corrected?	A mutable interface or database is treated as the authoritative state without reconciliation.	Name authoritative sources, validate transitions, record versions, reconcile independent evidence and preserve correction history.
Availability	Can the service fail safely and recover within approved priorities?	A dependency outage causes silent partial execution or conflicting public states.	Define degraded modes, timeouts, queues, pause criteria, recovery objectives, dependency substitution and reconciliation.
Authorization	Does each consequential action reflect an authenticated actor and bounded authority?	Possession of a session, role, key or administrator screen is treated as unlimited permission.	Use least privilege, strong authentication, transaction-specific confirmation, separation, expiry and review.
Traceability	Can a decision and resulting action be reconstructed without relying on memory?	Logs omit object, version, criteria, actor, request, result, exception or correction.	Use tamper-evident, privacy-bounded records with synchronized time, identifiers, retention and access controls.
Safety and recoverability	Does failure avoid irreversible harm and preserve correction options?	Automation continues through inconsistent data, control failure or unresolved authorization.	Default to safe pause, cap exposure, support reversal where possible, preserve evidence and test restoration.
Transparency	Are public claims accurate, current and bounded by evidence?	A roadmap statement, passing test or absence of known incidents becomes a broad security claim.	Tie each claim to scope, date, method, limitations, owner, correction and retirement criteria.

Source: POLIX editorial control model informed by NIST CSF 2.0, NIST SP 800-218, CISA Secure by Design, and NIST Privacy Framework 1.0. No current POLIX control effectiveness is asserted.

28.1.1 Governed Assets, Trust Boundaries, and Control Objectives

An asset-and-boundary register should be created at the level at which controls can be assigned and tested. “User data” is too broad if identity attributes, contact details, wallet addresses, behavioral events, support records, sanctions or eligibility results, and model-derived profiles have different sources, purposes, access, retention, correction, and harm. “Transaction” is too broad if an interface request, signed payload, broadcast identifier, network observation, application record, settlement classification, and accounting effect can disagree. Decomposition makes inconsistency visible and allows the control to target the actual state transition.

Data minimization is a security control as well as a privacy principle. A system cannot expose, misuse, or retain data it never collected. Each field should have a defined purpose, source, necessity, format, validation, access class, retention and deletion rule, and correction path. Derived data and model features should not escape governance merely because they are computed rather than collected. Pseudonymization or encryption may reduce some risk but does not eliminate linkability, inference, key-management, access, or purpose risks.

Identity assurance should be proportionate to the action and threat. Viewing public information, changing an account setting, connecting a wallet, approving an asset movement, changing recovery factors, entering a privileged console, resolving a market, releasing a build, or overriding a protective limit should not automatically share one assurance level. NIST SP 800-63-4 distinguishes identity proofing, authentication, and federation and emphasizes risk-based selection and continuous measurement. The exact assurance model for POLIX remains to be adopted; this chapter does not claim a current identity-proofing or authentication level.

Cryptographic controls should be governed across their lifecycle. Algorithms and protocols, keys or secrets, generation, storage, distribution, use, rotation, backup, revocation, compromise response, destruction, and evidence all matter. Strong cryptography can still fail when a key is over-privileged, copied into logs, shared informally, not rotated after personnel change, unavailable during recovery, or accepted without verifying the intended message. NIST SP 800-57 Part 1 Rev. 5 provides general key-management guidance; it does not prescribe or verify a POLIX implementation.

Table 28.3. Governed asset and trust-boundary register

ASSET / BOUNDARY	CONTROL PROPERTY	MINIMUM RECORD	PROHIBITED SHORTCUT
Market definition	Authorized wording, criteria, close time, sources, exclusions and version integrity.	Object ID, author, reviewers, version, approval, effective time, hash or immutable reference, correction history.	Editing a live definition without a visible version and impact assessment.
Resolution evidence	Provenance, authenticity, completeness, timing, interpretation and conflict handling.	Source identity, retrieval time, preserved content, validation, resolver, dissent, decision and appeal state.	Treating a convenient search result, model summary or social post as dispositive evidence.
Wallet connection	User intent, origin, session binding, permissions, revocation and phishing resistance.	Interface origin, account/session, requested permissions, confirmation, device or authenticator signals, expiry and revocation.	Assuming a connected wallet grants authorization for every later action.
Transaction state	Correct amount, asset, network, destination, purpose, fees where applicable, status and reconciliation.	Request ID, displayed intent, signed payload reference, broadcast/receipt identifiers, confirmations, application state and exception.	Displaying submitted as settled or hiding uncertainty and failure states.
AI input/output	Lawful and fit source, provenance, quality, purpose, version, limitations and action boundary.	Source snapshot, processing version, model/version, prompt or configuration where relevant, output, confidence/uncertainty, user and downstream action.	Presenting an unverified generated statement as source evidence or guaranteed probability.
Privileged boundary	Least privilege, strong authentication, separation, monitoring, expiry and emergency control.	Role, grant basis, approver, scope, start/expiry, activity, review, break-glass use and revocation.	Permanent shared administrator access or emergency privilege without retrospective review.
Backup and recovery	Confidentiality, integrity, availability, version compatibility and tested restoration.	Protected copy, owner, location class, creation time, retention, restore test, result, defect and remediation.	Counting a backup as recoverable without a successful, scoped restore exercise.

Source: POLIX editorial asset and boundary model informed by NIST CSF 2.0, NIST SP 800-57 Part 1 Rev. 5, NIST SP 800-63-4, and NIST Privacy Framework 1.0. Fields are proposed.

28.1.2 Secure Development, Change, and Privileged Access

Secure development should convert risks and policy constraints into testable requirements. Requirements can address input and state validation, authentication, authorization, secrets, dependencies, privacy, abuse resistance, logging, error behavior, resource limits, safe defaults, rollback, recovery, accessibility, and public claims. Each requirement should link to a design decision, implementation owner, verification method, evidence, exception and release gate. A security review at the end of development cannot reliably repair an architecture whose trust assumptions were never stated.

The software supply chain should preserve provenance from source change to deployed artifact. Relevant evidence can include repository and branch protections, reviewed commits, dependency inventories, integrity verification, build isolation, artifact signing or equivalent provenance controls, environment separation, configuration history, secrets handling, vulnerability and license review, test results, deployment authorization, and rollback readiness. Tools may automate checks, but a green pipeline is not proof that requirements were complete, tests were adequate, findings were understood, or the released artifact matches the governed service state.

Change risk depends on affected assets, privilege, exposure, reversibility, novelty, dependency, data migration, user impact, market timing, and the reliability of rollback. Emergency changes can reduce imminent harm but increase error and accountability risk. They should therefore be narrow, separately authorized, logged, tested to the extent possible, monitored, time-limited where relevant, reconciled with the normal baseline, and reviewed after stabilization. An emergency label should not excuse missing ownership, evidence, rollback, or correction.

Privileged access should be justified by a named task and expire when the task or role ends. Strong authentication, least privilege, environment separation, just-in-time or time-limited access where feasible, dual control for the most consequential actions, session or command evidence, independent review, and rapid revocation reduce but do not eliminate risk. Break-glass access should have a protected trigger, narrow scope, immediate alerting, complete activity capture, mandatory reconciliation, and retrospective approval or escalation; otherwise it becomes an undocumented alternate governance system.

Vulnerability management should distinguish discovery, validation, severity, exploitability, exposure, affected assets, compensating controls, remediation, verification, disclosure and closure. A scanner result is not automatically a vulnerability, and a low numerical severity is not automatically low business risk. Remediation targets should reflect the actual scenario and adopted tolerance. Exceptions should identify residual risk, owner, approval, duration, monitoring and exit conditions. A public security claim should not be based solely on one test, one date, or the absence of a reported incident.

Table 28.4. Secure change and release evidence gate

GATE	PASS EVIDENCE	FAILURE / EXCEPTION	RELEASE CONSEQUENCE
Scope and authority	Affected service, assets, users, data, markets, privileges, owner, change class and approver are named.	Ownership, authority or production target is ambiguous.	Return to intake; do not schedule production change.
Threat and design	Trust boundaries, abuse cases, privacy impact, failure modes, dependencies and safeguards are reviewed.	A material scenario is unresolved or accepted without authority.	Redesign, add compensating control, limit exposure or defer.
Source and dependencies	Reviewed source, dependency inventory, provenance, secrets checks and known-risk disposition are recorded.	Unverified artifact, hidden dependency, secret exposure or unsupported component.	Block release and preserve evidence for investigation.
Verification	Functional, security, authorization, data, migration, failure, rollback and recovery tests fit the change.	Critical test fails, evidence is incomplete, or test environment is not representative.	Correct and retest; do not waive silently.
Deployment and privilege	Artifact/configuration identity, environment, operator, approval, time, monitoring and privilege scope are fixed.	Shared privilege, manual artifact substitution or untracked configuration.	Stop deployment, revoke or constrain access and reconcile state.
Rollback and recovery	Trigger, owner, compatible restore point, data reconciliation and user/market impact are tested or credibly demonstrated.	Rollback would corrupt state or recovery evidence is absent.	Use staged exposure or delay until recovery is credible.
Post-release evidence	Health, integrity, security, market, transaction and user-impact signals are compared with the approved case.	Unexpected behavior, control degradation or inconsistent state.	Pause, roll back, contain or escalate under the incident process.

Source: POLIX editorial release gate informed by NIST SP 800-218 and CISA Secure by Design. It is a proposed control, not evidence of a current POLIX development process.

SECURITY-BY-DESIGN PRINCIPLE **Start with governed assets, trust boundaries, harms, and safe states. Build only within explicit requirements and bounded privilege; release only on decision-useful evidence; preserve rollback, recovery, and correction; and treat every exception as a governed residual-risk decision rather than an invisible shortcut.**

28.2 Market and Resolution Integrity

Prediction-market integrity depends on the relationship between a clearly specified question, fair admission, reliable trading and participation conditions, an evidence-based resolution, and visible correction. A market can be technically available yet substantively defective because the event is ambiguous, the criteria are circular, the source can be manipulated, the close time is inappropriate, participants receive unequal material information, or the resolution process cannot distinguish late evidence from changed interpretation. Integrity controls should protect the lifecycle rather than focusing only on suspicious transactions.

The market object should preserve wording, outcome set, category, relevant jurisdiction or domain where applicable, open and close rules, resolution time, authoritative sources or source hierarchy, evidence cut-off, treatment of cancellation or correction, exclusions, edge cases, creator or sponsor conflicts, and public version history. Admission should test whether the question is answerable, lawful and policy-compatible, supported by usable evidence, resistant to manipulation, understandable to a reasonable participant, and operationally supportable. Popularity or projected activity should not substitute for resolvability.

Integrity risk includes creation spam, duplicate or fragmented markets, self-dealing, wash activity, coordinated manipulation, spoofing or misleading orders where relevant to the eventual market design, use of inside or unlawfully obtained information, source manipulation, late definitional changes, account compromise, collusive resolution, and abuse of disputes. This chapter does not assert a POLIX trading model, order book, automated market maker, custody model, surveillance system, or legal market-abuse regime. Controls must be tailored after those facts are established.

Surveillance should combine object context with behavioral evidence. A concentration change can be legitimate or suspicious depending on market liquidity, public events, related accounts, timing, source access, order or transaction pattern, and the participant's history. Automated detection can rank or connect events but should not convert a statistical anomaly into misconduct. A review record should distinguish signal, case, evidence, hypothesis, alternative explanation, action, participant communication, escalation, outcome and correction. Models and rules should be evaluated for false positives, blind spots, drift and disparate effects.

Table 28.5. Market-integrity threat and control matrix

THREAT / ERROR	POTENTIAL HARM	PROPOSED PREVENTION / DETECTION	EVIDENCE / CORRECTION
Ambiguous or unresolvable market	Participants price different questions; final outcome becomes arbitrary.	Admission rubric, edge-case review, source test, plain-language check, duplicate search and preview period.	Versioned definition, reviewer record, participant notice, pause/cancel rule and correction history.
Creator or resolver conflict	Market wording, promotion, evidence or outcome favors an interested party.	Conflict disclosure, separation, independent review, restricted action and escalation.	Conflict register, recusal/reassignment, rationale, dissent and post-event review.
Manipulative activity	Prices, probabilities, visibility or participant decisions become misleading.	Risk-based limits, anti-abuse controls, related-event analysis, alerts and case review tailored to design.	Preserved events, case chronology, alternative explanations, action authority, appeal and model/rule correction.

THREAT / ERROR	POTENTIAL HARM	PROPOSED PREVENTION / DETECTION	EVIDENCE / CORRECTION
Source manipulation or outage	Resolution depends on altered, unavailable or selectively captured evidence.	Source hierarchy, authenticity checks, independent preservation, redundancy, cut-off and exception rule.	Source snapshot, outage evidence, substitution authority, delay state and public explanation.
Late rule or wording change	Participants cannot evaluate the same contract or event.	Immutable/versioned market text, materiality review, notice, pause and prospective-only change where appropriate.	Before/after versions, impacted participants, authority, remedy and superseded-state record.
Resolution collusion or error	Incorrect outcome creates financial, reputational and ecosystem harm.	Bounded resolver authority, evidence template, dual or independent review for material cases, disputes and quality sampling.	Decision packet, competing evidence, appeal/correction, reconciliation and lesson.
Integrity-control abuse	Moderation, surveillance, suspension or disclosure suppresses legitimate participation.	Proportionality, reason codes, access limits, challenge, metrics and independent assurance.	Action record, affected scope, duration, review outcome, reversal and control adjustment.

Source: POLIX editorial market-integrity model informed by IOSCO (2023). The matrix does not assert current POLIX markets, trading design, surveillance, cases or outcomes.

28.2.1 Market Admission, Manipulation, and Surveillance

Market admission should be evidence-gated and proportionate. A low-impact entertainment question with a clear public source may require a lighter review than a high-impact market involving public safety, thin evidence, a conflicted creator, sensitive personal data, or a source susceptible to manipulation. Risk tiers can determine reviewer competence, source redundancy, preview or cooling period, exposure limits, monitoring intensity, resolver independence, dispute window and communication. Tiers should be based on scenario risk and reversibility, not on a creator's status or expected activity alone.

The admission packet should establish semantic integrity. The title, detailed criteria, outcome labels, time zone, timestamps, source order, measurement method, rounding, cancellation, delays, corrections, revisions, and unavailable-data treatment should align. Examples can improve understanding but should not silently override the operative text. Natural-language or AI-assisted drafting may identify ambiguity, but a model should not be the authoritative interpreter. Material edits should create a new version and trigger an impact decision rather than invisibly replacing the participant's original object.

Abuse controls should begin at creation. Rate, identity or eligibility, content, duplicate, prohibited-market, source, conflict, spam, automation, and quality controls can reduce downstream harm. They also create denial and discrimination risks. Rejection or limitation should therefore use a reason code, preserve the submitted object and relevant evidence, support review at a level appropriate to the impact, and measure false positives and evasions. A creator incentive, if ever adopted, should reward qualified market supply and accountable stewardship rather than raw submission volume.

Operating surveillance should connect market state, account or wallet state where lawful and available, transaction or order events where relevant to design, source events, public announcements, related markets, model outputs, control changes and case actions through stable identifiers and time. Access to sensitive analytics should be restricted because surveillance information can expose private behavior, investigative methods or exploitable thresholds. Retention should support investigation, correction and assurance without becoming indefinite collection by default.

Protective actions can include increased monitoring, delayed publication, reduced functionality, account or market restriction, cancellation, suspension, evidence preservation, participant warning or referral, but only after the actual operating and legal model is defined. Each action needs a purpose, authority, criteria, scope, duration, communication, review and release condition. Emergency action may be faster, yet should remain narrow and enter retrospective review. A secret permanent restriction or unexplained reversal can harm integrity even if the original concern was legitimate.

Table 28.6. Market admission and operating-integrity packet

FIELD	ADMISSION EVIDENCE	OPERATING EVIDENCE	BLOCK / ESCALATE WHEN
Question and outcomes	Unambiguous proposition, exhaustive and exclusive outcomes, definitions, examples and exclusions.	Displayed text and outcome set match the approved version.	Reasonable interpretations can produce different outcomes.
Time	Open/close/resolution times, zone, observation window, delay and cancellation treatment.	Clock source, actual state transitions and late-event handling are recorded.	Time can be influenced by a participant or cannot be reconstructed.
Sources	Authoritative source or hierarchy, authenticity, accessibility, preservation and fallback.	Snapshots, retrieval times, conflicts, outages and substitutions are preserved.	Source is self-referential, manipulable, unavailable or legally unusable.
Creator / sponsor	Identity or eligibility as required, role, conflict, related interests and promotional boundary.	Material interest changes, behavior and communications are monitored proportionately.	Undisclosed conflict or ability to determine both source and outcome.
Risk tier	Harm, sensitivity, manipulation, exposure, reversibility, precedent and operational burden.	Limits, monitoring and review remain aligned with changing risk.	Risk exceeds approved capacity or control coverage.
Integrity plan	Expected abuse cases, alerts, reviewer, escalation, evidence and action authorities.	Signals, cases, decisions, false positives, evasions and corrections are measured.	No responsible reviewer or action path exists for a material scenario.
Public state	Approved wording, version, criteria, limitations, conflicts and dispute/correction route.	Material changes, pauses, incidents and corrections use linked versions and timestamps.	Participants cannot determine which state or rule governs.

Source: POLIX editorial market-admission packet. It is a proposed specification and does not evidence a current listing, moderation, surveillance or review process.

28.2.2 Resolution Sources, Disputes, and Corrective Finality

Resolution should answer the market as written, not the question a resolver wishes had been asked. The decision packet should identify the operative version, evidence cut-off, source hierarchy, preserved evidence, relevant calculations, exclusions, ambiguity, conflicts, resolver authority, independent check where required, outcome, confidence or limitation, and publication state. If the evidence does not support a valid outcome, the process should use an adopted delay, cancellation, alternative-state or escalation rule rather than inventing certainty.

Source integrity includes authenticity, provenance, completeness, timing, accessibility, stability and meaning. A source can be authentic but incomplete, available but later corrected, authoritative for a fact but not for the market's defined measurement, or accurate yet captured after the evidence cut-off. A model-generated summary can help locate or compare sources but should not replace preserved primary evidence where primary evidence is required. If multiple sources conflict, the adopted hierarchy and conflict rule should govern; popularity, search ranking or resolver convenience should not.

A dispute is a governed evidence process, not a second popularity contest. Standing, grounds, filing period, required evidence, confidentiality, conflict handling, acknowledgment, independent reviewer, decision standard, possible outcomes, target times, communication and further appeal or closure should be defined before the market opens where practicable. Disputes should distinguish definitional error, source error, new evidence, calculation error, process error, conflict, unauthorized change, technical failure and dissatisfaction with a correctly applied rule.

Finality should be explicit and layered. Operational finality may mean downstream actions can proceed. Evidentiary finality may mean the ordinary dispute window has closed. Accounting or token-state finality may require reconciliation. Public finality means the authoritative record displays the resolved and corrected state. Legal or network finality, if relevant, depends on facts outside this chapter. A correction should not erase the original outcome; it should link the prior state, reason, authority, affected objects, remedial action, reconciliation and effective time.

Quality assurance should sample both resolved and unresolved cases, not only disputes. Measures can include ambiguity detected after opening, source exceptions, reviewer disagreement, time to resolution, dispute rate and grounds, reversal, inconsistent related-market treatment, participant confusion, automated-assistance error, and correction completeness. Targets remain to be adopted. Metrics should identify control weakness without pressuring resolvers to avoid necessary delay, cancellation or correction merely to improve speed or reversal statistics.

Table 28.7. Resolution, dispute, and corrective-finality record

STATE	MINIMUM EVIDENCE	AUTHORITY / CONTROL	PROHIBITED REPRESENTATION
Resolution ready	Operative market version, close state, evidence cut-off, source availability, conflict status and complete packet.	Qualified resolver or process confirms prerequisites; material conflicts are cleared or reassigned.	Ready inferred from elapsed time or a single unverified source.
Proposed outcome	Reasoned application of criteria to preserved evidence, calculations, limitations and alternatives.	Resolver records proposal; independent check applies by risk tier.	Proposal displayed as final or used for irreversible action.
Resolved	Authorized decision, outcome, rationale, evidence references, time, version and dispute route.	Bounded authority approves and publication matches the decision record.	Resolved means indisputable, legally final or fully reconciled.
Disputed	Standing, grounds, preserved submission, timing, affected objects and acknowledgment.	Independent or separately authorized reviewer manages evidence and conflicts.	Dispute automatically proves error or automatically suspends every downstream state.
Corrected / reversed	Prior state, new evidence or error, authority, impact, remedy, reconciliation and linked versions.	Correction authority changes the authoritative record and verifies consequences.	History overwritten or correction presented as if the prior state never existed.
Closed	Dispute window or review route complete, actions reconciled, communications issued and lessons assigned.	Accountable owner confirms closure criteria and unresolved limitations.	Closed means no future evidence, legal issue, control defect or policy change can arise.

Source: POLIX editorial resolution-state vocabulary. No current POLIX resolver, oracle, dispute, finality or correction mechanism is asserted.

MARKET INTEGRITY PRINCIPLE **Protect the market as a lifecycle: answerable definition, proportionate admission, observable operation, conflict-controlled resolution, evidence-based dispute, layered finality, and linked correction. Neither activity nor automation can cure an object whose wording, sources, authority, or state cannot be reconstructed.**

28.3 Wallet and Transaction Awareness

Wallet and transaction awareness should help a user understand what is connected, what authority is requested, what will change, what is uncertain, and what can be revoked or corrected. “Secure transaction” should not be treated as a single binary property. Security depends on the interface origin, account and session, wallet or custody model, authentication, signing or approval method, network and asset identity, destination, amount, fee and timing where applicable, application state, external confirmation, user comprehension, support and recovery. Those implementation facts are not established by current POLIX materials.

A wallet can represent several boundaries: identity signal, address or account, asset view, authorization mechanism, external dependency, transaction endpoint, recovery object and public identifier.

Connecting a wallet should not automatically authorize asset movement, trading, delegation, data sharing or persistent access. Permissions should be understandable, minimal, scoped to purpose, bound to the correct origin and session, reviewable, revocable where technically possible, and separated from transaction-specific confirmation when the action is consequential.

NIST SP 800-63-4 supports risk-based authentication and emphasizes phishing-resistant options at higher assurance contexts, protected channels, and periodic reauthentication. The specific control should match the actual architecture. A cryptographic wallet signature may prove control of a key for a specific message yet still fail to prove a legal identity, informed user intent, an uncompromised device, a safe destination, a correct application state, or authority over another person's assets. Interfaces and records should describe only what the evidence establishes.

Transaction awareness requires a state model. Draft, quoted, requested, user-confirmed, signed, submitted, broadcast, observed, pending, confirmed, finalized, settled, reconciled, failed, dropped, replaced, reversed and corrected are not interchangeable. The exact states depend on the eventual network, contract, custody and application design. At minimum, the user and internal control system should distinguish intention, authorization, external submission, observed outcome and application reconciliation, with stable identifiers and explicit uncertainty.

Table 28.8. Wallet and transaction control boundary

BOUNDARY	USER-SAFETY QUESTION	PROPOSED CONTROL	EVIDENCE / LIMIT
Interface origin	Is the user interacting with the intended service and unmodified request?	Authenticated origin, anti-phishing cues, protected session, content integrity and support warnings.	Origin/session evidence reduces risk but does not prove device integrity or informed intent.
Connection and permission	What data or action scope is being granted, for how long, and how can it end?	Purpose-specific request, least permission, explicit confirmation, review, expiry and revocation.	Connection is not universal transaction or data authorization.
Authentication	Is the claimant sufficiently authenticated for the action and risk?	Risk-based factors, phishing resistance where appropriate, reauthentication, recovery and anomalous-event controls.	Authentication does not by itself validate destination, amount, authority or device safety.
Transaction intent	Can the user understand the asset, network, destination, amount, purpose, consequences and uncertainty?	Human-readable summary linked to machine request, address and network checks, material-change reconfirmation.	A signature proves approval of bytes or a message, not necessarily comprehension or lawful authority.
External execution	What was submitted, where, when, with which identifier, and what does the network state mean?	Payload/receipt reference, network identity, broadcast status, confirmations, replacement/reorg handling where relevant.	Submitted, observed, confirmed, finalized and settled must not be collapsed.
Application state	Does the internal account, market, entitlement or token state match authoritative external evidence?	Idempotency, reconciliation, exception queue, correction and user-visible status.	A front-end success message is not authoritative settlement evidence.
Recovery and support	Can access or state be restored without creating an easier takeover path?	Bounded recovery, strong evidence, delays or dual control where appropriate, alerts, fraud review and activity history.	No recovery capability, custody, reimbursement or reversal right is asserted here.

Source: POLIX Presentation v1.0 EN and POLIX editorial wallet-control model informed by NIST SP 800-63-4 and NIST SP 800-57 Part 1 Rev. 5. No current architecture is asserted.

28.3.1 Authorization, Signing, and User-Safety Boundaries

Authorization should bind the actor, governed object, requested action, parameters, authoritative state, time, purpose and expiry. High-risk actions can require reauthentication, independent confirmation, a delay, dual control, a transaction limit, address or beneficiary allowlisting, device or session risk review, out-of-band notice, or manual challenge depending on architecture and threat. Controls should be additive only when they reduce actual risk; a confusing sequence of prompts can train users to approve without reading and create the appearance rather than the substance of informed authorization.

The confirmation screen should present the consequence, not merely technical fields. A user should be able to identify the intended asset or right, amount or maximum exposure, destination or counterparty class where appropriate, market or program, network, fee or variability if applicable, timing, reversibility, permission duration, and material uncertainty. Machine-readable requests should be derived from or cryptographically linked to the displayed intent where the architecture permits. Any material change after review should invalidate the prior confirmation and require a new one.

Signing and key controls depend on whether POLIX, a user, a vendor, a smart contract or another party controls the relevant authority. This chapter does not select or imply that model. Whichever model is adopted should define key generation, storage, permitted operations, policy enforcement, backup, recovery, rotation, revocation, compromise containment, operator access, audit evidence and user communication. Shared secrets, copied keys, unbounded signing APIs, unsigned administrative requests, or production keys in development processes create hidden authority and should be prohibited.

Account and wallet recovery creates a fundamental trade-off. Weak recovery can become the easiest takeover route; impossible recovery can make loss permanent. A recovery design should state what is recoverable, who can initiate and approve it, evidence and waiting periods, notifications, lock or challenge options, high-risk action restrictions, prior-session treatment, wallet and asset boundaries, privacy, support escalation, fraud response and final accountability. Recovery of an application account does not automatically recover an external wallet, key or completed transaction.

User-safety design should include errors and adversarial conditions. Address poisoning, look-alike assets, deceptive names, malicious approvals, social engineering, compromised support, clipboard substitution, screen overlays, session theft, device malware, coercion, unexpected network switching, fee volatility, stale quotes and replay can all separate apparent confirmation from true intent. Controls should prioritize clear prevention and safe defaults, then provide contextual warnings, review, limits, revocation and incident support. Disclosures alone should not be used to shift preventable design risk to the user.

Table 28.9. High-risk authorization and confirmation control

ACTION CLASS	BEFORE CONFIRMATION	AT AUTHORIZATION	AFTER ACTION / EXCEPTION
Connect / share	Show origin, requested data and permissions, purpose, duration and revocation.	Bind approval to session, origin, wallet/account and permission set.	Display active connections; support expiry/revocation and investigate anomalous reuse.
Trade or market action	Show market version, outcome, amount/exposure, constraints, current state and material uncertainty.	Revalidate state, limits and price/quote conditions under the eventual design; expire stale requests.	Provide stable request/result IDs, pending/failure states, reconciliation and correction.
Asset movement	Show asset, network, destination, amount, fee/variance, purpose, reversibility and warnings.	Use transaction-specific approval, material-change invalidation and stronger assurance by risk.	Track broadcast/confirmation/finality distinctions; alert, reconcile and preserve incident evidence.
Permission or delegation	Show exact capability, object, beneficiary/system, limits, duration and revocation.	Require explicit bounded grant; prohibit open-ended scope by default.	Maintain permission inventory, usage alerts, expiry, review and emergency revocation.
Recovery or factor change	Explain affected account/wallet scope, evidence, delay, lock, notifications and risks.	Apply stronger independent checks and restrict concurrent high-risk actions.	Notify prior channels, monitor takeover indicators and support challenge/reversal where possible.

ACTION CLASS	BEFORE CONFIRMATION	AT AUTHORIZATION	AFTER ACTION / EXCEPTION
Privileged / emergency	State incident or task, authority, systems, commands/actions, limit and expiry.	Use separate approval or break-glass trigger with full evidence capture.	Revoke promptly, reconcile all changes and complete independent retrospective review.

Source: POLIX editorial authorization model informed by NIST SP 800-63-4 and NIST SP 800-57 Part 1 Rev. 5. Specific factors, limits and technologies require later adoption.

28.3.2 Transaction Lifecycle, Asset Movement, and Recovery

The transaction record should preserve the difference between what a user saw, what the application requested, what was authorized, what was submitted to an external system, what the external system reported, and what the application recognized. Stable identifiers, synchronized time, versioned context and immutable or tamper-evident records where appropriate help connect those states. Sensitive payloads, keys, authentication factors and unnecessary personal information should not be placed in logs merely to improve traceability.

Idempotency and replay protection are essential whenever a request can be retried, queued or processed asynchronously. The control should ensure that a duplicate network response, page refresh, service retry, message replay or recovery operation does not create a second economic effect. Unique request keys, state preconditions, nonce or sequence controls where applicable, bounded retry, duplicate detection and reconciliation should match the actual architecture. Error messages should not declare failure if an external action may still complete; uncertainty should enter a pending investigation state.

Reconciliation compares independently obtained evidence across user intent, internal records, wallet or custody records, network or contract state where applicable, market state, accounting or entitlement state, and public disclosure. Differences should be classified, assigned, aged, investigated and corrected. A reconciliation process that merely forces one system to match another can reproduce the original error. The authoritative source and acceptable timing should be specified for each field and transition, including how forks, reversals, provider delays, migrations or manual corrections would be handled if relevant.

Monitoring should detect unusual authorization, device or session changes, repeated failures, destination changes, rapid permission grants, high-risk recovery, mismatched network or asset, repeated replacement, inconsistent receipt, delayed confirmation, duplicate effect and reconciliation backlog. Signals can support step-up controls or review but should not automatically label a user malicious. Privacy, explainability, appeal and control-quality measurement remain necessary, especially when account or wallet activity may reveal sensitive behavior.

Incident recovery should avoid promises the architecture cannot keep. Some actions may be cancellable before submission, replaceable or reversible under a governed application state, disputable with a service provider, or correctable in internal accounting; other actions may be technically or legally irreversible. The interface, support process and public materials should distinguish those cases. Any reimbursement, guarantee, insurance, recovery service or user-protection right would require a separately adopted policy and evidence; none is established here.

Table 28.10. Transaction-state and recovery matrix

STATE	AUTHORITATIVE EVIDENCE	USER / CONTROL DISPLAY	EXCEPTION AND RECOVERY
Draft / quoted	Current market, asset, network, destination, amount, limits and quote assumptions.	Not authorized; show expiry and material variables.	Refresh stale state; no economic effect should occur.

STATE	AUTHORITATIVE EVIDENCE	USER / CONTROL DISPLAY	EXCEPTION AND RECOVERY
Confirmed / signed	Bound request linked to authenticated actor/session and human-readable intent.	Authorized for the stated scope; not yet executed unless architecture says otherwise.	Invalidate on material change; protect against replay and unauthorized reuse.
Submitted / broadcast	Outbound request and external acceptance or broadcast identifier.	In progress; disclose uncertainty and expected next observation.	Do not retry blindly; query status and use idempotent recovery.
Observed / pending	Independent external observation with confirmations or equivalent state where relevant.	Pending, not necessarily final or settled.	Monitor delay, replacement, reorganization, provider disagreement or timeout.
Finalized / settled	Adopted finality evidence plus internal state transition and required reconciliations.	Completed within the stated technical and application boundary.	Do not imply legal, accounting or universal irreversibility beyond evidence.
Failed / dropped / replaced	Explicit failure, expiry, superseding identifier or absence under an adopted timeout rule.	State and consequence clearly distinguished; no false success.	Release holds where safe, reconcile side effects and preserve linked attempts.
Corrected / recovered	Prior state, error or incident, authority, remedial action, affected objects and verification.	Show correction and any remaining limitation; do not erase history.	Escalate unresolved financial, security, privacy, market or legal consequences.

Source: POLIX editorial transaction-state model. Exact states and authoritative evidence depend on the later-adopted wallet, network, custody, market and accounting architecture.

WALLET AWARENESS PRINCIPLE **Make authority and uncertainty visible. A connection is not a transaction; authentication is not intent; a signature is not comprehension; submission is not settlement; a front-end message is not authoritative state; account recovery is not wallet recovery; and correction should link, not erase, the original evidence.**

28.4 Data and AI Integrity

Data and AI integrity requires trustworthy sources, fit-for-purpose processing, bounded models, meaningful evaluation, human accountability, safe downstream use, monitoring and correction. The POLIX presentation describes news, social, on-chain and market data flowing into forecasts, signals, insights, risk analysis and decision support. Those categories can differ substantially in provenance, rights, manipulation exposure, timeliness, noise, representativeness and privacy. Combining them can increase coverage while also multiplying correlated error, hidden transformations and false confidence.

A data product should name its purpose, governed object, source, acquisition basis, authoritative status, time coverage, update method, schema, transformations, quality tests, known gaps, access, retention, correction and downstream users. Source labels such as on-chain or market data do not guarantee accuracy or completeness. A public chain can contain deceptive tokens, spam, laundering patterns or attribution uncertainty; a social source can be manipulated or selectively sampled; news can be duplicated, corrected or paywalled; market data can be delayed, fragmented or vendor-defined.

NIST AI RMF 1.0 structures AI risk management around Govern, Map, Measure and Manage. Its core trustworthiness characteristics include validity and reliability, safety, security and resilience, accountability and transparency, explainability and interpretability, privacy enhancement, and fairness with harmful bias managed. The NIST Generative AI Profile adds risk considerations for generative

systems. IOSCO's 2026 supervisory toolkit provides a current capital-markets perspective on AI governance and market-integrity risk. These materials guide analysis but do not certify any POLIX data, model or AI service.

The first AI control is a purpose boundary. A model used to summarize public information, forecast a probability, flag suspicious activity, rank markets, recommend risk limits, assist resolution research, or replicate another user's behavior creates different harms and evidence requirements. A model should not migrate from an advisory use to an action-authorizing use because the output appears accurate or users request convenience. Each use requires separately approved inputs, output interpretation, evaluation, human role, action limit, monitoring and stop condition.

Table 28.11. Data and AI governance boundary

LAYER	REQUIRED QUESTION	PROPOSED CONTROL	PROHIBITED INFERENCE
Source	Who produced the data, under what rights, incentives, coverage, timing and correction process?	Source register, contractual/policy basis, provenance, authenticity, redundancy, manipulation and outage assessment.	Public, on-chain, popular or paid means accurate, complete, lawful or unbiased.
Dataset / feature	How was data selected, joined, labeled, transformed, retained and made representative for purpose?	Versioned lineage, schema, quality tests, missingness, leakage, label review, privacy and reproducibility.	Large or real-time means representative, causal or decision-ready.
Model / rule	What task, population, horizon, assumptions and prohibited uses define fitness?	Model card, version, training/evaluation boundary, security tests, calibration, robustness and limitations.	A benchmark, backtest or vendor claim proves future production performance.
Output	What does the forecast, signal, score, summary or recommendation mean and not mean?	Output contract, uncertainty, source/time, explanation fit for user, freshness and correction.	Probability is certainty; correlation is cause; generated text is primary evidence.
Human decision	Who reviews, challenges, overrides or stops use, with what authority and competence?	Named accountable role, decision criteria, independent review by risk, dissent, override reason and escalation.	Human-in-the-loop exists merely because someone can click approve.
Automated action	Which actions, limits, preconditions, expiry and safe state may the system execute?	Bounded mandate, pre-action validation, caps, rate limits, circuit breaker, monitoring and reconciliation.	Model confidence, copy-follow setting or prior user action creates unlimited authority.
Monitoring / correction	How are drift, errors, manipulation, incidents, user harm and control quality detected?	Performance slices, data/model drift, complaints, overrides, incidents, rollback, version retirement and public correction.	No known complaint or stable aggregate metric means safe and effective.

Source: POLIX Presentation v1.0 EN and POLIX editorial model informed by NIST AI RMF 1.0, NIST AI 600-1, and IOSCO (2026). No current POLIX AI system or performance is asserted.

28.4.1 Data Provenance, Quality, and Model Boundaries

Provenance should allow a reviewer to trace an output to source snapshots, acquisition times, transformations, feature or prompt configuration, model or rule version, execution environment, and downstream decision. Complete raw retention may be neither lawful nor necessary, so the record should be designed around the purpose, sensitivity, reproducibility and correction need. Where the source changes, the system should distinguish an updated source from a newly retrieved copy and preserve enough evidence to explain which version informed the decision.

Quality tests should be purpose-specific. Completeness, accuracy, consistency, timeliness, uniqueness, validity and representativeness can conflict. A fast stream can be incomplete; a cleaned dataset can erase rare but important cases; a precise label can reflect the wrong target; a balanced sample can distort real prevalence; an authoritative source can be too slow for the use. Thresholds and exceptions should be adopted before they decide an outcome, and failures should result in degraded use, additional review, substitution, delay or safe stop rather than silent imputation.

Adversaries can target the data and model pipeline. Threats include source spoofing, prompt or content injection, poisoning, evasion, extraction, membership or sensitive-data inference, model or dependency compromise, hidden instruction, output manipulation, synthetic consensus, feedback loops, and abuse

of automated agents. Controls can include source isolation, content and instruction separation, validation, sandboxing, least privilege, rate and resource limits, adversarial evaluation, monitoring and human escalation. No single content filter or model alignment claim should be treated as a security boundary.

Forecast evaluation should match the claim. Probability forecasts can be tested for calibration, discrimination, proper scoring, stability across time and market classes, coverage, abstention, and sensitivity to source or model change. A backtest should prevent leakage and respect the information available at the decision time. Aggregate scores can hide poor performance in rare, high-impact or newly emerging cases. Evaluation should compare appropriate baselines and include operational costs, user interpretation and downstream behavior, not only model accuracy.

Model cards and data cards should state intended purpose, prohibited use, responsible owner, version, sources and rights, training or configuration date, evaluation design, populations or domains, metrics, uncertainty, limitations, security and privacy risks, human role, monitoring, incident history where disclosable, and retirement. Public disclosure should be understandable without revealing exploitable details or protected data. Marketing language should not imply guaranteed prediction, individualized suitability, risk-free copy behavior, or authoritative resolution unless the actual evidence and legal framework support such claims.

Table 28.12. AI signal and evidence card

FIELD	MINIMUM CONTENT	OPERATING TEST	STOP / CORRECTION TRIGGER
Purpose and object	Forecast, signal, summary, ranking, surveillance aid, risk analysis or other defined task; named user and decision.	Usage logs match approved purpose and prohibited-use controls.	Output is reused for an unapproved consequential decision.
Sources and lineage	Source classes, rights/basis, coverage, retrieval time, transformations, versions and known gaps.	Provenance completeness, source freshness, integrity, outage and manipulation indicators.	Untraceable, corrupted, prohibited, stale or materially changed source.
Model / configuration	Model or rule identity, version, parameters/configuration, dependencies and environment.	Artifact integrity, configuration drift, dependency change and reproducible sample.	Unknown version, unauthorized substitution or compromised dependency.
Evaluation	Baseline, dataset/time split, metrics, calibration, robustness, slices, limitations and reviewer.	Production performance and uncertainty compared with approved bounds.	Material degradation, blind spot, leakage, new threat or invalid baseline.
Output contract	Meaning, unit/horizon, freshness, confidence or uncertainty, source links and prohibited interpretation.	User comprehension, stale-output use, unsupported certainty and downstream consistency.	Output omits material limitation or is represented beyond evidence.
Human / action boundary	Accountable reviewer, decision criteria, override, automated limits, expiry and circuit breaker.	Approvals, overrides, escalations, action rates and control bypass are reviewed.	Model creates or expands authority, or safe review capacity is exceeded.
Correction and retirement	Error intake, affected-output search, notification, version rollback, record linkage and retirement owner.	Incidents, complaints, reversals, repeat defects and correction completeness.	Uncontained harm, unverifiable scope, ineffective correction or unsupported model.

Source: POLIX editorial AI evidence card informed by NIST AI RMF 1.0, NIST AI 600-1, and IOSCO (2026). Metrics and thresholds require later task-specific adoption.

28.4.2 AI Decision Support, Monitoring, and Human Accountability

Decision support should improve evidence processing without obscuring responsibility. The interface should identify when content is machine-generated or materially model-assisted, the data time and version, relevant sources, uncertainty, known limitations and the human decision that remains. Users should be able to inspect or challenge material inputs where practical. A polished narrative should not outrank a less fluent primary source, and repeated model agreement should not be treated as independent corroboration when systems share data, models or prompts.

Human oversight must be operational, not ceremonial. The reviewer needs competence, time, information, genuine authority to pause or disagree, independence from incentives that reward approval, and protection from automation bias. High-volume review can become rubber-stamping when queue design, targets or interface defaults encourage acceptance. Measures should examine time, disagreement, overrides, error detection, escalation, workload, repeated exceptions and downstream outcomes. Requiring a click without these conditions does not create meaningful human control.

Copy-and-follow concepts create a particularly consequential boundary. Evaluating another participant's historical performance or risk profile does not establish future performance, suitability, identity, intent, lawful authority, model quality, available liquidity or identical execution. If such a feature is ever adopted, the user should define scope, caps, asset and market eligibility, timing, slippage or execution variance where relevant, pause and revocation, conflicts, fees if any, risk, data rights and responsibility. The system should preserve the difference between observed behavior, model evaluation, user authorization and each replicated action.

AI monitoring should cover input and output quality, calibration and error, source drift, model and dependency change, prompt or content injection, anomalous tool use, unauthorized access, privacy leakage, fairness or harmful bias, user complaints, human overrides, downstream incidents and control failures. Thresholds should produce proportionate responses: annotate, reduce confidence, require review, restrict a use, revert a version, substitute a source, pause automation or retire the model. Monitoring should not collect unlimited user data or reveal security-sensitive thresholds without purpose.

Correction should identify affected outputs and downstream decisions, not merely replace the model. When a source is corrected, a bug is found, a model drifts, a prompt changes, or a misleading output is discovered, the owner should determine which markets, signals, recommendations, cases, users and public statements were affected; whether decisions require review; how users are notified; which record remains authoritative; and what prevents recurrence. If scope cannot be reliably determined, uncertainty itself should be disclosed and escalated.

Table 28.13. AI action mode and escalation ladder

MODE	PERMITTED EFFECT	MINIMUM SAFEGUARD	ESCALATE / STOP WHEN
Retrieve / organize	Locate, deduplicate, classify or structure candidate information.	Source links, provenance, access limits, injection handling and human verification.	Primary source is unavailable, content is adversarial, or retrieval becomes evidence selection without review.
Summarize / explain	Produce a bounded synthesis or plain-language explanation.	Citations, version/time, uncertainty, material omissions check and generated-content notice where appropriate.	Summary conflicts with source, omits decisive limitation or is presented as authoritative evidence.
Forecast / score	Estimate probability, risk, relevance or anomaly for a defined object and horizon.	Task-specific evaluation, calibration/thresholds, baseline, slices, monitoring and no guaranteed outcome claim.	Drift, manipulation, poor slice performance or unsupported certainty crosses approved bounds.
Recommend	Suggest a review, market, limit, response or other option without creating authority.	Alternatives, rationale, conflicts, user context where lawful, accountable human decision and record.	Recommendation is treated as individualized certainty, obligation or automatic approval.
Gate / prioritize	Route, rank, hold or require additional evidence under an adopted rule.	Appeal, false-positive review, capacity, fairness/privacy testing, timeout and independent monitoring.	Queue harms, systematic exclusion, model blind spot or unavailable human review becomes material.
Execute bounded action	Perform a pre-authorized, reversible or exposure-limited action with explicit parameters.	Separate authority, precondition validation, cap, expiry, circuit breaker, user control where relevant and reconciliation.	Control fails, data/model state is inconsistent, exposure exceeds limit or authorization cannot be reconstructed.

MODE	PERMITTED EFFECT	MINIMUM SAFEGUARD	ESCALATE / STOP WHEN
Prohibited autonomous authority	No model may create policy, resolve conflicts of authority, guarantee outcomes or expand its own mandate.	Architectural separation and monitoring prevent the prohibited transition.	Any model output is used to create authority, override a protected state or conceal accountable human action.

Source: POLIX editorial AI action ladder informed by NIST AI RMF 1.0 and IOSCO (2026). No current POLIX automation or action authority is asserted.

AI INTEGRITY PRINCIPLE **Models may retrieve, organize, summarize, forecast, rank, recommend, or execute only within an adopted purpose and bounded mandate. They do not create source authority, user intent, market truth, governance power, suitability, guaranteed performance, or finality. Preserve provenance, uncertainty, human accountability, safe stop, affected-output correction, and versioned retirement.**

28.5 Operational Resilience

Operational resilience is the ability to prevent, withstand, contain, recover from, reconcile and learn from disruption while protecting critical outcomes. It is broader than uptime. A service can remain online while market definitions are inconsistent, transactions are duplicated, models use corrupted data, administrators lack trustworthy access, or users receive a false final state. Conversely, a deliberate pause can be the safest and most resilient action when continuing would amplify harm. Resilience priorities should therefore be stated as outcomes and trustworthy states, not infrastructure availability alone.

NIST SP 800-61 Rev. 3 integrates incident response with CSF 2.0 and treats Govern, Identify, Protect, Detect, Respond and Recover as mutually supporting. The CPMI-IOSCO cyber-resilience guidance emphasizes continuous re-evaluation, rapid response and recovery, and coordination across stakeholders. PFMI Principle 17 provides useful concepts concerning operational-risk frameworks, reliability, capacity, security, business continuity and timely recovery. These sources do not classify POLIX as a financial market infrastructure or establish any required POLIX recovery target; targets must follow actual services, obligations, dependencies and risk.

A critical-service map should link user and market outcomes to applications, data, models, identities, wallets or providers, networks or chains where applicable, infrastructure, people, facilities, vendors, communications and governance authorities. For each service, the map should define minimum safe functionality, intolerable harm, dependencies, failure modes, manual alternatives, data and configuration recovery, capacity, monitoring, incident owner, public-status need and restoration sequence. Hidden dependencies and circular recovery assumptions often appear only when the map is tested.

Recovery objectives should be object-specific and evidence-based. Recovery time describes a target for restoring a service or outcome; recovery point describes tolerable data loss or reconstruction point; maximum tolerable disruption or equivalent impact measures can define the boundary beyond which harm becomes unacceptable. These concepts should not be copied as universal numbers. A market close, transaction authorization, public status page, internal analytics service and historical archive can require different priorities and safe modes. No current POLIX RTO, RPO, availability or capacity target is asserted.

Table 28.14. Proposed incident severity and service-priority model

TIER	ILLUSTRATIVE CONDITION	IMMEDIATE OBJECTIVE	GOVERNANCE / COMMUNICATION
S0 / observation	Weak signal, near miss or control anomaly with no verified material harm.	Validate, preserve evidence, monitor, assign owner and test whether wider exposure exists.	Routine case authority; record closure or escalation and feed control-quality metrics.
S1 / contained	Limited service, data, market or user impact within known scope and safe workaround.	Contain, correct affected state, support users, verify no spread and restore normal controls.	Named incident owner; targeted communication and accountable closure.
S2 / material	Multiple users/markets, privileged control, sensitive data, asset state or critical dependency materially affected.	Activate coordinated response, restrict risky actions, establish authoritative state, investigate and recover by priority.	Executive/risk escalation, independent challenge, stakeholder notice and timed status cadence as adopted.
S3 / critical	Systemic integrity threat, uncontrolled asset movement, broad compromise, prolonged critical outage or inability to trust state.	Prevent amplification, invoke highest containment, preserve evidence, establish safe mode and coordinate recovery and external duties.	Emergency authority with expiry; highest accountable oversight, legal/regulatory analysis and controlled public communication.
Unknown / contested	Evidence is insufficient, sources conflict or impact cannot yet be bounded.	Treat uncertainty as risk: pause affected actions, protect evidence and rapidly improve situational awareness.	Escalate based on plausible harm, not optimistic absence of confirmation; document assumptions and changes.
Recovery / correction	Immediate threat contained but services, records, users or controls remain affected.	Restore in approved order, reconcile all states, verify security, communicate correction and monitor recurrence.	Exit incident authority only after closure criteria, residual-risk decision and lesson ownership.

Source: POLIX editorial severity model informed by NIST SP 800-61r3, NIST CSF 2.0, CPMI-IOSCO (2016), and PFMI Principle 17. Tiers and targets are proposed, not current operations.

28.5.1 Incident Response, Continuity, and Recovery Objectives

Incident response should operate before certainty is complete. Intake can originate from monitoring, a user, researcher, vendor, partner, operator, resolver, model, auditor or public report. The process should acknowledge and protect the report, validate without destroying evidence, classify affected objects and plausible harm, assign an incident lead and specialists, control access and communications, decide containment, preserve a chronology, manage external obligations, restore and reconcile, and close only when residual risk and correction are explicit.

Roles should be predetermined but adaptable. The incident lead coordinates and records decisions; technical, market, resolution, wallet, data/AI, privacy, legal, communications, support, partner and executive roles contribute within competence; an independent challenger tests assumptions and closure for material events. The person who caused, discovered or owns the affected component may provide essential evidence but should not solely determine severity, root cause, disclosure or closure when conflict is material.

Containment should be proportional, reversible where possible and aware of secondary harm. Options can include revoking access, rotating credentials, isolating a service, disabling a feature, pausing a market or automation, limiting transaction scope, switching a data source, rolling back a version, blocking a malicious origin, increasing confirmation, moving to manual review or communicating a warning. The authority, trigger, expected effect, duration, monitoring, user impact and release condition should be recorded. A broad shutdown can be harmful if it prevents support, evidence collection or protective user action.

Continuity plans should define the minimum safe service rather than attempt to reproduce normal functionality under degraded evidence. A market may need to stop new actions while preserving read-only state and resolution evidence. A wallet interface may need to display known status while disabling new requests. AI outputs may need to be marked stale or withdrawn while source integrity is restored.

Public communications should use an authoritative channel, time, scope, known facts, unknowns, user actions, next update and correction link without speculating or exposing exploitable details.

Recovery requires more than restarting systems. The team should verify identity and privileged access, infrastructure and configuration, code and dependencies, source and model integrity, data consistency, transaction and market state, queues and scheduled jobs, external connections, monitoring, capacity, support readiness and public status. Restoration should follow approved priorities and use staged exposure where uncertainty remains. A service should not be declared recovered while reconciliation, affected-user support, security controls or authoritative records remain materially incomplete.

Post-incident review should separate proximate cause from contributing design, process, governance and incentive conditions. It should identify what happened, why controls failed or succeeded, detection and decision delays, evidence gaps, user and market effects, conflicts, communications, recovery, unresolved risk and corrective actions. Actions need owners, due states, verification and escalation. The review should not be designed to allocate blame or suppress dissent; accountability is strengthened when people can report weak signals and mistakes without losing the record of responsible decisions.

Table 28.15. Incident response, recovery, and closure record

PHASE	MINIMUM RECORD	DECISION / CONTROL	EXIT EVIDENCE
Detect and intake	Reporter/source, time, affected object, observed event, initial evidence and protection need.	Acknowledge, preserve, validate safely and prevent retaliation or evidence loss.	Signal is closed with reason or escalated to an owned incident.
Triage and declare	Plausible harm, scope, uncertainty, dependencies, severity, conflicts and required roles.	Incident lead and authority are assigned; affected actions and communications are bounded.	Common operating picture, decision cadence and evidence channels established.
Contain	Action, owner, authority, affected scope, expected effect, user/market impact, duration and release condition.	Use least-harm containment; preserve investigation, support and recovery capability.	Threat or amplification path is controlled and containment side effects are known.
Investigate and communicate	Chronology, hypotheses, evidence, affected objects, external duties, known/unknown facts and updates.	Separate fact from inference; restrict sensitive data; use authoritative communications and corrections.	Impact and recovery plan are decision-useful, or uncertainty is explicitly managed.
Recover and reconcile	Restore point/version, access, configuration, data, transactions, markets, models, dependencies, monitoring and tests.	Restore by service priority with staged exposure and independent verification for material states.	Critical outcomes and controls are trustworthy; differences are corrected or governed as residual risk.
Review and correct	Root and contributing causes, control performance, decisions, harms, lessons, actions, owners and due states.	Independent challenge and accountable approval; update requirements, controls, training, contracts and claims.	Corrective actions are verified, exceptions approved and affected records linked.
Close and disclose	Closure criteria, residual risk, outstanding support, public state, retention and recurrence monitoring.	Ordinary authority resumes; emergency access expires; reporting and notification duties are complete.	Closure owner confirms no material hidden dependency or unresolved authoritative-state conflict.

Source: POLIX editorial incident record informed by NIST SP 800-61r3, NIST CSF 2.0, and CPMI-IOSCO (2016). No current POLIX incident process or history is asserted.

28.5.2 Dependencies, Exercises, Assurance, and Public State

Third-party and ecosystem dependencies can include hosting, identity, communications, analytics, data providers, model providers, wallets, custody or key services, networks, chains, bridges, liquidity or market partners, payment providers, support systems and professional advisers depending on the eventual architecture. Each dependency should have an owner, purpose, data and privilege scope, security and resilience requirements, concentration and substitution risk, service and incident

obligations, change notice, exit and data return or deletion. A contract is not operating evidence; material dependencies should be monitored and included in exercises.

Concentration should be assessed across technology and control. Multiple vendors may share one cloud, model, source, identity system, network, software library or administrative team. A backup provider may depend on the same upstream component or require an unavailable credential. Manual fallback may exceed human capacity. Dependency maps should therefore trace common causes, capacity, recovery sequence, credentials, data portability, interoperability, legal constraints and time to substitute. Residual single points of failure should be explicit and accepted by the appropriate authority.

Exercises should test decisions and evidence, not only technical restoration. Scenarios can combine ambiguous market resolution with source outage, account takeover with support compromise, data poisoning with model drift, privileged credential compromise during a release, network disruption with inconsistent transaction state, or vendor failure during a public incident. Tabletop exercises test roles and choices; technical simulations test detection and containment; restore tests verify backups; failover tests examine dependencies; red-team or adversarial exercises test controls. Scope and safety should be approved, and results should create owned corrective actions.

Assurance should be layered. Control owners provide operating evidence; independent internal review challenges design and records; specialist testing examines code, architecture, identity, cryptography, models or operational processes; external assurance may evaluate a defined scope against stated criteria. Assurance reports should identify the object, period, method, sampling, limitations, findings, exceptions and remediation. A seal, audit, penetration test or bug-bounty label should not be represented as universal security, and no such current POLIX assurance is asserted here.

Metrics should measure control outcomes and uncertainty: asset and dependency coverage, privileged-access review, release exceptions, critical vulnerability exposure, detection and decision time, containment, recovery and reconciliation, repeat incidents, unresolved corrective actions, false-positive and missed-detection evidence, backup restore success, exercise findings, model drift, dispute corrections, user-reported harm and disclosure correction. Targets require later risk-based adoption. Metrics can be gamed, so qualitative review and adverse-outcome analysis should accompany dashboards.

Public state should be accurate, timely and safe. Appropriate disclosures may include current service status, affected functions, known user action, material market or transaction limitation, correction, policy or control change, assurance scope and unresolved limitation. Detailed keys, credentials, exploit steps, sensitive architecture, personal data, investigative signals or source-protection information may need restriction. Each restriction should have a reason, owner, review and release condition. Transparency is the ability to understand authoritative state and correction, not the publication of every internal detail.

Security should remain a living governance program. New markets, wallets, networks, models, data sources, partners, jurisdictions, rights, token states and user behaviors can change the threat and harm model. Significant changes should trigger renewed asset and boundary mapping, privacy and security review, abuse analysis, incident readiness, recovery testing, assurance and public-claim review. A successful prior release or quiet period does not carry forward indefinitely as evidence of future effectiveness.

RESILIENCE PRINCIPLE **Prepare for disrupted evidence, authority, technology, people, and dependencies. Define minimum safe outcomes, respond before certainty is complete, contain without creating greater harm, restore trustworthy states in priority order, reconcile every consequence, expire emergency power, verify corrective action, and communicate the authoritative state and its limitations.**

Chapter Synthesis

1. POLIX official materials confirm wallet and transaction-visibility, AI analysis and decision-support, user-created market, and ecosystem-connectivity directions; they do not establish a deployed security, custody, surveillance, resolution, AI, incident-response or assurance system.
2. Security, integrity and resilience form one governed lifecycle across assets, trust boundaries, people, markets, wallets, transactions, data, models, software, infrastructure, dependencies, decisions and public claims.
3. Design intention, requirement, implementation, operation, effectiveness, exception, assurance and correction are distinct evidence states and must not be collapsed into a security claim.
4. Security-by-design begins with governed assets, harms, authoritative sources, owners, trust boundaries, prohibited transitions, safe states and explicit residual-risk decisions before development or vendor selection.
5. Secure change connects requirements, threat and privacy review, source and dependency provenance, verification, bounded privilege, deployment identity, rollback, recovery and post-release evidence.
6. Market integrity protects answerable definitions, proportionate admission, observable operation, conflicts, source integrity, evidence-based resolution, disputes, layered finality and linked correction.
7. A wallet connection is not universal authorization; authentication is not transaction intent; a signature is not comprehension; submission is not settlement; and account recovery is not external-wallet or asset recovery.
8. Transaction records should preserve user display, machine request, authorization, external submission, observation, finality, internal recognition, reconciliation, failure, replacement and correction as distinct states.
9. Data provenance should trace source, rights or basis, time, transformation, version, quality, access, retention and downstream use; public, on-chain, popular, paid or real-time data is not automatically accurate, lawful or fit for purpose.
10. AI systems operate within an adopted purpose and action boundary. Forecasts, signals, summaries, rankings and recommendations do not create source authority, user intent, market truth, suitability, governance power or guaranteed performance.
11. Human oversight requires competence, time, information, independence, real stop authority and measured decision quality; a required approval click alone is not meaningful control.
12. Operational resilience protects minimum safe outcomes and trustworthy state, not uptime alone. Deliberate pause can be the correct control when continued operation would amplify uncertainty or harm.
13. Incident response should preserve evidence, act under bounded authority, manage uncertainty, contain proportionately, restore and reconcile by service priority, communicate safely, expire emergency access and verify corrective action.
14. Chapter 28 is a proposed control architecture. It does not assert current POLIX security performance, technologies, identities, wallets, networks, contracts, data sources, AI models, transaction states, surveillance, resolution, service targets, audits, certifications or incident history.

TRANSITION TO CHAPTER 29 **Chapter 28 defines how POLIX security, market and resolution integrity, wallet and transaction awareness, data and AI integrity, and operational resilience could be governed and evidenced. Chapter 29 turns those controls into participation principles centered on clear information, bounded responsibility, market and token interpretation, wallet and AI protection, service continuity, support, and correction.**

References and Source Notes

Official POLIX materials establish intended wallet-based asset management, secure-transaction direction, transparent transaction records, account activity and asset-movement tracking, prediction-market and user-created market concepts, and AI use of news, social, on-chain and market data for forecasts, signals, insights, risk analysis and decision support. The token-economy document establishes fixed-supply, allocation, controlled-distribution and circulation-policy directions. They do not establish a current entity or jurisdiction, market design, custody model, wallet, signer, network, chain, bridge, contract, oracle, resolver, surveillance system, data-source contract, model, training process, accuracy, automated action, fee, price, liquidity, transaction, balance, incident process, service target, audit, certification, insurance, recovery right or operating performance. The objects, states, controls, gates, registers, tiers, roles, metrics and records in this chapter are proposed analytical controls, not deployed POLIX facts.

External standards and policy materials support general principles concerning cybersecurity governance, secure development, identity and authentication, key management, privacy risk, AI risk, crypto-asset market integrity, operational risk, cyber resilience, incident response and supervisory consideration of AI. They do not establish that POLIX is a financial market infrastructure, trading venue, intermediary, issuer, service provider, custodian, adviser, regulated entity, investment, security, certified system, compliant organization or subject to any particular technical or regulatory requirement. Applicability and control targets require separate analysis of the actual entity, services, technology, assets, users, contracts, communications, jurisdictions and obligations.

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CHAPTER 29

Participation Principles, User Protection and Key Considerations

Participation in a prediction economy is a sequence of decisions rather than a single acceptance of risk. A person encounters a market definition, evidence and commentary, probability or price information, a wallet or account state, an AI artifact, a transaction request, a settlement or reward state, and sometimes a support or correction process. Each object has a different meaning, source, owner, maturity and consequence. A trustworthy platform therefore cannot rely on a general warning to substitute for good product design. It should make the relevant state visible at the point where the user can still understand, compare, pause, decline, or seek help.

This chapter treats key considerations as decision context, not as a catalogue of negative outcomes. Material characteristics should be described because they affect interpretation or action. Platform-controlled matters should be managed through design, security, monitoring, communication and support. Matters within practical user control should be accompanied by clear, proportionate actions. Shared or external conditions should be presented factually, with the platform's coordination and communication role stated. The residual boundary should be described only after those protections have been identified.

The approach is consistent with the broader policy direction that crypto-asset communications should be fair, clear and not misleading; that material information should not be omitted; that technology providers should build security into their products; and that AI-supported decisions require transparency, human oversight and continuous risk management. These sources are design inputs. They do not determine POLIX's legal status, the applicability of a particular regime, or a user right in any jurisdiction. Those conclusions require verified operating facts and jurisdiction-specific analysis.

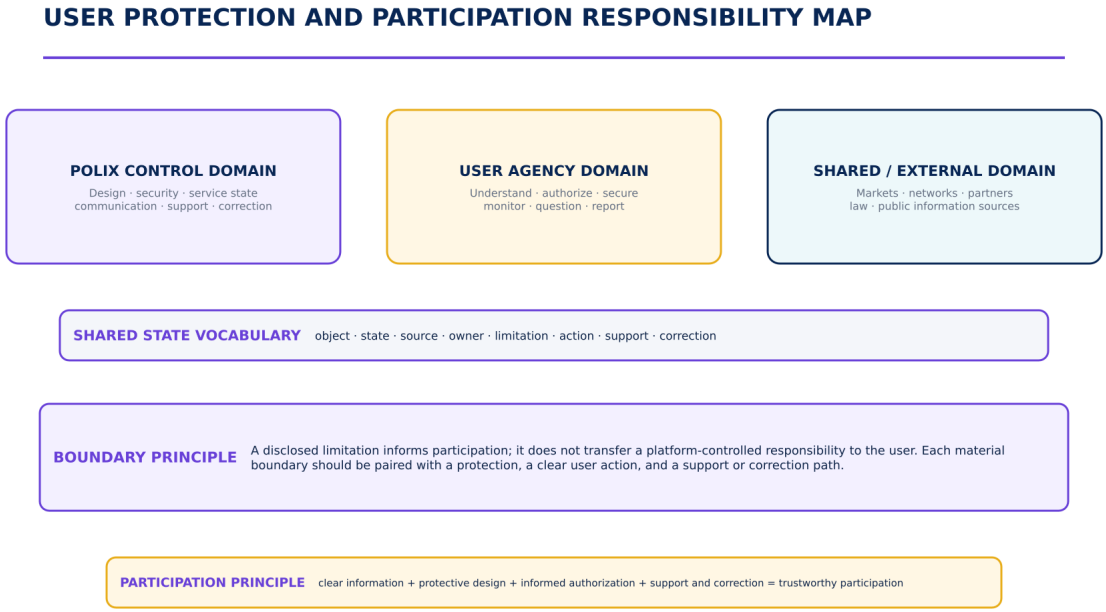

Figure 29.1. User protection and participation responsibility map. Disclosure informs a decision; it does not convert a platform-controlled obligation into user responsibility.

Table 29.1. Confirmed participation direction and prohibited inferences

OBJECT	CONFIRMED DIRECTION	PERMITTED CHAPTER USE	PROHIBITED INFERENCE
Prediction markets	Intended to support collective forecasting, market creation and participation across an ecosystem.	Explain interpretation, decision quality and participation safeguards.	No claim of current market breadth, liquidity, volume, accuracy or jurisdictional availability.
Wallet and assets	Intended to provide wallet overview, asset-movement visibility and secure transaction direction.	Define pre-authorization comprehension, records and protective communication.	No assumption of custody model, supported network, recovery method, transaction finality or security certification.
AI services	Intended to offer forecasts, signals, analysis, risk-oriented information and decision support.	Define source, uncertainty, version, human-review and correction expectations.	No statement of deployed model, accuracy, completeness, suitability, continuous availability or autonomous authority.
POLX token	Intended utility within the ecosystem and an approved maximum-supply and allocation direction described in project materials.	Explain utility-state and evidence boundaries without investment framing.	No price, return, liquidity, exchange listing, fee, buyback, launch, unlock or legal-status claim.
Ecosystem	Intended to connect prediction, data, AI and participation functions through a four-engine direction.	Explain cross-service state, dependencies, support and continuity.	No claim that every component, partner, market or interface is currently live or contractually committed.

Source: POLIX Presentation v1.0 EN and POLIX Token Economy v1.0 EN; editorial limitations are applied to prevent proposal, aspiration, and current fact from being conflated.

EVIDENCE BOUNDARY **A whitepaper may describe a design direction and the governance required to realize it. It should not convert an aspiration into a present-tense operating fact, or use a broad warning to compensate for missing information about a decision that the platform can explain or control.**

29.1 Purpose and Information Scope

29.1.1 Document Function, Audience, and Decision Context

Chapter 29 has three functions. First, it gives readers a disciplined way to interpret market, token, wallet, AI and service information. Second, it assigns responsibility to the party best positioned to control, evidence or communicate a matter. Third, it establishes participation principles that can later be translated into interfaces, operating procedures, user education, status notices and support records. The chapter does not replace terms of service, product disclosures, technical documentation, market rules, privacy notices, incident notices or jurisdiction-specific legal information. Those materials should be mutually consistent and should point to an authoritative source for each decision-critical state.

The intended audience includes prospective participants and, once relevant services are operational, active participants, as well as market creators, analysts, ecosystem partners, developers, governance participants and reviewers. These audiences do not need identical detail, but they do need a common vocabulary. A market participant needs to know what is being authorized and what state follows. A creator needs to know the market definition, evidence and resolution requirements. A partner needs interface and dependency boundaries. A reviewer needs versioned evidence. Shared state labels reduce the risk that a promotional page, interface, support response and technical record describe the same object differently.

Decision usefulness is the governing test. Information should be placed before the relevant decision, expressed in language appropriate to the audience, and linked to further detail without hiding a material qualification. Repetition is justified when the decision context changes—for example, a network or destination check at transaction authorization—even if a general explanation already exists elsewhere. Conversely, repeating a generic warning on every page without improving comprehension does not create protection.

Table 29.2. Responsibility allocation and user-protection matrix

DOMAIN	PRIMARY RESPONSIBILITY	REQUIRED POLIX RESPONSE	USER-RELEVANT ACTION
Platform-controlled	In an implemented POLIX service, the platform-controlled domain would include product design, release, access, service state, platform records, support workflow and platform-originated communications.	Prevent, test, monitor, record, communicate, correct and provide an accountable owner.	Use the presented controls; review material state; contact support where the state is unclear or inconsistent.
User agency	The participant controls whether to proceed, the credentials or wallet under personal control, and the accuracy of user-entered destinations or instructions.	Provide comprehension, confirmation, secure defaults, proportionate friction and accessible help before commitment.	Verify the object, destination, amount, network and consequence; protect credentials; pause when information is inconsistent.
Shared	POLIX and participants may each contribute information, configuration, evidence, monitoring or timely reporting.	Define roles, reconcile records, communicate changes and avoid treating silence as consent.	Provide accurate inputs, monitor material updates and use the correction or dispute channel when needed.
External	Networks, data sources, markets, partners, law or public events may be outside direct POLIX control.	Select and monitor dependencies, design fallbacks where feasible, communicate material state and coordinate response.	Consider the disclosed dependency and current service state; do not assume an external condition is guaranteed by POLIX.

Source: POLIX proposed editorial responsibility model, informed by secure-by-design and user-protection principles. Allocation is functional, not a jurisdiction-specific legal conclusion.

29.1.2 Facts, Proposals, Assumptions, and Material Updates

A reader should be able to distinguish five information states. A confirmed fact is supported by current authoritative evidence. An intended direction describes a design or economic purpose without asserting current operation. A proposal defines a candidate mechanism subject to approval, implementation and evidence. An assumption is a condition used for analysis and should be tested rather than relied upon as fact. An unavailable or retired item is no longer offered, has not been verified, or should not be used for a current decision. Each state should be accompanied by its source, effective time, owner and next review point where material.

The distinction matters most when content can be mistaken for a promise. A diagram of a future workflow is useful when labelled proposed. A target architecture is meaningful when the required evidence and decision gate are stated. A token allocation direction can be described without asserting a launch, unlock, distribution, listing or market value. An AI capability can be described as decision support without representing an unverified performance level. State labels make positive communication more credible because they preserve the difference between purpose, work in progress and demonstrated operation.

Material updates should be versioned, dated and summarized. Where an update changes a market rule, authorization consequence, supported network, economic state, data use, AI interpretation, service dependency or support route, the affected audience should receive notice in a form appropriate to the decision. A correction should preserve the prior version, identify what changed and why, state the effective time and disclose whether any completed or pending action is affected. Quietly replacing content weakens accountability even when the new wording is more accurate.

Table 29.3. Information-state and reader-action matrix

STATE	MEANING	MINIMUM EVIDENCE	READER TREATMENT
Confirmed	Current authoritative evidence supports the statement.	Owned source, effective time, scope and version.	May inform a current decision within the stated scope.
Intended direction	A purpose or design direction is endorsed but not represented as fully operating.	Approved project source and explicit boundary.	Use to understand direction; do not infer present availability or entitlement.

STATE	MEANING	MINIMUM EVIDENCE	READER TREATMENT
Proposed	A candidate rule, control, allocation or workflow awaits approval, implementation or proof.	Proposal owner, decision gate and validation plan.	Evaluate the design; do not treat it as operative.
Assumed	A condition supports analysis but is not verified as current fact.	Assumption, rationale, sensitivity and owner.	Test the assumption before relying on the result.
Unavailable / retired	The item is not currently offered, not verified, paused or withdrawn.	State reason, effective time and alternative where appropriate.	Do not initiate a new decision based on the prior state.
Corrected	A previous statement or record was inaccurate, incomplete or superseded.	Prior and new versions, reason, authority, effective time and impact.	Use the corrected state and check whether an earlier action is affected.

Source: POLIX proposed information-state vocabulary. The model is designed to align whitepaper language, interfaces, records, status notices and support responses.

Table 29.4. Material update and version schema

FIELD	PURPOSE	MINIMUM CONTENT	PROHIBITED SHORTCUT
Object and scope	Identifies what changed and which audience or service is affected.	Stable object ID, component, market, network or policy scope.	A broad notice that leaves affected users to guess applicability.
Prior and new state	Makes the change reconstructable.	Version, effective time, concise difference and authoritative source.	Overwriting the previous state without history.
Reason and authority	Explains why the change was made and who approved it.	Reason category, accountable owner and approval reference.	Unowned wording such as 'system update' for a material change.
Decision impact	Connects the update to pending or completed actions.	Affected decisions, required user action, deadlines if verified, and support path.	Treating publication alone as proof of comprehension or consent.
Correction and review	Preserves learning and follow-through.	Correction channel, next review, evidence location and closure state.	Marking an item closed without outcome evidence.

Source: POLIX proposed change-communication control. Dates or deadlines must be inserted only when verified for the specific operating context.

INFORMATION PRINCIPLE **A material statement should reveal whether it is confirmed, intended, proposed, assumed, unavailable, or corrected. Positive vision remains possible, but the reader must not have to infer whether the described mechanism exists today.**

29.2 Market Characteristics and Token Considerations

29.2.1 Probability Information, Trading States, and Decision Quality

Prediction-market information can aggregate dispersed beliefs, but a displayed probability or market price is not a guaranteed forecast, a statement of objective truth, or a substitute for the market rules. Interpretation depends on the market question, outcome set, resolution source, trading state, liquidity and participation conditions, timing, costs where applicable, and the relationship between the displayed measure and an executable decision. Academic research has long treated prediction markets as potentially informative while also examining how beliefs, preferences, budgets and market structure affect what prices mean. A user-protection design should make those conditions legible rather than reducing them to a single cautionary label.

The first protective object is the market definition. The question, outcome criteria, time boundary, resolution evidence, exceptional-event rule and correction path should be visible before participation. The second is market state: proposed, open, paused, restricted, closed, under review, resolved, corrected or cancelled, as applicable to the implemented rule set. The third is information quality: data source, last update, completeness, delay, liquidity or depth measure where available, and whether a displayed value is indicative or actionable. These states should not be inferred from color or placement alone.

Decision quality also requires separation between information and persuasion. Editorial content, sponsored content, creator commentary, community signals, AI analysis and market data should be distinguishable. A ranking or recommendation should identify the objective it optimizes and any material conflict or commercial relationship. The interface should allow comparison, source inspection and deliberate confirmation. The goal is not to eliminate uncertainty; it is to prevent avoidable ambiguity and to preserve informed choice.

Table 29.5. Market-information interpretation matrix

INFORMATION OBJECT	WHAT IT CAN SUPPORT	MATERIAL CONTEXT	PROTECTIVE PRESENTATION
Market question	Defines the proposition being evaluated.	Outcome set, time boundary, resolution criteria and exceptional-event treatment.	Show the complete rule summary before participation and link the authoritative version.
Probability or price	May express aggregated market information under the applicable mechanism.	Timing, market state, participation, liquidity or depth, costs and method.	Label source and time; distinguish indicative display from executable terms.
Volume / activity	May indicate participation intensity.	Measurement window, cancellations, repeated activity, market concentration and data completeness.	State the metric definition; do not equate activity with accuracy or quality.
Resolution evidence	Supports the determination of an outcome under stated rules.	Source authority, version, cutoff, ambiguity and review status.	Expose the evidence record and distinguish preliminary from final state.
Commentary / signal	May add interpretation or a hypothesis.	Author, incentives, source basis, methodology, update time and conflicts.	Separate from official market state and enable source inspection.
Ranking / discovery	Helps users navigate available content.	Objective, inputs, personalization, commercial influence and freshness.	Explain key ranking factors and provide neutral navigation alternatives.

Source: POLIX proposed interpretation model; informed by prediction-market scholarship and investor-education principles. The table does not characterize any specific POLIX market as currently operating.

29.2.2 POLX Token Utility, Supply States, and Economic Boundaries

POLIX project materials describe POLX as an intended utility token within the ecosystem and describe an approved maximum-supply policy of 400,000,000 POLX and approved allocation categories. Chapter 29 does not repeat time-sensitive price, launch, unlock, distribution, listing, fee, buyback or market-value claims. Instead, it defines the information discipline required whenever an economic state is communicated. A maximum-supply policy is different from issued supply, circulating supply, transferable supply, treasury-controlled supply, allocated capacity, committed amount, vested amount, claimable amount and delivered amount. Each state requires an evidence source and effective time.

Utility should be described by function and current availability. A proposed access, governance, reward, payment, settlement or participation function should not be presented as active until the relevant rule, interface, contract or ledger state, authorization, operating evidence and user communication are available. A token balance does not by itself prove a right, entitlement, voting effect, reward, redemption, liquidity or continuing service. Conversely, a carefully bounded utility description can help readers understand the intended relationship between POLX and the broader ecosystem without turning the whitepaper into a return-oriented promotion.

Economic communications should use the same confirmed, proposed and corrected state vocabulary as the rest of the platform. Where a material token-related condition later changes, POLIX should identify the object, source, authority, effective time, affected function and support path. Jurisdictional availability and legal characterization should be addressed only through verified, applicable materials. The absence of a claim in this chapter is not a conclusion that a requirement does or does not apply.

Table 29.6. Token-state and claim boundaries

STATE / CLAIM	DECISION QUESTION	MINIMUM EVIDENCE	BOUNDARY
Total supply	What maximum or fixed quantity is defined by the approved design?	Authoritative allocation document and, when deployed, relevant technical or ledger evidence.	Does not establish issued, circulating, transferable or liquid supply.
Allocation	What capacity is assigned to a category and under what approved purpose?	Approved category, amount or percentage, authority, version and controls.	Does not prove distribution, vesting, claimability or delivery.
Circulating / available	What amount is currently usable under a defined method?	Current methodology, source systems, exclusions, effective time and reconciliation.	Must not be inferred from total supply or an unaudited snapshot.
Utility	Which function is available to which eligible participant and in what state?	Current rule, interface, authorization, operating record and limitation.	An intended function is not a present entitlement or guarantee of continuity.
Governance	What decision right, proposal path or signaling effect exists?	Scope, eligibility, voting or decision rule, authority and outcome record.	Holding a token does not imply unspecified control, profit share or legal right.
Market information	What observable market condition is being described?	Named venue or source, time, method, currency, depth and material limitations.	No implication of value stability, future return, transferability or universal availability.

Source: POLIX proposed token-information discipline, anchored to confirmed project direction. No current launch, price, unlock, listing, fee, buyback or legal-status statement is made here.

MARKET INTERPRETATION PRINCIPLE **A displayed probability, activity measure, AI signal, token balance, or allocation figure is an information object with a defined state—not a guarantee. Protection comes from explaining what the object measures, what it does not establish, and which evidence and support path govern the next decision.**

29.3 Technology, Wallet Safety, and User Protection

29.3.1 Connection, Authorization, and Transaction Comprehension

Wallet and transaction safety should begin with product design. The user should not be expected to compensate for an unclear authorization request, insecure default, misleading destination display, inadequate network identification, missing amount or fee information, or a platform-originated communication that cannot be authenticated. POLIX-controlled responsibilities include secure development, dependency management, access controls, transaction construction, interface clarity, event logging, monitoring, release control, status communication and support for platform-originated errors. A general instruction to 'check everything' is not a substitute for those controls.

User agency remains important where the participant can reasonably act. Before authorization, the interface should identify the action, asset, amount, source account or wallet, destination, network, relevant cost if verified, effect, reversibility or finality condition, expiry, and authoritative initiator. High-consequence or novel actions should use confirmation appropriate to the consequence, not merely a more prominent button. Address truncation, preselected options, urgency language, visual imitation and confusing approval scopes should be treated as comprehension risks.

After authorization, the participant should receive a stable record that links the request, confirmation, submission, network or service state, final outcome and any correction. Pending is not complete; broadcast is not necessarily confirmed; an interface acknowledgment is not settlement; and a displayed balance is not sufficient reconciliation evidence. State transitions should be visible in ordinary language and available to support without requiring the user to reconstruct technical logs.

Table 29.7. User-protection journey matrix

STAGE	PLATFORM PROTECTION	USER AGENCY	EVIDENCE / SUPPORT
Discover	Separate official, promotional, community, sponsored and AI-generated content; authenticate official channels.	Inspect source, state and material qualification.	Content ID, owner, version, update time and report channel.
Understand	Provide complete rules, relevant limitations, plain-language consequence and accessible detail.	Compare information and ask for clarification before proceeding.	Authoritative rule, data source, explanation and help entry.
Connect	Use secure connection flow, verified domain or application identity and minimal permissions.	Confirm the intended service and protect credentials or wallet access.	Connection event, permission scope, device or session state where appropriate.
Authorize	Present object, amount, destination, network, effect, costs if verified, expiry and material finality.	Verify displayed fields and deliberately approve or decline.	Authorization record linked to the exact request version.
Monitor	Expose pending, confirmed, failed, paused, reversed or corrected state without false completion cues.	Review material status and respond to verified notices.	Event timeline, status source and support reference.
Resolve	Provide support, investigation, correction, appeal or dispute path appropriate to the issue.	Report promptly with the available reference and preserve relevant evidence.	Case ID, owner, status, outcome, rationale and correction record.

Source: POLIX proposed user-protection journey. Specific recovery, reversal, dispute or transaction-finality rights depend on verified operating rules and applicable context.

Table 29.8. Wallet and transaction display requirements

FIELD	BEFORE AUTHORIZATION	AFTER AUTHORIZATION	CONTROL INTENT
Action and object	Plain-language action, asset or permission and purpose.	Stable reference to the authorized object and version.	Prevent approval of an ambiguous or substituted action.
Amount and cost	Amount, unit and verified applicable cost or an explicit unavailable state.	Submitted and final amounts, costs and differences where relevant.	Prevent hidden or stale economic information.
Destination and network	Full destination verification method, network or service and mismatch warning.	Destination, network, transaction or event reference and status source.	Reduce wrong-destination, wrong-network and imitation risk.
Scope and duration	Permission scope, limit, recurrence, expiry and revocation path.	Active permission state and revocation or replacement record.	Avoid indefinite or broader-than-needed authorization.
Consequence	Expected effect, material irreversibility or contingency and next state.	Actual state, pending condition, failure reason or correction.	Align confirmation with the consequence rather than button appearance.
Support	Contextual help and authenticated support route.	Case-ready reference, status history and correction channel.	Make assistance available without exposing secrets or requiring duplicate proof.

Source: POLIX proposed wallet and transaction comprehension standard. Fields apply only where relevant to the implemented action and verified service configuration.

29.3.2 Support, Recovery, and Protective Communications

Support is part of the control system, not a separate courtesy. Official channels should be identifiable from the product and current documentation. POLIX should never require secret credentials, seed phrases or private keys through support. A support interaction should state what evidence is safe to provide, create a stable case reference, identify the present state, and preserve the difference between guidance, investigation, correction and final decision. High-risk impersonation themes should be addressed through authenticated in-product notices and reusable education rather than urgency-based outreach.

Recovery language must match actual capability. Account recovery, credential reset, wallet replacement, permission revocation, transaction cancellation, market correction and economic reversal are different operations. If a state cannot be reversed, the platform should not imply otherwise. If recovery is available, eligibility, authority, evidence, timing and effect should be documented. If an

external network or partner constrains the response, POLIX should explain the coordination state and the actions it is taking, without suggesting that the user's mere participation caused the constraint.

Protective communication should be calm, specific and verifiable. It should identify the affected object, current state, time, source, recommended action, expected next update and official support route. It should avoid requesting immediate transfers, credential disclosure or unverified software installation. Corrections should use the same official channel and should remain linked to the original notice. Where communications differ across channels, the authoritative source should be clear.

USER PROTECTION PRINCIPLE **POLIX should own the clarity, security, state communication, records, support and correction that it controls. Participants should receive practical actions where personal agency exists. Shared and external conditions should be coordinated and explained through responsibility boundaries aligned with practical control.**

29.4 AI Interpretation and Decision Support

29.4.1 Source Grounding, Uncertainty, and Model Boundaries

POLIX materials describe AI-enabled forecasts, signals, analysis, risk-oriented information and decision support. Chapter 29 treats each output as a versioned information artifact. It should identify its task, source basis, relevant time, method or model class at an appropriate level, limitations, uncertainty expression, owner, update state and intended use. An output should not be described as verified merely because it is numerically precise, personalized, frequently updated or presented beside market data.

Source grounding is especially important when an output summarizes public information, user-provided data, market activity or another model's result. The interface should distinguish cited evidence from model interpretation and separate missing data from negative evidence. Where the system cannot reliably support a claim, it should express that limitation rather than fill the gap with confident language. Material changes to sources, models, thresholds, prompts, retrieval methods or post-processing should create a new version or an identifiable change record.

Uncertainty should be decision-relevant. A confidence score is useful only if its meaning, calibration context and limitations are known. Qualitative bands should not imply more precision than exists. Scenario ranges, source coverage, conflicting evidence, recency and sensitivity may be more informative than a single score. For high-consequence decisions, the platform should provide a path to inspect key inputs, compare alternative evidence, decline automation and seek human or accountable review where the service design provides it.

Table 29.9. AI artifact interpretation matrix

ARTIFACT	USER-PROTECTION DISCLOSURE	APPROPRIATE USE	PROHIBITED INFERENCE
Forecast	Question, horizon, source cutoff, method or model version, uncertainty and update time.	One input to analysis within the stated scope.	Not a guaranteed outcome, objective probability or promise of accuracy.
Signal	Trigger, measurement window, threshold, source coverage and expiry.	Prompt for inspection or comparison.	Not an instruction that removes the need for authorization or suitability judgment.
Summary	Sources, time range, omissions, conflicts and generated status.	Accelerate review of underlying material.	Not proof that every material source was included or correctly interpreted.
Risk-oriented analysis	Scenario, assumptions, sensitivity, affected object and mitigation context.	Support planning and control selection.	Not a complete statement of every possible outcome or a transfer of platform responsibility.

ARTIFACT	USER-PROTECTION DISCLOSURE	APPROPRIATE USE	PROHIBITED INFERENCE
Recommendation / ranking	Objective, key factors, personalization, commercial influence and alternatives.	Support discovery or comparison where clearly labelled.	Not independent advice, guaranteed suitability or an undisclosed optimization for platform benefit.
Generated explanation	Generated status, evidence links, version and correction channel.	Explain a state in accessible language.	Not authoritative where it conflicts with the governing rule or record.

Source: POLIX proposed AI-artifact disclosure model, informed by NIST AI RMF 1.0, NIST AI 600-1 and the OECD AI Principles.

29.4.2 Forecasts, Copy/Follow, and Human Judgment

A copy or follow function can reduce the effort required to observe or reproduce another participant's action, but convenience should not erase decision ownership or platform safeguards. Following a person, strategy, market or signal should be distinct from authorizing an economic action. The user should know what is observed, what is merely notified, what may be prepared, and what—if anything—can execute. The default should not silently expand from information to execution.

Where an implemented design later permits automated or repeated action, the authorization should define scope, eligible objects, amount or exposure limits, duration, pause and revocation, failure handling, stale-signal treatment, conflict handling, applicable costs if verified, and the evidence used to determine each action. The platform remains responsible for the controls it implements: enforcing limits, rejecting invalid states, maintaining records, communicating material failure and supporting correction. The participant remains responsible for deciding whether to grant, continue, adjust or revoke an understandable authorization within the available service.

Human judgment is not a disclaimer. It is a design requirement that preserves a meaningful point of choice and a route to challenge. An interface should not create urgency, conceal alternatives, make cancellation materially harder than enrollment, or use social proof as a substitute for evidence. Where a recommendation is influenced by sponsorship, platform economics, creator compensation or ranking objectives, that influence should be disclosed near the decision it may affect.

Table 29.10. Copy/follow decision boundary

STATE	MEANING	REQUIRED CONTROL	USER CHOICE
Observe	The user can view another source, market, strategy or participant.	Identify source, update state, conflicts and governing record.	Continue, compare, mute or stop observing.
Notify	The service sends a signal or state change.	State trigger, time, source, expiry and whether action is required.	Inspect, ignore, adjust notification or seek detail.
Prepare	The service pre-populates a possible action without committing it.	Show exact object, amount, destination, rule, cost if verified and consequence.	Modify, decline or deliberately authorize.
Authorize	The user grants a bounded permission or approves a specific action.	Record exact scope, limit, duration, version, confirmation and revocation path.	Approve, narrow, pause, revoke or decline.
Execute	An authorized action is submitted under the implemented rules.	Validate state, enforce limits, record submission and expose outcome.	Monitor and use pause, revocation or support where available.
Review / correct	The outcome, model or record is examined and may be challenged or corrected.	Preserve evidence, rationale, owner, outcome and correction history.	Submit evidence, appeal where provided and update future authorization.

Source: POLIX proposed copy/follow control model. It does not assert that automated execution, specific limits, or a particular authorization architecture is currently deployed.

AI INTERPRETATION PRINCIPLE **AI output should expand the user's ability to inspect, compare and decide. It should not obscure source gaps, convert probability into certainty, or make a platform-controlled safeguard disappear behind the phrase 'human judgment.'**

29.5 Service Continuity and Ecosystem Dependencies

29.5.1 Service State, Dependencies, and Coordinated Protection

A connected prediction ecosystem may depend on interfaces, identity or access services, data sources, networks, wallets, market infrastructure, storage, communications, AI services, partners and public information. Dependency does not mean that POLIX controls every underlying event, but it does create a responsibility to understand critical paths, choose and monitor providers, define acceptable degradation, protect data and credentials, design fallback or safe-stop behavior where feasible, and communicate the state that users need for a current decision.

Service continuity should be expressed in states that connect technology and user meaning. Available, degraded, delayed, read-only, paused, under review, recovering, restored and corrected are examples; the implemented vocabulary should be precise and tested. A component can be technically reachable while its data is stale, a market is paused, an authorization path is unsafe, or a downstream record is not reconciled. 'Online' is therefore not a sufficient user-protection statement.

The user should receive the information needed to decide whether to proceed, wait, use a supported alternative or contact support. The notice should identify the affected function, current state, start or detection time, known user impact, protective action taken, recommended user action, authoritative updates and next expected communication where it can be responsibly stated. Estimates should be labelled as estimates and corrected when conditions change. Silence should not be treated as proof that a material dependency is healthy.

Table 29.11. Service-state and user-communication matrix

STATE	USER MEANING	PLATFORM ACTION	COMMUNICATION
Available	The defined function is operating within its current verified scope.	Monitor controls, dependencies and data freshness.	Show current scope and relevant effective time without implying universal availability.
Degraded / delayed	The function operates with reduced capability, freshness or performance.	Limit unsafe actions, prioritize restoration and monitor downstream effects.	State affected function, consequence, workaround if verified and update cadence.
Read-only / safe mode	Observation or records remain available while new actions are restricted.	Preserve evidence, prevent unsafe mutation and support urgent review.	Explain permitted and unavailable actions and the current decision boundary.
Paused / under review	A decision or action is temporarily stopped pending evidence or control.	Contain the issue, assign authority and review affected pending states.	State scope, reason category, user impact and next verified update.
Recovering	Services are being restored and reconciled; some states may remain provisional.	Validate dependencies, data and transactions before declaring completion.	Separate technical restoration from full reconciliation and user outcome.
Restored / corrected	The defined function and affected records meet closure criteria.	Confirm control health, reconcile state, correct records and capture learning.	State effective time, residual limitations, affected-user action and support path.

Source: POLIX proposed continuity-state vocabulary, informed by NIST Cybersecurity Framework 2.0. No current availability or service-level claim is made.

Table 29.12. Dependency and protection commitments

DEPENDENCY TYPE	CONTROLLED BY POLIX	SHARED / EXTERNAL CONDITION	USER-PROTECTION COMMITMENT
Data source	Selection, integration, validation, freshness monitoring and presentation.	Source availability, accuracy, revision or public-event ambiguity.	Identify source and time; show stale, conflicting or unavailable state; correct downstream artifacts.
Network / infrastructure	Supported configuration, transaction construction, monitoring and safe-stop design.	Congestion, reorganization, provider or protocol state outside direct control.	Expose network and status; avoid false finality; coordinate and communicate material impact.

DEPENDENCY TYPE	CONTROLLED BY POLIX	SHARED / EXTERNAL CONDITION	USER-PROTECTION COMMITMENT
Wallet / identity	Connection flow, permission request, platform session and support guidance.	User-controlled credentials, third-party wallet behavior or identity-provider state.	Minimize scope, authenticate requests, warn of mismatch and never request secrets through support.
AI / model service	Task design, inputs, evaluation, versioning, safeguards and output presentation.	External model behavior, upstream data or provider availability.	Label output and limitation, monitor change, provide fallback or unavailable state and correction path.
Partner service	Due diligence, interface control, access, monitoring and contractual or operational coordination where applicable.	Partner performance, policy or system changes.	Name the relevant role, show dependency state and preserve a POLIX support and escalation route.
Law / public authority	Jurisdiction analysis, compliant configuration and communication of verified changes.	Legislative, regulatory, judicial or administrative change.	Avoid unsupported legal conclusions; update affected scope and provide authoritative information when verified.

Source: POLIX proposed dependency-responsibility model. Specific contractual, regulatory and operational duties require verified implementation and applicable analysis.

29.5.2 Incidents, Corrections, and User-Support Continuity

An incident is not only a technical outage. It may involve security, integrity, data quality, market rules, resolution evidence, AI output, wallet or transaction state, economic records, privacy, communication, partner dependency or support availability. The response should connect detection, classification, containment, decision authority, user protection, communication, recovery, reconciliation, correction and learning. The priority is to reduce harm and restore a trustworthy state, not to assign generalized fault before evidence exists.

User-support continuity is especially important when normal interfaces are degraded. An authenticated status source, safe contact route, case reference and guidance about evidence preservation should remain available through an appropriate fallback. Support staff should see the same authoritative incident state as the product. Users should not be instructed to repeat sensitive information or take irreversible action merely to obtain a status update. If an investigation is incomplete, the communication should say so and distinguish known fact, working hypothesis and next decision point.

Closure should be evidence-gated. Technical restoration, market reopening, transaction reconciliation, data correction, user notification, support-case resolution and root-cause learning may complete at different times. A public closure statement should identify the scope it covers. Materially affected records should preserve the original and corrected state. Where a user challenges an outcome, the review path should identify the governing rule, evidence, authority, rationale and available next step without assuming that the initial system state was correct.

Table 29.13. Incident, correction and user-support record

RECORD ELEMENT	CONTROL QUESTION	USER-PROTECTION OUTPUT	CLOSURE EVIDENCE
Scope and state	Which object, audience, service, market, network or record is affected?	Specific notice and safe decision boundary.	Affected-object list, start/effective time and final scope.
Known fact and hypothesis	What is verified, unknown or under investigation?	Clear separation of fact, estimate and working explanation.	Source-linked findings and corrected prior statements.
Containment and protection	What unsafe action is blocked and what evidence is preserved?	Guidance on whether to proceed, wait, revoke, monitor or contact support.	Control events, approvals and verification results.
Communication	Who needs which information and through which authenticated channel?	Current state, impact, action, support route and next update.	Notice versions, audiences, delivery evidence and corrections.
Recovery and reconciliation	What must be restored and what records or outcomes must be reconciled?	Accurate post-incident state and notice of residual limitation.	Restoration tests, reconciled records and exception disposition.

RECORD ELEMENT	CONTROL QUESTION	USER-PROTECTION OUTPUT	CLOSURE EVIDENCE
Support and challenge	How can an affected user obtain help, present evidence or question an outcome?	Case ownership, status, rationale, correction or next review step.	Case outcome, authority, user communication and retained audit trail.
Learning	What control, design, dependency or communication should change?	Reduced recurrence and clearer future participation.	Approved action, owner, due state, validation and appropriately bounded disclosure.

Source: POLIX proposed incident and correction schema, informed by NIST CSF 2.0 and secure-by-design principles.

CONTINUITY PRINCIPLE **A dependency boundary should trigger monitoring, fallback or safe-stop design, clear service-state communication and coordinated support. It should not become a sentence that leaves the participant responsible for an opaque condition the platform selected, integrated or could communicate more clearly.**

29.6 Participation Principles and Support Channels

29.6.1 Responsible Participation and Bounded Responsibility

Responsible participation is a reciprocal design. POLIX should provide accurate state, understandable rules, secure defaults, proportionate confirmation, accessible records, authenticated communication, meaningful control over permissions, support and correction. Participants should use the available information, protect credentials under their control, verify material transaction fields, avoid disclosing secrets, monitor verified notices and use official channels when a state is unclear. Neither side benefits when responsibility is described so broadly that no one can tell which concrete action or control applies.

The principle of proportionality is important. A participant should not be expected to perform a technical audit to use an ordinary interface. A platform should not promise to eliminate every external uncertainty. The practical question is which party can most effectively prevent, detect, explain, mitigate or correct the condition. That party should own the corresponding control. Where control is genuinely shared, the boundary should name each contribution and the mechanism used to coordinate or resolve disagreement.

Key considerations should therefore be selective and material. This chapter does not foreground unforeseeable or very unlikely scenarios unless they are material to a reader's decision or required by an applicable framework. It addresses characteristics that a reasonable reader needs to interpret the system or a future decision: market uncertainty, source and resolution rules, token-state distinctions, wallet authorization, AI limitations, service dependencies, information security, correction and support. Each consideration should be paired with the relevant POLIX protection and a practical user action where one exists.

Table 29.14. Participation principles by stage

PRINCIPLE	POLIX COMMITMENT	PARTICIPANT PRACTICE	SHARED OUTCOME
Clarity before commitment	Present the authoritative object, state, consequence and material limitation before authorization.	Read the decision-specific information and pause when it conflicts.	Fewer ambiguous or unintended actions.
Secure and proportionate design	Use secure defaults, minimum permission, appropriate friction, tested controls and authenticated communications.	Protect credentials and use official connection and support routes.	Reduced preventable compromise and impersonation.
Evidence over implication	Label source, version, time, owner and state; separate proposal from fact.	Inspect evidence appropriate to the decision rather than relying on prominence or popularity.	More credible market, token and AI interpretation.
Meaningful user agency	Allow informed approval, decline, pause, revocation or challenge where the implemented service permits.	Choose and maintain settings consistent with personal purpose and reasonable exposure.	Participation remains deliberate rather than manipulative or automatic.

PRINCIPLE	POLIX COMMITMENT	PARTICIPANT PRACTICE	SHARED OUTCOME
Continuity and communication	Monitor dependencies, use safe states and communicate material changes and incidents.	Follow verified notices and avoid acting on unauthenticated urgency.	Coordinated response under changing conditions.
Support and correction	Provide case ownership, rationale, evidence review, correction and learning.	Report accurately, preserve relevant references and use the defined review path.	Errors can be identified, addressed and learned from.
Bounded responsibility	Retain responsibility for platform-controlled design, operation and communication.	Take practical actions within understandable personal control.	External uncertainty is communicated through clear, proportionate responsibility boundaries.

Source: POLIX proposed participation charter. It is a design and governance framework, not a substitute for final product rules or jurisdiction-specific user terms.

29.6.2 Official Channels, Feedback, Disputes, and Learning

Official channels should form a coherent map. The product or authoritative website should identify current documentation, service status, security reporting, privacy contact, market or resolution review, transaction or account support, accessibility support, economic or token information, and general feedback as applicable to the implemented service. A single inbox can be the entry point, but internal routing should preserve issue type, urgency, evidence, owner and status. The user should not need to know the organizational structure to reach the accountable function.

A dispute or challenge process should not be described more broadly than the actual rule allows. It should identify the eligible object, submission method, safe evidence, governing rule, review authority, independence or separation where required, status vocabulary, rationale, outcome and next step. Where no appeal is available for a particular state, that boundary should be clear before participation when material. Where correction is available, the corrected record should remain linked to the original action and its evidence.

Feedback should also improve the system. Themes from questions, abandoned actions, support cases, reported impersonation, market-rule ambiguity, AI corrections, accessibility issues and dependency incidents can reveal design problems that ordinary performance metrics miss. Aggregated learning should feed product requirements, security controls, content, market governance, model evaluation and partner oversight. Public disclosure should be proportionate: enough to support trust and learning, but not so detailed that it exposes personal data, security-sensitive information or unverified allegations.

Table 29.15. Official channels and feedback/correction lifecycle

CHANNEL / STAGE	PURPOSE	MINIMUM USER EXPERIENCE	GOVERNANCE EVIDENCE
Authoritative documentation	Provide current rules, state definitions and product information.	Version, effective time, change summary and related support route.	Owner, approval, source archive and consistency review.
Service status	Communicate availability, degradation, pause, recovery and correction.	Affected scope, current state, impact, safe action and next update.	Incident link, notice history, audience and closure criteria.
Security reporting	Receive vulnerability, impersonation or suspicious-activity reports safely.	Authenticated route, safe evidence guidance, acknowledgment and case reference.	Triage, severity, owner, containment and remediation record.
Market / resolution review	Question a rule, evidence source, resolution state or correction.	Governing rule, eligibility, submission record, status and reasoned outcome.	Reviewer authority, evidence set, decision and conflict controls.
Wallet / transaction support	Clarify connection, authorization, pending state, record or platform-originated error.	No secret request; stable reference; state explanation and available next step.	Event correlation, investigation, correction and user communication.
AI feedback	Report a source, interpretation, bias, quality or explanation concern.	Artifact/version reference, feedback category, status and correction notice where material.	Evaluation result, model/data change link and validation evidence.

CHANNEL / STAGE	PURPOSE	MINIMUM USER EXPERIENCE	GOVERNANCE EVIDENCE
General feedback and accessibility	Capture usability, comprehension, inclusion and participation barriers.	Accessible submission, acknowledgment, privacy-aware handling and status where appropriate.	Theme analysis, responsible owner and design-change evidence.
Learning and disclosure	Convert recurring issues into controls and appropriately bounded transparency.	Visible correction or improvement when it affects user decisions.	Trend, approved action, validation, closure and disclosure decision.

Source: POLIX proposed support and learning lifecycle. Final channels, response targets and review rights must be published only when verified and operationally supported.

PARTICIPATION PRINCIPLE **Trustworthy participation combines clear state, protective design, deliberate authorization, authenticated communication, accessible support, evidence-based review and correction. Responsibility should follow practical control; uncertainty should be communicated with precision rather than amplified through negative or absolute language.**

Chapter Synthesis

1. Chapter 29 presents key considerations as a user-protection and participation architecture grounded in selective, material information.
2. Every material information object should identify its state, source, version, owner, limitation, user-relevant action and correction path.
3. Platform-controlled design, security, service state, communications, support and correction remain POLIX responsibilities; user agency is limited to practical, understandable actions.
4. Prediction-market probabilities, activity measures and commentary require context; they are information inputs rather than guaranteed outcomes.
5. POLX token communications should distinguish total, allocation, available, utility, governance and market-information states without introducing unverified price, launch, listing, fee, unlock or legal claims.
6. Wallet and transaction protection begins before authorization and continues through state visibility, records, support, recovery and correction.
7. AI forecasts, signals, summaries and recommendations should be source-grounded, versioned, uncertainty-aware and subject to meaningful human choice.
8. Dependencies should trigger monitoring, safe states, coordination and communication; disclosure should not transfer controllable platform responsibility to participants.
9. Official channels, feedback, challenge and correction should form a single evidence-linked learning system.

TRANSITION TO CHAPTER 30 **Chapter 29 establishes how clear information, user-protection controls, bounded responsibility, service-state communication, support and correction should accompany participation. Chapter 30 turns that foundation toward future development across the four engines, partner network, economic layer, market diversity and the broader prediction economy—without treating an ambition or roadmap statement as a committed delivery date.**

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POLIX source boundary. The two project documents confirm product, ecosystem and token directions used in this chapter. They do not establish current deployment, performance, liquidity, custody, audit, legal status, price, fee, launch, unlock, listing, model specification, service level or jurisdictional availability. Every present-tense operating claim requires separate current evidence before publication.

External-source boundary. The cited regulatory, standards, policy and academic materials are analytical and design inputs. They do not determine POLIX's legal classification, the applicability of a regime, or the existence of a jurisdiction-specific duty or user right. Applicability requires verified facts and qualified jurisdictional review.

Materiality boundary. This chapter focuses on characteristics and limitations that can affect interpretation or action. Unforeseeable or very unlikely scenarios are included only when material to a reader's decision or required by an applicable framework. Disclosure remains aligned with the party that has practical control over the relevant responsibility.

CHAPTER 30

Future Development Direction

A future-development chapter should do more than restate an aspiration. It should explain what must become true for the aspiration to be responsibly represented as a capability. POLIX begins with a clear strategic grammar: the Referral Engine is intended to develop user supply; AI Intelligence is intended to develop intelligence supply; the Liquidity Hub is intended to develop liquidity supply; and the Creator Economy is intended to develop market supply. The partner-network direction is intended to connect those supplies across organizational boundaries, while POLX is intended to coordinate participation and economic relationships. Global market diversity is intended to extend the system across categories, communities, languages and regions. The long-term outcome is not merely a larger trading interface, but a reusable information economy in which questions, evidence, probabilities, participation and correction can move through a governed network.

That direction is intentionally broader than a product release plan. A roadmap normally assigns scope to time, resources and accountable delivery decisions. The source materials do not provide enough verified operating detail for Chapter 30 to publish such commitments. The chapter instead uses maturity logic. A capability may be described as intended, designed, tested, limited, available, scaled, corrected or retired only when the evidence for that state exists. The same discipline applies to an engine, partner integration, token utility, regional market program or global information service. Direction can remain ambitious while present-tense claims remain exact.

The chapter also connects the preceding whitepaper. Chapters 7–16 defined the platform and four-engine architecture; Chapters 17–26 established the POLX economic layer, allocation, sustainability, buyback-and-burn direction and reserve controls; Chapters 27–29 defined governance, security, participation and user protection. Chapter 30 does not replace those controls with growth language. It treats them as the conditions that make future development supportable. Expansion without state integrity would multiply ambiguity; expansion with governed interfaces, accountable economics and correction paths can compound useful participation and information.

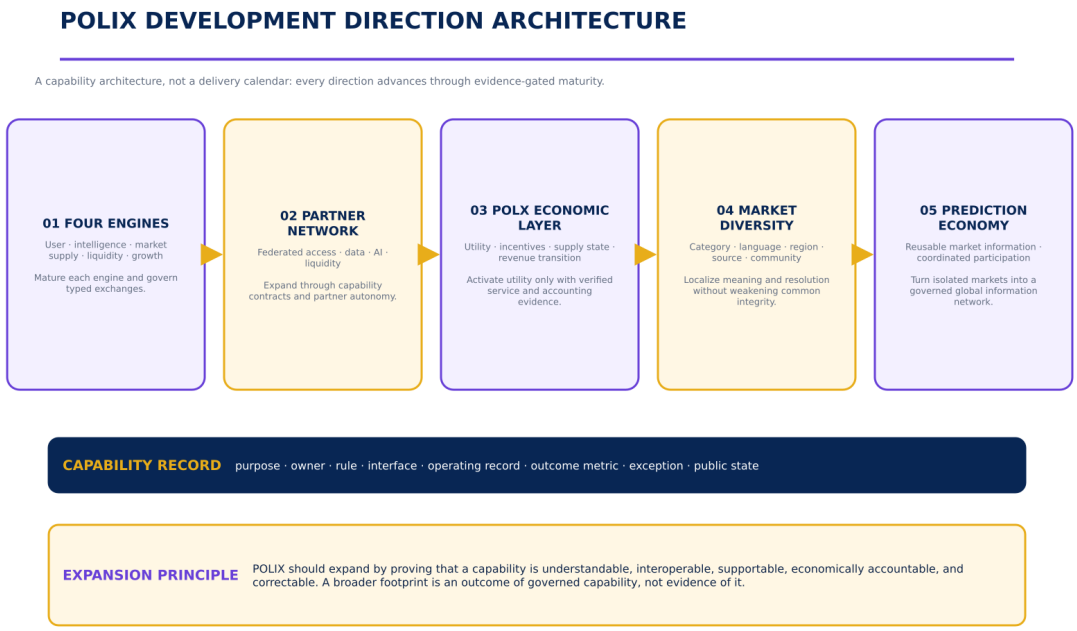

Figure 30.1. POLIX development direction architecture. The layers describe capability relationships, not a dated roadmap or a statement of present availability.

Table 30.1. Confirmed future direction and prohibited inference

DIRECTION OBJECT	CONFIRMED BASIS	PERMITTED CHAPTER USE	PROHIBITED INFERENCE
Four engines	Official materials identify user, intelligence, liquidity and market-supply engines.	Define maturity, exchange and evidence requirements.	No claim that every engine or cross-engine workflow is currently deployed or equally mature.
Partner network	Official materials describe alliance, liquidity, AI, analytics, discovery and growth-tool direction.	Define federation, admission, capability and exit principles.	No named partner, integration, shared-liquidity route or contractual commitment is implied.
POLX economic layer	Official materials describe intended utility, fixed supply, allocations and long-term sustainability direction.	Define evidence required for utility and sustainable value flows.	No function activation, price, return, revenue, distribution, listing, buyback execution or legal status is implied.
Global market diversity	Official materials describe global participation, categories, communities and regional expansion.	Define localization, market integrity and readiness conditions.	No country availability, licence, local demand, source coverage or market launch is implied.
Prediction economy	Official materials describe movement from fragmented platforms toward intelligent, connected markets.	Define reusable information objects and long-term system outcomes.	No universal market coverage, consolidated liquidity, superior accuracy or inevitable network effect is implied.

Source: POLIX Presentation v1.0 EN and POLIX Token Economy v1.0 EN. Directional statements are separated from operating facts and commitments.

DIRECTION BOUNDARY **Chapter 30 is a capability architecture, not a dated roadmap. A direction identifies what POLIX intends to build toward; an operating claim requires current evidence of implementation, availability, performance, governance and support within a defined scope.**

30.1 Advancing the Four Engines

30.1.1 Engine Maturity and Interoperability

The four-engine model is the stable organizing idea of POLIX, but its future value depends on more than developing four feature groups. Each engine should mature as a governed supply system with a defined input, output, state vocabulary, decision owner, quality measure and failure boundary. The Referral Engine should distinguish attributable participation from raw registrations. AI Intelligence should distinguish sourced analysis from generated interpretation and action. The Liquidity Hub should distinguish market discovery and routing from executable liquidity and final settlement. The Creator Economy should distinguish a proposal from a publishable, governed market. These distinctions allow each engine to improve without creating false equivalence across unlike activities.

Interoperability should occur through typed exchanges rather than hidden dependencies. A referral event may become an eligibility input, but it should not automatically become an earned reward. An AI signal may support discovery, but it should not silently authorize a trade. A partner market may be discoverable, but that does not establish compatible rules, liquidity, settlement or resolution. A creator proposal may attract interest, but community activity does not replace curation. Each exchange should identify the object, source, version, authority, permitted use, expiry, exception state and reconciliation path. This makes cross-engine network effects observable and challengeable.

Maturity should also be asymmetric. An engine can be strong in one capability and provisional in another; the whole platform should not inherit the strongest label. For example, a reliable discovery layer does not prove execution quality, and an established referral workflow does not prove the sustainability of its incentives. Public language should therefore be capability-specific. Development priorities can then follow bottlenecks and evidence rather than an assumption that all engines must expand at the same pace.

Table 30.2. Four-engine development matrix

ENGINE	FUTURE CAPABILITY	QUALITY EVIDENCE	BOUNDARY TO PRESERVE
Referral Engine	Attributed acquisition, participation progression and community growth.	Causal attribution, cohort quality, retention, exclusions, dispute and reward reconciliation.	Registration, activity, qualification, authorization and delivery remain distinct states.
AI Intelligence	Source-grounded forecasts, signals, explanations and decision support.	Source coverage, version, calibration, uncertainty, review, drift and correction evidence.	Information does not become authority, suitability or automated action by presentation alone.
Liquidity Hub	Comparable discovery, routing and, where implemented, compatible liquidity access.	Market identity, rule compatibility, executable state, freshness, route, cost, settlement and exception evidence.	Displayed aggregation is not assumed to be executable or economically equivalent.
Creator Economy	Qualified proposal, curation, publication, stewardship and creator analytics.	Market quality, source and resolution readiness, conflicts, attribution and lifecycle outcomes.	Market count and engagement do not substitute for answerability or integrity.

Source: POLIX four-engine direction; proposed maturity criteria derived from the architecture and controls established in Chapters 7–16 and 27–29.

30.1.2 Evidence-Gated Capability Expansion

A capability should advance through explicit gates. Purpose comes first: the engine must solve a defined user or ecosystem problem. Design follows: inputs, outputs, roles, controls and failure states are specified. Verification then tests whether the design behaves as intended within a bounded environment. Limited operation creates real evidence under constrained scope. Broader availability should follow only when monitoring, support, correction, capacity and governance can scale with use. This is not a required public sequence or a statement of current POLIX stage; it is a discipline for preventing a concept, prototype or pilot from being represented as generally available.

Expansion decisions should use balanced evidence. Volume can show activity but not quality. Accuracy can be useful but may hide selection, horizon or calibration problems. Liquidity can improve execution but may be concentrated or temporary. Creator output can grow while resolution ambiguity increases. Referral growth can improve reach while attracting low-quality or duplicated participation. Each engine therefore needs outcome measures, counter-metrics and stop conditions. A metric is evidence only when its definition, population, time window, exclusions and source are preserved.

Cross-engine changes require integration review. Improving one engine can burden another: a referral campaign can overload support; AI discovery can concentrate attention; creator expansion can exceed curation capacity; partner aggregation can create reconciliation complexity; rewards can change user behavior. Development governance should test these effects before scale, document accepted trade-offs, and retain the ability to pause, narrow, roll back or correct. The objective is cumulative capability without uncontrolled coupling.

Table 30.3. Capability evidence gates

GATE	DECISION QUESTION	MINIMUM EVIDENCE	STATE CLAIM ALLOWED
Purpose	Is the problem and intended beneficiary defined?	Problem statement, scope, owner and prohibited use.	Intended direction.
Design	Are objects, roles, controls and failure states specified?	Versioned requirements, architecture, threat/integrity review and validation plan.	Proposed or designed.
Verification	Does the bounded implementation meet stated criteria?	Test results, exceptions, decision record and unresolved limitations.	Tested within stated scope.
Limited operation	Can real use be monitored, supported and corrected?	Operating records, user outcomes, incidents, capacity and support evidence.	Limited availability with explicit scope.
Scale	Can quality and control remain effective at broader volume or diversity?	Trend, stress, dependency, reconciliation, governance and correction evidence.	Available or scaled within verified scope.

Source: POLIX proposed capability-governance model. The table does not assign a current maturity state to any POLIX capability.

ENGINE PRINCIPLE **The four engines should not be judged by how many features they contain. They should be judged by whether their supply objects are qualified, their exchanges are typed, their outcomes are measurable, and their failures can be contained, reconciled and corrected.**

30.2 Expanding the Partner Network

30.2.1 Alliance Capability and Partner Autonomy

POLIX official materials describe a Prediction Market Alliance Network through which emerging platforms may access AI intelligence, analytics, discovery and growth tools, and a Liquidity Hub direction through which fragmented markets may become more connected. A proposed durable model would favor federation over absorption. A partner should remain responsible for its legal and regulatory position and its user relationships, while retaining control over its market rules, data, custody or wallet arrangement, resolution process, and operations unless a verified agreement assigns a specific function elsewhere. POLIX should expose only the capability it actually provides and should not allow a shared interface to blur which party controls a decision.

The network unit should be a technical capability specification, distinct from any legal agreement. A capability specification identifies the service object, input and output schema, identity and authorization model, supported versions, service state, data rights, quality criteria, monitoring, incident coordination, economic terms, support responsibility and exit procedure. The visible user experience should preserve those boundaries. A market discovered through POLIX may remain governed and operated by another platform; an AI artifact may use partner data; a routed action may depend on external infrastructure. Provenance and responsibility should remain attached as information moves.

Partner value should be reciprocal and measurable. POLIX may contribute discovery, analytical tooling, integration infrastructure or growth capabilities; partners may contribute markets, data, users, specialized expertise, regional reach or liquidity. These contributions are not equivalent and should not be reduced to one activity measure. Admission and continuation should evaluate whether the relationship improves qualified supply, user understanding, resilience and ecosystem coverage without creating unacceptable concentration or opaque dependency.

Table 30.4. Partner-network capability exchange

CAPABILITY	POSSIBLE POLIX CONTRIBUTION	POSSIBLE PARTNER CONTRIBUTION	REQUIRED BOUNDARY
Market discovery	Canonical comparison, search, categorization and provenance presentation.	Market definitions, states, rules, source and availability information.	Discovery does not imply endorsement, compatibility or execution.
AI and analytics	Versioned analysis, forecasts, signals or evaluation tools.	Authorized data, domain context, feedback and operating outcomes.	Source, model role, uncertainty, rights and correction remain visible.
Liquidity access	Compatibility assessment, route presentation or integration infrastructure where implemented.	Executable market state, pricing, depth, cost, settlement and exception records.	Displayed liquidity is not treated as shared, fungible or final without evidence.
Growth tools	Referral, creator, discovery or community capabilities.	Audience access, local knowledge, contribution records and support.	Attribution, consent, incentive eligibility and communication ownership are explicit.
Operations	Shared monitoring, status vocabulary and incident-coordination mechanism.	Dependency state, response ownership, evidence and corrective action.	Coordination does not erase each party's accountability or autonomy.

Source: POLIX alliance and liquidity-hub direction; proposed technical capability-specification model. No specific current partner or integration is asserted.

30.2.2 Progressive Onboarding and Shared Assurance

Partner expansion should be progressive. Discovery-only participation generally creates a different risk and evidence profile from shared data, AI integration, transaction routing, liquidity access, reward

eligibility or user-identity exchange. Capability tiers should therefore be based on functions and controls, not promotional status. Each additional capability should require a new decision about compatibility, authority, data use, security, operational resilience, economic reconciliation and user communication.

Shared assurance should combine partner evidence with independent POLIX verification. A contract, questionnaire or certification can be relevant, but none proves continuing operation by itself. Integration tests should cover semantic compatibility, error handling, stale data, partial availability, duplicate or conflicting records, authentication, least privilege, incident notification, rollback, data return and exit. Monitoring should distinguish a POLIX failure, partner failure, upstream common cause and uncertain state. Public communication should name the affected capability and coordination status without assigning unsupported blame.

Exit is part of network design. A partner relationship can change, pause or end; a version can become incompatible; a market or source can be withdrawn. The network should preserve user records, pending-state treatment, data obligations, reward reconciliation, correction paths and clear notice. Portability and substitute options should be considered where feasible, but they should not be promised without verified implementation. A partner network becomes more trustworthy when entry, change and exit are governed with equal care.

Table 30.5. Progressive partner lifecycle

LIFECYCLE STATE	CONTROL FOCUS	EVIDENCE	PUBLIC COMMUNICATION
Candidate	Purpose, fit, conflicts, rights and preliminary dependency map.	Due-diligence record and intended capability scope.	No partner or availability claim before authorization.
Sandbox / test	Schema, identity, security, state, error and reconciliation testing.	Test results, exceptions, limits and responsible owners.	Labelled test status; no production implication.
Limited capability	Constrained users, markets, data or functions with enhanced monitoring.	Operating and support records within explicit scope.	Capability-specific availability and limitations.
Expanded capability	Capacity, resilience, quality, economics and cross-network effects.	Trend, stress, incident, reconciliation and review evidence.	Expanded scope only where separately verified.
Suspended / exited	Pending state, records, data, user support, correction and obligations.	Decision authority, effective time, closure and residual action record.	Clear affected scope, alternatives if verified, and support path.

Source: POLIX proposed partner lifecycle. The states are governance categories, not a report of present partner status.

PARTNER PRINCIPLE **A partner network should expand by adding verified capabilities, not by accumulating logos. Every connection should preserve provenance, authority, operating state, economic reconciliation, user support and a safe path for change or exit.**

30.3 Deepening the POLX Economic Layer

30.3.1 Utility Growth Through Verified Services

POLX is described as the economic layer for incentives, participation and ecosystem growth. Future utility should therefore follow verified services rather than precede them as a broad promise. A utility statement should identify the eligible user or partner, function, rule, authorization, availability state, economic consequence, funding source, accounting record, limitation and correction path. Access to an AI service, eligibility for a creator or referral program, partner alignment or governance participation are different utility families. Holding POLX should not be represented as creating an unspecified right across all families.

Utility maturity has two dimensions. Functional maturity asks whether the relevant service and rule operate. Economic maturity asks whether value, cost, eligibility, obligation and settlement can be measured and reconciled. A technically available function may remain economically provisional if

funding, caps, abuse controls or accounting are unresolved. Conversely, an allocation may exist without a current user entitlement. Public descriptions should state both dimensions so that intended utility, allocated capacity, authorized program value, claimable value and delivered value are not conflated.

The economic layer should also avoid artificial circularity. Rewarding activity can help early growth, but activity created primarily to earn rewards may not represent durable value. Program design should measure incremental and attributable contribution, quality, retention, market integrity and downstream outcomes. It should cap exposure, detect duplication and farming, preserve appeals, and stop or revise a program when incentives degrade the behavior they were intended to support.

Table 30.6. POLX utility maturity states

UTILITY STATE	MEANING	MINIMUM EVIDENCE	CLAIM BOUNDARY
Intended	A utility purpose is described in approved project direction.	Authoritative source, scope and explicit non-operating boundary.	No present access, entitlement, value or continuity claim.
Designed	Eligibility, function, control and accounting logic are specified.	Versioned rule, owner, interface and validation plan.	No availability or user outcome claim.
Authorized	A defined program or service has approved capacity and controls.	Decision record, budget/capacity, effective scope and accountable owner.	Authorization is not delivery, claimability or circulation.
Available	Eligible participants can use the function within a verified scope.	Operating record, service state, support, limits and economic reconciliation.	No universal access, permanence or market-value implication.
Measured / revised	Outcomes are evaluated and the rule may continue, change, pause or close.	Cohort, quality, cost, abuse, dispute, outcome and correction evidence.	Past operation does not guarantee future terms or availability.

Source: POLIX proposed utility-state model, consistent with the economic-state distinctions established in Chapters 17–26.

30.3.2 Revenue, Incentives, Supply, and Governance

The official token-economy document establishes an approved maximum-supply policy of 400,000,000 POLX, an approved no-additional-minting policy, and allocation categories, progressive distribution principles, a long-term transition toward revenue-funded ecosystem incentives, and a long-term burn objective. Chapter 30 treats these as economic design directions subject to the detailed boundaries in Chapters 19–26. Total supply, allocation, authorized capacity, circulating supply, funded budget, delivered incentive, repurchased amount and burned amount remain distinct. Future development should improve the evidence connecting each state rather than compress them into a single token-economy narrative.

The transition toward revenue-funded incentives should be conditional on verified revenue, obligations and sustainability. Gross receipts are not automatically distributable resources. The decision should consider operating costs, reserves, liquidity needs, taxes where applicable, partner obligations, incident or corrective costs, approved investment and stress conditions. Program funding should be authorized under a recorded rule and reconciled to delivered outcomes. If revenue is insufficient or volatile, the system should not imply that an intended transition, incentive level or buyback-and-burn action is guaranteed.

Economic governance should protect option value without creating unbounded discretion. Allocations and reserves may support future development, but each deployment should identify mandate, amount, purpose, authority, conflicts, alternatives, milestones, monitoring, stop conditions and public reporting. Material changes should preserve history and explain their effect on supply states and program obligations. The economic layer deepens when more platform activity can be accounted for and funded sustainably—not when more future value is asserted.

Table 30.7. Sustainable economic development controls

VALUE-FLOW OBJECT	DEVELOPMENT DIRECTION	DECISION EVIDENCE	NON-GUARANTEE BOUNDARY
Ecosystem incentives	Move from strategic allocation support toward sustainable funding where verified.	Program purpose, funding source, cap, eligibility, attribution, delivery and outcome.	No fixed reward level, duration or universal eligibility.
Platform revenue	Strengthen the connection between useful activity and ecosystem funding.	Recognized source, period, obligations, costs, reserve need and authorization.	Revenue does not automatically become distributable cash or token demand.
Buyback and burn	Use approved, funded and controlled execution toward long-term supply-reduction direction.	Funding, authority, route, execution, custody, reconciliation and verified burn evidence.	No timing, amount, frequency, price support or return guarantee.
Strategic reserves	Preserve capacity for approved resilience and development needs.	Mandate, stress analysis, portfolio limit, conflict review and replenishment/closure logic.	Reserve capacity is not circulating supply or an obligation to deploy.
Partner and contributor alignment	Connect verified long-term contribution to bounded economic eligibility.	Agreement, service/contribution evidence, vesting or delivery state, conflict and correction.	Allocation does not establish earned, vested, claimable or delivered value.

Source: POLIX Token Economy v1.0 EN and the accounting boundaries established in Chapters 19–26. No current revenue, execution or market-value claim is made.

ECONOMIC PRINCIPLE **POLX utility should deepen when a verified service creates a defined economic relationship that can be authorized, funded, measured, reconciled and corrected. Intended utility or allocation alone should not be presented as present entitlement, demand or value.**

30.4 Building Global Market Diversity

30.4.1 Local Relevance and Global Integrity

POLIX official materials identify prediction-market categories across politics, economy, crypto, finance, AI, entertainment and sports, and describe global participation and regional market development. Diversity, however, should not be measured only by the number of countries, languages, categories or markets displayed. A diverse market ecosystem must preserve answerability, source authority, outcome completeness, timing, local meaning, creator accountability and resolution integrity across heterogeneous contexts. A market that is easy to translate but difficult to resolve does not increase useful supply.

Global integrity requires a stable core and local expression. The stable core should define the market object, state vocabulary, evidence record, source version, conflict controls, review path and correction history. Local expression may adapt language, examples, category taxonomy, time and number formats, support content, accessibility and community context. Local rules or applicable requirements may affect admission, participation, data, communications, payments, token functions or dispute handling. Those differences should be represented as configuration and authoritative scope, not hidden behind a single global interface.

Local knowledge is a capability, not a decorative layer. Regional creators, reviewers, source specialists, partners and communities may identify relevant questions and interpret institutional context that a central team would miss. Their contribution should be qualified and evidenced. Localization review should distinguish linguistic accuracy, subject-matter accuracy, legal or policy review, market-design review and resolution-source readiness. One reviewer or automated translation should not be assumed to cover all roles.

Table 30.8. Global market-diversity dimensions

DIMENSION	USEFUL DIVERSITY	QUALITY GATE	FALSE PROXY TO AVOID
Category	Distinct question families with appropriate rules, sources and participant value.	Answerability, outcome design, source and resolution readiness.	Treating market count as breadth or quality.
Language	Accurate and accessible expression of the same governed object.	Translation, terminology, rule equivalence and update synchronization.	Assuming translated words preserve legal, cultural or market meaning.
Region	Locally relevant markets, sources, support and operating configuration.	Jurisdictional analysis, source access, time, identity, data and support readiness.	Equating website reach with authorized or supported availability.
Community	Qualified local creation, curation, feedback and stewardship.	Role, competence, conflicts, attribution, review and appeals.	Equating audience size or engagement with authority.
Partner	Specialized market, data, operational or distribution capability.	Technical capability specification, provenance, assurance, monitoring, and exit.	Equating a relationship announcement with live integration.

Source: POLIX global expansion direction; proposed diversity-quality framework. No present regional availability is asserted.

30.4.2 Category, Language, Community, and Jurisdictional Readiness

Readiness should be evaluated at the level of a market family and operating configuration. Politics may require authoritative electoral sources and treatment of recounts or contested outcomes. Finance and crypto may require precise price sources, cutoffs, market disruptions and asset identity. Sports require governing bodies, postponement rules and result corrections. AI and technology questions may depend on definitions, announcements or measurable capability criteria. Entertainment may rely on award authorities, release dates or public records. A general platform rule can provide structure, but category-specific templates and exception taxonomies are necessary for consistent outcomes.

Language and community readiness should include continuous change control. A market rule, source or support route can change after translation. The authoritative version, effective time and synchronized update status should therefore be visible. Community feedback should identify ambiguity and local context, but final rule changes should remain governed. Where multiple languages diverge, the controlling version and correction process must be defined before participation. Accessibility and plain language are part of readiness because technically accurate information can still fail if a participant cannot understand the decision consequence.

Jurisdictional readiness cannot be inferred from strategic intent. Before an operating claim is made, the relevant entity, service, user group, market type, token function, data flow, partner role and communication should be analyzed against applicable requirements. Chapter 30 does not perform that analysis or imply a conclusion. It requires the result to be reflected in configuration, disclosures, access controls, support and versioned evidence. Where a service is unavailable or restricted, the state should be accurate and should not be obscured by global marketing language.

Table 30.9. Regional and market-family readiness record

READINESS OBJECT	QUESTION	EVIDENCE OWNER	RELEASE / HOLD CONDITION
Market definition	Is the question unambiguous and meaningful in the local context?	Market-design and subject-matter owners.	Release only with complete outcomes, timing and exception rules.
Resolution source	Is the authority identifiable, accessible, versioned and resilient?	Source and resolution owners.	Hold when source identity, cutoff, conflict or fallback is unresolved.
Language	Do translations preserve rule meaning and decision consequence?	Language reviewer and governing-rule owner.	Hold or restrict a language when synchronized accuracy cannot be supported.
Operating scope	Which entity, service, user and jurisdictional configuration applies?	Qualified legal/compliance and governance owners.	Release only under verified configuration; no inference from general availability.

READINESS OBJECT	QUESTION	EVIDENCE OWNER	RELEASE / HOLD CONDITION
Support and correction	Can users obtain authoritative help and challenge an outcome?	Operations, support and review owners.	Hold expansion when material cases cannot be owned, evidenced or corrected.

Source: POLIX proposed readiness record. Applicability and release decisions require verified operating facts and qualified review.

DIVERSITY PRINCIPLE **Global diversity should increase the number of locally meaningful, answerable and supportable markets—not merely the number of translated pages or geographic labels. Common integrity and local validity must advance together.**

30.5 Toward a Global Prediction Economy

30.5.1 From Isolated Markets to Reusable Intelligence

The long-term POLIX vision moves from isolated prediction platforms toward an intelligent prediction economy. The useful unit in that economy is not only a trade. It is a governed information object: a question with a defined outcome set, evidence and source; a probability or market state with time and liquidity context; a forecast or signal with provenance and uncertainty; a participation record with authority; and a resolution or correction with rationale. When these objects are stable and comparable, discovery, analysis, creation, liquidity and community participation can reinforce one another without erasing their differences.

Reusable intelligence should preserve context. Two markets that appear semantically similar may differ in time, outcome criteria, source, venue, settlement, participant population or liquidity. An AI system may compare them, but it should expose the basis and limitation of the comparison. Aggregation should distinguish observational data from executable conditions. Historical outcomes can support evaluation, but selection and revision history matter. The prediction economy becomes more informative when records are canonical, versioned and correctable, not when every signal is compressed into one score.

The four engines contribute different forms of compounding. The Referral Engine is intended to broaden qualified participation; AI Intelligence is intended to reduce the cost of inspecting evidence; the Liquidity Hub is intended to improve discovery and compatible access; and the Creator Economy is intended to widen market supply. Partner networks are intended to add specialized capability and reach. POLX is intended to coordinate approved economic relationships. These effects form a sustainable network when quality, integrity, diversity, transparency and incentive alignment are continuously measured and governed.

Table 30.10. Reusable prediction-economy information objects

OBJECT	CANONICAL CONTENT	REUSE	INTEGRITY CONDITION
Market contract	Question, outcomes, time, source, rules, authority and version.	Discovery, comparison, creation templates and resolution.	Semantic equivalence must be demonstrated, not assumed.
Market state	Availability, probability/price, activity, liquidity context and effective time.	Monitoring, analytics, routing and participant communication.	Observation, indication and executable state remain distinct.
AI artifact	Task, sources, model/method version, uncertainty, owner and intended use.	Forecasting, explanation, discovery and review.	Generated interpretation cannot replace source or decision authority.
Participation record	Identity/role, authorization, contribution, eligibility, state and evidence.	Attribution, rewards, governance, support and appeals.	Activity does not become qualified or earned value automatically.
Outcome and correction	Evidence, decision, rationale, authority, finality layer and revision history.	Settlement, evaluation, learning and public trust.	Correction must preserve the original and affected downstream state.

Source: POLIX proposed information-object architecture, informed by the market, AI, governance and integrity models established in Chapters 7–29.

30.5.2 Long-Term Direction, Gates, and Public Evidence

The whitepaper should end with a durable distinction between direction and commitment. Direction states the system POLIX seeks to create and the principles that should govern it. Commitment assigns an accountable deliverable, scope, date or service level under an approved plan. Chapter 30 makes directional claims only. Future commitments should be issued through versioned, authoritative materials when the responsible entity, resources, dependencies, acceptance criteria and change process are known. Marketing repetition, a diagram or an older document should not be treated as a substitute.

Public evidence should develop with capability maturity. Early direction may disclose purpose and boundary. A design may disclose architecture and validation criteria. Limited operation may disclose scope, known limitations, support and state. Broader operation may disclose availability, performance definitions, incidents, corrections and material changes. Economic claims require reconciled state and authoritative records. Partner and regional claims require capability- and configuration-specific evidence. This layered approach allows transparency without exposing security-sensitive or proprietary detail.

The long-term measure of POLIX is whether it can create more trustworthy information and participation per unit of complexity. A global footprint is meaningful when users can understand what a market asks, why information has a given state, what they are authorizing, who owns a dependency, how an outcome is resolved, how an economic relationship is funded and how an error is corrected. The future prediction economy is therefore not presented as inevitable. It is a direction that must be repeatedly earned through evidence, governance, security, support and useful outcomes.

Table 30.11. Development maturity and public-claim discipline

MATURITY STATE	INTERNAL DECISION	PUBLIC EVIDENCE	CLAIM LIMIT
Direction	Adopt purpose, boundary and accountable sponsor.	Approved strategic source and explicit non-operating status.	May describe intent; no date, availability or outcome.
Design	Approve requirements, controls, dependencies and validation.	Architecture and criteria at an appropriate disclosure level.	May describe proposed design; no operating performance.
Test / pilot	Authorize bounded evaluation and stop conditions.	Scope, test status, limitations and contact/support where relevant.	No general availability or scale inference.
Limited availability	Authorize defined users, regions, partners or functions.	Effective scope, operating state, material limits, support and correction.	No universal access, permanence or unqualified comparison.
Expanded / mature	Approve scale based on sustained control and outcome evidence.	Definitions, trend, incidents, changes, assurance scope and residual limits.	No perfect performance, inevitable growth or guaranteed economic outcome.

Source: POLIX proposed maturity vocabulary. The table does not assign a current state or delivery date to any capability.

Table 30.12. Final evidence map for future development

DEVELOPMENT DOMAIN	EVIDENCE THAT SHOULD EXIST	ACCOUNTABLE QUESTION
Four engines	Qualified supply metrics, typed exchange records, counter-metrics, incidents and corrections.	Does each engine create useful supply without exporting uncontrolled harm or ambiguity?
Partner network	Technical capability specifications, compatibility tests, monitoring, reconciliation, incidents, change, and exit records.	Can users and operators identify which party controls each state and response?
POLX economic layer	Utility rules, authorization, funding, allocation/supply accounting, delivery, outcomes and amendments.	Is each economic claim tied to a verified service and reconciled state?
Global market diversity	Market-family templates, source readiness, localization, operating configuration, support and review.	Is expansion locally valid and supportable while preserving common integrity?
Prediction economy	Canonical objects, provenance, comparability, outcome quality, network effects and externality controls.	Does greater connection produce more trustworthy information and participation?

Source: POLIX editorial synthesis. The evidence map defines future publication discipline, not present operating evidence.

FUTURE DIRECTION PRINCIPLE **POLIX's long-term ambition is a global prediction economy built from qualified user, intelligence, liquidity and market supply. That ambition should remain conditional on evidence: every expansion must preserve meaning, authority, economic accountability, support, correction and an honest public state.**

Chapter Synthesis

1. Chapter 30 defines a capability architecture for future development; it does not publish a dated roadmap or assign a present maturity state.
2. The Referral Engine, AI Intelligence, Liquidity Hub and Creator Economy should mature as distinct governed supply systems connected through typed, evidenced exchanges.
3. Engine expansion should advance through purpose, design, verification, limited operation and scale gates without converting a concept or test into general availability.
4. The partner network should be federated through technical capability specifications that preserve partner autonomy, provenance, responsibility, monitoring, reconciliation and exit.
5. POLX utility should follow verified services and accounting; intended utility, allocation, authorization, availability, delivery and circulation remain distinct states.
6. Revenue-funded incentives, buyback-and-burn direction and reserve deployment remain conditional on verified resources, obligations, authority, execution and reconciliation.
7. Global market diversity should be measured by locally meaningful, answerable and supportable markets rather than market count, languages or geographic labels alone.
8. A global prediction economy depends on canonical, versioned and correctable market, AI, participation, economic and outcome objects.
9. Future commitments should be issued only through authoritative, versioned materials with accountable scope, resources, dependencies, acceptance criteria and change control.
10. The durable measure of POLIX development is whether greater connection produces more trustworthy information and participation without weakening user protection or governance.

WHITEPAPER CONCLUSION **POLIX is designed as a prediction ecosystem in which four forms of qualified supply reinforce one another through governed information, participation and economic relationships. The whitepaper establishes the architecture and principles; implementation must establish the evidence. The future remains directional until each capability is demonstrably real, bounded, supportable and accountable.**

References and Source Notes

POLIX official materials establish the four-engine ecosystem, alliance and liquidity-hub direction, intended POLX utility, fixed-supply and sustainable token-economy direction, global ecosystem expansion and the long-term prediction-economy vision. They do not establish a current delivery calendar, deployed feature set, partner roster, geographic availability, revenue state, token-function activation, market performance or jurisdictional conclusion. All capability states and gates in this chapter are proposed editorial and governance models unless separately evidenced.

External standards, policy materials and academic sources provide analytical inputs concerning platform ecosystems, interoperability, crypto-asset market integrity, trustworthy AI and prediction-market information. They do not establish that POLIX is a financial market infrastructure, trading venue, regulated entity or subject to a particular requirement. Applicability requires verified operating facts and qualified analysis.

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GLOSSARY

Glossary & Abbreviations

Term	Working Definition
AI Intelligence	The proposed POLIX intelligence-supply engine intended to support analysis, forecasting, and decision support through governed, traceable evidence.
Allocation	A policy assignment of part of the maximum supply to a defined purpose category; allocation is not issuance, release, transfer, or circulation.
AML	Anti-money laundering; a term for legal and operational controls intended to detect and address prohibited financial activity where applicable.
API	Application Programming Interface; a defined technical interface through which software systems exchange requests, data, or services.
Authorized Capacity	A bounded amount approved for a specified program or action under an adopted mandate; it is not the same as execution or delivery.
BEP-20	A token interface standard used on BNB Smart Chain.
BNB Smart Chain	The blockchain network identified in approved POLIX materials for the intended BEP-20 token specification.
Burn	A verifiable, irreversible supply-reducing event under the canonical token implementation; locks, transfers, or internal retirement are separate states unless the implementation proves the same supply effect.
Buyback	An authorized acquisition of tokens using an approved funding source; a buyback changes ownership or custody and does not by itself reduce total supply.
Buyback and Burn	A two-stage mechanism in which an authorized acquisition is followed by a separately verified, irreversible supply-reducing burn.
CFTC	U.S. Commodity Futures Trading Commission.
Circulating Supply	A methodology-based estimate of units economically available to external holders under stated inclusion, exclusion, control, and effective-time rules.
Claimable / Claimability	The amount or state that an eligible beneficiary may request or receive under operative terms after vesting and any valid holds, releases, or disputes are accounted for.
CPMI	Committee on Payments and Market Infrastructures.
Creator Economy	The proposed POLIX market-supply engine intended to support qualified market creation, stewardship, and contribution alignment.
DAO	Decentralized Autonomous Organization; a broad label for rule- and software-mediated collective coordination, not a statement of POLIX legal or operating form.
DCM	Designated Contract Market, a U.S. regulatory category administered by the CFTC.

Term	Working Definition
IOSCO	International Organization of Securities Commissions.
KYC	Know Your Customer; identity and eligibility controls applied where required by an adopted service and applicable rules.
Liquidity	The ability to enter, change, or exit a position at an observable quantity and cost, considering depth, spread, slippage, price impact, and execution conditions.
Liquidity Hub	The proposed POLIX liquidity-supply and partner-network direction intended to improve discovery, comparison, and compatible access while preserving venue and contract boundaries.
Lock-up	A time- or condition-based restriction that prevents release or transfer; it does not by itself create entitlement, vesting, claimability, or circulation.
Market Maker	A participant or mechanism that supplies executable buy and sell interest under defined inventory, pricing, and risk constraints.
Market-Implied Probability	A probability interpretation derived from a market price only under stated payoff, fee, liquidity, access, and settlement assumptions.
Maximum Supply	The approved upper bound of 400,000,000 POLX under the stated policy; it is distinct from current totalSupply and circulating supply.
MiCA	Regulation (EU) 2023/1114 on markets in crypto-assets; applicability to a specific activity requires verified facts and qualified analysis.
NIST	U.S. National Institute of Standards and Technology.
Oracle	The governed function that connects external evidence to a market-resolution decision; it may include data sources, rules, reviewers, challenges, and finality controls.
Order Book	A structured record of executable or resting buy and sell orders, prices, quantities, and priority rules.
PFMI	Principles for Financial Market Infrastructures issued by CPSS/CPMI and IOSCO.
POLIX	The proposed prediction-market ecosystem described in this whitepaper, organized around four intended growth engines and governed evidence boundaries.
POLX	The token specified in approved project materials as the intended economic layer of POLIX; this definition does not assert current deployment, availability, or legal classification.
Prediction Market	A governed market in which participants take contingent or scored positions linked to defined future outcomes and whose observable prices or scores may aggregate information.
Price Impact	The change in executable price caused by the size, timing, or direction of an order relative to available liquidity.
Private Key / Seed Phrase	Secret cryptographic credentials used to control a wallet; loss or disclosure can prevent access or enable unauthorized transactions.

Term	Working Definition
Progressive Deployment	A staged approach in which approved capacity enters programs only after specified mandates, evidence, controls, and review conditions are satisfied.
Provenance	The traceable origin, time, version, transformation, authority, and custody history of data, content, a decision, or an economic record.
Referral Engine	The proposed POLIX user-supply engine intended to support attributable, quality-adjusted participation through governed referral relationships.
Reserved Allocation	A portion of an allocation held for a defined future purpose and not yet treated as distributed, transferable, or circulating.
Resolution	The governed determination of a market outcome under the applicable market version, evidence, authority, challenge, and finality rules.
Resolution Source	A specified evidence source or source hierarchy used to determine whether and how an outcome condition occurred.
Slippage	The difference between an expected or displayed execution price and the average price actually obtained for a transaction.
Smart Contract	Program code executed on a blockchain that enforces defined state transitions; its behavior depends on deployed code, parameters, privileges, and the surrounding operational system.
Spread	The difference between the best available buy price and best available sell price for a defined quantity and market state.
Token Utility	An adopted functional relationship between POLX and an eligible service, incentive, access, or participation state; intended utility is not evidence of current activation or value.
totalSupply	The canonical token-contract value reporting units currently represented as existing under the implementation; it is distinct from maximum supply and circulating supply.
Transferable / Transferability	The technical and policy state in which a unit may be moved by an authorized controller; transferability does not by itself establish circulation or legal availability.
Vesting	The progressive earning or unconditional entitlement of an allocation under an adopted schedule; vesting does not by itself establish release, claimability, transferability, or circulation.
Wallet	A software, hardware, or custodial interface used to view addresses, manage cryptographic authority, and submit transactions.

END OF WHITEPAPER

POLIX Whitepaper — Version 1.0

Predict Markets. Trade Insights. Shape Tomorrow.

This Version 1.0 public release presents the integrated 30-chapter POLX Whitepaper, including its references, glossary, and internal navigation.

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