

## **ANNEX P**

Supplement to PHREVO Framework Paper, Version 1.0

SSRN Abstract ID: 6614438 — DOI: 10.5281/zenodo.19666941

# **PHREVO Governance Protocol: Constitution of the Post-Capitalist Operating System**

*Four-Layer Hybrid Governance, DAO Mechanics, Territory Nodes, Hard Fork Protocol, and 2026–2029 Implementation Roadmap*

## **Document version**

1.0

## **Author**

**Andres Jimenez**

Founder, PHREVO — phrevo.io

## **Date**

April 2026

## **Status**

*Foundational document — open for public comment before ratification by the DAO in Phase 2 (2028). This version governs the Provisional Technical Council period (2026–2027).*

## **Position in corpus**

*Annex P is the constitutional document of the PHREVO system. It answers the question every other annex defers: who decides, and how can the rules themselves be changed? Without this protocol, all technical and economic architecture of PHREVO is ungoverned. With it, the system has a constitution.*

## **License**

Creative Commons Attribution 4.0 International (CC BY 4.0)

*PHREVO is not a theory. It is a living operating system. Operating systems need governance: rules for who decides what, how decisions can be changed, and what happens when the system itself needs to evolve. This protocol is that governance — the constitution of the post-capitalist system.*

## **Abstract**

The PHREVO Governance Protocol establishes the complete constitutional architecture for the PHREVO post-capitalist operating system. It defines who can make decisions, at what level, through what process, and subject to what structural constraints. It covers: the four-layer hybrid governance model (Algorithmic, Technical, Political/DAO, Territorial); the procedures for updating the 64 KPI weights; the six-phase process for validating and revoking Territory Nodes; the six-phase Hard Fork protocol for incompatible system changes; the composition and functions of the Technical Council; the mechanics of the DAO including anti-plutocracy square-root voting weights; the conflict resolution and arbitration architecture; and a phased implementation roadmap from 2026 through 2029+.

The protocol is grounded in six foundational principles: hybrid governance (no single layer holds absolute power); radical transparency (every decision is recorded on the impact ledger and publicly auditable); territorial legitimacy (decisions affecting a territory require validation by that territory's Nodes); anti-plutocracy (voting power is weighted to prevent large PHR holders from dominating); fractality (the same governance model applies at global, regional, and local levels); and deliberate evolution (change is possible but requires explicit processes and qualified majorities).

Most critically, this protocol contains the mechanism for its own amendment and for the eventual transfer of all governance authority from the founder to the community. Phase 3 (2029+) declares the system constitutionally governed: the founder has ceded final control, the DAO operates the full governance cycle, and Hard Forks can occur without any individual's approval.

# Contents

- P.1 Governance Principles**
  - P.1.1 The Six Foundational Principles**
  - P.1.2 The Four Governance Layers**
- P.2 General Governance Architecture**
  - P.2.1 Decision Flow Diagram**
  - P.2.2 Decision Types and Procedures**
- P.3 Updating the 64 KPI Weights**
  - P.3.1 The Principle of Evidence-Based Weight Evolution**
  - P.3.2 The ML Detection Algorithm**
  - P.3.3 Complete Weight Update Procedure**
  - P.3.4 Limits and Safeguards**
- P.4 Territory Node Validation**
  - P.4.1 Definition and Minimum Requirements**
  - P.4.2 Six-Phase Validation Process**
  - P.4.3 Node Revocation**
  - P.4.4 Node Rights and Obligations**
- P.5 Hard Fork Management**
  - P.5.1 Definition: What Is a Hard Fork in PHREVO?**
  - P.5.2 Who Can Propose a Hard Fork**
  - P.5.3 The Six-Phase Hard Fork Process**
  - P.5.4 Resources and Guarantees**
- P.6 Technical Council and Expert Panels**
  - P.6.1 Technical Council Composition**
  - P.6.2 Technical Council Functions**
  - P.6.3 Ad Hoc Expert Panels**
- P.7 Citizen Participation Mechanisms (DAO)**
  - P.7.1 The PHREVO Global DAO**
  - P.7.2 Voting Types**
  - P.7.3 Delegation Mechanisms**
  - P.7.4 Quorum and Majorities**
- P.8 Conflict Resolution and Arbitration**
  - P.8.1 Governing Principles**
  - P.8.2 Conflict Types and Competent Tribunal**
  - P.8.3 Arbitration Procedure**
- P.9 Implementation Roadmap 2026-2029+**
- P.10 Governance Glossary**
- P.11 Conclusion: From Theory to Living Constitution**

## **P.1 Governance Principles**

### **P.1.1 The Six Foundational Principles**

The PHREVO Governance Protocol rests on six principles that function not as aspirations but as architectural constraints: every governance mechanism described in this document must satisfy all six, and any future amendment must preserve them or go through a Hard Fork. They are listed in order of precedence, with higher principles constraining lower ones.



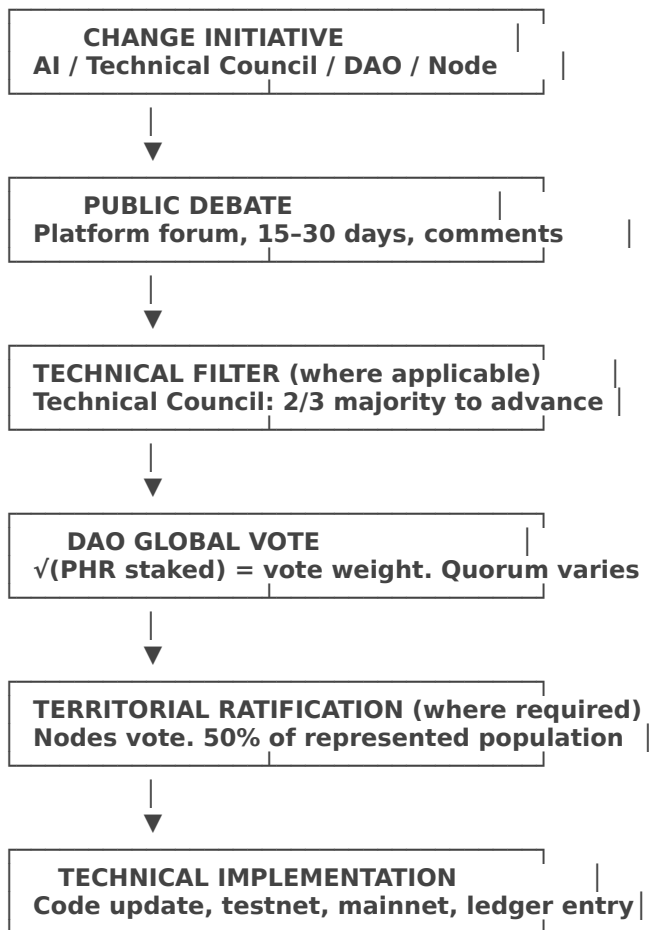
### **P.1.2 The Four Governance Layers**

PHREVO's governance architecture is organized in four layers, each with a defined domain of authority, a specific set of actors, and a defined relationship to the other layers. No layer is supreme. Each is supreme within its domain and subordinate to higher principles outside it.

## P.2 General Governance Architecture

### P.2.1 Decision Flow

Every governance decision in PHREVO — from a minor KPI weight adjustment to a full Hard Fork — passes through the same fundamental flow, with the depth of each stage varying by decision type. The flow is designed to ensure that: (1) any actor can initiate a proposal; (2) proposals are always publicly debated before being voted on; (3) technical viability is evaluated before the community votes; (4) communities affected by territorial decisions have binding input; and (5) all decisions are permanently recorded.



### P.2.2 Decision Types and Procedures

Not every decision requires the full flow. The protocol calibrates procedural intensity to decision impact. Minor operational adjustments have lighter procedures; structural changes that could alter the fundamental nature of the system have the most demanding requirements.



## P.3 Updating the 64 KPI Weights

### P.3.1 The Principle of Evidence-Based Weight Evolution

The 64 KPIs that constitute the PHREVO-Score are not eternal. They must evolve with new scientific findings (for example, revised understanding of the relative impact of carbon versus biodiversity loss), changes in global priorities (pandemic response, armed conflict, climate tipping points), and the system’s own learning from the correlation between weights and actual outcomes in real projects. The weight update mechanism is designed to balance two competing requirements: stability (investors, projects, and communities need to plan over multi-year horizons, and weight volatility destroys that capacity) and accuracy (weights that no longer reflect the best available evidence produce systematically wrong impact scores, which corrupts the entire system’s integrity). The protocol resolves this tension through a bounded, slow, evidence-driven process with clear procedural requirements.

### P.3.2 The ML Detection Algorithm

The system executes a weekly weight-drift detection algorithm. The algorithm does not change weights. It proposes changes to the Technical Council, which then initiates the formal update procedure if it agrees.

**INPUT:**

- Historical project data (scores, real-world outcomes)
- Updated scientific literature (via APIs)
- DAO decisions (recorded on ledger)

**OUTPUT:**

- Weight adjustment suggestion (within  $\pm 5\%$  annual per KPI)
- Alert if a KPI is consistently under- or over-weighted

**CONSTRAINT:**

- Algorithm proposes only. It cannot implement.
- All proposals go to the Technical Council.
- All Technical Council proposals go to the DAO.

### P.3.3 Complete Weight Update Procedure


Total cycle for a major adjustment: approximately 2 months. Minor corrections (error corrections below 1%) may follow an accelerated procedure: Technical Panel only, 2 weeks, no DAO vote required. Minor corrections must be reported to the DAO in the subsequent quarterly bulletin.

### P.3.4 Limits and Safeguards



## **P.4 Territory Node Validation**

### **P.4.1 Definition and Minimum Requirements**

A Territory Node is a local organization — cooperative, municipal government, community alliance, academic consortium, or civil society body — that functions as PHREVO's "embassy" in a physical territory. Nodes are not agents of PHREVO: they are autonomous local entities that have agreed to operate within the PHREVO governance framework and in exchange receive specific rights and responsibilities. The Node relationship is bilateral, not hierarchical.


### **P.4.2 Six-Phase Validation Process**


Total time from application to full Node status: approximately 8 months. This duration is intentional: it creates a meaningful commitment threshold and ensures that the territorial verification is genuine, not perfunctory.

### **P.4.3 Node Revocation**


### **P.4.4 Node Rights and Obligations**


## P.5 Hard Fork Management

### P.5.1 Definition: What Is a Hard Fork in PHREVO?

A Hard Fork is a protocol change that is incompatible with previous versions. It requires all Nodes to update their software and, in the event of dissent, produces two coexisting versions of the system. Hard Forks are the most consequential form of governance action in PHREVO. They are possible — the system is designed to be capable of fundamental evolution — but they require the most demanding procedural requirements.


### P.5.2 Who Can Propose a Hard Fork


### P.5.3 The Six-Phase Hard Fork Process

*Phase 0: Formal Proposal (1 month)*

*The proponent presents a technical document containing: (1) exact description of the change; (2) justification with supporting evidence and problem definition; (3) impact analysis on the system (new weights, new formula, changes to existing project scores); (4) migration plan (how existing data, investments, and reputation records are converted); (5) risk assessment. The document is published on the platform for 4 weeks of initial public comment before proceeding.*

*Phase 1: Public Debate and Refinement (2 months)*

*Forums, virtual assemblies, and local Node-organized debates. Amendments and alternative versions may be submitted. At the end of the 2-month period, the Technical Council produces a single final version of the proposal incorporating all agreed amendments. Dissenting positions are documented and published alongside the final proposal.*

*Phase 2: Technical Vote (2 weeks)*

*The Technical Council (5–9 members) votes on the technical viability of the final proposal. Requires 2/3 approval. If the proposal fails this vote, it is archived. It may be re-submitted after 6 months with substantive modifications. The Technical Council must publish a written explanation of its vote, including minority positions.*

*Phase 3: DAO Global Vote (1 month)*

*PHR stakers vote. Quorum: 20% of total staked PHR. Majority: 66.67% (qualified supermajority). Single-round vote, open for 1 week. The high threshold is not designed to make change impossible: it is designed to ensure that structural changes reflect genuine community consensus rather than a temporary activated*

majority. If quorum is not reached, the vote is postponed 30 days with quorum reduced to 10% but majority threshold maintained at 66.67%.

*Phase 4: Territorial Ratification (1 month)*

*Each Territory Node conducts an internal vote (physical or virtual assembly, according to the Node’s governance structure). The Hard Fork is binding if approved by Nodes representing at least 50% of the total population of active territories (population, not stake). If this threshold is not reached, the Hard Fork may proceed but dissenting Nodes may opt not to apply the change, producing a consensual segmentation: two coexisting versions of PHREVO. Dissenting Nodes lose access to the PHREVO Impact Exchange, MEP issuance, and inter-territory clearing with the main network, but may continue operating independently.*

*Phase 5: Technical Implementation (3 months)*

*The development team implements the change in a governance test environment (testnet). Nodes and users may test the new version for 2 months. Compatibility and migration reports are published. Any critical issues discovered during testing trigger a return to Phase 1 unless they are minor technical corrections that do not change the substance of the proposal.*

*Phase 6: Coordinated Activation (defined date)*

*An activation date and block number are defined with at least 2 months’ advance notice, giving all participants time to prepare. On the agreed date, the system switches to the new version. Nodes that chose not to accept the change may continue operating on the previous chain (minority), but no longer interact with the main network.*

## **P.5.4 Resources and Guarantees**


## **P.6 Technical Council and Expert Panels**

### **P.6.1 Technical Council Composition**

The Technical Council is the expert body that filters proposals for technical viability, audits the AI/ML algorithms, calibrates initial weights for new KPIs, and resolves technical disputes. It is not a governing body: it cannot make binding decisions without DAO ratification. Its role is to ensure that the DAO votes on technically coherent proposals.



Maximum total: 9 members. Minimum quorum for Technical Council decisions: 5 members. No member may serve more than 2 consecutive terms in the same role. Conflicting interests must be disclosed and recused. All deliberations are recorded and published within 72 hours of the session.

### **P.6.2 Technical Council Functions**



### **P.6.3 Ad Hoc Expert Panels**

## P.7 Citizen Participation Mechanisms (DAO)

### P.7.1 The PHREVO Global DAO

Any person who holds PHR (PhREVO Coin) may participate in the DAO. Participation requires staking (blocking PHR for the duration of the vote — staked PHR generates no financial return, only governance rights). Voting power is calculated as:

Vote weight =  $\sqrt{\text{PHR staked by this participant}}$

Effect of the square-root formula: a holder of 1,000,000 PHR has 1,000 votes. A holder of 10,000 PHR has 100 votes. The power differential is 10x, not 100x. This reduces the dominance of large holders without eliminating their legitimate influence. It is mathematically impossible for any single holder to hold majority voting power unless they own more than 25% of the total staked supply — a threshold that the Network Concentration Monitor alerts on.

### P.7.2 Voting Types



### P.7.3 Delegation Mechanisms

A participant may delegate their voting weight to another participant or to a Node. Delegation is: revocable at any time (including during an active vote, up to 24 hours before vote closure); partial (any percentage of the delegator's weight); thematic (restricted to specific decision categories — ecological, economic, social, technical); and transitive (a delegate may re-delegate, but no chain of re-delegation may exceed 3 steps). All delegations are recorded on the public ledger.

### P.7.4 Quorum and Majorities



If quorum is not reached, the decision is postponed and re-submitted after 30 days with quorum reduced by 5 percentage points (but never below 5%). Majority threshold is never reduced. A vote that fails quorum twice is archived and may not be re-submitted for 6 months.

## **P.8 Conflict Resolution and Arbitration**

### **P.8.1 Governing Principles**

Three principles govern all conflict resolution in PHREVO. First, free access: parties without financial resources do not pay for arbitration. Legal aid resources funded by the compensation fund are available upon documented request. Second, confidentiality: sensitive personal data of the parties is protected during proceedings, even though the final ruling is public. Third, time ceiling: no more than 3 months from filing to ruling. Extensions beyond 3 months require written approval from both parties and the presiding tribunal.

### **P.8.2 Conflict Types and Competent Tribunal**



### **P.8.3 Arbitration Procedure**

## **P.9 Implementation Roadmap 2026-2029+**

### **Phase 0: Foundational (2026)**



### **Phase 1: Pilot (2027)**



### **Phase 2: Ratification (2028)**



### **Phase 3: Full Operation (2029+)**

From 2029 onward, the complete governance cycle — proposal, public debate, technical filter, DAO vote, territorial ratification, implementation — operates under community control. Hard Forks can occur when the protocol requires it. The founder has no special authority. Territory Nodes govern their territories. The DAO Global governs the system. The Technical Council ensures technical rigor. The Constitutional Review Commission, convened every 5 years by DAO motion, reviews the Governance Protocol itself and may propose amendments through the standard Hard Fork process.



## **P.11 Conclusion: From Theory to Living Constitution**

Every other annex in the PHREVO corpus defines what the system does: how it measures impact (the PHREVO-Score, Annex A), how it allocates resources (the Exchange, Annex E), how it distributes value (the MEP and RIB, Annexes L and C), how it governs itself legally (Liquid Law, Annex N), how it protects technological sovereignty (Annex H), and how it will be empirically validated (Annex F, RIDIE pre-registered). But all of those definitions are static without a governance protocol: they describe a system as designed, not a system that can respond to what it learns, to what changes in the world, and to what its own communities demand. This protocol answers the question that all the other annexes defer: who decides, and how can the rules themselves be changed? The answer is designed to be robust against three specific failure modes that have destroyed previous attempts at post-capitalist governance.

The first failure mode is founder capture: the system becomes the founder's personality cult, dependent on a single person's judgment and vulnerable to their departure, corruption, or death. The Governance Protocol prevents this through a mandatory transfer timeline (Phase 2, 2028), a constitutional declaration of community sovereignty, and the architectural impossibility of any individual — including the founder — overriding a qualified DAO supermajority without going through the Hard Fork process.

The second failure mode is technical capture: the technically sophisticated — developers, algorithm designers, blockchain architects — accumulate de facto power because they alone understand the system they operate. The protocol prevents this through the mandatory publication of all Technical Council deliberations, the AI audit requirement, the sortition-based selection that prevents technical experts from forming a permanent class, and the explicit constraint that the Technical Council cannot implement anything without DAO ratification.

The third failure mode is plutocratic capture: large holders of the system's native token accumulate disproportionate governance power and use it to protect their financial interests against the community's wellbeing. The protocol prevents this through the square-root voting formula, which makes it mathematically impossible to buy majority governance control, and through the territorial ratification requirement, which ensures that communities — not token holders — have binding authority over decisions affecting their territory.

*The constitution of a post-capitalist system must answer the same question any constitution answers: how do we prevent the concentration of power that we are trying to escape from reproducing itself inside the system we are building? The PHREVO Governance Protocol is our answer. Not a perfect answer — no constitution is. But an explicit, verifiable, amendable answer that names the failure modes it is designed to prevent and encodes the architectural responses to each.*

Whether these mechanisms work in practice is an empirical question. The answer will emerge over the decade of operation that Phase 3 inaugurates. What the protocol provides, for now, is a well-posed question — and a system constitutionally bounded in its ability to evade it.

## **Document Status and Amendment History**


**PHREVO — Annex P — Governance Protocol v1.0 — April 2026**  
**SSRN Abstract ID: 6614438 — DOI: 10.5281/zenodo.19666941**  
Andres Jimenez — hello@phrevo.earth — phrevo.org — phrevo.io  
*Creative Commons Attribution 4.0 International (CC BY 4.0)*