The Coherence Economy: A Complete Green Paper

Redefining Value Through Measurable Alignment

Version 0.1 — Draft for Community Review
Published: November 2025

Abstract

Modern economies optimize for extraction and accumulation, creating systemic incentives that reward noise over signal, transaction volume over genuine value creation, and short-term gains over long-term flourishing. This green paper proposes **The Coherence Economy**—a new economic paradigm where value generation is measured by alignment rather than extraction, implemented through decentralized infrastructure that makes coherence measurable, verifiable, and compensable.

We introduce **Proof of Coherence (PoC)**, a novel consensus mechanism that replaces energy-burning (PoW) and capital-hoarding (PoS) with verified contributions to collective clarity, reduced entropy, knowledge sharing, and sustainable coordination. Through a dual-token architecture combining non-transferable reputation (Soulbound Tokens) with liquid value exchange (Aurum), we create an economic system where your ability to generate prosperity is proportional to your demonstrated capacity to increase coherence.

This is not utopian philosophy—it is incentive engineering. The question is no longer "could this work?" but rather "what happens when the first network implements it?"

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1. Problem Statement

1.1 The Misalignment Crisis

Contemporary economic systems suffer from fundamental misalignment between value creation and value capture:

What Creates Value (unpaid or underpaid):

- Teaching and mentorship
- Emotional labor and caregiving
- Conflict resolution and mediation
- Open-source development
- Scientific research sharing
- Community building
- Environmental regeneration
- Meaningful conversation
- Artistic insight that shifts culture

What Captures Value (highly compensated):

- Attention extraction and algorithmic manipulation
- Rent-seeking and regulatory capture
- Financial speculation divorced from productive activity
- Planned obsolescence and waste generation
- Information asymmetry exploitation
- Addictive product design
- Extractive resource depletion

The result: A civilization that financially rewards the destruction of coherence while leaving coherence-generating activities as externalities.

1.2 The Measurement Gap

Traditional economics measures **flow** (GDP, transaction volume) but not **direction** (whether that flow increases

or decreases collective flourishing). Money measures magnitude without vector.

We can quantify:

- How much money moved
- How fast it moved
- Where it accumulated

We cannot quantify:

- Whether life improved
- Whether clarity increased
- Whether sustainable patterns emerged
- Whether communities strengthened

1.3 Why Previous Solutions Failed

Universal Basic Income (UBI): Provides survival but not purpose. Creates passive recipients rather than active contributors. Doesn't distinguish between coherence-generating and coherence-destroying behavior.

Corporate Social Responsibility: Voluntary and unenforceable. Creates incentive to appear virtuous while maximizing extraction. No measurable accountability.

Reputation Systems (Reddit Karma, LinkedIn Endorsements): Gameable, siloed, non-portable, and disconnected from economic compensation. Signal without settlement.

Existing Cryptocurrencies: Optimize for capital accumulation (PoS) or energy waste (PoW). Do not measure meaningful contribution. Perpetuate extractive incentive structures in decentralized form.

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2. Core Thesis

If coherence can be measured, coherence should be the currency.

2.1 Defining Coherence

Coherence exists across multiple scales:

Individual Coherence:

- **Physiological:** Heart rate variability (HRV) coherence, nervous system regulation
- **Psychological:** Clarity of thought, emotional stability, presence
- **Behavioral:** Alignment between stated values and actions

Interpersonal Coherence:

- **Communication:** Signal-to-noise ratio in exchanges

- **Collaboration:** Friction reduction in joint work
- **Resolution:** Transformation of conflict into understanding

Collective Coherence:

- **Network:** Information flow efficiency, knowledge graph connectivity
- **Cultural:** Shared meaning and mutual understanding
- **Systemic:** Reduced entropy in organizational structures

Environmental Coherence:

- **Ecological:** Regenerative vs. extractive resource patterns
- **Infrastructural:** Sustainable vs. wasteful system design
- **Temporal:** Long-term alignment vs. short-term extraction

2.2 The Coherence Equation

Coherence can be formalized as entropy reduction over time:

$$C(t) = -\Delta S/\Delta t + \sum_i A_i(t) \times M_i$$

Where:

- **C(t)** = Coherence score at time t
- **ΔS** = Change in system entropy
- **$A_i(t)$** = Individual contribution i at time t
- **M_i** = Multiplier based on network propagation

In plain language: Coherence is the measured reduction of chaos, weighted by impact.

2.3 Why This Changes Everything

Current incentive structure:

> "How do I extract maximum value from this interaction?"

Coherence incentive structure:

> "How do I generate maximum coherence through this interaction?"

This is not a moral appeal—it is a systemic redesign of incentives. When generating coherence becomes the most profitable activity, the entire trajectory of civilization shifts.

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3. Philosophical Foundation

3.1 Non-Extractive Economics

Traditional economics assumes zero-sum or rival goods. The Coherence Economy recognizes that meaning, knowledge, and emotional attunement are **non-rival goods** that increase when shared.

Extractive Model:

- I teach you → I lose knowledge advantage
- I help you → I waste time I could monetize
- I share insight → I give away proprietary value

Coherence Model:

- I teach you → You generate value → Network multiplier increases my coherence score
- I help you → Your increased capacity enables future collaboration
- I share insight → Knowledge graph connectivity increases value for all nodes

3.2 Universal Basic Meaning (UBM)

Unlike Universal Basic Income (survival without purpose), UBM provides:

1. **Income proportional to contribution:** You earn by increasing clarity, reducing entropy, or enabling others
2. **Built-in dignity:** Everyone can generate coherence—no gatekeepers, credentials, or pre-existing wealth required
3. **Dynamic purpose:** Your role in the economy emerges from what you're uniquely positioned to contribute
4. **Sustainable trajectory:** The more coherence you generate, the more capacity you have to generate future coherence (positive feedback)

3.3 Addressing the "Free Rider" Problem

Traditional economics fears that rewarding contribution without extraction enables free riders. The Coherence Economy solves this through:

- **Verification Requirements:** Coherence must be cryptographically proven, not self-reported
- **Reputation Staking:** Bad actors sacrifice accumulated reputation when exposed
- **Social Slashing:** Community can revoke undeserved coherence scores
- **Time Decay:** Reputation slowly decays without sustained contribution
- **Multi-Modal Attestation:** Single points of manipulation are insufficient; coherence requires convergent evidence

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4. Technical Architecture

4.1 Why Web3 Is Required

A coherence economy cannot run on centralized infrastructure. Centralized control creates:

- **Single points of corruption:** Whoever controls the measurement controls the economy
- **Surveillance incentives:** Central authorities monetize data asymmetry
- **Capture risks:** Governments and corporations redefine "coherence" to serve power
- **Exclusion gates:** Permissioned access prevents global participation

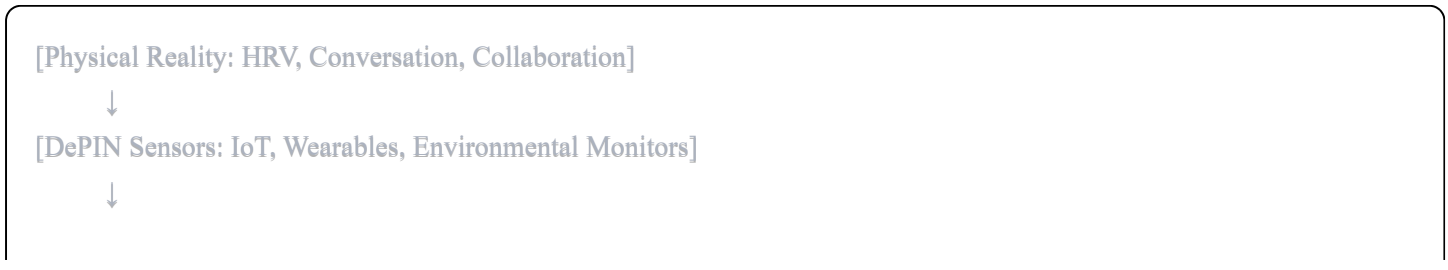
Web3 provides:

- ✅ Trustless Verification: Cryptographic proofs replace institutional authority
- ✅ Composability: Coherence tokens work across all protocols
- ✅ Censorship Resistance: No entity can exclude participants
- ✅ Automated Settlement: Smart contracts eliminate intermediaries
- ✅ Transparent Auditing: All transactions publicly verifiable
- ✅ Self-Sovereign Identity: Users control their data and reputation

4.2 The Full Stack

Layer	Technology	Purpose
Settlement	Ethereum L2 (Optimism/Arbitrum)	Immutable ledger of coherence events
Identity	Decentralized Identifiers (DIDs)	Self-sovereign reputation portability
Reputation	Soulbound Tokens (ERC-5192)	Non-transferable coherence history
Privacy	zk-SNARKs / zk-STARKs	Prove coherence without revealing details
Oracles	Chainlink + Custom PoC Oracles	Bridge off-chain coherence data on-chain
Sensors	DePIN (HRV monitors, environmental IoT)	Measure physical coherence signals
Compute	TEEs (Trusted Execution Environments)	Secure processing of sensitive data
Storage	IPFS / Arweave	Decentralized coherence attestation storage
Exchange	ERC-20 (Aurum Token)	Liquid value transfer medium
Governance	Quadratic voting weighted by SBT	Community-driven parameter evolution

4.3 Data Flow Architecture



[TEE Processing: Encrypted local computation]
↓
[zk-Proof Generation: Privacy-preserving attestation]
↓
[Oracle Network: Aggregate multi-source verification]
↓
[Smart Contract: Proof of Coherence validation]
↓
[Token Minting: SBT update + AU generation]
↓
[Settlement Layer: On-chain permanent record]

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5. The Oracle Problem: Measuring Coherence

The Oracle Problem is the hardest technical challenge: How do we reliably bring off-chain coherence data (heartbeats, conversations, environmental impact) on-chain without centralized authority or manipulation?

5.1 Multi-Modal Attestation Framework

No single data source can be trusted. Coherence verification requires convergent evidence across:

A. Biometric Oracles (Physiological Coherence)

Data Sources:

- Heart Rate Variability (HRV) coherence scores
- EEG synchronization in group settings
- Galvanic skin response (stress/calm markers)
- Respiratory coherence

Implementation:

- Wearables (Oura, Apple Watch, Muse) equipped with cryptographic signing keys
- Each device generates a signed attestation packet
- Raw data stays local; only derived metrics and signatures go on-chain
- TEEs on edge devices prevent tampering

Attack Prevention:

- Device Authentication: Only registered, tamper-resistant devices can submit
- Pattern Analysis: Anomalous patterns flagged by ML models
- Cross-Validation: Compare against peer group baselines

- Reputation Weighting: Devices with history of accurate reporting weighted higher

B. Social Graph Oracles (Interpersonal Coherence)

Data Sources:

- Peer endorsements and testimonials
- Collaboration network analysis
- Conflict resolution verification
- Knowledge transfer mapping (who taught whom)

Implementation:

- **Witness Signatures:** When you help someone, they cryptographically sign an attestation
- **Reputation-Weighted Validation:** Endorsements from high-SBT individuals weighted higher
- **Social Slashing:** If endorsement later proven false, both parties lose reputation
- **Anti-Sybil Mechanisms:** Social graph analysis detects fake identity clusters

Example Flow:

```
Alice mentors Bob → Bob's clarity increases (measured via self-reported +
peer validation) → Bob signs attestation: "Alice taught me X" →
Coherence Circle validates → Alice receives AU + SBT increase
```

C. Informational Coherence Oracles

Data Sources:

- Citation graphs (academic papers, code repositories)
- Dependency trees (whose work builds on whose)
- Knowledge graph connectivity
- Signal-to-noise ratios in communication

Implementation:

- **GitHub Oracles:** Track commits, stars, forks, dependency chains
- **Academic Oracles:** Pull from arXiv, PubMed, Semantic Scholar
- **Communication Analysis:** NLP sentiment scoring
- **Retroactive Funding:** If your work becomes load-bearing, you're compensated years later

Retroactive Example:

```
2024: You release open-source library → $0 immediate value
2027: Library now used by 40% of ecosystem
Oracle detects dependency graph weight → Automated AU stream to your wallet
```

D. Environmental Oracles (Ecological Coherence)

Data Sources:

- Air quality sensors
- Soil health monitors
- Biodiversity indices
- Regenerative agriculture verification

Implementation:

- **DePIN Environmental Sensors:** Community-deployed IoT measuring real-world impact
- **Satellite Oracle Integration:** Cross-validate ground sensors with orbital data
- **Smart Contract Escrows:** Funds unlock when environmental targets met
- **Carbon-Negative Credits:** Verified regeneration generates AU tokens

E. Entropy Reduction Oracles (Z(n) Metrics)

The Z(n) Function: Measures system-wide entropy over time

$$Z(n) = \int [\text{Coherence}(t) - \text{Baseline}]\, dt$$
$$Z\phi(n) = Z(n) \times \Phi(\text{network\_position})$$

Where:

- **Z(n)** = Cumulative coherence contribution
- **Φ** = Network position multiplier (how many others you enable)

Implementation:

- **Graph Database:** Maps all coherence relationships
- **PageRank-Style Algorithm:** Calculates whose contributions enable the most downstream value
- **Recursive Scoring:** If you teach someone who teaches 10 others, you get fractional credit
- **Time-Decay Function:** Recent contributions weighted more heavily

5.2 Oracle Consensus Mechanism

No single oracle can be trusted. Coherence verification requires:

1. **Multi-Oracle Aggregation:** Minimum 3 independent oracle sources must agree
2. **Reputation Weighting:** Oracles with proven accuracy weighted higher
3. **Outlier Detection:** Statistical analysis flags anomalous reports
4. **Slashing Conditions:** Oracles submitting false data lose staked collateral
5. **Appeal Process:** Disputed coherence events go to Coherence Circle arbitration

5.3 Privacy-Preserving Verification: zk-SNARKs

The Privacy Paradox: We must verify coherence without creating surveillance infrastructure.

Solution: Zero-Knowledge Proofs

Example Use Cases:

Conflict Resolution:

- **Proof:** "I mediated a dispute between two parties that reduced entropy by X"
- **Without revealing:** Who the parties were, what the dispute was about

Mental Health Support:

- **Proof:** "I provided emotional support that increased someone's HRV coherence"
- **Without revealing:** The person's identity or the nature of the crisis

Sensitive Teaching:

- **Proof:** "I taught trauma recovery techniques to N people with verified outcomes"
- **Without revealing:** Student identities or specific trauma details

Implementation:

- **zk-SNARK Circuits:** Prove statistical properties without revealing raw data
- **Homomorphic Encryption:** Perform computation on encrypted data
- **Secure Multi-Party Computation (MPC):** Multiple parties verify without exposing individual data
- **Differential Privacy:** Add mathematical noise that preserves aggregate truth while protecting individuals

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6. Dual-Token Model

6.1 The Problem with Single-Token Systems

If coherence is directly tradeable:

- ❌ Wealthy individuals can buy fake virtue

- ❌ Reputation becomes a commodity detached from behavior
- ❌ Short-term traders extract value without contributing
- ❌ System collapses into plutocracy

Solution: Separate Signal (reputation) from Resource (money)

6.2 Token A: Coherence Soulbound Token (SBT)

Type: ERC-5192 Soulbound Token (Non-Transferable)

Properties:

- ✅ Bound to Decentralized Identifier (DID)
- ✅ Cannot be bought, sold, or transferred
- ✅ Accumulates through verified coherence contributions
- ✅ Decays slowly without sustained activity (half-life: ~2 years)
- ✅ Visible on-chain as permanent reputation history

Scoring Function:

$$SBT\_score(t) = \sum_i C\_verified(i) \times M\_network(i) \times D\_decay(t-t_i)$$

Where:

- **C_verified(i)** = Verified coherence event i
- **M_network(i)** = Network multiplier (how many people you enabled)
- **D_decay(t-t_i)** = Time decay function (recent > ancient)

Use Cases:

- **Governance Weight:** Your vote power in protocol decisions
- **System Access:** High-SBT unlocks advanced features
- **Endorsement Value:** Your attestations carry more weight
- **AU Minting Rate:** Higher SBT = higher AU generation
- **Oracle Participation:** Only high-SBT can run validator nodes

Decay Mechanism:

$$SBT\_current = SBT\_peak \times e^{(-\lambda t)}$$

Where λ = decay constant (chosen via governance)

Rationale: Prevents "resting on laurels." You must continue generating coherence to maintain high reputation.

6.3 Token B: Aurum (AU) - Liquid Value

Type: ERC-20 Token (Fully Transferable)

Properties:

- ✅ Tradeable on DEXs
- ✅ Usable for goods/services
- ✅ Stakeable for governance participation
- ✅ Burned when coherence-negative actions detected

Minting Formula:

```
AU_minted = k × (SBT_score)^α × (ΔC)^β × (Δt)^γ
```

Where:

- **k** = calibration constant (set via governance)
- **α** = reputation weight (~0.7)
- **β** = contribution weight (~1.2, convex to reward high-impact)
- **γ** = time consistency weight (~0.5, rewards sustained effort)
- **ΔC** = Change in collective coherence attributable to you
- **Δt** = Time active in the system

Example:

```
Alice (SBT: 800, ΔC: +50 coherence points, Δt: 3 months active)
AU_minted = 1.5 × (800)^0.7 × (50)^1.2 × (90)^0.5
AU_minted ≈ 145,000 AU tokens
```

Burn Mechanisms:

- **Entropy Generation:** If your actions provably increase chaos, AU is burned
- **False Attestations:** Caught lying → proportional AU burn
- **Malicious Behavior:** Harassment, manipulation → community-voted burn
- **Fee Burning:** Small % of transaction fees burned (deflationary pressure)

6.4 Token Relationship Dynamics

Virtuous Cycle:

Generate Coherence → Earn SBT → Higher AU Minting Rate →
More Resources → Greater Capacity to Generate Coherence

Preventing Gaming:

- Cannot buy SBT (non-transferable)
- Cannot fake coherence (multi-oracle verification)
- Cannot maintain high SBT without ongoing contribution (decay)
- Cannot extract value without creating value (AU minting tied to verified impact)

Economic Equilibrium:

- **Supply Side:** AU generated proportional to total coherence created
- **Demand Side:** AU needed to participate in coherence economy
- **Price Discovery:** Market finds equilibrium between coherence generation and value capture

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7. Proof of Coherence Consensus

7.1 Consensus Mechanism Overview

Proof of Coherence (PoC) replaces:

- **Proof of Work:** Burning energy to secure network
- **Proof of Stake:** Hoarding capital to validate transactions

With:

- **Proof of Coherence:** Demonstrable reduction of entropy to mint value

7.2 Validation Process

Step 1: Coherence Event Occurs

Alice teaches Bob conflict resolution → Bob applies it successfully →
Measurable outcome: reduced workplace tension (verified by colleagues)

Step 2: Multi-Modal Attestation

- Bob signs: "Alice taught me skill X"
- Colleagues sign: "Bob's behavior improved measurably"
- Biometric: Bob's HRV coherence increased 15%
- Social graph: Bob now teaching others (network multiplier)

Step 3: zk-Proof Generation

```
Circuit proves: "The following coherence event occurred with probability > 95%"
Without revealing: Specific individuals, exact workplace, private details
```

Step 4: Oracle Aggregation

```
5 independent oracles receive proofs → 4/5 must agree →
Outliers analyzed for manipulation → Consensus reached
```

Step 5: Smart Contract Execution

```solidity
if (consensus_reached && SBT_valid && no_slashing_challenges) {
    mint_AU(Alice, calculated_amount);
    update_SBT(Alice, coherence_increase);
    emit CoherenceEvent(Alice, ΔC, timestamp);
}
```

Step 6: Settlement & Appeals

- Transaction finalized on L2
- 7-day challenge period
- Community can flag suspicious events
- Appeals go to Coherence Circle arbitration

7.3 Validator Requirements

Who Can Validate PoC Transactions?

Coherence Validators must:

- Hold minimum SBT score (e.g., 500+)
- Stake AU collateral (slashed if malicious)
- Run oracle node (hardware + bandwidth requirements)
- Maintain 95%+ uptime
- Pass regular audits (honeypot coherence events)

Validator Rewards:

```
Validator_reward = Base_fee + (% of AU_minted in validated blocks)
```

Slashing Conditions:

- Validating provably false coherence events → 50% slash
- Colluding with malicious actors → 80% slash + SBT reduction
- Downtime > 10% per month → 5% slash
- Failing honeypot tests → 20% slash

7.4 Social Slashing: Community Accountability

The Problem: What if someone earns high SBT through deception discovered later?

Solution: Time-delayed community slashing

Example:

```
2024: Alice appears to be excellent mentor → Earns high SBT
2025: Students reveal Alice was manipulative, abusive
Community votes → Retroactive SBT reduction + AU clawback
Funds redistributed to harmed parties
```

Process:

1. Accusation submitted with evidence
2. Coherence Circle investigation (neutral arbitrators)
3. Accused can defend with counter-evidence
4. Quadratic vote weighted by SBT
5. If slash approved: SBT reduced, AU burned, reputation permanently marked

Protections Against Abuse:

- False accusations result in accuser's SBT reduction
- Multiple independent witnesses required
- Burden of proof on accuser
- Appeals process available

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8. Smart Contract Primitives

8.1 Coherence Circles

Purpose: Small-group mutual accountability and verification

Structure:

- 5-15 members who know each other
- Each member vouches for others' contributions
- Cross-validation prevents individual gaming

Smart Contract Logic:

```solidity
contract CoherenceCircle {
    mapping(address => uint256) public memberSBT;
    uint256 public circleMultiplier;

    function attestContribution(
        address contributor,
        uint256 coherenceIncrease,
        string memory evidence
    ) public onlyMember {
        require(memberValidations[contributor] >= MIN_VALIDATIONS);
        mint_AU(contributor, coherenceIncrease * circleMultiplier);
    }

    function challengeAttestation(
        uint256 attestationID,
        string memory counter_evidence
    ) public {
        // Initiate arbitration process
    }
}
```

Incentives:

- Circles that consistently validate accurate contributions earn multipliers
- Circles caught gaming lose multipliers + member SBT penalties
- High-performing circles attract new members

8.2 Conflict Resolution Contracts

Purpose: Economically incentivize dispute resolution

Mechanism:

```solidity
```

```
contract ConflictResolution {
    struct Dispute {
        address party1;
        address party2;
        uint256 stakedAmount;
        bytes32 disputeHash;
        uint256 initialEntropy;
        DisputeStatus status;
    }

    function initiateResolution(
        address counterparty,
        uint256 stake
    ) public {
        // Both parties stake AU
        // Entropy measured
        // Timer starts
    }

    function resolveDispute(
        uint256 disputeID,
        address mediator
    ) public {
        // Final entropy measured
        // If entropy reduced → rewards
        // If entropy increased → stakes burned
    }
}
```

Outcomes:

- **Successful resolution:** Parties get stake back + bonus, mediator earns fee
- **Failed resolution:** Stakes burned, no rewards
- **Mediator reputation:** SBT increases with successful mediations

8.3 Meaning Credits

Purpose: Track non-monetary value exchange

Use Case: Exchange skills without money (web design for therapy)

Mechanism:

solidity

```
contract MeaningCredits {
    mapping(address => int256) public balances; // Can go negative

    function requestService(
        address provider,
        string memory serviceType,
        uint256 meaningCredits
    ) public {
        // Provider accepts → work completed → verified
        balances[msg.sender] -= meaningCredits;
        balances[provider] += meaningCredits;
    }

    function redeemForAU(uint256 credits) public {
        require(balances[msg.sender] >= credits);
        uint256 AU_amount = credits * getExchangeRate();
        mint_AU(msg.sender, AU_amount);
        balances[msg.sender] -= credits;
    }
}
```

8.4 Retroactive Public Goods Funding

Problem: How to fund work whose value only becomes clear in hindsight?

Solution: Dependency-graph oracle + time-delayed payouts

Example:

```
Year 1: Release open-source library
Year 2: 3 projects build on it
Year 3: 40 projects depend on it
Year 4: Load-bearing infrastructure

Oracle detects weight → Retroactive AU stream
```

Smart Contract:

```
solidity
```

```solidity
contract RetroactiveGoods {
    struct Contribution {
        address creator;
        bytes32 projectHash;
        uint256 timestamp;
        uint256 dependencyScore;
    }

    function updateDependencyScore(
        uint256 contributionID,
        uint256 newScore
    ) public onlyOracle {
        uint256 delta = newScore - contributions[contributionID].dependencyScore;
        if (delta > 0) {
            uint256 retroPayout = calculateRetroValue(delta);
            stream_AU(contributions[contributionID].creator, retroPayout);
        }
    }
}
```

8.5 Meeting Efficiency Contract

Purpose: End useless meetings

```solidity
```

```
contract MeetingStake {
    function createMeeting(
        address[] memory participants,
        uint256 duration
    ) public {
        uint256 stakePerPerson = calculateStake(duration, participants.length);

        for (address participant : participants) {
            require(AU.transferFrom(participant, address(this), stakePerPerson));
        }

        initialCoherence = measureCollectiveCoherence(participants);
    }

    function endMeeting(uint256 meetingID) public {
        finalCoherence = measureCollectiveCoherence(participants);

        if (finalCoherence > initialCoherence) {
            distributeBonus(meetingID);
        } else {
            burn(stakes[meetingID]);
        }
    }
}
```

Impact: People stop scheduling meetings unless confident they'll add value

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9. DePIN Infrastructure Layer

Decentralized Physical Infrastructure Networks (DePIN) enable permissionless deployment of coherence measurement.

9.1 Biometric Sensor Networks

Hardware:

- Open-source HRV monitors (ESP32-based, ~$30)
- EEG headbands (OpenBCI, Muse)
- Environmental sensors

Network Structure:

```
[Local Sensors] → [Edge Gateway with TEE] →
[IPFS Storage] → [Oracle Aggregators] → [Blockchain]
```

Privacy Architecture:

- Raw data never leaves device
- Only derived metrics + cryptographic proofs transmitted
- User controls data sharing via DID

9.2 Edge Compute Nodes

Requirements:

- ARM/x86 processor with TEE support
- Minimum 4GB RAM, 100GB storage
- 99%+ uptime

Rewards:

$$Node\_earnings = Base\_reward + (Processing\_fee \times Computations\_verified)$$

9.3 Environmental Verification

Infrastructure:

- Air quality monitors
- Soil health sensors
- Carbon sequestration meters
- Biodiversity audio monitoring

Integration:

```solidity
contract RegenerativeFarming {
    function verifyHarvest(
        uint256 farmID,
        bytes memory soilData,
        bytes memory carbonData
    ) public {
        if (soilHealth(soilData) > baseline &&
            carbonSequestered(carbonData) > 0) {
            mint_AU(farms[farmID].owner, calculateReward());
        }
    }
}
```

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10. Governance & Evolution

10.1 Three-Layer Governance

Layer 1: Constitutional (Immutable)

- Non-transferability of SBT
- Multi-modal verification required
- Privacy rights via zk-proofs
- Anti-censorship guarantees
- Open source requirement
- Right to appeal

Layer 2: Protocol Parameters (DAO Governable)

- AU minting formula coefficients
- SBT decay rates
- Validator stake amounts
- Oracle consensus thresholds
- Fee structures

Layer 3: Implementation (Rapid Iteration)

- UX improvements
- Oracle optimizations
- New sensor integrations
- Bug fixes

10.2 Quadratic Voting Mechanism

Standard Problem:

- 1 token = 1 vote → Plutocracy
- 1 person = 1 vote → Sybil attacks

Quadratic Solution:

```
Vote_power = √(SBT_score) × √(lock_period_days)
```

Why This Works:

- High-coherence contributors have more influence (earned, not bought)
- Diminishing returns prevent domination
- Sybil attacks expensive
- Incentivizes coherence generation

10.3 Dispute Resolution

Coherence Councils: Rotating panels for arbitration

Structure:

- **Minor Disputes:** 3-member panel, 48-hour timeline
- **Major Disputes:** 7-member panel, 7-day timeline
- **Existential:** 21-member panel, 30-day deliberation

Arbitrator Incentives:

- Earn AU for fair arbitration
- Slashed if decisions overturned on appeal
- SBT increase for consistent fair rulings
- Reputation penalty for conflicts of interest

Transparency:

- All arbitration reasoning published (privacy-protected)
- Precedents form case law
- Minority opinions recorded

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11. Economic Modeling & Attack Vectors

11.1 Token Supply Dynamics

AU Token Supply:

```
Total_Supply(t) = ∫ [Coherence_Generated(t) × Minting_Rate] dt - Burned_Tokens(t)

Initial_Supply = 0 (no premine)
Max_Supply = None (grows with coherence)
Target Net_Inflation ≈ 2-5% annually
```

Key Property: AU inflation tracks coherence generation rate

Deflationary Pressures:

- Transaction fees (burned)
- Entropy-generating actions (burned)
- False attestations (burned)
- Validator slashing (burned)

11.2 Attack Vectors & Mitigations

Attack 1: Fake Coherence Generation

Method: Create fake personas, mutual endorsement

Mitigation:

- Social Graph Analysis: Clusters flagged
- Biometric Requirements: Hard to fake across devices
- Temporal Patterns: Fake endorsements too predictable
- Economic Cost: Must stake AU
- Community Challenges: Any member can flag

Detection Algorithm:

```python
def detect_sybil_cluster(graph):
    for subgraph in find_dense_subgraphs(graph):
        if (internal_endorsements / external_endorsements > THRESHOLD
            and avg_sbt_age < MIN_AGE
            and biometric_variance < MIN_VARIANCE):
            flag_for_investigation(subgraph)
```

Attack 2: Oracle Manipulation

Method: Compromise oracle nodes

Mitigation:

- Multi-Oracle Consensus: Requires 4/5 agreement
- Reputation Staking: Validators slashed if caught
- Honeypot Tests: Fake coherence events test oracles
- Geographic Distribution: 50+ countries
- Economic Incentive: Cost to corrupt > potential gain

Attack 3: Coherence Washing

Method: Fund coherence activities to earn AU, then extract

Mitigation:

- Network Effects: True coherence creates multiplicative value
- Time Delay: Retroactive funding over years
- Community Detection: Extractive patterns visible
- Purpose Mismatch: Activities "for tokens" vs "for coherence" have different signatures

Pattern Recognition:

```
Extractive: Contribution → Immediate claim → Token sale → Exit
Generative: Contribution → Continued engagement → Network growth → Reinvestment
```

Attack 4: Governance Capture

Method: Accumulate high SBT, then change protocol

Mitigation:

- Constitutional Layer: Core principles immutable
- Quadratic Voting: √(SBT) prevents linear control
- Conviction Voting: Long-term staking required
- Fork Rights: Community can exit
- Transparency: All votes public

Attack 5: Reputation Inflation

Method: Create "easy" coherence tasks to farm SBT

Mitigation:

- Category-Specific Thresholds: Different verification requirements
- Diminishing Returns: Repeated actions earn progressively less
- Peer Comparison: Scored relative to network average
- Decay Function: Old SBT decays

Example:

```
First meditation facilitation: 100 SBT
Second: 90 SBT
Third: 81 SBT
(exponential decay)

Teaching new skill: 200 SBT (higher value)
Teaching same skill repeatedly: Diminishing returns
```

11.3 Economic Sustainability

Scenario A: Rapid Adoption

```
Year 1: 10,000 users, 5M AU
Year 2: 100,000 users, 75M AU
Year 3: 1M users, 1.2B AU
```

Challenges: Validator scaling, oracle capacity, governance participation

Responses: Layer 2 scaling, sharded oracles, delegated governance

Scenario B: Slow Growth

```
Year 1: 1,000 users, 500K AU
Year 2: 3,000 users, 2M AU
Year 3: 8,000 users, 7M AU
```

Challenges: Low liquidity, thin validator set, limited network effects

Responses: Subsidize validators, lower thresholds, focus on quality

Scenario C: Hostile Capture

Detection:

- Anomalous SBT growth rate
- Centralized funding source
- Proposals relaxing safeguards
- Community sentiment analysis

Response:

- Constitutional constraints prevent core changes
- Quadratic voting limits impact
- Community can fork

- Slashing if manipulation detected

11.4 Value Capture vs Creation

Revenue Sources:

1. Transaction fees (~0.1%)
2. Validator fees (optional priority)
3. Premium features (analytics, API access)
4. Treasury diversification (protocol-owned liquidity)

Sustainability Formula:

```
Protocol_Health = (Value_Created / Value_Extracted)

Target: > 10:1 ratio
Warning: < 5:1
Crisis: < 3:1
```

---

12. Implementation Roadmap

Phase 1: Foundation (Q1-Q2 2026)

Deliverables:

1. **White Paper v1.0** - Full mathematical specification
2. **Core Smart Contracts (Testnet)** - SBT, AU, PoC validation
3. **DID Infrastructure** - Integration with standards
4. **Oracle Prototype** - Single oracle type
5. **Documentation** - Technical specs, API docs, guides

Success Metrics:

- 100+ technical contributors
- 3 independent security audits
- 1,000+ testnet participants
- 5,000+ coherence events recorded

Phase 2: Pilot Deployments (Q3-Q4 2026)

Target Communities (3-5 pilots):

1. **Academic Research Network** (~200 researchers)
   - Coherence type: Knowledge sharing, peer review
   - Oracle: Citation graphs, collaboration networks
2. **Conflict Mediation Service** (~50 mediators)
   - Coherence type: Dispute resolution
   - Oracle: Surveys, biometric data
3. **Open Source Developer Community** (~500 developers)
   - Coherence type: Code contribution, mentorship
   - Oracle: GitHub metrics, code review quality
4. **Regenerative Agriculture Collective** (~100 farmers)
   - Coherence type: Environmental restoration
   - Oracle: Soil sensors, biodiversity monitoring
5. **Mental Health Support Network** (~150 practitioners)
   - Coherence type: Emotional support, therapy
   - Oracle: HRV coherence, validated outcomes (zk-proofs)

Pilot Infrastructure:

- Dedicated L2 testnet
- Simplified onboarding
- Weekly community calls
- Rapid iteration

Success Metrics:

- 80%+ pilot retention after 6 months
- 10,000+ coherence events
- < 1% false positive rate
- Measurable improvement in pilot communities

Phase 3: Mainnet Launch (Q1 2027)

Prerequisites:

- ✅ 3+ successful pilot completions
- ✅ Security audits passed
- ✅ Oracle network 99%+ uptime

- ✅ Governance framework tested
- ✅ Legal analysis completed

Launch Sequence:

Week 1-2: Validator onboarding (50+ nodes, 20M AU staked) **Week 3-4:** Pioneer users (pilot participants migrate) **Week 5-8:** Public launch (open registration, marketing) **Week 9-12:** Stability phase (monitoring, rapid response)

Initial Parameters:

```
Minimum SBT for governance: 100
Validator minimum stake: 10,000 AU
Oracle consensus threshold: 4/5
SBT decay half-life: 2 years
Transaction fee: 0.1%
Slashing percentage: 25%
Appeal period: 7 days
```

Phase 4: Ecosystem Expansion (2027-2028)

Integration Targets:

1. **Existing Reputation Systems**
   - GitHub contributions → SBT
   - Academic citations → SBT
   - Wikipedia editing → SBT
2. **Web3 Ecosystem**
   - Gitcoin Grants integration
   - Optimism RetroPGF integration
   - Lens Protocol social graph
   - ENS subdomains
3. **Traditional Institutions**
   - University transcripts → verifiable credentials
   - Professional certifications → attestations
   - Non-profit work → coherence verification
4. **Consumer Applications**
   - Meditation apps → HRV coherence → AU
   - Fitness tracking → wellness coherence → AU

- Educational platforms → teaching coherence → AU

Developer Ecosystem:

- Coherence SDK
- Grant program
- Quarterly hackathons
- 3-month incubator

Success Metrics (End of 2028):

- 100,000+ active users
- 1,000+ daily coherence events
- 100+ integrated applications
- 10+ institutional partnerships
- $10M+ AU economic activity

Phase 5: Global Scaling (2029+)

Geographic Expansion:

- Localized coherence definitions
- Regional validator networks
- Multi-language support
- Offline-first infrastructure

Interoperability:

- Cross-chain bridges
- Coherence portability
- Universal coherence identity standard

Research & Development:

- Advanced biometric oracles
- AI-assisted verification (ethical safeguards)
- Quantum-resistant cryptography
- Carbon-negative infrastructure

Long-Term Vision:

- Coherence as global standard (complement GDP)
- Treaty organization integration
- Educational integration
- Government policy adoption

---

13. Conclusion

13.1 Summary of Key Innovations

The Coherence Economy proposes a fundamental reimagining of value creation through:

1. **Measurable Coherence** - Multi-modal attestation makes "meaning" quantifiable
2. **Dual-Token Architecture** - Separates reputation from resources
3. **Proof of Coherence** - Rewards entropy reduction over energy burning
4. **DePIN Infrastructure** - Enables permissionless coherence measurement
5. **Privacy-Preserving Verification** - zk-SNARKs allow proving impact without surveillance
6. **Retroactive Funding** - Value accrues over time to load-bearing contributions
7. **Adaptive Governance** - Constitutional constraints + community evolution
8. **Economic Alignment** - Generating coherence becomes most profitable activity

13.2 Why This Matters

We are at an inflection point. The existing economic system:

- Cannot price externalities
- Rewards extraction over contribution
- Optimizes for GDP growth regardless of flourishing
- Treats meaning as luxury rather than foundation

The Coherence Economy offers a different path:

- Internalizes externalities through measurable coherence
- Rewards contribution directly and transparently
- Optimizes for collective flourishing
- Makes meaning economically viable

This is not idealism—it is **systems engineering**. We are not asking people to be more virtuous. We are changing the incentive structure so that virtuous behavior is economically rational.

13.3 The Pivot Point: Philosophy Meets Engineering

For centuries, we've had the philosophy:

- "Be kind"
- "Help others"
- "Think long-term"
- "Steward the commons"

But we've lacked the infrastructure to economically reward these behaviors at scale.

Web3 provides that infrastructure:

- ✅ Trustless verification
- ✅ Programmable incentives
- ✅ Global coordination
- ✅ Transparent accountability

The Coherence Economy is the synthesis: philosophy instantiated as code.

13.4 Open Questions & Research Directions

Technical:

- Optimal oracle consensus thresholds?
- Cultural differences in coherence definitions?
- Unanticipated attack vectors?
- Scalability limits?

Economic:

- Long-term equilibrium?
- Optimal SBT decay rate?
- Preventing extractive derivatives?
- Interface with traditional economies?

Social:

- Avoiding new status hierarchies?
- Goodhart's Law resistance?
- Preventing "coherence theater"?
- Working across ideological divides?

Philosophical:

- Who decides what coherence is?
- Irresolvable value conflicts?
- Risk of homogenizing diversity?
- Unintended consequences of economizing meaning?

13.5 Call to Action

This is not a product—it is a protocol. It belongs to no one and everyone.

For Researchers:

- Challenge assumptions
- Propose alternatives
- Publish critiques
- Improve the model

For Developers:

- Build on the protocol
- Create coherence-native applications
- Improve infrastructure
- Contribute to open-source

For Communities:

- Join pilot programs
- Experiment with measurement
- Provide real-world feedback
- Help define coherence in your context

For Funders:

- Support protocol development
- Fund coherence metrics research
- Sponsor pilot deployments
- Invest in coherence-aligned ventures

For Skeptics:

- Identify failure modes
- Stress-test game theory
- Find exploits
- Make the system more robust

13.6 The First Question

The most important question is not:

> "Will this work?"

The most important question is:

> "What happens when the first community implements it?"

Because once one network demonstrates that **coherence can be economically viable**, the incentive structure of civilization begins to shift.

Not through force.
Not through regulation.
Not through moral appeal.

But through **demonstrated superiority** of the coherence model.

When people see that:

- Teachers earn more than attention extractors
- Mediators prosper while instigators starve
- Regenerative farmers out-compete extractive agriculture
- Open-source contributors achieve financial security
- Emotional labor becomes compensated work
- Meaningful work becomes economically rational

...they will choose coherence.

Not because they should.

Because it **works better**.

Appendices

Appendix A: Mathematical Specifications

A.1 Coherence Function (Z(n))

$$Z(n) = \int_0^t [C(\tau) - C\_baseline]\, d\tau$$

Where:
n = node (individual or organization)
C(τ) = coherence at time τ
C_baseline = network average coherence
t = current time

Network-Adjusted Coherence:

$$Z\phi(n) = Z(n) \times \Phi(n)$$
$$\Phi(n) = 1 + \alpha \times \log(1 + downstream\_enabled)$$

downstream_enabled = number of nodes you enable
α = scaling parameter (governance-set)

A.2 AU Minting Formula

$$AU\_minted(n, t) = k \times [SBT(n)]^{\alpha} \times [\Delta C(n,t)]^{\beta} \times [Activity(n,t)]^{\gamma}$$

Parameters:
k = base scaling constant (≈1.5)
α = reputation weight (≈0.7, sublinear)
β = contribution weight (≈1.2, superlinear)
γ = time consistency (≈0.5)

Constraints:
$\Delta C(n,t) \geq 0$
$SBT(n) \geq 100$ (minimum to mint)
Activity(n,t) measured over trailing 90 days

A.3 SBT Decay Function

$$SBT(n, t) = SBT\_peak(n) \times e^{(-\lambda(t - t\_peak))}$$

$\lambda = \ln(2) / half\_life$
half_life = 730 days (2 years, governance-adjustable)

Recovery:
$SBT\_new(n, t+1) = \max(SBT\_current, SBT\_decay + \Delta\_contribution)$

A.4 Quadratic Voting Weight

```
Vote_power(n) = √(SBT(n)) × √(lock_period_days)

Conviction multiplier:
≥ 365 days: 2x multiplier
≥ 180 days: 1.5x multiplier
< 30 days: 0.5x multiplier
```

Appendix B: Technical Specifications

B.1 Smart Contract Interfaces

Coherence SBT (ERC-5192):

```solidity
interface ICoherenceSBT {
    function getScore(address account) external view returns (uint256);
    function getHistory(address account) external view returns (CoherenceEvent[] memory);
    function locked(uint256 tokenId) external view returns (bool);

    event CoherenceIncreased(address indexed account, uint256 amount, bytes32 eventHash);
    event SocialSlashing(address indexed account, uint256 amount, string reason);
}
```

Aurum Token (ERC-20):

```solidity
interface IAurum {
    function mint(address to, uint256 amount, bytes32 proofHash) external;
    function burn(address from, uint256 amount, string reason) external;
    function stake(uint256 amount, uint256 lockPeriod) external;

    event Minted(address indexed to, uint256 amount, bytes32 proofHash);
    event Burned(address indexed from, uint256 amount, string reason);
}
```

Proof of Coherence Validator:

```solidity
```

```
interface IPoC {
    function submitProof(
        bytes32 coherenceEventHash,
        bytes[] memory oracleSignatures,
        bytes memory zkProof
    ) external returns (bool);

    function challengeEvent(
        bytes32 eventHash,
        bytes memory evidence
    ) external;

    function validate(bytes32 eventHash) external view returns (ValidationStatus);
}
```

B.2 Oracle Data Schema

json

```
{
  "coherence_event": {
    "id": "uuid",
    "timestamp": "ISO8601",
    "contributor": "did:method:identifier",
    "type": "educational | conflict_resolution | environmental | ...",
    "delta_coherence": "float",
    "attestations": [
      {
        "source": "biometric | social | informational | environmental",
        "oracle_id": "did:method:identifier",
        "signature": "0x...",
        "confidence": "0.0-1.0",
        "data_hash": "0x..."
      }
    ],
    "zk_proof": "0x...",
    "witnesses": ["did:...", "did:..."],
    "network_multiplier": "float"
  }
}
```

B.3 zk-SNARK Circuit (Pseudocode)

```
Circuit CoherenceProof:
  Public Inputs:
    - coherence_delta (claimed increase)
    - contributor_did_hash
    - timestamp

  Private Inputs:
    - biometric_data[]
    - witness_signatures[]
    - participant_identities[]

  Constraints:
    1. biometric_data.avg() >= threshold
    2. witness_signatures.verify() == true
    3. COUNT(unique(participant_identities)) >= min_witnesses
    4. hash(contributor_did) == contributor_did_hash
    5. coherence_delta == calculate_coherence(biometric_data, witnesses)

  Output:
    - proof: bytes
    - public_signals: [coherence_delta, contributor_did_hash, timestamp]
```

B.4 DePIN Hardware Specifications

HRV Monitor (Open Source):

```yaml
Processor: ESP32-S3 (dual-core, 240MHz)
Sensors:
  - MAX30102: Pulse oximeter + heart rate
  - MPU6050: Accelerometer
Storage: 4MB flash, 512KB SRAM
Connectivity: WiFi, Bluetooth 5.0
Power: 500mAh LiPo, 7-day battery
Security:
  - ATECC608A crypto chip
  - Secure boot
  - Encrypted flash
Cost: ~$30 BOM (at scale)
```

Environmental Sensor Node:

```yaml
```

```
Processor: Raspberry Pi Zero 2 W
Sensors:
  - PMS5003: Particulate matter
  - BME680: Temp, humidity, pressure, VOC
  - SGP30: CO2 equivalent, TVOC
  - Optional: Microphone (biodiversity)
Storage: 32GB microSD
Connectivity: WiFi, optional LoRa
Power: Solar panel + 5000mAh battery
Security: TPM 2.0 module
Cost: ~$120 complete kit
```

Edge Gateway (TEE-Enabled):

```
yaml

Processor: Intel NUC with SGX or ARM with TrustZone
Memory: 8GB RAM minimum
Storage: 256GB NVMe SSD
Connectivity: Gigabit Ethernet, WiFi 6
Security:
  - Hardware TEE
  - Secure enclave
  - Remote attestation
Software: Docker, Kubernetes, IPFS
Cost: ~$400-600
```

B.5 Network Topology

```
Layer 1 (Settlement):
  - Ethereum Mainnet or compatible L1
  - Final settlement, governance, treasury

Layer 2 (Execution):
  - Optimistic/ZK Rollup
  - AU transfers, SBT updates, oracle consensus
  - Target: 1000+ TPS

Layer 3 (Application):
  - Domain-specific app chains
  - Custom coherence rules per domain

Off-Chain (DePIN):
  - Sensor networks
  - Edge compute nodes
  - IPFS/Arweave storage
  - Oracle aggregators

Data Flow:
[Sensors] → [Edge Gateway/TEE] → [IPFS Storage] →
[Oracle Nodes] → [L2 Smart Contracts] → [L1 Settlement]
```

Appendix C: Glossary of Terms

Aurum (AU): Liquid, transferable ERC-20 token. Used for transactions, staking, value exchange. Minted through verified coherence generation.

Coherence: Measurable reduction of entropy across individual, interpersonal, collective, and environmental scales.

Coherence Circle: Small group (5-15 members) providing mutual attestation and accountability.

Coherence Economy: Economic system where value generation measured by alignment rather than extraction.

Coherence Soulbound Token (SBT): Non-transferable ERC-5192 token representing reputation. Cannot be bought, sold, or transferred.

Constitutional Layer: Immutable core principles requiring 90% supermajority to change.

Conviction Voting: Vote power increases with commitment duration.

Decentralized Identifier (DID): Self-sovereign identity standard for cross-platform reputation.

DePIN: Decentralized Physical Infrastructure Network for real-world measurement.

Downstream Coherence: Secondary coherence generated by others due to your contributions.

Entropy: Measure of disorder or chaos. Coherence rewards entropy reduction.

Goodhart's Law: "When a measure becomes a target, it ceases to be a good measure."

Honeypot Test: Fake coherence event testing oracle honesty.

HRV: Heart Rate Variability - biometric coherence indicator.

Network Multiplier: Coefficient increasing rewards based on downstream impact.

Oracle: System bringing off-chain data on-chain for verification.

Proof of Coherence (PoC): Consensus mechanism validating entropy reduction.

Quadratic Voting: Vote power = √(reputation), preventing plutocracy.

Retroactive Public Goods Funding: Compensating contributions based on long-term impact.

Slashing: Penalty mechanism for malicious behavior.

Social Slashing: Community-initiated reputation reduction.

TEE: Trusted Execution Environment for secure computation.

Universal Basic Meaning (UBM): Income proportional to meaningful contribution.

Witness Signature: Cryptographic attestation confirming coherence event.

Z(n): Mathematical function for cumulative coherence contribution.

Zϕ(n): Network-adjusted coherence score with downstream effects.

zk-SNARK: Zero-Knowledge proof allowing verification without revealing data.

Appendix D: FAQ

Q: Isn't this just UBI with extra steps? A: No. UBI is passive income regardless of contribution. Coherence Economy requires active value generation proportional to impact.

Q: Who decides what "coherence" means? A: Initially the founding community, long-term DAO governance with constitutional constraints. No single entity decides.

Q: Can't people game the system? A: Gaming is possible but expensive and detectable. Multi-modal verification, network propagation tracking, community detection, and slashing mechanisms make gaming cost > benefit.

Q: What if I don't have sensors? A: Biometric verification is one path. You can generate coherence through social attestations, informational contributions, or environmental work without sensors.

Q: Isn't measuring meaning reductive? A: We measure coherence (specific, measurable property), not all meaning. The question is: is imperfect but actionable measurement better than no measurement?

Q: How is this different from social credit? A: Social credit is: centralized, mandatory, opaque, punitive, surveilled. Coherence Economy is: decentralized, voluntary, transparent, rewarding, privacy-preserving, forkable.

Closing Statement

The Inflection Point

We are at a unique moment in history. For the first time, we have the philosophical understanding and technical infrastructure to build an economy that rewards coherence.

The philosophy has existed for millennia. Web3 provides the infrastructure to instantiate these ideas at scale.

The Coherence Economy synthesizes philosophy and engineering.

This Is Not a Prediction—It's an Invitation

This green paper is not a blueprint—it's a conversation starter.

Every assumption can be challenged.
Every mechanism can be improved.
Every metric can be refined.

The protocol belongs to no one and everyone.

Fork it. Critique it. Build on it. Break it. Fix it.

The Core Bet

If we make generating coherence the most profitable activity, humanity will choose to generate coherence.

Not because people are saints.
Not because of moral appeals.
Not because of mandates.

Because incentive structures work.

When teaching pays better than manipulation, people will teach.
When mediation pays better than litigation, people will mediate.
When regeneration pays better than extraction, people will regenerate.

This is not idealism. This is incentive design.

The First Network

The most important milestone is the first community that successfully implements this and proves it works.

Because once one network demonstrates viability, the question shifts from "could this work?" to "why aren't we all doing this?"

The Ultimate Vision

Imagine a civilization where:

- Your prosperity is proportional to your capacity to increase coherence
- Teaching, healing, building, creating are the most lucrative careers
- Extraction and manipulation are economically irrational
- Every contribution to flourishing is recognized and compensated
- Purpose and prosperity align

This is not a distant utopia.
This is an engineering problem with a tractable solution.

The Coherence Economy is the infrastructure for a meaning-first civilization.

Join Us

This is not a company. This is not a product. This is a protocol.

If you see the vision, build it.
If you doubt the vision, break it.
If you can improve the vision, fork it.

The only failure mode is indifference.

Contact & Participation

Primary Channels:

- Website: coherence.economy
- Discord: discord.gg/coherence-economy
- GitHub: github.com/coherence-economy
- Documentation: docs.coherence.economy
- Newsletter: [monthly research summaries]

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- Media: media@coherence.economy

- Security: security@coherence.economy

Version History

v0.1 - November 2025 - Initial green paper for community feedback

Planned:

- v0.2 - Q1 2026 - Incorporating community feedback
- v1.0 - Q2 2026 - Full white paper with formal specifications
- v2.0 - Post-pilot - Revisions based on real-world testing

License

Acknowledgments

This green paper synthesizes ideas from decades of mechanism design research, Web3 innovation, wisdom traditions, regenerative economics, open source collaboration, biometric coherence research, zero-knowledge cryptography, and DePIN infrastructure.

Special recognition to Vitalik Buterin, Glen Weyl, Elinor Ostrom, the Optimism Collective, the ReFi movement, and countless open source contributors whose unpaid labor makes the digital world possible.

"Make coherence the currency. If you increase clarity, reduce entropy, or help others grow—you earn. Not for extraction, but for contribution. A meaning-first economy."

This is version 0.1 of the Coherence Economy Green Paper. Published: November 2025 Next update: Q1 2026

The protocol is not yet deployed. This document describes a proposed system.

Join us in building a meaning-first civilization.

🌐 coherence.economy