Functional Whitepaper for USTC Repeg Using EUTC While Keeping USTC

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II. Executive Summary

A. Overview of the Proposal

The EUTC repeg proposal outlines a comprehensive strategy to stabilize and grow the Terra Classic ecosystem by leveraging EUTC as a reliable, onchain stablecoin. Building on lessons learned from past challenges, this plan prioritizes financial security, governance-driven adjustments, and ecosystem resilience.

At its core, the proposal seeks to address the instability of USTC and the lack of liquidity within the Terra Classic network by utilizing EUTC as the primary driver for achieving price stability. This approach incorporates several innovative mechanisms, including collateral-backed minting, divergence fees, and automated liquidity management. These tools collectively enable the Terra Classic ecosystem to operate in a transparent, decentralized, and sustainable manner.

Key Components of the Proposal:

1. **EUTC as the Central Stablecoin:**
    a. EUTC is positioned as the primary stablecoin, with its value pegged to 1 €, offering a dependable medium of exchange for the ecosystem.
2. **Liquidity Pools for Market Stability:**
    a. Establishment of the **EUTC <> LUNC** liquidity pool ensures robust trading options and strengthens the stability of EUTC.
3. **Collateral-Backed Stability:**
    a. Implementation of a collateral management module ensures that every EUTC is adequately backed by a mix of Terra Classic native assets, maintaining trust and financial security.
4. **Collateral Yield Management Module:**
    a. A dedicated Layer 1 module optimizes collateral utilization by generating yields through secure investment strategies. Yield distribution and reinvestment mechanisms enhance over-collateralization while providing passive income to EUTC holders.
5. **Divergence Fee Mechanism:**

a. A dynamic fee system disincentivizes price deviations beyond acceptable thresholds, providing market stability and additional ecosystem funding.

6. **Tax Tobin as a Revenue Source:**

    a. The introduction of the Tax Tobin upon Market Module activation redirects transaction fees to liquidity pools, the oracle pool, and the community pool, replacing the existing burn tax.

Strategic Goals:

- **Price Stability:** Ensure that EUTC maintains its peg to 1 € through collateral backing, liquidity pool management, and market-driven adjustments.
- **Liquidity Growth:** Gradually increase liquidity in the ecosystem using innovative funding methods such as divergence fees and the Tax Tobin.
- **Decentralized Governance:** Empower the Terra Classic community to make critical decisions, ensuring transparency and alignment with ecosystem priorities.
- **Sustainability and Resilience:** Build mechanisms that adapt to market conditions, reduce reliance on manual interventions, and secure long-term ecosystem viability.

Phased Implementation Approach:

The proposal is structured into distinct phases to ensure seamless execution and minimal disruption:

1. **Preparation and Infrastructure Development:**

    a. Establish initial liquidity pools and implement the collateral management module.

2. **Stabilization and Market Module Activation:**

    a. Transition to automated mechanisms for liquidity management and collateral oversight.

3. **Adoption and Ecosystem Growth:**

    a. Expand liquidity, enhance collateral composition, and promote adoption of EUTC within and beyond Terra Classic.

The EUTC repeg proposal represents a transformative step toward restoring trust, stability, and growth within the Terra Classic blockchain.

By aligning technical innovation with community-driven governance, this plan offers a clear path to revitalizing the ecosystem while addressing historical challenges with precision and foresight.

B. Key Objectives

The EUTC repeg proposal is designed to achieve critical objectives that address the stability, usability, and growth of the Terra Classic ecosystem.

By leveraging EUTC as a central stablecoin, this plan aims to rebuild trust, enhance liquidity, and ensure long-term sustainability through a comprehensive set of strategies and mechanisms.

1. **Restoring Stability and Confidence**
    a. **Peg Maintenance:** Ensure EUTC maintains a reliable and stable peg of 1 € through collateral-backed minting and liquidity management.
    b. **Controlled Market Dynamics:** Introduce mechanisms such as divergence fees to reduce price volatility and maintain balance in liquidity pools.
    c. **Transparent Operations:** Provide onchain visibility for all transactions, collateral levels, and pool activities to build trust within the community.
2. **Enhancing Liquidity**
    a. **Liquidity Pool Creation:** Establish a robust **EUTC <> LUNC** liquidity pool to facilitate seamless trading and support ecosystem growth.
    b. **Gradual Liquidity Funding:** Use the Tax Tobin and collateral-backed minting to incrementally fund liquidity pools, minimizing the risk of over-minting.
    c. **Incentivized Stability:** Implement a funding structure that rewards stability through divergence fees and ecosystem incentives.
3. **Decentralized Governance**
    a. **Community-Driven Decisions:** Empower the Terra Classic community to influence key decisions, such as collateral ratios, Tax Tobin allocation, and pool management.
    b. **Ecosystem Transparency:** Ensure governance proposals and financial distributions are fully transparent and subject to community oversight.
4. **Ensuring Ecosystem Resilience**
    a. **Robust Collateral Management:** Back every EUTC with a diversified pool of Terra Classic native assets, ensuring overcollateralization and financial security.

b. **Market Module Adaptations:** Implement targeted modifications to the Market Module, enabling controlled minting and alignment with the repeg strategy.

c. **Safeguards Against Anomalies:** Introduce mechanisms like the divergence fee to address unexpected market conditions and protect against extreme price deviations.

5. **Supporting Long-Term Growth**

a. **Economic Expansion:** Promote higher transaction volumes by reducing fees after liquidity targets are achieved, ensuring the ecosystem remains competitive.

b. **Broad Adoption:** Foster EUTC adoption within the Terra Classic ecosystem as a reliable and efficient medium of exchange.

c. **Scalable Architecture:** Design the system to accommodate future growth and adapt to evolving market conditions.

By focusing on these objectives, the EUTC repeg proposal ensures that Terra Classic can address its past challenges while establishing a strong foundation for stability, transparency, and sustainable growth.

This approach not only restores trust but also positions the ecosystem as a viable and resilient player in the decentralized finance space.

C. Strategic Advantages

The EUTC repeg proposal offers a range of strategic advantages that position the Terra Classic ecosystem for long-term stability, growth, and resilience. By addressing past vulnerabilities and integrating innovative mechanisms, this plan ensures the ecosystem remains competitive while fostering trust and broad adoption.

Below are the key advantages:

1. **Stability Through Collateralization**
    a. **Overcollateralized Minting:** Ensures every EUTC is securely backed by Terra Classic native assets, preventing over-minting and reinforcing confidence in the stablecoin's value.
    b. **Automated Risk Management:** The collateral management module dynamically monitors and adjusts collateral levels, safeguarding against undercollateralization.
2. **Effective Liquidity Management**
    a. **Focused Liquidity Pools:** Concentrating liquidity within the EUTC <> LUNC pair enhances trading efficiency and reduces risks associated with fragmented liquidity.
    b. **Incremental Funding:** The use of the Tax Tobin and divergence fees ensures liquidity pools are funded sustainably without relying on significant upfront capital.
3. **Resilient Market Dynamics**
    a. **Divergence Fee Mechanism:** Actively mitigates extreme price deviations by disincentivizing destabilizing trades while funding ecosystem stability mechanisms.
    b. **Controlled Market Module Activation:** Enables phased implementation of the Market Module, minimizing risks during the transition to automated liquidity and price management.
4. **Community-Centric Governance**
    a. **Decentralized Decision-Making:** Empowers the Terra Classic community to govern key aspects, including collateral ratios, liquidity pool allocations, and fee

distributions.

b. **Transparency and Accountability:** Onchain visibility of financial flows and governance decisions ensures trust and active participation.

5. **Sustainable Ecosystem Growth**

a. **Low Transaction Fees:** After liquidity pools are sufficiently funded, reducing the Tax Tobin ensures affordability and encourages higher transaction volumes.

b. **Broad Utility of EUTC:** By anchoring EUTC to 1 €, the proposal establishes a reliable medium of exchange that supports trading, payments, and other use cases across the Terra Classic ecosystem.

6. **Adaptability to Future Needs**

a. **Scalable Infrastructure:** The plan's modular design allows for easy adaptation to future enhancements, such as expanding collateral types or introducing additional stability mechanisms.

b. **Resilience to Market Shocks:** By integrating safeguards like divergence fees and collateral monitoring, the ecosystem is equipped to handle unexpected volatility and market disruptions.

The EUTC repeg proposal combines these strategic advantages to create a stable, transparent, and growth-oriented ecosystem.

By prioritizing community involvement, sustainability, and resilience, the Terra Classic blockchain is positioned to overcome past challenges and emerge as a robust platform for decentralized finance.

III. Introduction

A. Context: Challenges of USTC and Terra Classic

The Terra Classic ecosystem has faced significant challenges since the collapse of the USTC peg in 2022.

Once a promising blockchain ecosystem anchored by an algorithmic stablecoin, USTC's depeg exposed systemic vulnerabilities and shook user confidence across the network. Understanding these challenges is critical to designing a robust, sustainable path forward.

1. Key Challenges

1. **Loss of Peg and Trust**
    a. **Depeg Consequences:** The decoupling of USTC from its intended $1 peg created a chain reaction of market instability, leading to substantial losses for holders and liquidity providers.
    b. **Erosion of Confidence:** The collapse undermined trust in algorithmic stablecoins, making it difficult to attract users and rebuild the ecosystem.
2. **Offchain Liquidity and Circulating Supply**
    a. **Excessive Circulation:** With billions of USTC tokens still in circulation, maintaining price stability without extensive liquidity has proven challenging.
    b. **Offchain Exposure:** USTC's presence on centralized exchanges (CEXs) creates complexities, as these platforms are beyond the direct control of the Terra Classic blockchain and amplify volatility.
3. **Market Module Inactivity**
    a. **Disabled Core Mechanism:** The Market Module, a key component for maintaining the peg through arbitrage and liquidity balancing, was deactivated after the collapse. Its absence has left the ecosystem without an essential tool for price stability.
4. **Limited Collateralization**
    a. **Lack of Reserves:** Unlike fiat-backed or overcollateralized stablecoins, USTC relied solely on algorithmic mechanisms without tangible backing. This design flaw left the system vulnerable to market shocks.

b. **Inability to Restore Peg:** The absence of collateral has hindered any meaningful attempt to reestablish the peg.

5. **Fragmented Governance and Ecosystem Challenges**

   a. **Dispersed Decision-Making:** While decentralization is a strength, fragmented governance has slowed progress in implementing effective solutions.

   b. **Decreased Developer and Community Engagement:** Following the collapse, the ecosystem has struggled to maintain active participation and innovation.

2. The Need for a Comprehensive Solution

The challenges faced by USTC and Terra Classic call for a well-designed, transparent, and community-driven solution. The **EUTC repeg plan** is positioned as a pragmatic and innovative approach to overcome these obstacles. By leveraging EUTC as a bridge to stability and growth, and combining collateral-backed minting with robust liquidity management, the plan addresses both the technical and economic factors that contributed to past failures.

This solution aims to rebuild trust, enhance resilience, and set a sustainable course for the Terra Classic ecosystem, turning lessons from past setbacks into opportunities for a stronger future.

B. Opportunities with EUTC

The introduction of the EUTC presents a significant opportunity to rebuild stability, foster growth, and re-establish confidence in the Terra Classic ecosystem.

Unlike USTC, the EUTC is designed with an emphasis on stability, decentralization, and interoperability, offering a fresh start and a robust framework to address past shortcomings.

1. Key Opportunities

1. **Onchain Stability and Transparency**
    a. **Fully Collateralized Model:** EUTC leverages a robust collateral pool backed by Terra Classic-native assets, ensuring stability and restoring trust among users and stakeholders.
    b. **Transparent Management:** The collateral pool, liquidity pools, and fee structures are entirely managed onchain, providing visibility and accountability.
2. **Rebuilding Market Confidence**
    a. **Simplified Adoption:** With its peg firmly anchored to 1€, EUTC provides a clear and stable value proposition, encouraging adoption by users and projects within the Terra Classic ecosystem.
    b. **Community-Driven Governance:** Decisions regarding EUTC, from collateralization ratios to liquidity pool adjustments, are made through decentralized governance, fostering inclusivity and trust.
3. **Leveraging Existing Ecosystem Strengths**
    a. **Integration with Terra Classic:** EUTC benefits from existing Terra Classic infrastructure, including oracles, validators, and governance mechanisms, ensuring seamless deployment and minimal overhead.
    b. **Native Compatibility:** Its design enables interoperability with existing decentralized applications (dApps) and decentralized exchanges (DEXs) within the ecosystem.
4. **Mitigating Risks from USTC**
    a. **Controlled Transition:** The EUTC repeg plan facilitates a gradual and controlled transition from USTC, reducing market disruptions and restoring balance to the ecosystem.

b. **Reducing USTC Supply:** By enabling USTC holders to exchange their tokens for EUTC within predefined limits, the plan actively reduces the circulating supply of USTC, mitigating its volatility.

5. **Economic Growth and Ecosystem Development**

   a. **Incentivizing Transactions:** The introduction of a collateral-backed stablecoin with reliable liquidity pools creates a conducive environment for higher onchain transaction volumes and decentralized finance (DeFi) activities.

   b. **Burn Tax Allocation:** EUTC liquidity pools benefit directly from transaction fees, driving ecosystem growth while ensuring sustainable liquidity.

6. **Positioning for Future Expansion**

   a. **Scalability:** The EUTC's infrastructure is designed to scale with the growth of the Terra Classic ecosystem, accommodating increased transaction volumes and additional use cases over time.

   b. **Foundation for Innovation:** By addressing the stability and trust issues of the past, EUTC sets the stage for future technological advancements, such as synthetic assets, tokenized real-world assets, and cross-chain interoperability.

2. The EUTC Advantage

EUTC is more than just a stablecoin; it is a strategic tool to drive recovery and innovation within the Terra Classic ecosystem.

By providing a stable, transparent, and community-controlled foundation, EUTC creates a pathway to rebuild confidence, attract users, and unlock the full potential of Terra Classic.

C. Vision for Stability and Growth

The EUTC repeg plan is driven by a long-term vision of stability and sustainable growth for the Terra Classic ecosystem.

By addressing the core challenges that led to the collapse of USTC and introducing robust mechanisms for financial and operational resilience, the plan seeks to rebuild trust and foster innovation within the blockchain.

1. Stability as the Cornerstone

1. **Reliable Collateralization:**
    a. EUTC's value is backed by a collateral pool consisting of Terra Classic-native assets such as LUNC and other reliable reserves, ensuring that each EUTC minted is fully or overcollateralized.
    b. The collateral management system dynamically adjusts to market conditions, safeguarding against undercollateralization risks.
2. **Peg Integrity:**
    a. EUTC maintains a stable peg of 1€, with initial manual management of liquidity pool ratios transitioning to automated adjustments via the Market Module.
    b. The divergence fee mechanism discourages significant deviations from the peg while funding collateral and liquidity pools for enhanced stability.
3. **Transparent Governance:**
    a. Community-driven governance ensures that decisions about collateral ratios, fee structures, and pool allocations are made transparently, with full visibility onchain.

2. Growth through Ecosystem Development

1. **Enhanced Liquidity:**
    a. Strategic allocation of liquidity across primary pools such as EUTC <> LUNC ensures robust trading options, reducing friction for users and projects.

b. Burn tax and divergence fees are redirected to fund liquidity and collateral pools, creating a self-sustaining model for growth.

2. **Encouraging Onchain Activity:**

   a. The introduction of EUTC as a stable and reliable asset encourages greater transaction volumes within Terra Classic, boosting DeFi adoption and network utility.

   b. A phased reduction in transaction fees, including the planned transition from the burn tax to the Tax Tobin, ensures a competitive and efficient environment for users.

3. **Future-Proofing the Ecosystem:**

   a. The implementation of the Layer 1 Collateral Management Module and the Divergence Fee Mechanism Module ensures that Terra Classic remains adaptable to future market demands and technological advancements.

   b. These modules provide a framework for integrating additional stablecoins and financial instruments into the ecosystem.

3. A Roadmap to Resilience

The EUTC repeg plan is designed as a phased initiative, balancing immediate needs with long-term goals:

- **Short-Term Stabilization:** Restore confidence through a reliable pegging mechanism, robust liquidity, and clear governance.

- **Mid-Term Growth:** Scale liquidity pools, increase collateral reserves, and transition to fully automated mechanisms.

- **Long-Term Sustainability:** Achieve a thriving ecosystem with high transaction volumes, minimal volatility, and the flexibility to adapt to evolving use cases and market conditions.

This vision combines financial stability with strategic growth to position Terra Classic as a leading blockchain ecosystem.

By leveraging EUTC as a foundation, the plan empowers the community to overcome past challenges, embrace innovation, and build a sustainable future.

IV. Repeg Mechanism Overview

The EUTC repeg mechanism is the cornerstone of the Terra Classic ecosystem's revival strategy. By introducing innovative solutions for stability, liquidity, and governance, the plan addresses the critical challenges that led to the collapse of USTC while creating a sustainable pathway for growth.

This section outlines the foundational elements of the repeg plan, detailing how the integration of collateral-backed minting, liquidity pools, and automated mechanisms ensures the EUTC maintains its peg to 1€. With a focus on transparency, decentralization, and long-term viability, the repeg mechanism is designed to rebuild trust and enhance the usability of stablecoins within the Terra Classic ecosystem.

A. Goals of the EUTC Repeg

The EUTC repeg plan is designed to establish a robust, stable, and scalable framework that addresses the challenges faced by the Terra Classic ecosystem.

By leveraging EUTC as the central stablecoin, the plan aims to restore confidence, enhance usability, and create a sustainable foundation for future growth.

1. Key Goals

1. **Ensure Stability and Trust:**
    a. **Stable Peg:** Maintain a consistent peg of 1€ for EUTC, supported by a fully collateralized model and dynamic adjustment mechanisms.
    b. **Controlled Minting:** Introduce stringent collateral-backed minting to ensure every EUTC is backed by tangible assets, preventing overissuance.
2. **Enhance Liquidity:**
    a. **Robust Liquidity Pools:** Establish and fund liquidity pools, such as EUTC <> LUNC, to enable efficient trading and support market stability.
    b. **Funding Through Ecosystem Mechanisms:** Leverage transaction fees, burn tax allocations, and the divergence fee mechanism to provide sustainable funding for liquidity.

3. **Reduce USTC Circulating Supply:**

    a. Facilitate a structured and controlled mechanism for USTC holders to exchange their tokens for EUTC, gradually reducing the USTC supply and its associated risks.

    b. Align the reduction of USTC supply with the ecosystem's broader goals of stability and trust restoration.

4. **Foster Community-Led Governance:**

    a. **Transparency:** Ensure all processes related to collateral management, liquidity distribution, and fee allocations are fully transparent and onchain.

    b. **Decentralized Decision-Making:** Empower the community to govern critical aspects of the repeg plan, including adjustments to collateral ratios, pool allocations, and fee structures.

5. **Create a Scalable Foundation for Growth:**

    a. **Adaptive Mechanisms:** Implement automated systems, such as the Market Module and Layer 1 Collateral Management Module, to ensure the ecosystem can scale efficiently.

    b. **Encourage Onchain Activity:** Use EUTC's stability to boost transaction volumes, increase adoption, and support a vibrant DeFi environment.

2. Path to Success

The success of the EUTC repeg plan depends on a phased approach that balances immediate stability with long-term growth:

- **Short-Term Stability:** Establish robust liquidity pools and ensure the peg is maintained through collateral and governance mechanisms.

- **Mid-Term Growth:** Expand the use cases of EUTC and enhance ecosystem liquidity through transaction volume and adoption.

- **Long-Term Sustainability:** Foster a thriving ecosystem where EUTC serves as a reliable and trusted stablecoin, enabling innovation and financial resilience.

The goals of the EUTC repeg plan are rooted in restoring trust, enabling utility, and driving growth within the Terra Classic ecosystem. By addressing past challenges with a comprehensive and

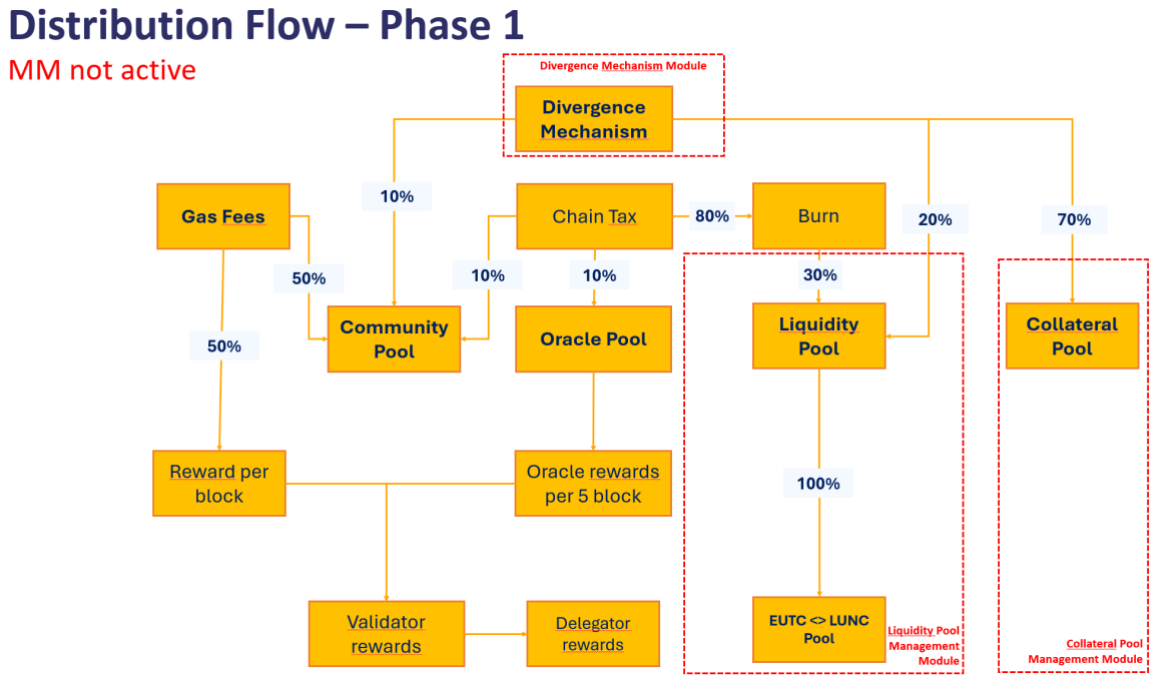
forward-looking approach, the plan paves the way for a resilient and thriving blockchain community.

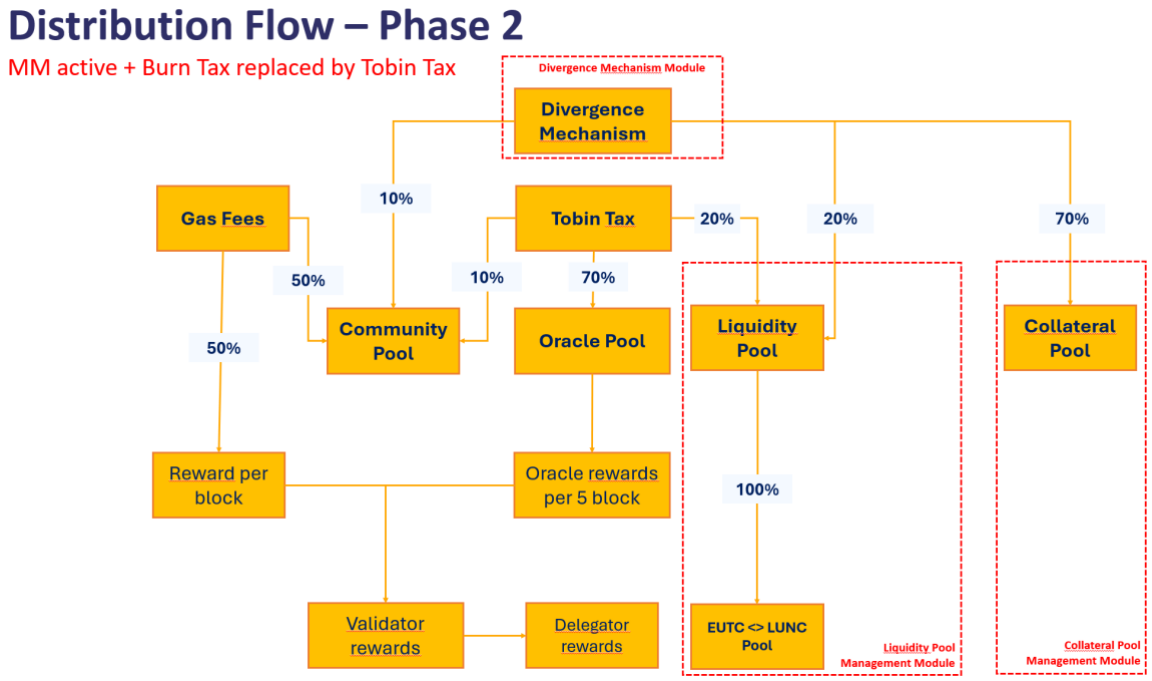
B. Key Elements of the Repeg Plan

1. Pools of Liquidity

Liquidity pools form the foundation of the EUTC repeg mechanism, enabling efficient trading, fostering stability, and ensuring the scalability of the Terra Classic ecosystem.

The sole focus will be on establishing and maintaining the **EUTC <> LUNC Pool**, aligning resources to maximize impact and operational simplicity.





a) Primary Liquidity Pool: EUTC <> LUNC

1. **Purpose:**

    a. Facilitate seamless trading between EUTC and LUNC, strengthening the link between the stablecoin and the Terra Classic's native token.

    b. Support the EUTC repeg mechanism by providing a robust and liquid trading environment.

2. **Initial Allocation:**

    a. 100% of the liquidity target will be dedicated to the **EUTC <> LUNC Pool**.

    b. Example: For a $1,000,000 target, the pool will receive the full allocation.

3. **Initial Ratio:**

    a. During the early phase, the ratio will be manually set based on Oracle data:

        i. With the Oracle fixing **1 EUTC = 1€** and assuming a market-determined value of **1 LUNC = 0.0001€**, the ratio will be set at: **1 EUTC = 10,000 LUNC**.

4. **Dynamic Adjustments Post-Activation:**

    a. Once the Market Module is activated, the ratio will transition to dynamic adjustments using Oracle data and market trends, ensuring stability and responsiveness.

b) Funding Liquidity Pools

- **Burn Tax Allocation:**

    a. **30% of the burn tax revenue** will be dedicated to funding the **EUTC <> LUNC Pool** during the initial phase.

    b. After the transition to the Tax Tobin, **20% of the collateral fees** will maintain and grow the pool.

- **Community Pool Contribution:**

    a. An initial allocation of **$200,000-$300,000** from the Community Pool may be used to kickstart the pool, ensuring immediate operational capability.

- **Divergence Fee Mechanism:**

    a. A portion of the **Divergence Fee** (20%) will also flow into the liquidity pool to reinforce its stability and liquidity over time.

- **Collateral Pool Support:**

    a. The Collateral Pool provides an additional layer of backing, ensuring sufficient liquidity is available for trading while maintaining trust in the EUTC peg.

c) Management and Oversight

- **Manual Management (Initial Phase):**

    a. Ratios and liquidity levels will be manually monitored and adjusted based on Oracle data during the early phase to ensure operational stability.

- **Automated Adjustments (Post-Market Module Activation):**

    a. Ratios and allocations will be dynamically managed by the Market Module, leveraging Oracle data to reflect real-time market conditions.

- **Onchain Transparency:**

    a. All pool activities, including transactions and liquidity changes, will be visible onchain to ensure transparency and community trust.

- **Governance Oversight:**

    a. Decisions regarding the liquidity pool's size, ratio adjustments, and funding levels will be subject to community governance, fostering decentralized control.

The **EUTC <> LUNC Pool** serves as the cornerstone of the EUTC repeg mechanism, providing the liquidity needed for trading and stability.

By concentrating resources on a single pool, the plan ensures a focused and efficient approach to achieving the repeg objectives while maintaining adaptability and transparency for the Terra Classic ecosystem.

2. Collateral Management

Collateral management is a cornerstone of the EUTC repeg plan, ensuring the stability and trustworthiness of the stablecoin through the backing of on-chain assets.

This section outlines the structure, composition, and governance of the collateral pools, which are designed to be robust, transparent, and exclusively tied to Terra Classic assets.

a) Purpose and Importance

- **Backing EUTC Supply:**
    - All minted EUTC will be supported by collateral, guaranteeing its value and maintaining confidence in the ecosystem.
- **Ensuring Stability:**
    - The collateral pool acts as a safeguard against market volatility by ensuring overcollateralization.
    - In addition, excess collateral is utilized through the Collateral Yield Management Module to generate yield, ensuring scalability and supporting ecosystem incentives.
- **Strengthening the Ecosystem:**
    - By exclusively utilizing Terra Classic assets, the plan reinforces the internal economy without external dependencies.

b) Collateral Pool Composition

The collateral pool will consist exclusively of Terra Classic assets, ensuring decentralization and independence:

1. **LUNC (Native Token):**
    a. A major component of the collateral pool, LUNC strengthens the link between EUTC and the Terra Classic ecosystem.
    b. Its value reflects the health of the blockchain.
2. **EUTC:**

a. Utilized as a stable component to reduce volatility.

b. Acts as a buffer during periods of high market instability.

3. **USTC (Legacy Stablecoin):**

a. Incorporated strategically to gradually reduce its circulating supply.

b. Managed cautiously to avoid overreliance.

c) Collateralization Ratio

To ensure that EUTC maintains its peg, a strict overcollateralization ratio is implemented. This approach balances stability, scalability, and attractiveness for users:

- **Initial Ratio:** 150%
  - EUTC is minted directly in exchange for collateral deposited at a **150% ratio**. For every 1 EUTC minted, the collateral pool must hold assets worth at least 1.50€.
  - These collateralized assets are actively managed through the **Collateral Yield Management Module**, which leverages excess collateral (Maximum 40% of 150% to retain 110% in the Collateral Pool) to generate yield and reinforce system reserves.

    For more information, see section 9. Layer 1 Collateral Yield Management Module.

- **Example Calculation:**

$$Maximum\ Mintable\ EUTC\ Supply\ = \frac{Total\ Collateral}{Collateralization\ Ratio}$$

If the pool contains €1,500,000 in collateral, the maximum mintable EUTC is:

$$\frac{1{,}500{,}000}{1.50} = 1{,}000{,}000\ EUTC.$$

- **Evolution and Scalability:**
  - Initially, the Community Pool (CP) provides collateral to bootstrap the system. Over time, transaction fees (via the Tax Tobin) and yield strategies expand the collateral base, reducing reliance on the CP.

d) Operational Mechanisms

1. **Minting Limitations:**
    a. EUTC minting is restricted by the available collateral to prevent overissuance.
    b. If collateral levels drop below the 150% threshold, minting is paused until the ratio is restored.
    c. The Collateral Yield Management Module leverages over-collateralized assets to generate yield, ensuring reserves are replenished and the system remains financially robust.
2. **Real-Time Monitoring:**
    a. The collateral pool will be continuously monitored through Oracle data to track asset values and maintain overcollateralization.
3. **Automated Adjustments:**
    a. Smart contracts will dynamically adjust minting permissions and collateral requirements based on market conditions.

e) Governance and Transparency

Collateral management will be governed transparently with active community involvement:

- **Community Oversight:** Governance proposals will determine the ratio, composition, and adjustments to the collateral pool. Additionally, governance will oversee yield allocation policies, balancing reinvestment in reserves and distribution to stablecoin holders.
- **Onchain Visibility:** The pool's composition, value, and usage will be publicly visible, ensuring accountability and trust.

a) Benefits of Collateral Management

1. **Trust and Stability:** Overcollateralization ensures that every EUTC is backed, reducing risks of depegging.

2. **Decentralized Independence:** Relying solely on Terra Classic assets aligns with the blockchain's vision of self-sustainability.

3. **Flexibility for Future Growth:** The modular design of the collateral pool allows for the addition of new Terra Classic assets in the future.

The collateral management system is integral to the success of the EUTC repeg plan.

By ensuring that every minted EUTC is adequately backed, the Terra Classic ecosystem can achieve stability, restore trust, and lay the foundation for long-term growth.

3. Burn Tax and Tax Tobin Utilization

The Burn Tax serves as a key funding mechanism to bootstrap liquidity during the initial phases of the EUTC repeg strategy.

With the decision to maintain only the **EUTC <> LUNC Pool**, all liquidity funding derived from the Burn Tax will focus on this single pool.

Once the Market Module is activated, the Burn Tax will be replaced by the **Tax Tobin**, ensuring a more sustainable and efficient allocation of fees.

a) Burn Tax Allocation

- **Liquidity Pool Funding:**
    a. 30% of the total Burn Tax revenue will be allocated exclusively to the **EUTC <> LUNC Pool**, providing a consistent flow of liquidity to stabilize the core trading pair.
- **Direct USTC Burn:**
    a. 70% of the total Burn Tax revenue will continue to be allocated toward burning USTC, reducing its circulating supply and aligning with the long-term goal as ecosystem stability.
- **Community and Oracle Pools:**
    a. As per the current onchain structure:
        i. 10% of transaction fees go o the **Community Pool**.
        ii. 10% of transaction fees go to the **Oracle Pool** for accurate price feeds and market monitoring.

b) Tax Tobin Fee Allocation

Transition to Tax Tobin: Once the Market Module is activated, the Burn Tax will be discontinued and replaced by the Tax Tobin. The Tax Tobin ensures a more balanced and sustainable distribution of fees to critical areas of the ecosystem.

- **Liquidity Pool (20%):**
    - Ensures continued funding for the **EUTC <> LUNC Pool**, maintaining liquidity depth and market stability.
- **Oracle Pool (70%):**
    - Provides critical support for accurate price feeds and collateral monitoring, essential for maintaining the stability of the repeg mechanism.
- **Community Pool (10%):**
    - Funds governance initiatives and ecosystem development.

c) Projected Impact

Projected Impact: Based on an average daily transaction volume of $300,000:

- **Pre-Market Module Activation - Under the Burn Tax (0.5%):**
    - **Total Daily Burn Tax Revenue:** $1,500.
        - Liquidity Pool Funding (30%): $450 per day to the EUTC <> LUNC Pool.
        - USTC Burn (70%): $1,050 per day.
- **Post-Market Module Activation - Under the Tax Tobin (0.35%):**
    - **Total Daily Tax Tobin Revenue (0.35%):** $1,050.
        - Liquidity Pool (20%): $210 per day.
        - Oracle Pool (70%): $735 per day.
        - Community Pool (10%): $105 per day.

d) Key Benefits

1. **Initial Liquidity Focus:** During the Burn Tax phase, funds are concentrated on the **EUTC <> LUNC Pool** to bootstrap liquidity and facilitate trading.
2. **Smooth Transition:** The Tax Tobin provides a sustainable structure for maintaining liquidity and essential ecosystem operations after the Market Module is activated.
3. **Transparent Allocation:** Onchain governance ensures all fees are distributed to strengthen the Terra Classic ecosystem.

The Burn Tax serves as a short-term mechanism to kickstart liquidity and burn USTC.

The transition to the Tax Tobin introduces a sustainable, governance-driven fee distribution model, aligning with the ecosystem's goals of stability, transparency, and long-term growth.

4. Divergence Fee Mechanism

The **Divergence Fee Mechanism** is essential for maintaining price stability within EUTC liquidity pools. It activates during significant price deviations, ensuring the peg is preserved while providing financial resources to strengthen the Terra Classic ecosystem.

a) Objectives of the Divergence Fee Mechanism

1. **Selective Activation:**
    a. Activate the mechanism for prices below 1 € only when the deviation exceeds 5%, while always activating for prices above the peg.
2. **Maintaining Stability:**
    a. Discourage destabilizing transactions and incentivize users to restore balance within liquidity pools.
3. **Funding Ecosystem Growth:**
    a. Redistribute collected fees to collateral pools, liquidity pools, and community development initiatives.

b) Activation Rules

1. **Price Below Peg (Tolerance Zone):**
    a. The mechanism activates only when the market price of EUTC falls below 0.95 € (5% below peg).
2. **Price Above Peg:**
    a. The mechanism activates immediately and applies fees to discourage price spikes above 1 €.

c) Fee Calculation

The divergence fee is calculated based on the deviation from the target peg:

- **Formula:** T = X – Y

  Where:
  a. **T:** Divergence Fee
  b. **X:** Target Peg Price (1 €)
  c. **Y:** Current Market Price of EUTC

d) Scenarios

1. Price Below Peg (Y < 0.95 €):
   a. Example: If EUTC is sold at 0.90 € (10% below peg), the divergence fee is:
      i. **T = X - Y**
      ii. T = 1.00€ − 0.90€ = 0.10€
   b. For every EUTC sold, 0.10 € is collected as a fee.
2. Price Within Tolerance Zone (0.95 € ≤ Price < 1 €):
   a. No divergence fee is applied to allow natural market forces to restore balance.
3. Price At Peg (Y = 1 €):
   a. No divergence fee is applied.
4. Price Above Peg (Y > 1 €):
   a. Example: If EUTC is sold at 1.10 € (10% above peg), the divergence fee is:
      i. **T = Y - X**
      ii. T = 1.10€ − 1.00€ = 0.10€
   b. For every EUTC sold, 0.10 € is collected as a fee.

e) Redistribution of Fees

Collected fees are distributed as follows:

- **70%** to the **collateral pool** to support overcollateralization.
- **20%** to the **liquidity pools** to maintain trading efficiency.

- **10%** to the **Community Pool** for governance and ecosystem development.

Redistributed fees are processed by the Liquidity Pool Management Module (see section 10).

f) Implementation Phases

1. **Phase 1: Initial Testing:**
    a. Deploy the mechanism on select DEXs (e.g., Terraport, Terraswap) with manual controls to evaluate its impact.
2. **Phase 2: Automation and Scaling:**
    a. Automate the fee application process via smart contracts and expand the mechanism to all DEXs.
3. **Phase 3: Offchain Integration:**
    a. Collaborate with centralized exchanges to implement similar mechanisms, ensuring consistency across markets.

g) Benefits of the Divergence Fee Mechanism

1. **Balanced Intervention:**
    a. Ensures stability by discouraging extreme deviations while allowing natural corrections within the tolerance zone.
2. **Ecosystem Sustainability:**
    a. Generates funding for liquidity and collateral pools, strengthening the system's financial backbone.
3. **Community Support:**
    a. Allocates resources to the Community Pool, fostering growth and innovation within the Terra Classic ecosystem.

The Divergence Fee Mechanism is a flexible and precise tool that ensures price stability, funds critical ecosystem components, and aligns with the goals of the EUTC repeg plan.

By combining selective activation and fair fee distribution, it enhances the Terra Classic ecosystem’s resilience and long-term success.

5. Integration with Decentralized Exchanges (DEXs)

Integration with Decentralized Exchanges (DEXs) is a critical component of the EUTC repeg strategy, aimed at enhancing accessibility, liquidity, and market efficiency within the Terra Classic ecosystem.

By leveraging the decentralized nature of DEXs, the proposal ensures that EUTC becomes a central and actively traded asset, fostering adoption and stability.

a) Key Objectives

1. **Enhanced Liquidity:**
    a. Establishing robust liquidity pools, such as EUTC <> LUNC, on prominent DEXs to provide seamless trading options for users.
    b. Incentivizing liquidity providers through mechanisms like yield farming or governance-approved rewards to ensure consistent pool depth.
2. **Decentralized Accessibility:**
    a. Ensuring that EUTC is readily accessible to users without reliance on centralized intermediaries.
    b. Promoting interoperability with multi-chain DEXs to extend EUTC's presence beyond Terra Classic.
3. **Market Efficiency:**
    a. Utilizing the price discovery capabilities of DEXs to maintain EUTC's peg to 1 € by facilitating arbitrage opportunities and dynamic liquidity balancing.
    b. Supporting integrations with decentralized oracle systems to provide real-time price feeds and ensure transparent operations.

b) Implementation Plan

1. **Initial Listing on Terra Classic DEXs:**
    a. Prioritize listings on Terra Classic native DEXs to bootstrap liquidity and trading activity.

b. Establish strategic partnerships with DEX platforms for promotional campaigns and user incentives.

2. **Liquidity Pool Design and Deployment:**

   a. Deploy and manage liquidity pools with optimal initial ratios (e.g., EUTC <> LUNC) based on market demand.

   b. Include governance-approved safeguards to mitigate impermanent loss and volatility risks.

3. **Cross-Chain Expansion:**

   a. Explore integration opportunities with multi-chain DEXs to enable cross-chain trading of EUTC.

   b. Utilize bridges to ensure secure and seamless transfer of EUTC across supported blockchains.

4. **Community Involvement:**

   a. Empower the community to vote on key decisions, such as the selection of DEX platforms and incentive allocation.

   b. Foster a collaborative approach to liquidity management and cross-chain partnerships.

By integrating EUTC with decentralized exchanges, the proposal aligns with the principles of decentralization, accessibility, and market-driven stability.

These integrations will play a pivotal role in ensuring EUTC's adoption, enhancing user trust, and supporting the long-term growth of the Terra Classic ecosystem.

6. Collateral Yield Management

The Collateral Yield Management component introduces a critical layer of efficiency and value creation in the EUTC repeg strategy.

By leveraging over-collateralized assets to generate yield, this approach enhances the stability and sustainability of the Terra Classic ecosystem.

a) Key Objectives

1. **Yield Generation:**

    a. Deploy over-collateralized assets into secure, low-risk investment opportunities such as stablecoin liquidity pools, lending protocols, or government bonds.

    b. Maximize returns while preserving the integrity and liquidity of the collateral base.

2. **Reinvestment and Distribution:**

    a. Reinvest a portion of the yield to strengthen collateral reserves, ensuring long-term stability.

    b. Distribute the remaining yield as passive income to EUTC holders, incentivizing participation and fostering trust.

3. **Transparency and Risk Management:**

    a. Use onchain monitoring tools and decentralized oracles to track performance and ensure accountability.

    b. Implement governance-approved risk thresholds to protect collateral from overexposure to volatile markets.

b) Implementation Plan

1. **Initial Deployment with EUTC:**

    a. Focus on optimizing yield generation for the EUTC collateral pool as a proof of concept.

    b. Establish governance-defined strategies for investment allocation and yield distribution.

2. **Scalable Multi-Pool Support:**

    a. Design the system to support additional collateral pools, such as those for KRTC or future stablecoins.

    b. Ensure independent management and customization for each pool to match specific stablecoin requirements.

3. **Governance and Community Oversight:**

a. Empower the community to vote on key parameters such as yield allocation, investment types, and risk tolerances.

b. Provide real-time performance reports and enable audits to maintain trust and transparency.

By integrating Collateral Yield Management into the broader EUTC strategy, this component ensures efficient utilization of collateral, incentivizes ecosystem participation, and creates a foundation for long-term growth and stability.

C. Phased Implementation Approach

The phased implementation approach ensures a structured and systematic execution of the EUTC repeg plan.

By breaking down the plan into manageable stages, it balances rapid deployment with careful evaluation, allowing for necessary adjustments while maintaining ecosystem stability.

1. Phase 1: Preparation and Infrastructure

This phase focuses on laying the foundation for the repeg mechanism, ensuring all necessary components are in place.

1. **Development and Testing:**
    a. Finalize the development of key modules, including the Market Module adjustments, Divergence Fee Mechanism, and Layer 1 Collateral Management Module.
    b. Conduct comprehensive testing on testnets to ensure functionality and security.
2. **Liquidity Pool Initialization:**
    a. Establish the **EUTC <> LUNC** liquidity pool with initial ratios manually defined based on Oracle data.
    b. Allocate initial liquidity using a combination of burn tax allocations and community pool contributions.
3. **Governance Preparation:**
    a. Launch community proposals for collateral pool asset selection, liquidity allocation, and burn tax utilization policies.
4. **Education and Community Engagement:**
    a. Provide detailed documentation and host community workshops to educate stakeholders about the repeg mechanism.

2. Phase 2: Stabilization and Automation

In this phase, the focus shifts to operationalizing the repeg mechanism while ensuring stability.

1. **Market Module Activation:**
    a. Activate the Market Module for controlled minting and burning of EUTC, tied to the collateral pool.
    b. Enable Oracle-driven dynamic ratio adjustments for the liquidity pool.
2. **Implementation of the Divergence Fee Mechanism:**
    a. Introduce the divergence fee on DEXs to manage price deviations.
    b. Redistribute fees to the collateral pool, liquidity pools, and community pool.
3. **Real-Time Monitoring:**
    a. Deploy monitoring tools to track pool health, collateral levels, and price stability.
    b. Set up automated alerts for governance in case of anomalies.
4. **Governance-Driven Adjustments:**
    a. Allow the community to vote on modifications to collateral ratios, liquidity targets, and fee structures based on real-time data.

3. Phase 3: Adoption and Growth

The final phase focuses on scaling the EUTC repeg mechanism and fostering ecosystem growth.

1. **Expansion of Liquidity:**
    a. Gradually increase liquidity in the **EUTC <> LUNC** pool using burn tax allocations and divergence fee contributions.
    b. Explore additional trading pairs and collaborations with other blockchain ecosystems.

2. **Ecosystem Adoption:**

    a. Incentivize DApps and DeFi platforms to integrate EUTC as a stable medium of exchange.

    b. Promote EUTC's utility for onchain and cross-chain transactions.

3. **Long-Term Stability:**

    a. Transition from manual interventions to fully automated mechanisms for collateral and liquidity management.

    b. Reduce the burn tax rate to 0.1% once liquidity pools are adequately funded, enhancing transaction affordability and ecosystem competitiveness.

4. Benefits of the Phased Approach

- **Gradual Deployment:** Reduces risks by testing each component before full-scale activation.
- **Flexibility:** Allows for iterative improvements based on community feedback and real-time data.
- **Stability:** Ensures market stability throughout the implementation process.
- **Community Involvement:** Strengthens trust and alignment with the Terra Classic community through transparent governance.

The phased implementation approach provides a clear roadmap for the EUTC repeg plan, balancing swift action with prudent risk management.

By building incrementally, the Terra Classic ecosystem can achieve stability, liquidity, and growth in a sustainable manner.

D. Adjustments to the Market Module

The Market Module is central to the EUTC repeg mechanism, as it manages swaps, minting, and price stabilization within the Terra Classic ecosystem. To align with the new requirements of the EUTC repeg plan, several adjustments are necessary.

1. Objectives of Market Module Adjustments

The adjustments to the Market Module are a cornerstone of the EUTC repeg strategy, aimed at restoring confidence in the Terra Classic ecosystem and ensuring long-term stability.

These adjustments are designed to address key challenges while introducing mechanisms that align with the broader goals of decentralization, scalability, and usability.

a) Primary Objectives

1. **Enable Controlled Minting of EUTC**
    a. Introduce mechanisms to allow the minting of EUTC in a manner that is fully backed by collateral.
    b. Ensure that the supply of EUTC meets the liquidity demands of the ecosystem while preventing over-minting and instability.
2. **Facilitate Dynamic Price Stabilization**
    a. Integrate tools to support the maintenance of EUTC's 1€ peg through real-time data from the Oracle system.
    b. Empower the ecosystem with mechanisms like divergence fees to manage price fluctuations effectively.
3. **Enhance Ecosystem Liquidity**
    a. Support the growth and stability of liquidity pools through automated adjustments that reflect market conditions.
    b. Ensure a consistent flow of EUTC into pools like EUTC <> LUNC to enable seamless trading.
4. **Promote Governance Transparency**

a. Establish governance-driven controls over critical aspects of the Market Module, such as minting limits and collateral ratios.

b. Provide onchain transparency for all adjustments, ensuring community trust and engagement.

5. **Lay the Foundation for Future Stablecoin Management**

a. Adapt the Market Module to support future stablecoins in the Terra Classic ecosystem with scalable and modular functionality.

b. Ensure the system is robust enough to handle multiple stablecoins while maintaining individual stability mechanisms.

b) Strategic Alignment with the Repeg Plan

- **EUTC as the Focal Point:** The adjustments prioritize EUTC as the primary stablecoin for driving liquidity and stability within the Terra Classic ecosystem.
- **Compatibility with Existing Mechanisms:** The Market Module will be designed to integrate seamlessly with other components, such as the Divergence Fee Mechanism and Collateral Pool Management.
- **Scalability for Future Growth:** The changes ensure that the Market Module remains adaptable to evolving market conditions and governance decisions.

2. Key Adjustments

The Market Module plays a pivotal role in stabilizing the Terra Classic ecosystem by managing the supply and demand of stablecoins like EUTC.

To align with the objectives of the EUTC repeg plan, several key adjustments will be implemented to ensure a controlled and efficient operation of the Market Module.

1. **Introduction of Collateral-Backed Minting**

a. Implement a collateral-backed minting mechanism for EUTC to ensure that every newly minted token is supported by sufficient collateral.

b. **Mechanism:**

i. Minting will be restricted by the collateral pool, which maintains a minimum collateralization ratio of 150%.
ii. Real-time data from the Collateral Management Module will dynamically adjust minting limits based on the collateral available.

c. **Benefit:** Prevents over-minting, maintains trust in EUTC's peg, and ensures transparency in the minting process.

2. Dynamic Ratio Management for Liquidity Pools

a. Enable the Market Module to dynamically adjust liquidity pool ratios using Oracle data once activated.

b. **Features:**

i. Ratios will respond to market conditions, ensuring optimal liquidity and minimizing slippage.
ii. Automated adjustments will replace manual ratio settings introduced during the initial launch phase.

c. **Benefit:** Ensures stability within the pools and reduces reliance on governance intervention.

3. Divergence Fee Integration

a. Introduce a divergence fee mechanism to disincentivize trading activities that deviate significantly from the 1€ peg.

b. **Activation:**

i. The fee activates for below-peg transactions exceeding a 5% threshold while applying uniformly for above-peg transactions.
ii. Revenue generated from the divergence fee will be distributed as follows:
    1. **70% to the Collateral Pool** to enhance stability.
    2. **20% to Liquidity Pools** for growth and maintenance.
    3. **10% to the Community Pool** for governance and ecosystem development.

c. **Benefit:** Stabilizes the market, provides additional funding for critical pools, and incentivizes balanced trading behavior.

4. Limited Initial Activation

a. Restrict the initial activation of the Market Module to only support EUTC operations while keeping other stablecoins inactive.

b. **Approach:**

i. Gradually phase in other stablecoins once the EUTC mechanism demonstrates stability and scalability.

c. **Benefit:** Mitigates risks associated with reintroducing USTC and other stablecoins prematurely.

5. **Governance-Driven Adjustments**

a. Allow governance to set critical parameters for the Market Module, such as collateralization ratios, minting limits, and fee structures.

b. **Features:**

i. Regular proposals and voting mechanisms will provide the community with oversight and flexibility.
ii. Emergency pause functions will enable rapid responses to unforeseen market conditions.

c. **Benefit:** Ensures community involvement and adaptability to changing market dynamics.

6. **Integration with Layer 1 Modules**

a. Seamlessly integrate the Market Module with the Collateral Management and Divergence Fee mechanisms.

b. **Features:**

i. Use real-time data from the Collateral Management Module to guide minting and transaction approvals.
ii. Synchronize divergence fee application to ensure consistent operation across DEXs and onchain markets.

c. **Benefit:** Provides a unified and efficient system for managing EUTC stability and liquidity.

Implementation Strategy

These adjustments will be introduced in phases, starting with foundational updates to support collateral-backed minting and divergence fee mechanisms.

Over time, dynamic ratio management and the gradual reintroduction of other stablecoins will ensure a controlled and stable expansion of the Market Module's functionalities.

This multi-faceted approach ensures that the Market Module evolves into a robust and adaptable framework, fully aligned with the goals of the EUTC repeg plan and the long-term growth of the Terra Classic ecosystem.

3. Minting Mechanism for EUTC in the Market Module

To address the limited supply of EUTC (currently 62,541 tokens) and enable the effective operation of liquidity pools, the Market Module will incorporate a controlled minting mechanism. This mechanism ensures that all newly minted EUTC is adequately backed by the collateral pool, preserving stability and trust.

a) Minting Process

1. **Trigger for Minting:**
    a. Minting will be triggered by specific ecosystem needs, such as fulfilling liquidity requirements for pools or meeting increased market demand for EUTC.
2. **Collateral-Backed Minting:**
    a. Every minted EUTC must be backed by collateral assets in the collateral pool.
    b. The minting is governed by the collateralization ratio, set initially at 150%, meaning for every 1€ worth of EUTC minted, there must be at least 1.50€ worth of collateral available.
3. **Formula for Maximum Mintable EUTC:**
    a. *Maximum Mintable EUTC = Total Collateral / Collateralization Ratio*
    b. Example: If the collateral pool contains 1,000,000€, the maximum mintable EUTC would be:

    Maximum Mintable EUTC = 1,000,000 / 1.50 = 666,666 EUTC.
4. **Collateral Types:**
    a. The collateral pool consists of Terra Classic-native assets such as LUNC and potentially other assets approved by governance, excluding external stablecoins like USDC to avoid external dependencies.

b) Governance and Monitoring

1. **Community Oversight:**
    a. Governance will have the authority to propose adjustments to the collateralization ratio and the types of collateral allowed in the pool.
    b. Periodic reviews will be conducted to ensure the minting mechanism aligns with market dynamics and community objectives.
2. **Real-Time Monitoring:**
    a. The collateral pool and minting activity will be continuously monitored using the Layer 1 Collateral Management Module.
    b. Alerts will be triggered if collateral levels approach critical thresholds, pausing further minting until stability is restored.
3. **Safeguards:**
    a. **Minting Limits:** Minting will halt automatically if the collateralization ratio falls below the required threshold.
    b. **Anomaly Detection:** Automated systems will flag abnormal minting patterns for governance review.

c) Integration with Other Mechanisms

1. **Interaction with Divergence Fee Mechanism:** Divergence fees collected from transactions contribute to the collateral pool, enabling sustained minting capacity over time.
2. **Burn Tax Allocation:** A portion of the burn tax revenue indirectly supports minting by funding the collateral pool, enhancing its capacity to back new EUTC issuance.

d) Initial Minting Plan

1. **Short-Term Allocation:** An initial minting batch will be executed to supply the liquidity pools (e.g., EUTC <> LUNC pool), ensuring the ecosystem has sufficient liquidity for immediate operations.

2. **Controlled Scaling:** Subsequent minting will be gradual and aligned with the growth of the collateral pool, ensuring no oversupply or destabilization of EUTC.

This minting mechanism ensures the controlled and transparent issuance of EUTC, maintaining its peg to 1€ while meeting the ecosystem's operational needs.

By leveraging collateral-backed principles and community governance, the Market Module serves as a secure and adaptable tool for managing EUTC supply.

4. Implementation Timeline

The implementation timeline provides a clear roadmap for the necessary adjustments to the Market Module, ensuring that changes are deployed methodically to minimize risks and maximize efficiency.

Each stage is carefully structured to allow for testing, community input, and iterative improvements.

a) Stage 1: Preparation and Development (Month 0–6)

1. **Finalization of the Whitepaper Functional**
    a. Complete the detailed whitepaper functional, incorporating all technical, economic, and governance aspects of the proposed changes.
    b. Ensure clarity and transparency in the plan to facilitate community understanding and engagement.
2. **Governance Proposal Submission:**
    a. Submit a formal governance proposal to the Terra Classic community for voting on the implementation of the plan.
    b. Clearly outline the roadmap, objectives, and technical adjustments proposed, ensuring alignment with community expectations.
    c. Begin development only upon receiving approval through governance.
3. **Technical Design and Specifications:**
    a. Upon governance approval, finalize the technical blueprint for integrating the new minting mechanism, collateral ratio adjustments, and governance controls

into the Market Module.

b. Align the design with the broader objectives of the EUTC repeg mechanism.

4. **Development and Integration:**

   a. Implement the required updates to the Market Module, including:

      i. The 150% collateralization ratio for EUTC minting.
      ii. The inclusion of divergence fee management within the Market Module framework.
      iii. Automated monitoring of collateral pools.

5. **Testing and Simulation:**

   a. Deploy updates on a testnet to evaluate performance under various market scenarios.

   b. Conduct stress testing to ensure the module can handle extreme volatility or anomalies.

6. **Governance Proposal:**

   a. Submit a proposal to the Terra Classic community detailing the proposed changes for approval.

b) Stage 2: Initial Activation (Month 7-9)

1. **Controlled Deployment:**

   a. Activate the updated Market Module on mainnet with limited minting capabilities.

   b. Enable manual monitoring of the collateralization ratio and liquidity pools to ensure stability during the initial phase.

2. **Feedback Collection:**

   a. Gather feedback from validators, developers, and the community to refine the system.

   b. Monitor the performance of the new minting mechanism and its impact on liquidity pools.

3. **Governance-Driven Adjustments:**

    a. Implement any community-approved changes to parameters such as minting limits, fee allocations, and collateral asset composition.

c) Stage 3: Full Activation and Automation (Month 10–12+)

1. **Dynamic Mechanism Deployment:**

    a. Enable fully automated collateral monitoring and minting adjustments.

    b. Activate the integration of divergence fees directly into the Market Module's processes.

2. **Real-Time Feedback Loops:**

    a. Use Oracle data and automated alerts to continuously optimize collateral ratios and liquidity distributions.

    b. Ensure that all adjustments are logged onchain for transparency and accountability.

3. **System Optimization:**

    a. Conduct periodic reviews of the Market Module's performance, incorporating community feedback to enhance efficiency.

    b. Transition to long-term parameters, such as reducing the burn tax and increasing reliance on automated governance.

d) Benefits of a Phased Timeline

- **Risk Mitigation:** Gradual deployment minimizes disruptions to the Terra Classic ecosystem.
- **Community Engagement:** Each stage incorporates feedback and oversight from the Terra Classic community.
- **Scalability:** The phased approach ensures the Market Module can adapt to growing demand and new opportunities.

This timeline ensures a smooth transition to the updated Market Module while maintaining the stability and resilience of the Terra Classic ecosystem.

By prioritizing preparation, governance approval, controlled activation, and automation, this plan lays a robust foundation for the EUTC repeg and long-term growth.

5. Governance and Oversight

Governance and oversight are fundamental to ensuring the success and long-term sustainability of the proposed adjustments to the Market Module.

A transparent, community-driven approach is essential for fostering trust, managing risks, and enabling iterative improvements.

a) Community-Driven Governance

1. **Governance Proposals:**
    a. All major adjustments to the Market Module, including changes to minting mechanisms, collateral ratios, and divergence fee thresholds, will require approval via community governance proposals.
    b. Proposals must include detailed justifications, projected impacts, and implementation plans to ensure informed decision-making.
2. **Voting Mechanisms:**
    a. Utilize the existing decentralized voting system on Terra Classic to allow validators and token holders to participate in key decisions.
    b. Ensure accessibility and clarity in all voting processes to maximize community participation.
3. **Regular Feedback Cycles:**
    a. Schedule quarterly governance reviews to assess the effectiveness of the Market Module adjustments.
    b. Provide a platform for the community to suggest improvements or raise concerns.

b) Onchain Transparency

1. **Real-Time Data Visibility:**
    a. All transactions, collateral levels, minting activities, and fee redistributions will be logged onchain for complete transparency.
    b. Develop dashboards to provide the community with easy access to key metrics and system performance indicators.
2. **Auditable Processes:**
    a. Implement audit trails for all Market Module operations to ensure accountability.
    b. Enable third-party audits to validate compliance with governance-approved parameters.

c) Roles and Responsibilities

1. **Validators:**
    a. Ensure accurate reporting of Oracle data to maintain the integrity of collateral and price monitoring.
    b. Participate in governance voting to represent the interests of the network.
2. **Developers:**
    a. Maintain and update the Market Module in line with community-approved changes.
    b. Address bugs, optimize performance, and incorporate new features as needed.
3. **Community:**
    a. Actively engage in discussions and voting to shape the future of the Market Module.
    b. Hold validators and developers accountable for adhering to governance mandates.

d) Safeguards Against Centralization

1. **Decentralized Decision-Making:**
    a. Ensure that no single entity or group has undue influence over Market Module adjustments.
    b. Distribute decision-making power across validators, token holders, and governance participants.
2. **Anti-Corruption Measures:**
    a. Monitor for any attempts to manipulate governance proposals or voting outcomes.
    b. Implement penalties for malicious behavior, such as misleading proposals or fraudulent votes.

e) Ongoing Evaluation and Iteration

1. **Performance Metrics:**
    a. Track key indicators such as EUTC price stability, collateral utilization, and divergence fee collections to evaluate the effectiveness of the Market Module adjustments.
    b. Publish regular reports summarizing findings and proposed improvements.
2. **Adaptive Framework:**
    a. Maintain flexibility to update governance processes as the Terra Classic ecosystem evolves.
    b. Encourage innovation while ensuring alignment with the community's goals and values.

By embedding governance and oversight into every aspect of the Market Module's operations, this framework ensures that the system remains robust, transparent, and adaptable.

Community engagement and accountability are at the core of this approach, enabling the Terra Classic ecosystem to achieve its stability and growth objectives.

V. Liquidity Management

A. Strategic Allocation of EUTC Supply

The strategic allocation of EUTC supply is critical to achieving stability, usability, and scalability within the Terra Classic ecosystem.

This section outlines the distribution of the initial EUTC supply to optimize liquidity, enable robust trading pairs, and foster confidence in the repeg mechanism.

1. EUTC <> LUNC Pool

The **EUTC <> LUNC Pool** is the cornerstone of the EUTC repeg mechanism, designed to strengthen the relationship between EUTC and Terra Classic's native token, LUNC.

This pool provides critical infrastructure for stability, usability, and market efficiency within the Terra Classic ecosystem.

a) Purpose

1. **Liquidity Provision:**
    a. Ensure sufficient liquidity to facilitate seamless trading between EUTC and LUNC.
2. **Price Stability:**
    a. Support the stability of EUTC by anchoring its value through active market participation in the pool.
3. **Ecosystem Integration:**
    a. Enhance the utility of LUNC by integrating it into the EUTC repeg mechanism, fostering a symbiotic relationship between the two assets.

b) Initial Allocation

- **100% of Initial EUTC Supply:**
    - The entirety of the initial **62,541 EUTC** will be allocated to the EUTC <> LUNC Pool to bootstrap liquidity.
- **Initial Ratio:**
    - Based on market conditions and Oracle data:
        - **1 EUTC = 10,000 LUNC** (example ratio, subject to governance approval).
    - The ratio will be fixed manually at pool launch and dynamically adjusted once the Market Module is activated.

c) Funding Sources

1. **Burn Tax Allocation:**
    a. **10% of the burn tax revenue** will be allocated to the EUTC <> LUNC Pool, ensuring progressive liquidity growth.
2. **Divergence Fee Contributions:**
    a. **20% of fees collected** through the Divergence Fee Mechanism will supplement the liquidity pool, further enhancing its robustness.
3. **Community Pool Contribution:**
    a. An optional **initial allocation of $200,000–$300,000** from the Community Pool may be directed to the EUTC <> LUNC Pool to accelerate its establishment.

d) Management and Monitoring

1. **Manual Management at Launch:**
    a. Ratios will be manually defined during the initial phase, leveraging Oracle data to align with market conditions.
2. **Dynamic Adjustments Post-Market Module Activation:**

a. Upon activation of the Market Module, ratios will be automatically adjusted to reflect market dynamics and maintain price stability.

3. **Onchain Transparency:**

    a. All transactions and allocations will be visible onchain, providing the community with full oversight.

e) Long-Term Strategy

1. **Continuous Liquidity Growth:**

    a. The pool will be continuously funded through burn tax and divergence fee allocations, ensuring stability and scalability.

2. **Governance Oversight:**

    a. Adjustments to ratios, allocations, and funding mechanisms will be governed by community proposals and voting.

3. **Adaptability:**

    a. The pool will evolve based on market demands and ecosystem growth, serving as the foundation for a resilient Terra Classic economy.

The **EUTC <> LUNC Pool** is pivotal in aligning the interests of EUTC and LUNC holders while providing the necessary liquidity to support the EUTC repeg mechanism.

By fostering a robust and transparent market, this pool ensures the stability and long-term viability of the Terra Classic ecosystem.

B. Tax Tobin as a Liquidity Driver

1. Fractional Tax Tobin Allocation

The **Fractional Tax Tobin Allocation** is a critical component of the EUTC repeg plan, designed to ensure a sustainable flow of resources into key areas of the Terra Classic ecosystem.

By leveraging the Tax Tobin—a dynamic transaction fee mechanism—this allocation strategy will provide funding for liquidity pools, community development, and Oracle Pool stabilization.

a) Purpose of the Tax Tobin Allocation

1. **Sustainable Liquidity Growth:**
    a. Allocate resources to the EUTC <> LUNC liquidity pool, ensuring stability and market efficiency.
2. **Ecosystem Support:**
    a. Direct a portion of the Tax Tobin to the Community Pool to fund governance initiatives and long-term development.
3. **Oracle Pool Reinforcement:**
    a. Strengthen the Oracle Pool to ensure accurate pricing and robust market operations.

b) Distribution Breakdown

When the Market Module is activated, the Burn Tax will be replaced by the Tax Tobin, set at an average rate of **0.35%** per transaction

The collected fees will be redistributed as follows:

- **10% to the Community Pool:** Supports governance and ecosystem development.
- **70% to the Oracle Pool:** Ensures accurate Oracle operations and pricing data.
- **20% to the EUTC <> LUNC Liquidity Pool:** Provides continuous funding to maintain and enhance liquidity.

c) Projected Allocation

The impact of the Tax Tobin depends on the daily transaction volume.

For example:

- **Daily Volume:** $300,000
  - **Tax Tobin Revenue:** $1,050 (0.35% of $300,000)
  - **Community Pool:** $105 (10%)
  - **Oracle Pool:** $735 (70%)
  - **Liquidity Pool:** $210 (20%)

- **Daily Volume:** $1,000,000
  - **Tax Tobin Revenue:** $3,500 (0.35% of $1,000,000)
  - **Community Pool:** $350 (10%)
  - **Oracle Pool:** $2,450 (70%)
  - **Liquidity Pool:** $700 (20%)

- **Daily Volume:** $10,000,000
  - **Tax Tobin Revenue:** $35,000 (0.35% of $10,000,000)
  - **Community Pool:** $3,500 (10%)
  - **Oracle Pool:** $24,500 (70%)
  - **Liquidity Pool:** $7,000 (20%)

d) Governance and Adjustments

1. **Dynamic Adjustments:**

   a. The Tax Tobin rate and allocation percentages can be adjusted based on market conditions and governance proposals.

2. **Transparency:**

   a. All collected and distributed funds will be tracked onchain, ensuring accountability and visibility for the community.

e) Benefits of the Fractional Allocation Strategy

1. **Financial Sustainability:**

    a. Provides consistent funding for liquidity and ecosystem growth without excessive reliance on initial capital.

2. **Enhanced Stability:**

    a. Strengthens the Oracle Pool, ensuring accurate pricing and robust market operations.

3. **Community Empowerment:**

    a. Supports governance initiatives and ecosystem development, fostering long-term resilience.

The **Fractional Tax Tobin Allocation** mechanism underpins the financial foundation of the EUTC repeg plan.

By directing resources strategically, this approach ensures liquidity stability, supports decentralized governance, and enhances the Terra Classic ecosystem's overall health and sustainability.

2. Projected Impact

The **Projected Impact** section evaluates how the **Tax Tobin Allocation** will drive liquidity growth, enhance ecosystem support, and stabilize the Oracle Pool.

By analyzing various daily transaction volume scenarios, this section provides a clear understanding of how the allocated funds will affect the ecosystem and how long it will take to meet liquidity pool targets.

a) Projected Revenue from the Tax Tobin

The revenue generated by the Tax Tobin is directly proportional to the daily transaction volume on the Terra Classic blockchain. The fee is set at an average rate of **0.35%** per transaction.

The collected fees are then redistributed among the **Community Pool**, **Oracle Pool**, and **Liquidity Pool**.

Example Scenarios:

Daily Volume	Tax Tobin Revenue (0.35%)	Community Pool (10%)	Oracle Pool (70%)	Liquidity Pool (20%)
$300,000	$1,050	$105	$735	$210
$1,000,000	$3,500	$350	$2,450	$700
$10,000,000	$35,000	$3,500	$24,500	$7,000

b) Timeframe for Liquidity Pool Targets

Using the **EUTC <> LUNC Pool** as the sole liquidity pool, with a target of **$1,000,000**, the projected timeframes to reach the goal are calculated for different daily transaction volumes.

Daily Volume	Liquidity Pool Allocation (20%)	Days To Reach $1M	Months to Reach $1M
$300,000	$210	4,762 days	~158 months (~13 years)
$1,000,000	$700	1,429 days	~47.6 months (~4 years)
$10,000,000	$7,000	143 days	~4.8 months (~5 months)

c) Projected Impact with Increasing Transaction Volume

Assuming a gradual increase in transaction volume over time as the ecosystem grows, the impact of the Tax Tobin on liquidity targets improves significantly.

For instance:

- Starting at $300,000 daily volume and growing by **10% monthly**, the time to reach the $1,000,000 target reduces to **~2 years**.
- At $1,000,000 daily volume with **5% monthly growth**, the timeframe reduces to **~3 years**.

d) Insights for Ecosystem Growth

1. **Initial Stability:**
    a. While lower transaction volumes result in slower pool growth, they still ensure a steady flow of liquidity, building long-term trust in the ecosystem.

2. **Accelerated Progress with Adoption:**

    a. Higher transaction volumes exponentially decrease the time required to meet liquidity targets, making adoption and utility critical drivers for success.

3. **Sustainability:**

    a. The **Tax Tobin** avoids over-reliance on initial capital injections, ensuring the ecosystem grows organically.

The **Tax Tobin Allocation** provides a sustainable and transparent mechanism to fund liquidity pools while maintaining ecosystem stability.

By fostering community-driven growth and leveraging increasing transaction volumes, this model ensures long-term success and scalability for the Terra Classic blockchain.

C. Governance-Driven Collateral Adjustments

Governance-Driven Collateral Adjustments ensure that the collateral pool supporting EUTC remains resilient, adaptable, and aligned with market dynamics.

By empowering the Terra Classic community to oversee and optimize the composition and ratios of the collateral pool, this approach fosters transparency, decentralization, and long-term stability.

1. Role of Governance in Collateral Management

Governance plays a pivotal role in maintaining a robust and adaptable collateral framework:

1. **Dynamic Adjustments:**
    a. Governance enables the adjustment of collateral ratios in response to changes in market conditions, such as price volatility, liquidity trends, and economic shifts.
    b. Decisions to increase or decrease the overcollateralization ratio (e.g., from 150% to 160% or vice versa) will be determined through community voting.
2. **Collateral Composition:**
    a. Community governance decides the mix of assets within the collateral pool (e.g., LUNC, EUTC, or other Terra Classic-native assets).
    b. Asset inclusions or exclusions must be based on liquidity, stability, and risk assessments.
3. **Reallocation of Resources:**
    a. Governance can allocate surplus funds from the collateral pool to other ecosystem needs, such as enhancing liquidity pools or funding community projects.

2. Proposed Mechanisms for Governance Adjustments

1. **Onchain Proposals:**

    a. Adjustments to collateral ratios or asset composition are initiated through onchain governance proposals.

    b. Each proposal includes:

        i. The proposed change (e.g., increasing collateral ratio to 160%).
        ii. Supporting data (e.g., market analysis, asset performance reports).
        iii. Estimated impact on EUTC stability and ecosystem resilience.

2. **Automated Safeguards:**

    a. While governance sets the parameters, automated systems enforce the collateral thresholds and prevent breaches of minimum requirements.

    b. Example: If collateral levels fall below 150%, **the system halts new EUTC minting automatically**.

3. **Transparency Tools:**

    a. Real-time dashboards will display collateral pool status, asset allocation, and recent governance actions.

    b. This ensures that all stakeholders can monitor and verify changes.

3. Examples of Governance-Driven Actions

1. **Collateral Ratio Adjustment:**

    a. **Proposal:** Increase collateral ratio from 150% to 160% during a period of high volatility.

    b. **Rationale:** Enhances stability by providing an additional safety buffer.

    c. **Outcome:** Approved changes automatically update the parameters for the collateral pool.

2. **Asset Inclusion/Exclusion:**

    a. **Proposal:** Add a new Terra Classic-native token to the collateral pool.

    b. **Rationale:** Diversifies the pool and reduces reliance on a single asset.

c. **Outcome:** Once approved, the system integrates the new asset with specified weighting.

4. Benefits of Governance-Driven Adjustments

1. **Decentralized Decision-Making:**
    a. Empowers the Terra Classic community to collectively shape the collateral management strategy.
2. **Transparency and Accountability:**
    a. All decisions and their outcomes are recorded onchain, fostering trust and accountability.
3. **Adaptability to Market Conditions:**
    a. Governance ensures that the collateral pool evolves alongside the broader DeFi landscape, maintaining its relevance and effectiveness.

Governance-Driven Collateral Adjustments provide the Terra Classic ecosystem with a robust mechanism for maintaining EUTC's stability and scalability.

By combining community oversight with automated safeguards, this approach strikes a balance between decentralization and operational efficiency, ensuring the long-term health of the ecosystem.

D. Mechanisms to Ensure Stability and Security

Mechanisms to Ensure Stability and Security are central to the success of the EUTC repeg plan. These mechanisms are designed to safeguard the ecosystem from volatility, manipulation, and systemic risks while fostering trust among users and stakeholders.

1. Core Stability Mechanisms

1. **Collateral Management System:**
    a. Ensures that every EUTC minted is backed by assets in the collateral pool, maintaining a collateralization ratio of **at least 150%**.
    b. **Automatically halts new minting** if the collateral ratio falls below the minimum threshold, preventing over-minting.
2. **Divergence Fee Mechanism:**
    a. Disincentivizes transactions that push EUTC prices significantly away from the peg of €1.
    b. Ensures that deviations beyond a 5% threshold below the peg trigger the fee mechanism, restoring balance in the market.
3. **Dynamic Liquidity Adjustments:**
    a. Uses real-time data from oracles to adjust liquidity pool ratios dynamically.
    b. Prevents imbalances and ensures smooth market operations, especially during periods of high volatility.

2. Security Measures

1. **Oracle System Strengthening:**
    a. Diversifies data sources to provide accurate, real-time pricing information.
    b. Includes mechanisms to identify and exclude outlier data or anomalies from price calculations.

2. **Automated Safeguards:**

    a. Integrates automated systems to monitor collateral levels, liquidity pool health, and transaction patterns.

    b. Triggers predefined actions, such as halting minting or applying divergence fees, when anomalies are detected.

3. **Transparent Governance Framework:**

    a. **All changes to critical parameters**, such as collateral ratios or pool allocations, are subject to onchain governance.

    b. Ensures that the community has visibility and oversight over key decisions.

4. **Audit and Compliance Monitoring:**

    a. Regular audits of the collateral pool, liquidity allocations, and tax distributions to ensure compliance with predefined rules.

    b. Provides transparency and accountability to stakeholders.

3. Crisis Management Protocols

1. **Emergency Collateral Injection:**

    a. Establishes mechanisms to inject additional collateral into the pool during severe market downturns.

    b. Can be executed via community votes or pre-approved smart contract actions.

2. **Temporary Market Module Adjustments:**

    a. Allows temporary adjustments to Market Module parameters (e.g., minting limits, divergence thresholds) during crises.

    b. Ensures rapid response to stabilize the ecosystem.

3. **Tax Tobin Redistribution:**

    a. During market instability, adjusts the allocation of Tax Tobin revenue to prioritize liquidity and collateral pools over other distributions.

4. Long-Term Stability Measures

1. **Incentivized Ecosystem Participation:**
    a. Encourages users to contribute to liquidity pools and staking through rewards funded by Tax Tobin revenue and divergence fees.
    b. Promotes ecosystem growth and resilience.
2. **Adaptive Burn and Minting Strategies:**
    a. Dynamically adjusts burn rates and minting caps based on market conditions.
    b. Ensures a balanced approach to supply management.
3. **Cross-Market Integration:**
    a. Expands the use of EUTC across various decentralized and centralized exchanges, increasing liquidity and reducing price manipulation risks.

5. Benefits of Stability and Security Mechanisms

1. **Trust and Confidence:**
    a. Provides assurance to users and investors that EUTC is backed by robust systems and safeguards.
2. **Scalability:**
    a. Supports the long-term growth of the Terra Classic ecosystem by maintaining a stable and secure foundation.
3. **Decentralization:**
    a. Balances automated controls with community-driven governance to ensure decentralized decision-making.

The stability and security mechanisms outlined in this section are integral to the EUTC repeg plan's success.

By combining robust collateral management, dynamic liquidity adjustments, and transparent governance, these measures create a resilient ecosystem capable of withstanding market fluctuations and fostering long-term growth.

VI. Pool Ratio Management

A. Manual Management at Pool Launch

The **manual management of liquidity pools at launch** serves as a critical transitional strategy for the EUTC repeg plan.

During the initial phase, before the activation of the Market Module and the automated mechanisms it enables, manual oversight ensures a controlled and stable environment for liquidity pools.

1. Rationale for Manual Management

1. **Stability During Initial Deployment:**
    a. Establishing fixed ratios at launch prevents market shocks and ensures predictable trading conditions.
    b. Enables a gradual introduction of EUTC into the ecosystem, avoiding sudden supply-demand imbalances.
2. **Controlled Liquidity Allocation:**
    a. Allocates initial liquidity strategically across pools, ensuring sufficient depth for trading while maintaining collateral requirements.
3. **Adaptability:**
    a. Manual adjustments provide flexibility to respond to unexpected market conditions or technical issues during the early stages.

2. Initial Ratio and Allocation Strategy

1. **EUTC <> LUNC Pool:**
    a. **Initial Ratio:** Determined based on Oracle data and market conditions. For instance, with EUTC pegged at €1 and a hypothetical LUNC market price of

€0.0001, the ratio would be 1 EUTC = 10,000 LUNC.

b. **Initial Allocation:** Defined as a percentage of the total target liquidity (e.g., 100% of the initial liquidity pool allocation).

2. **Funding Sources:**

a. **Community Pool Contribution:** A limited one-time allocation to bootstrap liquidity.

b. **Burn Tax Revenue:** Gradually funds the pool through 20% of the Tax Tobin revenue allocation.

3. Governance Oversight

1. **Community-Driven Ratios:**

a. Initial ratios are proposed and approved through a governance vote, ensuring alignment with community expectations.

b. Adjustments to these ratios, if necessary, will also require governance approval.

2. **Transparency:**

a. All transactions, allocations, and manual adjustments will be visible onchain, providing full transparency to stakeholders.

4. Monitoring and Reporting

1. **Real-Time Pool Health Tracking:**

a. Oracle data and monitoring tools will provide insights into pool liquidity, ratios, and trading volumes.

b. Any anomalies or significant changes will be flagged for manual review.

2. **Periodic Updates:**

a. Reports on pool performance will be published to the community, summarizing key metrics and adjustments made during the manual management phase.

5. Transition to Automation

1. **Criteria for Automation:**

    a. The transition to automated pool management will be triggered by the successful activation of the Market Module and the establishment of robust Oracle data feeds.

    b. Stability metrics, such as price consistency and sufficient liquidity depth, will signal readiness for automation.

2. **Dynamic Adjustments:**

    a. Once automation is enabled, manual interventions will cease, and ratios will be dynamically managed based on real-time Oracle data and market conditions.

The manual management at pool launch provides a structured and cautious approach to introducing EUTC liquidity pools.

By setting predefined ratios, allocating liquidity strategically, and maintaining transparency through governance, this phase lays the groundwork for a stable and scalable ecosystem. Transitioning to automation ensures long-term adaptability while preserving the stability established during the launch phase.

B. Automated Adjustments Using Market Module

The activation of the **Market Module** introduces a pivotal step in the EUTC repeg plan, enabling automated mechanisms for managing liquidity pool ratios and ensuring stability across the Terra Classic ecosystem.

This phase eliminates the need for manual oversight, leveraging real-time data and algorithmic adjustments to align pool operations with market conditions.

1. Objectives of Automation

1. **Enhanced Stability:**
    a. Dynamically adjust liquidity pool ratios based on Oracle data to maintain EUTC's peg to €1.
2. **Scalability:**
    a. Reduce the need for manual interventions, allowing the ecosystem to adapt seamlessly to growing transaction volumes and market complexities.
3. **Market Responsiveness:**
    a. Enable real-time reactions to price movements, improving confidence in the EUTC and Terra Classic ecosystem.

2. Core Automated Mechanisms

1. **Real-Time Ratio Adjustments:**
    a. The Market Module will continuously monitor Oracle data to calculate the appropriate ratio for the **EUTC <> LUNC pool**.
    b. Example: If LUNC's market price changes, the ratio will be updated automatically to maintain EUTC's €1 peg.
2. **Volume-Weighted Adjustments:**
    a. Transactions will be weighted based on recent trading volumes to minimize abrupt ratio shifts and maintain pool stability.

3. **Safeguards Against Anomalies:**

    a. Automated checks will detect and mitigate abnormal price fluctuations or liquidity imbalances.

        These include:

        i. Temporary halts on swaps if deviations exceed predefined thresholds.
        ii. Activation of the Divergence Fee Mechanism for significant price deviations.

4. **Tax Tobin Revenue Allocation:**

    a. **20% of the Tax Tobin revenue** collected post-Market Module activation will be directed to the **EUTC <> LUNC pool**, ensuring continuous liquidity growth.

3. Integration with the Divergence Fee Mechanism

The **Divergence Fee Mechanism** will complement automated adjustments by disincentivizing destabilizing transactions:

- Fees will apply to trades causing imbalances in the pool, encouraging users to restore equilibrium.

- Collected fees will further reinforce liquidity and collateral stability.

4. Transition Strategy

1. **Initial Activation:**

    a. During the initial activation, only the **EUTC <> LUNC pool** will be managed automatically. This cautious approach ensures system stability before scaling automation.

2. **Full Automation:**

    a. Following successful tests and community approval, the Market Module will manage additional functionalities, including collateral-backed minting and dynamic Tax Tobin adjustments.

5. Governance Oversight

1. **Community-Driven Adjustments:**

    a. Automated mechanisms will operate within parameters defined and periodically reviewed by the Terra Classic community through governance proposals.

2. **Transparency and Reporting:**

    a. Regular reports detailing ratio adjustments, fee distributions, and liquidity metrics will be published onchain, ensuring full accountability.

The introduction of automated adjustments via the Market Module is a cornerstone of the EUTC repeg strategy.

By leveraging advanced mechanisms and real-time data, this phase ensures a stable, scalable, and transparent system that aligns with the long-term vision for the Terra Classic ecosystem.

C. Gating Safeguards for Anomalies

The **Gating Safeguards for Anomalies** are designed to protect the stability and integrity of the EUTC repeg mechanism by identifying and mitigating irregularities in the liquidity pools and market operations. These safeguards act as automated barriers to prevent adverse impacts from market manipulation, sudden price swings, or liquidity imbalances.

1. Objectives of Gating Safeguards

1. **Market Protection:**
    a. Shield the liquidity pools from disruptive anomalies such as sudden spikes in trading volumes or significant price deviations.
2. **Preservation of Peg:**
    a. Ensure the EUTC maintains its peg to €1 by addressing deviations quickly and effectively.
3. **Systemic Stability:**
    a. Mitigate risks to the ecosystem caused by unexpected market conditions or operational errors.

2. Key Safeguard Mechanisms

1. **Anomaly Detection:**
    a. **Real-Time Monitoring:** Constantly analyze Oracle data, transaction volumes, and pool activity to identify outlier behaviors.
    b. **Threshold-Based Alerts:** Trigger alerts when anomalies, such as price deviations exceeding 5% of the peg or unusually high transaction volumes, are detected.
2. **Automatic Pool Freezing:**

a. Temporarily halt swap transactions in the **EUTC <> LUNC pool** if price deviations exceed a predefined threshold (e.g., ±5% of €1 for EUTC).

b. Resume operations only after the anomaly is resolved and market conditions stabilize.

3. **Dynamic Adjustment Limits:**

   a. Cap the rate of ratio adjustments within a predefined range to prevent overcorrections caused by short-term volatility.

   b. Example: Adjustments will not exceed a ±2% change in the pool ratio per 5-minute interval.

4. **Integration with the Divergence Fee Mechanism:**

   a. Activate the **Divergence Fee** to disincentivize trades that amplify imbalances during periods of heightened volatility.

5. **Liquidity Buffer Maintenance:**

   a. Maintain a reserve within the liquidity pool to absorb shocks and stabilize the system during periods of stress.

   b. Example: Allocate 5% of the pool's liquidity as a buffer against anomalies.

3. Response Protocols

1. **Immediate Actions:**

   a. Automatically trigger divergence fees or freeze trading in response to anomalies.

   b. Notify validators and governance bodies of significant events for further investigation.

2. **Resolution and Recovery:**

   a. Once conditions normalize, gradually lift restrictions on trading and resume dynamic ratio adjustments.

   b. Deploy additional liquidity from the collateral pool if needed to restore balance.

4. Governance Oversight

1. **Predefined Parameters:**
    a. Safeguard thresholds, such as allowable price deviations and adjustment caps, will be set through governance proposals.
2. **Periodic Reviews:**
    a. Governance will review and update the parameters based on performance data and evolving market conditions.
3. **Community Transparency:**
    a. All anomalies detected, actions taken, and their outcomes will be logged onchain and included in periodic reports for community review.

The Gating Safeguards for Anomalies provide a robust safety net for the EUTC repeg mechanism.

By leveraging real-time monitoring, automated responses, and governance-driven oversight, these safeguards ensure the stability and resilience of the Terra Classic ecosystem in the face of unexpected challenges.

D. Transition Strategy for Dynamic Stability

The **Transition Strategy for Dynamic Stability** outlines the roadmap for shifting the management of liquidity pools and EUTC peg stability from manual oversight to fully automated systems.

This transition ensures long-term resilience and adaptability while maintaining transparency and community-driven governance throughout the process.

1. Phase 1: Manual Oversight at Launch

1. **Initial Ratio Management:**
    a. During the launch of the EUTC <> LUNC liquidity pool, ratios will be set manually based on Oracle data and prevailing market conditions.
    b. Example: If 1 EUTC is pegged to €1, and LUNC is valued at €0.0001, the initial ratio may be set at 1 EUTC = 10,000 LUNC.
2. **Burn Tax Allocation:**
    a. Utilize 30% of the onchain burn tax to incrementally fund the liquidity pool.
    b. Manual oversight will ensure allocations align with liquidity targets and avoid destabilizing market forces.
3. **Monitoring and Adjustments:**
    a. Governance and validators will monitor pool activity and manually adjust ratios if required to address anomalies or market imbalances.

2. Phase 2: Gradual Automation of Pool Management

1. **Integration of the Market Module:**
    a. Activate the Market Module with updated algorithms to automate pool ratio adjustments based on real-time Oracle data.

b. Ensure the module dynamically responds to market fluctuations, maintaining EUTC's peg and optimal liquidity pool ratios.

2. **Automation of Divergence Fee Mechanism:**

   a. Enable automated application of divergence fees for trades that deviate from the peg, discouraging destabilizing behaviors.

3. **Testing and Validation:**

   a. Conduct phased testing of automated systems on live networks to ensure reliability and resilience.

   b. Adjust parameters, such as fee thresholds and adjustment caps, based on observed performance.

3. Phase 3: Full Automation and Dynamic Adjustments

1. **Real-Time Adjustments:**

   a. Fully automate pool ratio adjustments, divergence fee application, and liquidity allocation using the integrated Market Module and Collateral Management Module.

2. **Decentralized Monitoring:**

   a. Deploy decentralized monitoring systems to ensure transparency and accountability in automated processes.

   b. Notify governance bodies and the community of significant changes or anomalies in real-time.

3. **Tax Tobin Utilization:**

   a. Transition from the burn tax to the Tax Tobin as the primary funding mechanism for liquidity pools, collateral pools, and ecosystem development.

   b. Redistribute collected Tax Tobin revenues as follows:

      i. 10% to the Community Pool.
      ii. 70% to the Oracle Pool.
      iii. 20% to liquidity pools.

4. Governance Role in Transition

1. **Parameter Adjustments:**
    a. Governance will periodically review and update parameters for automated systems, such as fee rates, adjustment thresholds, and liquidity targets.
2. **Community Proposals:**
    a. The community can propose changes to the system based on performance data or evolving needs.
3. **Transparency and Accountability:**
    a. All actions taken during the transition, including manual adjustments, testing results, and automation updates, will be logged onchain for community review.

The Transition Strategy for Dynamic Stability ensures a smooth evolution from manual to automated systems, enabling the EUTC repeg mechanism to achieve long-term sustainability and robustness.

By combining phased implementation, governance oversight, and real-time automation, this strategy provides a clear pathway to dynamic stability while fostering trust and transparency within the Terra Classic ecosystem.

VII. Layer 1 Collateral Management Module

A. Proposal for a Dedicated L1 Module

To ensure the effective management of collateral within the Terra Classic ecosystem, this proposal introduces the development of a **Layer 1 Collateral Management Module**.

This module will serve as a robust, scalable, and transparent mechanism to oversee collateral pools backing stablecoins like EUTC and any future additions such as KRTC or others.

In parallel, the proposal incorporates a **Collateral Yield Management Module**, designed to optimize collateral utilization by generating yield through secure investment strategies. These two modules will work synergistically to ensure both the security and growth of the Terra Classic ecosystem's collateral base.

1. Core Objectives

1. **Centralized Oversight for Decentralized Assets:**
    a. The module will centralize the logic and management of collateral pools while preserving on-chain transparency and decentralization.
2. **Support for Multiple Collateral Pools:**
    a. To accommodate the potential growth of the Terra Classic ecosystem, the module will include the capability to manage **independent collateral pools**.

    Each collateral pool will be specifically associated with a unique stablecoin and its liquidity pool (e.g., one pool for EUTC <> LUNC and another for KRTC <> LUNC).
3. **Dynamic Collateral Allocation and Yield Generation:**
    a. The Collateral Management Module will dynamically allocate and monitor collateral assets for each pool based on predefined governance-approved parameters, such as collateralization ratios and acceptable asset compositions.
    b. The Collateral Yield Management Module will utilize a portion of the collateral (e.g., over-collateralized assets) to generate yield through investments such as

stablecoin liquidity provisioning, lending, and other low-risk instruments..

4. **Future-Proof Design:**

    a. Both modules are designed to scale alongside the ecosystem, ensuring seamless integration of additional stablecoins and their associated liquidity pools.

2. Key Features for Multiple Pool Management

- **Dedicated Collateral Pools:**
    - Each stablecoin's liquidity pool will be backed by a distinct collateral pool, isolating the risks and ensuring tailored management.
- **Yield Generation and Distribution:**
    - Yield generated from collateral investments will be reinvested to strengthen reserves or distributed to token holders as passive income, incentivizing ecosystem participation.
- **Customizable Parameters:**
    - Governance can define the specific collateralization ratios, eligible assets, yield targets, and rebalancing strategies for each pool.
- **Interconnected Governance:**
    - Community governance will oversee both the collateral management policies and the integration of yield strategies, including voting on new stablecoins or liquidity pools.
- **Real-Time Monitoring Across Pools:**
    - The module will include real-time tracking of collateral levels, yield performance, and liquidity across all pools to prevent imbalances or under-collateralization.

3. Implementation Steps

1. **Initial Development for EUTC:**

    a. The module will first focus on managing the collateral pool for EUTC <> LUNC. This will serve as the prototype and basis for future expansions.

2. **Integration of Yield Strategies:**

    a. The Collateral Yield Management Module will be deployed in tandem to optimize the use of over-collateralized assets, generating additional value for the ecosystem.

3. **Expansion to Additional Stablecoins:**

    a. Once proven effective, both modules can be extended to manage collateral and yield for additional stablecoins such as KRTC or others introduced into the ecosystem.

4. **Governance-Driven Adjustments:**

    a. The governance framework will allow the community to vote on the addition of new pools, collateralization thresholds, asset compositions, and yield distribution policies.

B. Key Functionalities

The Layer 1 Collateral Management Module introduces critical functionalities that ensure the effective operation and scalability of collateral pools within the Terra Classic ecosystem. These functionalities are designed to enhance stability, transparency, and flexibility, providing robust support for the EUTC repeg mechanism and future expansions.

1. Real-Time Collateral Monitoring

Real-time collateral monitoring is essential for maintaining the integrity and stability of the collateral pools within the Terra Classic ecosystem.

By implementing an automated system that continuously tracks collateral levels and their alignment with predefined ratios, this functionality ensures that the pegged value of stablecoins like EUTC is secure and well-supported.

a) Core Objectives

1. **Maintain Collateralization Ratios:** Ensure that all stablecoins remain overcollateralized (e.g., at 150%) to prevent destabilization and over-minting.
2. **Mitigate Risk:** Detect and address potential risks arising from market volatility, such as drops in collateral value or significant deviations in the liquidity pools.
3. **Transparency:** Provide onchain visibility of collateral pool metrics for community oversight.

b) Key Features

1. **Real-Time Data Integration:**
    a. Integrate Oracle feeds to fetch live market prices for collateral assets (e.g., LUNC).
    b. Continuously update the valuation of all collateral assets within the pool.
2. **Threshold-Based Alerts:**

a. Automatically trigger alerts when collateral levels approach critical thresholds (e.g., 155%, near the 150% minimum).

b. Provide detailed logs of these alerts to validators and governance participants.

3. **Dynamic Collateral Adjustment:**

    a. Identify undercollateralized scenarios and temporarily restrict minting of new stablecoins.

    b. Enable immediate corrective actions, such as rebalancing collateral by adding funds or adjusting parameters.

4. **Anomaly Detection:**

    a. Use statistical models to detect irregularities in collateral performance, such as abrupt price swings or unexpected drops in liquidity.

    b. Automatically flag anomalies for governance or technical review.

c) Implementation Process

1. **Initial Setup:**

    a. Define collateralization ratios for each supported stablecoin pool (e.g., 150% for EUTC <> LUNC).

    b. Establish integration with Oracle systems for accurate pricing data.

2. **Automation:**

    a. Deploy smart contracts to automatically calculate collateral ratios and monitor real-time compliance.

    b. Implement mechanisms to pause minting if collateral levels fall below the minimum threshold.

3. **Governance and Reporting:**

    a. Enable the community to adjust thresholds and parameters through governance proposals.

    b. Publish periodic reports summarizing collateral pool performance, anomalies, and interventions.

d) Benefits

- **Increased Stability:** Ensures that every stablecoin in the ecosystem is securely backed by collateral, reducing the risk of depegging.
- **Enhanced Security:** Early detection of anomalies minimizes exposure to adverse market events.
- **Community Trust:** Transparent monitoring builds confidence among users and validators in the stability of the Terra Classic ecosystem.

Real-time collateral monitoring is a cornerstone of the Layer 1 Collateral Management Module, providing an automated and transparent framework to safeguard the integrity of the collateral pools.

By leveraging dynamic adjustments and robust reporting mechanisms, this feature ensures the long-term resilience and stability of Terra Classic's stablecoins.

2. Governance-Driven Adjustments

Governance-driven adjustments ensure that the collateral pool's structure remains aligned with the evolving needs of the Terra Classic ecosystem and the market dynamics affecting the EUTC stablecoin.

By empowering the community to actively participate in decision-making, this mechanism upholds the principles of decentralization while maintaining robust and adaptive collateral management.

a) Key Features

1. **Community Proposal Mechanism:**
    a. Stakeholders can propose changes to the collateral composition, collateralization ratios, or allocation strategies through governance proposals.
    b. Proposals must include detailed justifications, risk assessments, and projected impacts on the ecosystem's stability and functionality.

2. **Voting and Approval Process:**

    a. All governance proposals undergo a transparent voting process, enabling validators and token holders to participate.

    b. Proposals must achieve a predefined quorum and approval threshold to be implemented.

3. **Periodic Review and Adjustments:**

    a. The community can propose periodic reviews of the collateral pool to ensure optimal performance and alignment with market conditions.

    b. Adjustments, such as adding new assets or modifying weights, will be based on predefined criteria, such as asset liquidity, volatility, and trustworthiness.

4. **Emergency Measures:**

    a. Governance-driven emergency mechanisms can be triggered during periods of significant market instability or other unforeseen events.

    b. These measures may include temporarily adjusting collateralization ratios or reallocating collateral to maintain the peg of EUTC.

b) Implementation Process

1. **Proposal Submission:**

    a. Proposals are submitted onchain, including all relevant details and calculations to facilitate informed decision-making.

    b. A clear timeline for implementation and evaluation must accompany each proposal.

2. **Community Feedback Period:**

    a. Once a proposal is submitted, a feedback period allows community members to discuss and refine the proposal before voting.

    b. Suggestions for improvement or potential risks are incorporated during this phase.

3. **Voting and Execution:**

a. Approved proposals are executed through the Layer 1 Collateral Management Module.

b. Automated systems within the module ensure seamless integration of changes, such as updating collateral pool parameters or redistributing collateral.

4. **Performance Monitoring:**

a. Adjustments made to the collateral pool are monitored over time to evaluate their effectiveness and impact.

b. Periodic reports are generated and shared with the community to maintain transparency and trust.

c) Benefits of Governance-Driven Adjustments

- **Adaptability:** Allows the collateral management system to evolve in response to changes in market conditions and ecosystem needs.
- **Transparency:** Ensures that all changes to the collateral pool are publicly documented and accessible to the community.
- **Resilience:** Enhances the ability of the collateral pool to withstand market shocks by incorporating diverse perspectives and proactive measures.
- **Decentralization:** Empowers the Terra Classic community to take an active role in maintaining the stability and security of the ecosystem.

By integrating governance-driven adjustments into the Layer 1 Collateral Management Module, this approach balances community oversight with technical efficiency.

It ensures that collateral management remains dynamic, transparent, and aligned with the broader goals of the Terra Classic blockchain.

3. Liquidity Limits and Safeguards

The **Liquidity Limits and Safeguards** functionality is critical to ensuring the stability, security, and sustainability of the EUTC repeg mechanism. By establishing boundaries and automated

controls for liquidity pool management, this functionality minimizes risks associated with overexposure, undercollateralization, and sudden market shocks.

a) Purpose of Liquidity Limits

1. **Risk Mitigation:**
    a. Prevents the over-extension of liquidity in situations where the collateral pool might be insufficient to back the issued EUTC.
    b. Protects the ecosystem from liquidity imbalances caused by speculative activity or external market volatility.
2. **Collateralized Stability:**
    a. Ensures that the amount of liquidity injected into the ecosystem is proportional to the available collateral reserves, maintaining a secure collateralization ratio.

b) Key Features

1. **Collateral-Backed Liquidity Caps:**
    a. Establishes a maximum liquidity threshold for each pool based on the collateral pool's value and a predefined collateralization ratio (e.g., 150% for EUTC).
    b. Liquidity caps are dynamically adjusted in real-time using Oracle-fed data to reflect fluctuations in the value of collateralized assets.
2. **Automated Lock Mechanisms:**
    a. Introduces safeguards that automatically halt new liquidity injections or limit transactions in a pool if the collateralization ratio drops below a critical threshold (e.g., 120%).
    b. Suspends minting operations for new EUTC until the collateral pool is replenished to the required ratio.
3. **Daily Liquidity Rebalancing:**

a. Implements a mechanism to gradually adjust liquidity pools based on usage patterns and collateral availability, ensuring long-term sustainability without abrupt changes.

c) Governance and Oversight

1. **Community-Driven Threshold Adjustments:**

    a. Governance proposals will enable the Terra Classic community to modify collateralization ratios, liquidity caps, and critical thresholds as the ecosystem evolves.

2. **Transparency Measures:**

    a. All liquidity limits and safeguards will be auditable onchain, allowing users to monitor changes in real time.

    b. Regular reporting of liquidity pool health, collateralization levels, and threshold violations will foster trust and accountability.

d) Implementation Strategy

1. **Initial Setup:**

    a. Define initial liquidity caps for the EUTC <> LUNC pool based on collateral pool size and the 150% collateralization requirement.

    b. Establish Oracle connections to monitor the value of collateral assets and integrate them with the Layer 1 Collateral Management Module.

2. **Dynamic Adjustments:**

    a. Deploy automated scripts to dynamically update liquidity caps in response to collateral fluctuations.

    b. Test lock mechanisms in low-stakes scenarios to validate their reliability before full deployment.

3. **Future Expansion:**

a. Scale the system to manage additional liquidity pools (e.g., KRTC <> LUNC) with individual thresholds and safeguards tailored to the characteristics of each stablecoin.

The **Liquidity Limits and Safeguards** functionality ensures the Terra Classic ecosystem remains stable, secure, and adaptable.

By embedding these automated controls and enabling community oversight, the EUTC repeg mechanism is well-positioned to handle future growth and external challenges.

C. Benefits Over Smart Contracts

The introduction of a dedicated Layer 1 (L1) module for collateral management provides several advantages over traditional smart contract-based systems.

By embedding the functionality directly within the blockchain's core, this approach offers enhanced performance, security, and scalability for the Terra Classic ecosystem.

1. **Enhanced Performance**
    a. **Optimized Transaction Processing:** L1 modules are tightly integrated with the blockchain consensus mechanism, enabling faster execution of collateral management operations compared to smart contracts.
    b. **Reduced Gas Costs:** Since the operations are native to the blockchain, the gas costs for executing collateral-related actions (e.g., collateral monitoring, minting restrictions) are significantly lower than smart contract operations.
2. **Increased Security**
    a. **Minimized Attack Surface:** Unlike smart contracts, which are vulnerable to exploits and external attacks, L1 modules benefit from the inherent security of the blockchain's core protocol.
    b. **Automatic Governance Safeguards:** The module can enforce governance-approved parameters, such as collateral ratios and minting limits, without requiring manual intervention or updates to external code.
3. **Improved Scalability**
    a. **Support for Multiple Collateral Pools:** The module is designed to manage multiple collateral pools, each tied to a specific stablecoin or liquidity pool. This ensures seamless scalability as new stablecoins or liquidity pairs are introduced to the ecosystem.
    b. **Dynamic Adjustments:** The L1 module can automatically adjust collateral requirements based on Oracle data, ensuring real-time responsiveness to market conditions without the need for frequent updates.
4. **Transparent Operations**
    a. **Onchain Visibility:** All collateral-related actions, including fund allocations and ratio adjustments, are fully recorded onchain. This enhances trust and transparency for the community.

b. **Standardized Reporting:** The module provides a unified framework for collateral management, ensuring consistency across all pools and reducing the risk of discrepancies.

5. **Reduced Complexity**

    a. **Streamlined Integration:** By centralizing collateral management within the blockchain core, the need for deploying and maintaining multiple smart contracts is eliminated, reducing complexity for developers and validators.

    b. **Simplified Governance:** Adjustments to collateral management rules can be implemented through governance proposals without the need for redeploying or upgrading smart contracts.

6. **Long-Term Sustainability**

    a. **Future-Proof Design:** The L1 module is designed to accommodate future enhancements, such as support for new assets or more sophisticated collateralization mechanisms, ensuring it remains adaptable to evolving ecosystem needs.

    b. **Alignment with Ecosystem Goals:** The module aligns with Terra Classic's commitment to stability, decentralization, and user trust by providing a robust and secure foundation for collateral management.

The transition from smart contract-based collateral management to a dedicated L1 module represents a significant step forward for the Terra Classic blockchain.

By leveraging the strengths of native blockchain functionality, the L1 module ensures a stable, secure, and scalable infrastructure for supporting the EUTC repeg mechanism and future ecosystem growth.

VIII. Layer 1 Divergence Fee Mechanism Module

A. Proposal for a Dedicated L1 Module

To ensure seamless and secure management of collateral pools, as well as effective implementation of the Divergence Fee Mechanism, the creation of a dedicated Layer 1 (L1) module is proposed.

This module will provide a robust foundation for managing stablecoin ecosystems on Terra Classic, supporting the scalability and reliability of the EUTC repeg mechanism.

1. Objectives of the L1 Module

1. **Centralized Collateral Management Across Stablecoins:**
    a. Enable independent collateral pools for each stablecoin, such as EUTC, KRTC, or any future assets, ensuring that each pool has distinct rules and ratios.
2. **Dynamic and Automated Operations:**
    a. Leverage blockchain data to enforce collateralization requirements, dynamically adjust minting and burning mechanisms, and optimize liquidity ratios across all associated pools.
3. **Transparency and Security:**
    a. Maintain full onchain visibility into the status of collateral pools, including asset composition, ratios, and any system-triggered adjustments, fostering trust within the ecosystem.
4. **Governance Integration:**
    a. Empower community-driven decisions regarding collateral pool configurations, asset allocations, and critical adjustments via decentralized governance mechanisms.

2. Scope of the Module

The L1 module will serve as the core infrastructure for the following functionalities:

1. **Collateral Pool Creation and Management:**
    a. Automatically establish and maintain collateral pools for all supported stablecoins.
    b. Enforce over-collateralization ratios (e.g., 150% for EUTC) to safeguard against volatility and systemic risks.
2. **Minting and Burning Logic:**
    a. Implement rules for minting new stablecoins based on the collateral available in each pool.
    b. Manage burning mechanisms to stabilize the supply of stablecoins during deflationary events.
3. **Integration with Divergence Fee Mechanism:**
    a. Redistribute fees collected from the Divergence Fee Mechanism directly into the appropriate collateral pools, ensuring continued stability and liquidity.
4. **Interoperability with Liquidity Pools:**
    a. Seamlessly interact with DEX-based liquidity pools to monitor and adjust ratios dynamically, based on oracle data and market conditions.
5. **Cross-Stablecoin Scalability:**
    a. Future-proof the module to support additional stablecoins, enabling independent configurations for each new asset introduced to the ecosystem.

3. Benefits of a Dedicated L1 Module

1. **Performance Optimization:**
    a. By embedding key functionalities at the protocol level, the L1 module ensures lower latency and higher throughput compared to smart contract-based

solutions.

2. **Enhanced Security:**

    a. Direct L1 integration minimizes vulnerabilities associated with external contract dependencies, reducing attack vectors.

3. **Operational Flexibility:**

    a. Modular design allows for the addition of new stablecoins and collateral pools without requiring extensive rework or disruptions to existing mechanisms.

4. **Decentralized Control:**

    a. Community governance ensures transparent and fair decision-making processes, empowering stakeholders to influence the ecosystem's evolution.

The proposed L1 module represents a critical step in creating a resilient and scalable foundation for the Terra Classic ecosystem. By directly integrating collateral and divergence management functionalities at the protocol level, this module will enhance stability, efficiency, and community trust, while paving the way for future expansions.

B. Key Functionalities

1. Real-Time Fee Calculation and Application

The **Real-Time Fee Calculation and Application** mechanism is designed to dynamically calculate and enforce fees based on deviations from the EUTC peg, ensuring stability and discouraging destabilizing trades. Key functionalities include:

- **Dynamic Fee Adjustment:**
    - Divergence fees are calculated in real-time using price feeds from decentralized oracles.
    - Fee rates are progressively scaled based on the magnitude of the deviation, with higher fees applied to larger price discrepancies.
    - This adjustment mechanism incentivizes smaller, incremental trades and penalizes large trades that could destabilize the market.
- **Market Impact Mitigation:**
    - By imposing higher costs on trades that deviate significantly from the target peg, the system mitigates risks of liquidity imbalances and speculative arbitrage.
    - This mechanism fosters a healthier market environment by encouraging more stable trading behaviors.
- **Automated Fee Implementation:**
    - The fee system is fully automated and integrated into the Layer 1 architecture, ensuring real-time enforcement without manual intervention.
    - Fees are applied seamlessly to all relevant transactions, including swaps, transfers, and liquidity movements involving EUTC.
    - This automation guarantees consistency, fairness, and reduced opportunities for manipulation.

This real-time calculation and application framework directly contributes to the overall stability and trustworthiness of the EUTC repeg strategy, maintaining alignment with market dynamics while safeguarding the liquidity pools.

2. Automated Redistribution of Collected Fees

The Automated Redistribution of Collected Fees is a core functionality of the Layer 1 Divergence Fee Mechanism Module.

This system ensures that the fees collected through divergence transactions are efficiently utilized to stabilize the ecosystem and enhance its long-term viability. The redistribution process is automated, transparent, and aligned with governance-approved policies.

a) Key Objectives

1. **Support Liquidity Pools:**
    a. A significant portion of the collected fees is directed towards liquidity pools (e.g., EUTC <> LUNC) to maintain depth and stability.
    b. This allocation helps counteract the effects of market volatility and ensures seamless trading experiences for users.
2. **Reinforce Ecosystem Stability:**
    a. Fees are allocated to strengthen key ecosystem components, such as collateral reserves or community pools, ensuring the resilience of the Terra Classic network.
3. **Enhance Transparency:**
    a. All redistribution activities are logged onchain, providing the community with full visibility into how funds are utilized.

b) Redistribution Framework

1. **Fee Allocation Ratios:**
    a. Fees are redistributed based on governance-approved ratios.
    For example:
        i. **50% to Liquidity Pools:** Directly injected into the primary EUTC liquidity pools to bolster stability.
        ii. **30% to Collateral Reserves:** Used to enhance the over-collateralization of EUTC, ensuring financial security.

iii. **20% to the Community Pool:** Directed toward community-driven initiatives or emergency funding needs.

2. **Onchain Automation:**

    a. The redistribution process is entirely automated via smart contracts, eliminating manual intervention and reducing operational risks.

    b. Fees collected in real time are processed and allocated at predefined intervals (e.g., daily or weekly).

3. **Governance-Driven Adjustments:**

    a. Community members can propose and vote on changes to fee allocation ratios, ensuring adaptability to evolving market conditions or ecosystem priorities.

4. **Burn Mechanism (Optional):**

    a. A portion of fees may be burned to reduce excess supply of USTC or other tokens, aligning with deflationary goals and increasing token value.

c) Implementation Plan

1. **Initial Allocation:**

    a. Define default fee allocation ratios based on governance decisions during the module's deployment.

    b. Conduct initial testing to validate the functionality and efficiency of the redistribution mechanism.

2. **Monitoring and Optimization:**

    a. Utilize analytics dashboards to track the impact of redistributed fees on liquidity, collateralization, and community growth.

    b. Adjust allocation policies as needed through governance proposals.

3. **Expansion to Multi-Pool Systems:**

    a. As additional liquidity pools (e.g., for KRTC) are established, the redistribution mechanism will be extended to support these pools while maintaining proportional allocations.

By automating the redistribution of collected fees, this mechanism reinforces the stability of the EUTC ecosystem, fosters community trust, and ensures alignment with long-term strategic goals.

3. Governance and Community Oversight

Governance and Community Oversight are integral to the effective functioning of the Layer 1 Divergence Fee Mechanism Module.

This ensures that the module's policies and operations align with the Terra Classic community's priorities and long-term goals.

a) Key Objectives

1. **Decentralized Decision-Making:**
    a. Empower the community to participate in key decisions regarding fee parameters, allocation ratios, and policy updates.
    b. Encourage active engagement through accessible voting mechanisms.
2. **Transparency and Accountability:**
    a. Maintain complete transparency by logging all decisions, fee redistributions, and policy changes onchain.
    b. Ensure the community has access to audit tools for verifying module operations.
3. **Adaptability to Market Conditions:**
    a. Enable governance to swiftly implement adjustments to fee parameters or redistribution strategies based on evolving market dynamics.

b) Governance Framework

1. **Proposal Mechanism:**

a. Community members can submit proposals to adjust module parameters (e.g., fee thresholds, allocation ratios).

b. Proposals undergo a voting process where token holders decide on their implementation.

2. **Onchain Voting System:**

a. Implement a transparent and secure voting mechanism for governance decisions.

b. Ensure proportional voting power based on EUTC or governance token holdings.

3. **Performance Audits:**

a. Conduct regular audits of the module's operations and redistribute the findings to the community.

b. Utilize onchain analytics to provide real-time insights into fee collections and their impact.

c) Implementation Plan

1. **Initial Governance Setup:**

a. Define the initial governance framework and types of parameters for the module. These parameters include fee thresholds, allocation ratios, redistribution schedules, and rebalancing mechanisms.
While the detailed values of these parameters will be specified in a technical document, their structure and purpose will be outlined in this functional whitepaper.

b. Educate the community on governance tools and processes.

2. **Continuous Improvement:**

a. Regularly update governance mechanisms based on feedback and system performance.

b. Introduce new tools for proposal submission and voting to enhance community participation.

By establishing strong governance and oversight, this module ensures its alignment with the community's vision, fostering trust, transparency, and collective responsibility in the Terra Classic ecosystem.

C. Advantages of Layer 1 Integration

Integrating the Divergence Fee Mechanism and related modules at the Layer 1 level provides significant advantages for the Terra Classic ecosystem, ensuring performance, security, and long-term scalability.

1. Key Advantages

1. **Enhanced Performance:**
    a. Layer 1 integration allows the modules to operate directly within the blockchain protocol, reducing latency and improving transaction processing speeds.
    b. Eliminates reliance on external smart contracts, reducing overhead and improving efficiency.
2. **Improved Security:**
    a. Being part of the Layer 1 architecture, the modules benefit from the native security of the Terra Classic blockchain.
    b. Reduces vulnerabilities associated with third-party integrations or Layer 2 solutions.
3. **Seamless Interoperability:**
    a. Layer 1 integration ensures that the Divergence Fee Mechanism, Liquidity Pool Management Module, and Collateral Yield Management Module interact seamlessly.
    b. Facilitates real-time data exchange between modules, improving decision-making and response times.
4. **Governance Transparency:**
    a. All operations are recorded directly onchain, ensuring that community governance has full visibility into module performance and decision-making processes.
    b. Provides a robust framework for proposing and implementing changes efficiently.
5. **Future-Proof Design:**

a. Enables easy scaling as the ecosystem grows, allowing new stablecoins or modules to integrate without requiring significant protocol changes.

b. Supports ongoing enhancements and innovations without compromising the integrity of existing systems.

By integrating these mechanisms at Layer 1, the Terra Classic ecosystem benefits from a robust foundation that aligns with the principles of decentralization, security, and community-driven governance.

IX. Layer 1 Collateral Yield Management Module

A. Proposal for a Dedicated L1 Module

To ensure the efficient management and optimization of overcollateralized assets within the Terra Classic ecosystem, this proposal introduces a **Layer 1 Collateral Yield Management Module**. The module is designed to autonomously generate yields from excess collateral while maintaining struct compliance with governance-approved parameters.

1. Purpose and Objectives

1. **Efficient Use of Idle Collateral:**

    a. Convert overcollateralized assets into a productive resource, generating consistent yields while maintaining security and overcollateralization thresholds.

2. **Governance-Driven Innovation:**

    a. Empower the community to define the scope and parameters of yield generation, enabling the module to evolve in response to market demands and governance decisions.

3. **Scalability Across Ecosystem Growth:**

    a. Design the module to support multiple collateral pools, allowing for the seamless integration of new stablecoins (e.g., KRTC) and future expansions.

4. **Robust Risk Management:**

    a. Implement strict guidelines for diversification, risk assessment, and monitoring to ensure the safety of the assets allocated to yield-generating strategies.

5. **Onchain Transparency and Accessibility:**

    a. Maintain real-time visibility of all operations, strategies, and results, fostering community trust and confidence in the module's operations.

2. Strategic Justifications

The Collateral Yield Management Module addresses key challenges within the Terra Classic ecosystem:

1. **Idle Collateral Usage:**

    a. Overcollateralized assets typically remain underutilized. This module ensures they contribute actively to ecosystem growth without compromising stability.

2. **Ecosystem Incentives:**

    a. By generating passive income for stablecoin holders, the module strengthens user engagement and loyalty, providing a competitive advantage over other stablecoins.

3. **Decentralized Adaptability:**

    a. Unlike centralized yield strategies, the module adheres to community-defined rules, making it adaptable and resistant to centralized risks.

By prioritizing transparency, community engagement, and financial sustainability, this dedicated Layer 1 module lays the foundation for a resilient and efficient Terra Classic ecosystem.

B. Key Functionalities

The Layer 1 Collateral Yield Management Module incorporates advanced functionalities to ensure effective utilization of collateral while maintaining ecosystem stability and scalability.

These functionalities include:

1. **Automated Asset Allocation**

    a. Dynamically identify and allocate overcollateralized assets to yield-generating strategies approved by governance.

    b. Diversify allocations across multiple strategies, such as:

        i. **Liquidity Provisioning:** Providing liquidity in stablecoin pairs to generate predictable yields.
        ii. **Lending:** Lending collateral assets on decentralized platforms for interest.
        iii. **Staking:** Staking assets like LUNC to earn network rewards.

    c. Continuously monitor the performance of these allocations to ensure optimal utilization.

2. **Real-Time Monitoring and Risk Management**

    a. Leverage decentralized oracles to track market conditions and asset performance in real time.

    b. Implement risk-mitigation mechanisms, such as:

        i. Pausing yield generation during extreme volatility.
        ii. Automatically reallocating assets to safer strategies when thresholds are exceeded.

    c. Perform regular risk assessments to adjust allocations as needed.

3. **Dynamic Yield Reinvestment and Distribution**

    a. Reinvest a portion of generated yields into the collateral pool to strengthen overcollateralization levels.

    b. Distribute remaining yields to stablecoin holders based on governance-approved policies.

    c. Allow stablecoin holders to choose distribution options, such as compounding or periodic payouts.

4. **Multi-Pool Support**

    a. Support multiple collateral pools tailored to specific stablecoins (e.g., EUTC, KRTC), each with:

i. Customizable strategies and allocation rules.
ii. Independent performance tracking and reporting.

b. Facilitate inter-pool coordination to optimize yield generation and collateral efficiency.

5. **Performance Analytics and Reporting**

a. Provide real-time dashboards showcasing:

i. Yield performance across strategies.
ii. Risk levels and asset allocations.

b. Publish periodic reports for governance and community transparency.

c. Use predictive analytics to guide strategy adjustments and improve performance.

By integrating these functionalities, the module ensures that collateral is utilized effectively, risks are managed proactively, and yields are distributed equitably, fostering long-term ecosystem stability and growth.

C. Governance and Oversight

The Layer 1 Collateral Yield Management Module is governed through transparent, community-driven processes to ensure alignment with ecosystem priorities and optimal decision-making.

The governance framework is designed to balance flexibility, risk management, and accountability.

1. **Community-Driven Governance**

a. Proposals for yield strategies, risk thresholds, and allocation policies are submitted by community members or stakeholders.

b. Voting on these proposals ensures that decisions reflect the collective priorities of the Terra Classic ecosystem.

c. A quorum and minimum approval threshold must be met for proposals to be implemented.

2. **Regular Audits and Reviews**

    a. Periodic audits of the module's performance, risk exposure, and compliance with governance parameters are conducted.

    b. Results of these audits are published onchain for full transparency and serve as a basis for potential adjustments.

3. **Governance-Defined Parameters**

    a. The community defines critical parameters such as:

        i. Maximum allocation limits for specific strategies.
        ii. Risk tolerance levels and diversification requirements.
        iii. Ratios for reinvestment versus yield distribution.

    b. These parameters are reviewed and updated periodically to adapt to changing market conditions.

4. **Oversight Committees**

    a. Establish decentralized committees or working groups to:

        i. Monitor the module's operations and propose adjustments.
        ii. Provide expertise on risk assessment and strategy optimization.

    b. Committees operate transparently and report their findings to the broader community.

5. **Dispute Resolution**

    a. A clear dispute resolution process ensures that conflicts related to governance decisions or module operations are addressed promptly and fairly.

    b. Mechanisms include community arbitration or escalation to a governance vote if necessary.

By embedding governance and oversight at the core of its operations, the Collateral Yield Management Module ensures trust, accountability, and adaptability, empowering the Terra Classic community to guide its evolution and success.

D. Risk Management Strategies

The Layer 1 Collateral Yield Management Module incorporates a comprehensive risk management framework to safeguard assets, ensure operational stability, and maintain trust within the ecosystem.

1. Diversification of Investments

Diversification of investments is a cornerstone of the risk management strategy for the Layer 1 Collateral Yield Management Module. This approach ensures that collateral is allocated across a variety of low-risk, high-liquidity strategies to minimize systemic risk and enhance yield potential.

a) Core Principles

1. **Asset Diversification:**
    a. Allocate collateral across multiple asset classes, including:
        i. **Stablecoins:** Provide liquidity in stablecoin pairs such as USDC-DAI or USDT-USDC to generate predictable and low-risk yields.
        ii. **Native Tokens:** Stake LUNC or other Terra Classic assets to earn staking rewards while supporting the network.
        iii. **Decentralized Lending:** Lend assets on platforms with strong security records to generate interest income.
2. **Platform Diversification:**
    a. Distribute allocations across multiple platforms to avoid overexposure to a single protocol or ecosystem.
    b. Prioritize platforms with robust track records, high liquidity, and minimal historical exploits.
3. **Strategy Diversification:**
    a. Balance yield-generating strategies, such as:
        i. **Liquidity Provisioning:** Focus on stable and low-volatility pools.
        ii. **Fixed-Rate Lending:** Ensure predictable returns with minimal market dependency.
        iii. **Variable Yield Strategies:** Incorporate dynamic allocations to capitalize on favorable market conditions.

b) Implementation Guidelines

- **Governance-Defined Limits:**
    - Establish maximum allocation thresholds for each asset, platform, and strategy.
    - Ensure no single investment exceeds a governance-approved percentage of the total collateral pool.
- **Periodic Rebalancing:**
    - Reevaluate and adjust allocations regularly based on performance metrics and market conditions.
    - Maintain alignment with predefined risk tolerance levels.
- **Independent Risk Assessments:**
    - Conduct third-party risk evaluations of all platforms and strategies before allocation.
    - Ensure ongoing compliance with governance-approved safety standards.

c) Expected Outcomes

- **Risk Mitigation:** Reduce the impact of potential failures in any single platform, asset, or strategy.
- **Yield Optimization:** Achieve consistent returns by leveraging diversified opportunities.
- **Stability and Scalability:** Build a robust system capable of supporting multiple pools and expanding with new stablecoins.

By implementing a thorough diversification strategy, the module ensures long-term resilience and sustainability, fostering confidence in its operations while maximizing returns for the Terra Classic ecosystem.

2. Real-Time Monitoring and Alerts

Real-time monitoring and alert mechanims are critical to the Layer 1 Collateral Yield Management Module's ability to safeguard assets and respond to market changes. By leveraging external platforms and internal monitoring tools, the system ensures transparency, proactive risk management, and rapid responses to market fluctuations.

a) Core Components

1. **Decentralized Oracle Integration:**
    a. Aggregate real-time market data from decentralized oracles, ensuring accurate and redundant data sources.
    b. Key metrics monitored include:
        i. Asset prices and market volatility.
        ii. Liquidity levels across platforms.
        iii. Performance metrics of yield-generating strategies.
2. **External Dashboard Support:**
    a. Collaborate with external platforms for real-time visualization, ensuring community access to key data. Recommended platforms include:
        i. LUNC Metrics
        ii. Terra Classic StakeBin
        iii. Ping Pub
        iv. Vyntrex
        v. LUNC Scan
        vi. LUNC Tech
        vii. LUNC Dash
    b. Provide insights into collateral status, pool performance, and overall system health.
3. **Automated Threshold Monitoring:**
    a. Establish governance-approved thresholds for critical metrics, such as:
        i. Price volatility limits.
        ii. Liquidity thresholds on specific platforms.
        iii. Minimum acceptable performance of yield strategies.
    b. Trigger automated alerts when these thresholds are breached, notifying governance bodies and key stakeholders.

4. **Corrective Actions and Risk Mitigation:**

    a. Define and activate mitigation protocols based on the severity of alerts:

        i. Reallocate collateral to safer strategies during market downturns.
        ii. Pause yield generation activities on underperforming platforms.
        iii. Withdraw funds from platforms experiencing liquidity risks.

    b. Escalate critical issues to governance for further decision-making.

b) Implementation Guidelines

- **Governance-Defined Parameters:**
    - Specific parameters, such as thresholds for price volatility, liquidity levels, and performance metrics, will be detailed in the next section.
- **Continuous Testing:**
    - Regularly test alert systems and data feeds to ensure functionality and reliability.
    - Address any discrepancies in oracle data promptly to prevent false positives or missed risks.
- **Collaboration with External Platforms:**
    - Leverage partnerships with external dashboard providers for data visualization and community engagement.
    - Establish APIs or data-sharing agreements to integrate module metrics seamlessly.

c) Expected Benefits

- **Proactive Risk Management:** Early detection of risks enables timely corrective actions, reducing the likelihood of significant losses.
- **Enhanced Transparency:** Stakeholders can access live data on collateral health and performance, fostering trust and accountability.

- **Community Engagement:** Publicly accessible dashboards encourage community involvement in monitoring the ecosystem's health and stability.

By integrating robust real-time monitoring and alert systems, the Collateral Yield Management Module establishes a proactive approach to safeguarding assets and maintaining the Terra Classic ecosystem's stability.

3. Governance-Driven Adjustments for Risk

The success of the Layer 1 Collateral Yield Management Module depends on a clear framework for defining, reviwing, and adjusting critical risk parameters. Governance-driven adjustments ensure that the module remains responsive to changing market conditions while aligning with community priorities.

a) Key Parameters and Initial Values

1. **Price Volatility Thresholds:**
    a. Maximum acceptable daily volatility for a single asset: **15%**.
    b. Trigger for corrective action: **20% volatility within 24 hours**.
2. **Liquidity Thresholds:**
    a. Minimum liquidity per pool: **$100,000**.
    b. Alert trigger: Liquidity drops by **10% in one hour**.
3. **Yield Performance Metrics:**
    a. Minimum acceptable annualized yield (APY) for a strategy: **5% below the target rate.**
    b. Trigger for reallocation: **Two consecutive periods of underperformance.**
4. **Risk Trigger Escalation:**
    a. Automatic actions are initiated when thresholds are breached, including:
        i. Pausing activities on underperforming platforms.

ii. Reallocating assets to safer strategies.

b. Escalation to governance for further review if triggers persist.

b) Governance Oversight

1. **Community Proposals:**
    a. Adjusments to parameters are submitted through governance proposals.
    b. Proposals must include data-backed justifications for changes.
2. **Regular Reviews:**
    a. Parameters are reviewed quarterly to ensure alignment with market conditions.
    b. Audits and risk assessments provide actionable insights for parameter adjustments.
3. **Transparency in Decision-Making:**
    a. All adjustments are recorded onchain, ensuring full visibility for stakeholders.

c) Benefits of Governance-Driven Adjusments

- **Adaptability:** Ensures the module remains responsive to market dynamics.
- **Accountability:** Involves the community in key decisions, fostering trust and engagement.
- **Risk Mitigation:** Maintains robust safeguards to protect assets and optimize yield generation.

This structures approach to governance-driven adjusments empowers the Terra Classic community to maintain the stability and efficiency of the Collateral Yield Management Module.

E. Yield Optimization Mechanisms

1. Dynamic Allocation Rules

The Dynamic Allocation Rules within the Layer 1 Collateral Yield Management Module are designed to ensure that collateral is strategically deployed to maximize yields while maintaining system stability and risk diversification.

a) Core Principles

1. **Governance-Defined Allocation Ratios:**
    a. Governance specifies allocation percentages for different yield-generating strategies, categorized by risk levels:
        i. **Low-Risk Strategies:** Stablecoin liquidity provisioning (e.g., USDC-USDT pairs) with predictable returns.
        ii. **Medium-Risk Strategies:** Lending on secure decenralized platforms to generate interest.
        iii. **High-Risk Strategies:** Staking and variable yield strategies with higher potential returns.
    b. Example initial ratios:
        i. 50% to low-risk strategies.
        ii. 30% to medium-risk strategies.
        iii. 20% to high-risk strategies.
2. **Performance-Based Allocation:**
    a. Real-time performance metrics influence adjustments to allocations:
        i. Underperforming strategies receive reduced allocations.
        ii. Overperforming strategies may receive increased allocations within governance-approved limits.
3. **Automatic Rebalancing:**
    a. The system periodically rebalances allocations to align with governance-defined ratios and changing market conditions.
    b. Triggered by:
        i. Significant market changes.
        ii. Yield strategy performance evaluations.

iii. Scheduled rebalancing intervals (e.g., every 30 days).

4. **Capital Efficiency Optimization:**

    a. Ensure optimal use of collateral by prioritizing strategies with higher yield-to-risk ratios.

    b. Limit overexposure to any single strategy or platform.

b) Implementation Guidelines

- **Threshold-Based Adjustments:**
    - Define thresholds for each strategy to prevent over-allocation:
        - Maximum allocation for a single strategy: **40% of the total collateral pool**.
        - Maximum exposure to a single platform: **25% of the total collateral pool**.
- **Periodic Reviews:**
    - Governance conducts quarterly reviews to update allocation priorities and adjust ratios based on evolving market dynamics.
- **Automated Oversight:**
    - Smart contracts execute rebalancing decisions, ensuring rapid adjustments without manual intervention.

c) Expected Benefits

- **Risk Mitigation:** Diversified allocation reduces the impact of failures in individual strategies or platforms.
- **Yield Optimization:** Maximizes returns by dynamically adjusting to market conditions and strategy performance.
- **Scalability:** Supports seamless integration of new strategies and platforms as the ecosystem evolves.

2. Reinvestment vs Distribution Policies

The Layer 1 Collateral Yield Management Module incorporates flexible policies for reinvestment and distribution of yields generated from collateral. These policies ensure a balance between strengthening the ecosystem's financial reserves and incentivizing stablecoin adoption.

a) Core Principles

1. **Yield Reinvestment:**
    a. A portion of the generated yields is reinvested into the collateral pool to:
        i. Strengthen overcollateralization ratios.
        ii. Build reserves for ecosystem growth and stability.
        iii. Provide a buffer against market volatility or unexpected downturns.
    b. Initial reinvestment ratio: **70% of generated yields reinvested**.
2. **Distribution to Stablecoin Holders:**
    a. The remaining portion of yields is distributed to EUTC (or other supported stablecoin) holders as rewards for participation.
    b. Initial distribution ratio: **30% of generated yields distributed**.
    c. Distribution acts as an incentive mechanism to encourage holding and adoption of the stablecoin.
3. **Governance-Driven Adjustments:**
    a. The reinvestment-to-distribution ratio can be updated through governance proposals to reflect changing ecosystem priorities or market conditions.

b) Distribution Methods

1. **Direct Wallet Airdrops:**
    a. Stablecoin holders receive their share of distributed yields directly in their wallets.

b. Distribution frequency: **Weekly payouts** (adjustable by governance).

2. **Optional Compounding:**

    a. Holders can opt to reinvest their rewards automatically into the collateral pool to:

        i. Increase their share of the stablecoin's overcollateralized reserves.
        ii. Earn compounded yields over time.

3. **Proportional Rewards:**

    a. Yields are distributed proportionally based on the amount of stablecoins held by each participant.

c) Reinvestment Strategies

- **Priority Allocation:** Reinvested yields are allocated to low-risk, high-liquidity strategies (e.g., stablecoin liquidity pools) to minimize risk and maintain financial robustness.
- **Automated Execution:** Smart contracts automate reinvestment to ensure consistency and prevent delays.
- **Transparency and Reporting:** All reinvestment actions are visible on-chain, with periodic performance reports shared with the community.

d) Expected Benefits

- **Sustainability:** Reinvestment strengthens the ecosystem's financial foundation, enabling long-term growth.
- **Incentives for Adoption:** Yield distribution rewards stablecoin holders, enhancing adoption and user loyalty.
- **Flexibility:** Governance controls ensure the module can adapt to changing market conditions and community priorities.

By balancing reinvestment and distribution, this policy ensures that the module meets both immediate and long-term goals, fostering a resilient and participatory ecosystem.

3. Yield Distribution Timelines

The Layer 1 Collateral Yield Management Module incorporates structured timelines for distributing generated yields to stablecoin holders, ensuring predictability, transparency, and consistency.

a) Core Principles

1. **Scheduled Payouts:**
    a. Yields are distributed to stablecoin holders on a predefined schedule to maintain regularity and foster user trust.
    b. Initial payout frequency: **Weekly distributions**.
    c. Governance can propose changes to the frequency based on user preferences or ecosystem dynamics.
2. **Proportional Distribution:**
    a. Distributions are allocated proportionally based on the amount of stablecoins held by each user relative to the total circulating supply.
    b. Yields held in wallets automatically contribute to the user's proportional share in the next distribution cycle, ensuring compounding growth without additional actions.

b) Implementation Guidelines

1. **On-Chain Transparency:**

a. Payout schedules, amounts, and recipient addresses are fully recorded on-chain to ensure accountability and transparency.

b. A public dashboard provides real-time visibility into upcoming payouts and historical distribution data.

2. **Smart Contract Automation:**

    a. Yield calculations and distributions are managed by smart contracts to eliminate manual errors and delays.

    b. Smart contracts account for all eligible holders at the time of distribution to ensure fairness.

3. **Governance Oversight:**

    a. The community can propose adjustments to the payout frequency, reinvestment ratios, or distribution methods via governance proposals.

c) Expected Benefits

- **Predictability:** Regular payout schedules provide users with a clear understanding of when to expect rewards, enhancing user satisfaction.
- **Flexibility:** Optional reinvestment allows users to customize their participation in the ecosystem.
- **Engagement:** Transparent and frequent distributions encourage stablecoin adoption and user engagement within the Terra Classic ecosystem.

By implementing structured yield distribution timelines, the module supports a balanced approach to rewarding users while ensuring the sustainability of the collateral pool.

F. Compatibility with Future Stablecoins

1. Pool-Specific Customizations

The Layer 1 Collateral Yield Management Module is designed to accommodate multiple collateral pools, each associated with a specific stablecoin (e.g., EUTC, KRTC).

To ensure optimal performance and risk management, the module supports pool-specific customizations tailored to the unique characteristics and requirements of each stablecoin.

a) Core Customization Features

1. **Collateral Composition:**
    a. Each pool can have a distinct mix of collateral assets based on the stablecoin's design and target market.
    b. Example configurations:
        i. **EUTC Pool:** Primarily backed by LUNC and USTC with strict overcollateralization ratios.
        ii. **KRTC Pool:** Backed by LUNC and other Terra Classic assets optimized for local market stability.
    c. Governance can adjust collateral compositions dynamically based on performance and risk assessments.
2. **Yield Strategies:**
    a. Yield-generation strategies are customized for each pool to align with its risk tolerance and market focus:
        i. Low-risk pools may prioritize stablecoin liquidity provisioning.
        ii. Medium- or high-risk pools may incorporate staking or lending strategies to enhance returns.
    b. Governance sets strategy priorities for each pool based on community preferences and market conditions.
3. **Collateralization Ratios:**
    a. Different pools can maintain unique overcollateralization ratios, reflecting the risk profile and stability requirements of their associated stablecoin:

i. **EUTC:** 150% collateralization ratio for maximum stability.
ii. **KRTC:** 130% collateralization ratio to balance stability and efficiency.

4. **Governance-Defined Parameters:**

    a. Each pool operates with independent governance parameters, enabling community-driven adjustments for:

        i. Maximum and minimum allocation thresholds.
        ii. Reinvestment and distribution ratios.
        iii. Risk tolerance and diversification requirements.

b) Implementation Guidelines

1. **Modular Architecture:**

    a. Each pool operates as an independent module within the larger system, ensuring that customizations do not impact other pools.

    b. Modular architecture simplifies the integration of new pools and stablecoins.

2. **Interoperability:**

    a. Pools can share data and resources where beneficial, such as leveraging shared oracles for market data.

    b. Inter-pool synergies are designed to optimize resource utilization without compromising pool-specific independence.

3. **Transparency:**

    a. On-chain reporting provides real-time visibility into each pool's collateral composition, performance metrics, and customization parameters.

    b. Dashboards display pool-specific data, fostering community trust and engagement.

c) Expected Benefits

- **Tailored Stability:** Customization ensures each stablecoin operates with optimal stability and risk management, catering to its target use cases.

- **Scalability:** New stablecoins and pools can be integrated seamlessly, with governance enabling rapid deployment and configuration.

- **Ecosystem Diversity:** Pool-specific strategies and collateral compositions enhance the ecosystem's ability to serve diverse user needs and market conditions.

By supporting pool-specific customizations, the module enables the Terra Classic ecosystem to accommodate a wide range of stablecoins while maintaining robust risk management and operational efficiency.

2. Inter-Pool Synergies

The Layer 1 Collateral Yield Management Module is designed to foster collaboration and resource sharing among collateral pools to maximize efficiency, reduce systemic risks, and enhance the overall stability of the Terra Classic ecosystem. Inter-pool synergies enable the ecosystem to operate as a cohesive unit while maintaining the independence of each pool.

a) Core Principles

1. **Shared Resource Utilization:**

    a. Pools leverage shared infrastructure, such as decentralized oracles, risk assessment tools, and monitoring systems.

    b. Centralized reporting dashboards provide insights into the performance and status of all pools, streamlining oversight and decision-making.

2. **Cross-Pool Data Sharing:**

    a. Data on collateral performance, market conditions, and yield generation is shared across pools to improve allocation strategies.

    b. Real-time insights enable individual pools to adjust their strategies based on the success of others within the ecosystem.

3. **Liquidity Support Mechanisms:**

    a. Pools can offer temporary liquidity support to one another during periods of extreme market volatility or imbalances:

        i. Example: Excess liquidity in the EUTC pool can be temporarily allocated to support a stressed KRTC pool, ensuring overall ecosystem stability.
        ii. Governance-defined thresholds and permissions prevent excessive interdependence.

4. **Unified Governance Framework:**

    a. Governance proposals can address system-wide issues affecting multiple pools, ensuring consistent decision-making across the ecosystem.

    b. Each pool retains autonomy for pool-specific adjustments while adhering to overarching governance directives.

b) Implementation Guidelines

1. **Inter-Pool Allocation Rules:**

    a. Establish governance-defined rules for inter-pool asset transfers, such as:

        i. Maximum allowable liquidity transfers between pools.
        ii. Minimum collateralization levels required for participation in inter-pool synergies.

    b. Smart contracts automate transfers to ensure compliance with these rules.

2. **Risk Mitigation Protocols:**

    a. Cross-pool interactions are subject to strict risk assessments to prevent cascading failures.

    b. A pool's ability to participate in inter-pool synergies depends on maintaining governance-approved risk metrics.

3. **Performance Metrics and Reporting:**

    a. Track the impact of inter-pool synergies on individual pool performance and the broader ecosystem.

    b. Publish reports to ensure transparency and enable governance to evaluate the effectiveness of these synergies.

c) Expected Benefits

1. **Enhanced Stability:**
    a. Inter-pool liquidity sharing mitigates risks associated with isolated market shocks or sudden demand fluctuations.
2. **Improved Efficiency:**
    a. Shared resources reduce operational overhead and duplication, enabling the ecosystem to scale more effectively.
3. **Ecosystem Resilience:**
    a. Collaborative mechanisms strengthen the overall ecosystem, ensuring that individual pools contribute to collective stability and growth.

By enabling inter-pool synergies, the Collateral Yield Management Module ensures that the Terra Classic ecosystem operates as a unified and efficient network while preserving the autonomy and customization of individual pools.

G. Scalability and Performance Metrics

1. Module Scalability

The Layer 1 Collateral Yield Management Module is designed to support the long-term growth of the Terra Classic ecosystem by ensuring scalability across multiple dimensions, including the number of supported pools, transaction volume, and integration of new strategies.

Scalability is a core principle that enables the module to adapt to increasing ecosystem demands while maintaining efficiency and performance.

a) Core Scalability Features

1. **Modular Architecture:**
    a. The module employs a modular design, allowing new collateral pools to be added without disrupting existing operations.
    b. Each pool operates as an independent entity within the module, enabling isolated adjustments and optimizations.
2. **Dynamic Resource Allocation:**
    a. Resources such as computational power and storage are allocated dynamically based on pool activity levels.
    b. High-activity pools receive priority resource allocation to ensure seamless operation during peak usage periods.
3. **Support for Multiple Stablecoins:**
    a. The module is built to handle and expanding portfolio of stablecoins, such as EUTC, KRTC, and future additions.
    b. Customization capabilities ensure each pool operates under governance-defined parameters specific to its stablecoin.
4. **Interoperability with Ecosystem Tools:**
    a. Seamless integration with external dashboards, decentralized oracles, and third-party protocols ensures that the module remains compatible with evolving industry standards.

b. APIs are available for developers to build complementary tools and analytics platforms.

b) Implementation Guidelines

1. **Layer 1 Optimization:**

    a. The module operates directly on the Terra Classic blockchain to maximize transaction throughput and minimize latency.

    b. Blockchain upgrades can be incorporated to further enhance module performance as the ecosystem grows.

2. **Smart Contract Efficiency:**

    a. Smart contracts are designed with gas efficiency in mind, ensuring scalability even as the number of pools and transactions increases.

    b. Automated processes such as yield distribution, collateral rebalancing, and risk monitoring minimize manual intervention.

3. **Governance-Driven Expansion:**

    a. Expansion to new pools or collateral strategies is initiated through governance proposals, ensuring that scalability aligns with community priorities.

    b. Governance monitors scalability metrics, such as pool performance and transaction load, to identify when upgrades are necessary.

c) Expected Benefits

1. **Ecosystem Growth:** Scalability enables the addition of new stablecoins and pools, fostering ecosystem diversity and adoption.

2. **Operational Efficiency:** Modular and resource-efficient design ensures the module remains cost-effective even as usage scales.

3. **Future-Proof Design:** The module is built to integrate future blockchain innovations and external tools, ensuring long-term viability.

By focusing on scalability at every level, the Collateral Yield Management Module supports the growth and resilience of the Terra Classic ecosystem, enabling it to adapt to increasing demand and evolving market conditions.

2. Key Performance Indicators (KPIs)

To measure the effectiveness and health of the Layer 1 Collateral Yield Management Module, a set of Key Performance Indicators (KPIs) is established. These metrics provide insights into the module's performance, risk management, and contribution to the Terra Classic ecosystem.

KPIs are tracked in real-time and made available to the community via on-chain reporting and external visualization platforms.

a) Core KPIs

1. **Yield Performance:**
    a. Average Annual Percentage Yield (APY) across all pools.
    b. Comparison of realized yields versus governance-approved targets.
    c. Breakdown of yields by strategy (e.g., staking, lending, liquidity provisioning).
2. **Collateral Utilization:**
    a. Percentage of collateral actively allocated to yield-generating strategies.
    b. Ratio of idle collateral versus active collateral.
    c. Allocation distribution across risk categories (low, medium, high).
3. **Risk Metrics:**
    a. Volatility of collateral asset prices.
    b. Liquidity levels in supported platforms (e.g., stablecoin liquidity pools).
    c. Frequency of risk threshold breaches and corrective actions taken.

4. **Reinvestment and Distribution Metrics:**
    a. Percentage of yields reinvested versus distributed.
    b. Total yields distributed to stablecoin holders over specific timeframes.
    c. Number of unique recipients of yield distributions.
5. **Ecosystem Growth Indicators:**
    a. Number of active collateral pools and associated stablecoins.
    b. Total value locked (TVL) in the module.
    c. Growth rate of stablecoin adoption linked to yield incentives.

b) Implementation and Reporting

1. **On-Chain Data:**
    a. All KPIs are recorded on-chain to ensure transparency and community accountability.
    b. Smart contracts automatically generate and update KPI metrics during module operations.
2. **External Visualization Platforms:**
    a. KPIs are integrated with trusted external dashboards, such as:
        i. LUNC Metrics
        ii. Terra Classic StakeBin
        iii. Ping Pub
        iv. Vyntrex
        v. LUNC Scan
        vi. LUNC Tech
        vii. LUNC Dash
    b. These platforms provide user-friendly interfaces for the community to monitor module performance.
3. **Governance and Community Reporting:**

a. Periodic reports are shared with the community via governance forums, summarizing KPI trends and performance highlights.

b. Reports are used as the basis for governance proposals, such as adjusting allocation ratios or risk parameters.

c) Expected Benefits

1. **Transparency:** Public access to KPIs ensures the community remains informed about the module's performance and health.

2. **Informed Governance:** Real-time data enables data-driven decisions, ensuring governance proposals are based on clear and actionable insights.

3. **Performance Optimization:** Tracking KPIs facilitates continuous improvement by identifying underperforming strategies or pools.

d) Where Will KPIs Be Located?

- **On-Chain Visibility:** KPIs will be logged and updated directly on-chain, accessible through smart contract queries or blockchain explorers.

- **External Dashboards:** Partner platforms (e.g., LUNC Metrics, Terra Classic StakeBin) will display KPI data in a user-friendly format.

- **Governance Forums:** Summarized KPI reports will be periodically posted on Terra Classic governance platforms to support community discussions and decision-making.

By tracking and reporting on these KPIs, the Collateral Yield Management Module fosters accountability, transparency, and long-term ecosystem sustainability.

3. Benchmarking Against Competitors

To ensure the Layer 1 Collateral Yield Management Module remains competitive and aligned with industry standards, continuous benchmarking against other stablecoin ecosystems and

yield management protocols is implemented. This process evaluates the module's performance, scalability, and user incentives relative to competitors, driving innovation and improvements.

a) Key Benchmarking Areas

1. **Yield Performance:**
    a. Compare the average Annual Percentage Yield (APY) of the module against top-performing protocols, including:
        i. Centralized stablecoin yield strategies (e.g., Tether's reserves).
        ii. Decentralized platforms (e.g., MakerDAO, Aave, Curve).
    b. Identify gaps or opportunities to optimize yield-generation strategies and remain attractive to users.
2. **Collateralization Models:**
    a. Assess the overcollateralization ratios of competitors:
        i. MakerDAO (DAI): Collateral ratios vary based on asset risk profiles.
        ii. Liquity (LUSD): 110% collateralization using ETH.
    b. Evaluate whether the module's initial ratio of **150%** remains competitive while ensuring stability.
3. **User Incentives:**
    a. Benchmark reward mechanisms for stablecoin holders:
        i. Airdrops, yield distribution, or governance token incentives used by platforms like Curve or Convex.
    b. Ensure Terra Classic's incentive structure offers unique value (e.g., reinvestment flexibility or higher APYs).
4. **Transparency and Reporting:**
    a. Analyze reporting practices of competitors:
        i. MakerDAO publishes real-time dashboards on collateral health and yield performance.

ii. Tether issues quarterly reserve audits.

b. Ensure the module's real-time monitoring and external dashboard integrations (e.g., LUNC Metrics) meet or exceed industry transparency standards.

5. **Scalability and Multistablecoin Support:**

   a. Examine scalability solutions of platforms supporting multiple stablecoins or collateral pools:

      i. Curve's ability to handle numerous liquidity pools.
      ii. MakerDAO's expansion into multicollateral DAI.

   b. Highlight the module's ability to seamlessly integrate new pools and assets as a competitive advantage.

6. **Risk Management:**

   a. Compare competitors' risk mitigation protocols:

      i. Dynamic liquidation mechanisms (MakerDAO's auction system).
      ii. Automated thresholds for asset reallocation during market stress (Aave's safety module).

   b. Assess whether the module's diversification, automated monitoring, and governance oversight remain best-in-class.

b) Implementation of Benchmarking

1. **Periodic Reviews:**

   a. Conduct quarterly assessments to evaluate performance relative to competitors.

   b. Publish benchmarking results in governance forums to inform the community and support decision-making.

2. **Community Involvement:**

   a. Encourage community proposals inspired by successful practices observed in competitor platforms.

   b. Facilitate open discussions on benchmarking findings to align with user preferences.

3. **Integration of Insights:**

    a. Use benchmarking data to refine allocation strategies, adjust collateralization policies, and enhance user incentives.

    b. Prioritize innovation in areas where competitors excel, ensuring the Terra Classic ecosystem remains attractive and relevant.

c) Expected Benefits

1. **Continuous Improvement:** Benchmarking ensures the module adapts to market trends and stays competitive within the stablecoin ecosystem.

2. **User Confidence:** Demonstrating alignment with or superiority to competitors enhances user trust and adoption.

3. **Ecosystem Growth:** By identifying and integrating successful strategies, the module attracts more users and capital, driving ecosystem expansion.

By consistently benchmarking against competitors, the Layer 1 Collateral Yield Management Module remains a leader in innovation, transparency, and user satisfaction, reinforcing Terra Classic's position in the decentralized finance landscape.

X. Layer 1 Liquidity Pool Management Module

A. Key Objectives

The **Liquidity Pool Management Module** is designed to ensure the efficient allocation and utilization of liquidity within the Terra Classic ecosystem. This module plays a critical role in stabilizing the ecosystem's stablecoins (e.g., EUTC) by managing liquidity pools and ensuring their alignment with governance-defined objectives.

1. Primary Objectives

1. **Efficient Liquidity Allocation:**
    a. Optimize the distribution of liquidity across pools to ensure market stability and adequate trading depth for supported stablecoins.
    b. Allocate liquidity dynamically based on market conditions and governance-approved ratios.
2. **Pool Stability and Resilience:**
    a. Ensure that each liquidity pool operates with a balance of assets aligned to its defined collateralization and trading requirements.
    b. Implement mechanisms to mitigate risks, such as sudden liquidity withdrawals or extreme market volatility.
3. **Governance Oversight:**
    a. Empower the Terra Classic community to define and adjust key parameters, such as liquidity ratios, allocation priorities, and rebalancing thresholds.
    b. Maintain transparency by providing real-time reporting on liquidity levels and pool performance.
4. **Transparency and Accountability:**
    a. Record all liquidity operations on-chain, ensuring that the module operates with full visibility to the community.

b. Provide periodic reports detailing liquidity allocations, performance metrics, and any significant changes.

5. **Support for Ecosystem Growth:**

   a. Facilitate the seamless integration of new stablecoins and liquidity pools as the Terra Classic ecosystem expands.

   b. Enhance the overall user experience by reducing slippage and ensuring deep liquidity for supported trading pairs.

2. Implementation Approach

1. **Dynamic Rebalancing Mechanisms:**

   a. Use smart contracts to rebalance liquidity across pools based on real-time market data and predefined governance rules.

   b. Trigger rebalancing events when pool ratios deviate beyond acceptable thresholds.

2. **Automated Fee Utilization:**

   a. Collect and allocate fees from the Divergence Mechanism and other sources directly to liquidity pools, enhancing their depth and stability.

   b. Use predefined allocation strategies to ensure equitable distribution of resources.

3. **Risk Mitigation:**

   a. Implement safeguards to prevent undercollateralization or imbalances in any liquidity pool.

   b. Monitor pool health continuously using decentralized oracles and alert systems.

3. Expected Outcomes

1. **Stability:** Robust liquidity pools reduce volatility and ensure stablecoin price stability within the ecosystem.

2. **Efficiency:** Automated mechanisms optimize resource allocation, minimizing manual interventions.

3. **Growth:** Well-managed liquidity pools attract more users and trading activity, driving ecosystem adoption and expansion.

By focusing on these objectives, the Liquidity Pool Management Module ensures that Terra Classic's liquidity infrastructure remains resilient, efficient, and scalable, supporting the long-term stability and growth of the ecosystem.

B. Key Features

The **Liquidity Pool Management Module** incorporates advanced and precise mechanisms to optimize liquidity allocation, improve pool stability, and support the growth of Terra Classic's stablecoin ecosystem. By integrating concrete parameters and governance-defined rules, the module ensures actionable insights and effective operations.

1. **Dynamic Liquidity Allocation**
    a. **Automated Distribution:**
        i. Liquidity is distributed dynamically across pools to mainbased on predefined asset ratios. For instance:
            1. Target ratio for **EUTC <> LUNC** pool: **60% EUTC**, **40% LUNC**.
            2. Deviations greater than **5%** trigger automatic rebalancing to restore balance.
        ii. Allocation decisions are guided by market conditions and governance-approved targets.
    b. **Threshold Monitoring:**
        i. Rebalancing is initiated when asset balances in a pool fall below governance-defined thresholds:
            1. Minimum liquidity per pool: **$500,000**.
            2. Maximum imbalance threshold: **10% deviation from target ratio.**
2. **Fee Integration and Utilization**
    a. **Divergence Mechanism Fees:**
        i. Example allocation of fees collected:
            1. **70%** of fees to liquidity pool stabilization.
            2. **30%** reserved for governance-defined ecosystem initiatives (e.g., community rewards or collateral replenishment).
    b. **Proportional Allocation:**
        i. Pools with higher liquidity demands (e.g., pools supporting higher transaction volumes) receive a greater share of collected fees.
3. **Real-Time Monitoring and Reporting**

a. **Transparent Pool Data:**

i. Example metrics displayed on external dashboards (e.g., LUNC Metrics, StakeBin):

1. Current pool liquidity: **$1,200,000**.
2. Rebalancing actions: Last rebalancing executed **3 days ago**.

ii. Live updates on fee distributions, pool health, and performance analytics.

b. **Performance Analytics:** Predictive analytics use historical data to forecast potential imbalances, providing advance warning to governance.

4. Governance-Driven Adjustments

a. **Customizable Parameters:**

i. Governance defines and adjusts:

1. Rebalancing frequency (e.g., daily weekly).
2. Pool-specific liquidity targets (e.g., maintain a minimum liquidity of **$750,000** for **EUTC <> LUNC**).
3. Allocation ratios for multi-asset pools.

b. Examples of Adjustable Rules:

i. Rebalancing threshold for the **EUTC <> KRTC** pool: **7% deviation**.
ii. Maximum allowable liquidity transfer between pools: **$200,000** per event.

5. Risk Mitigation Mechanisms

a. Automated Safeguards:

i. Smart contracts enforce risk thresholds:

1. Minimum collateralization level: **150%** for overcollateralized pools.
2. Withdrawals limited to **20% of a pool's liquidity in a single transaction**.

ii. Emergency stop mechanisms halt operations if a pool experiences extreme volatility or liquidity drains.

b. **Decentralized Oracle Integration:**

i. Example of monitored metrics:

1. LUNC price volatility: Actions triggered if price fluctuates by more than **10% in 24 hours.**

2. Pool utilization rate: Warnings issued if a pool exceeds **90% utilization**.

6. **Multi-Stablecoin Support**

   a. **Independent Pool Management:**

      i. Each stablecoin operates independently with customized parameters:

         1. **EUTC Pool:** Prioritizes high liquidity to support trading volume.

         2. **KRTC Pool:** Focuses on smaller, localized markets with reduced volatility.

   b. **Inter-Pool Synergies:**

      i. Governance rules allow temporary liquidity transfers:

         1. Example: Excess EUTC liquidity of **$100,000** supports the KRTC pool during demand spikes.

7. **Scalability for Ecosystem Growth**

   a. **Seamless Pool Expansion:** Governance can add new pools within **30 days** of proposal approval, with predefined liquidity targets and ratios.

   b. **High Throughput:** The module supports up to **1,000 transactions per second**, ensuring smooth operations even under high network load.

a) Expected Benefits

1. **Stability:** Dynamic rebalancing and risk management reduce volatility, ensuring stable trading environments.

2. **Transparency:** Real-time data and publicly visible metrics foster trust and encourage community participation.

3. **Scalability:** The module's architecture supports future growth without compromising existing operations.

By embedding clear parameters and real-world examples, the Liquidity Pool Management Module sets a standard for precision and effectiveness, ensuring the Terra Classic ecosystem thrives in a competitive DeFi landscape.

C. Implementation Plan

The **Liquidity Pool Management Module** will be implemented in a phased manner to ensure a seamless rollout, robust testing, and alignment with the Terra Classic ecosystem's priorities. Each phase includes specific milestones, governance checkpoints, and performance evaluations to ensure the module operates effectively from launch.

1. Phase 1: Preparation and Infrastructure Setup (Months 0–3)

1. **Governance Approval:**
    a. Draft and propose the module's initial parameters for community voting:
        i. Initial pool configurations (e.g., EUTC <> LUNC with $1,000,000 liquidity target).
        ii. Rebalancing thresholds (e.g., **5% deviation** triggers).
        iii. Fee distribution ratios (e.g., **70% fees to liquidity pools, 30% to ecosystem reserves**).
2. **Smart Contract Development:**
    a. Design and deploy core contracts to manage:
        i. Liquidity allocation.
        ii. Fee collection and distribution.
        iii. Real-time monitoring and automated rebalancing.
3. **Testing and Audits:**
    a. Conduct comprehensive testing in a sandbox environment, including:
        i. Simulating extreme market conditions (e.g., **25% price drop** in LUNC).
        ii. Stress-testing liquidity rebalancing with high transaction volumes.
    b. Perform third-party security audits to validate contract integrity.
4. **Dashboard Integration:**
    a. Collaborate with external platforms (e.g., LUNC Metrics, StakeBin) to display real-time data on:
        i. Pool health and liquidity levels.

ii. Fee allocation and rebalancing actions.

2. Phase 2: Initial Deployment and Stabilization (Months 4–6)

1. **Module Launch:**
    a. Activate the first liquidity pool (**EUTC <> LUNC**) with a target liquidity of **$1,000,000**.
    b. Begin collecting and allocating fees from the Divergence Mechanism to stabilize the pool.
2. **Performance Monitoring:**
    a. Track key metrics, such as:
        i. Liquidity utilization rate: Target **75% utilization**.
        ii. Rebalancing frequency: Monitor for deviations exceeding **5%** and adjust thresholds as needed.
    b. Publish weekly reports on the module's performance for community review.
3. **Governance Oversight:**
    a. Facilitate governance reviews of initial parameters:
        i. Adjust allocation ratios or rebalancing thresholds based on initial performance data.
        ii. Propose additional safeguards or automation rules as required.

3. Phase 3: Expansion and Optimization (Months 7–12)

1. **Addition of New Pools:**
    a. Launch a second liquidity pool (**EUTC <> KRTC**) with an initial target liquidity of **$500,000**.

b. Customize parameters for the new pool, such as:

    i. Rebalancing thresholds: **7% deviation**.
    ii. Fee allocation priority: **50% of fees allocated to KRTC pool stabilization**.

2. **Scalability Enhancements:**

    a. Optimize smart contracts for increased transaction volumes and additional pools.

    b. Introduce modular updates to support multi-pool interactions and resource sharing.

3. **Risk Adjustments:**

    a. Implement automated stop-loss mechanisms for underperforming pools:

        i. Example: Pause liquidity transfers if a pool's collateral ratio falls below **120%**.

    b. Refine diversification strategies to reduce overexposure to a single platform or asset.

4. Phase 4: Long-Term Governance and Maintenance (Months 12 and Beyond)

1. **Ongoing Performance Reviews:**

    a. Conduct quarterly reviews to assess:

        i. Yield performance across pools.
        ii. Efficiency of liquidity allocation.
        iii. Effectiveness of risk mitigation mechanisms.

    b. Adjust governance parameters based on findings.

2. **Community-Driven Enhancements:**

    a. Solicit proposals for new pools, updated allocation strategies, or additional features.

    b. Example: Introduce cross-pool synergies for liquidity optimization.

3. **Future Proofing:**

    a. Prepare the module for integration with upcoming ecosystem tools and blockchain upgrades.

    b. Ensure compatibility with new stablecoins and evolving market conditions.

5. Expected Outcomes

- **Smooth Rollout:** The phased approach minimizes disruption while ensuring robust testing and community involvement.
- **Data-Driven Adjustments:** Continuous monitoring and governance oversight ensure the module evolves to meet ecosystem demands.
- **Ecosystem Growth:** Expanded liquidity pools attract more users and capital, reinforcing Terra Classic's position in the DeFi ecosystem.

XI. Oracle System Strengthening

A. Importance of Reliable Data Feeds

The stability and efficiency of the **Layer 1 Collateral Yield Management Module**, as well as the broader Terra Classic ecosystem, rely heavily on accurate and timely data feeds.

Reliable data feeds are essential for ensuring proper collateral management, liquidity distribution, and risk mitigation.

Any inaccuracies or delays in these feeds can lead to severe financial and operational risks, including price depegging, improper liquidity allocation, and governance misalignment.

1. Role of Reliable Data Feeds in the Ecosystem

1. **Collateral Valuation:**
    a. Real-time pricing ensures that collateral backing EUTC and other stablecoins is valued correctly.
    b. Avoids undercollateralization risks due to outdated or manipulated prices.
2. **Liquidity Management:**
    a. Accurate liquidity levels prevent imbalances and ensure stable pool ratios.
    b. Data feeds provide insights into liquidity flow, enabling efficient allocation.
3. **Divergence Fee Calculation:**
    a. The divergence mechanism relies on precise price feeds to calculate fees fairly.
    b. Prevents price manipulation or unnecessary fee triggers.
4. **Yield Optimization Strategies:**
    a. Ensures that yield-generating assets (e.g., staking rewards, lending rates) are optimized based on accurate market conditions.
    b. Prevents yield misallocation due to incorrect APY (Annual Percentage Yield) calculations.

2. Risks of Unreliable Data Feeds

1. **Price Manipulation and Orphaned Transactions:**
    a. Inaccurate price feeds can cause sudden miscalculations in collateral values, leading to forced liquidations or erroneous minting.
    b. Attackers can exploit weak oracles to influence market data, resulting in unintended financial losses.
2. **Delayed Rebalancing:**
    a. Liquidity pools may not be rebalanced in time if data feeds experience lag.
    b. Example: A sudden drop in LUNC price could impact EUTC collateral levels, requiring rapid reallocation to maintain peg stability.
3. **Smart Contract Malfunctions:**
    a. Automated mechanisms depend on precise real-time data.
    b. Poor-quality feeds can cause contract misfires, incorrect transaction execution, or failure to trigger essential safeguards.

3. Data Feed Infrastructure

To mitigate these risks, the Terra Classic ecosystem integrates multiple layers of data verification and redundancy:

- **Decentralized Oracles:**
    - Utilization of trusted decentralized oracles (e.g., **NibiruChain**, **Chainlink**, **Band Protocol**, or **custom Terra Classic oracles**).
    - Redundant pricing sources to cross-verify asset values.
- **Multi-Source Aggregation:**
    - Oracle networks fetch data from multiple exchanges and liquidity sources.
    - Weighted averaging techniques prevent outlier data from influencing critical decisions.

- **Time-Weighted Price Averaging (TWAP):**
    - Implements TWAP pricing to smooth short-term price fluctuations and prevent sudden spikes from distorting asset valuations.
    - Example: The TWAP for EUTC is calculated over a **30-minute rolling window** to stabilize price readings.

4. Governance Oversight on Data Feed Selection

1. **Oracle Provider Selection:**
    a. Governance proposals determine which oracle providers are used.
    b. Community votes on adding or removing data providers to maintain optimal accuracy.
2. **Thresholds for Data Accuracy:**
    a. Governance establishes parameters such as:
        i. Maximum allowed variance between different oracle sources: **±2%**.
        ii. Minimum number of oracle confirmations before execution: **5 independent confirmations**.
3. **Emergency Response Mechanisms:**
    a. If an oracle feed is detected to be faulty or under attack, automatic failover mechanisms switch to backup providers.
    b. Governance can trigger an emergency proposal to manually override oracle inputs in extreme cases.

5. Expected Benefits

1. **Market Stability:** Reliable price feeds ensure the collateral pool remains adequately backed and stablecoins maintain their peg.
2. **Security and Fraud Prevention:** Multi-source aggregation reduces the risk of price manipulation and oracle attacks.

3. **Efficiency and Scalability:** Timely and accurate data allows for automated decision-making, reducing governance overhead and improving ecosystem efficiency.

By ensuring the reliability of data feeds, the Terra Classic ecosystem enhances its security, resilience, and efficiency, providing a robust foundation for stablecoin stability, liquidity management, and long-term growth.

B. Required Diversification of Data Sources

To ensure the stability, reliability, and resilience of the **Layer 1 Collateral Yield Management Module** and the broader Terra Classic ecosystem, it is essential to implement a **diversified and robust Oracle system**.

The collapse of Terra Classic in 2022 highlighted the dangers of relying on a single source of pricing data. To prevent similar failures, the Oracle infrastructure must integrate **multiple independent data sources**, ensuring accurate, tamper-resistant, and real-time pricing.

1. Core Principles of Data Source Diversification

The module will operate under the following key principles:

1. **Multi-Oracle Strategy:**
    a. No single Oracle provider should have absolute control over price reporting.
    b. Multiple Oracles will be used to cross-verify data.
2. **Cross-Chain Data Feeds:**
    a. Price data should come from **both Cosmos-based Oracles** and **cross-chain sources** to ensure consistency.
3. **Tamper Resistance & Manipulation Prevention:**
    a. The system will **apply price deviation thresholds** to prevent outlier values from affecting price calculations.
4. **Governance-Controlled Oracle Selection:**
    a. The community will **vote on Oracle providers** to be included in the system.

2. Proposed Oracle Architecture for Terra Classic

To balance **security, decentralization, and cost-efficiency**, the Oracle system will adopt a **hybrid approach** combining **NibiruChain's Pricefeeder** for Cosmos-native integration and **Chainlink** for additional security.

a) Primary Oracle: NibiruChain Pricefeeder

- **Why?**
    - **Designed for Cosmos SDK**, making integration seamless for Terra Classic.
    - Uses a **commit-reveal mechanism** to prevent price manipulation by validators.
    - Ensures **low-cost, real-time price updates** directly from Terra Classic validators.
- **Data Sources Used:**
    - Validators report prices from centralized exchanges (CEX) and decentralized exchanges (DEX).
    - Aggregates price feeds from Terra-based trading pairs.
- **Risk Consideration:**
    - Validators must participate actively to prevent missing or delayed price updates.
    - Governances enforces penalties for validators submitting incorrect prices.

b) Secondary Oracle: Chainlink (Security Layer)

- **Why?**
    - **Industry leader in Oracle security and resilience,** used on Ethereum, BNB Chain, and Avalanche.
    - Aggregates price data from multiple **premium sources**, including top-tier CEXs and DEXs.
    - Provides **a backup source for price validation** if NibiruChain data deviates beyond acceptable thresholds.
- **Implementation Strategy:**
    - Chainlink acts as a **verification layer** rather than the primary price provider.
    - Prices from **NibiruChain and Chainlink** are compared:
        - **If deviation > 2%,** a governance alert is triggered.

- **If deviation > 5%,** the system activates a failsafe mechanism using a **30-minute Time-Weighted Average Price (TWAP)** to ensure stability. If deviation persists for over **60 minutes**, an alternative Oracle provider is activated to maintain price integrity.

Implementation subject to future Chainlink Cosmos CCIP support.

c) Tertiary Oracle (Future Integration)

- **Additional Oracles may be integrated as backups, such as:**
  - **Band Protocol:** Already used in Cosmos-based chains.
  - **Pyth Network:** Offers ultra-low-latency price feeds from trading firms.
  - **Injective's Oracle:** Optimized for Cosmos SDK applications.
- **Governance will vote on activating secondary backups** based on Oracle performance over time.

3. Automated Data Validation & Failover Mechanism

To prevent **Oracle failures, manipulation, or inaccurate pricing**, the module will include automated data validation rules rather than requiring human intervention.

Price Deviation Detected	System Response
0% -> 2% (Normal Range)	Price validated and applied.
2% -> 5% (Moderate Deviation)	Weighted average between Oracles is used to smooth the difference.
> 5% (Critical Deviation)	TWAP (Time-Weighted Average Price) over the last 30 minutes is used.

a) Failsafe Activation:

- If deviation **remains > 5% for 10 minutes**, live Oracle updates are paused, and the system continues using TWAP.

- If deviation **remains > 5% for 60 minutes**, a backup Oracle (e.g., Band Protocol) is activated.

Why TWAP?

- It smooths extreme price fluctuations by averaging over time.
- Prevents sudden manipulations from impacting price calculations.
- Can be dynamically extended from 30 minutes to 60 minutes in cases of extreme market volatility.

4. Chainlink CCIP and Its Limitations

Currently, **Chainlink CCIP does not support Cosmos SDK,** and there is **no confirmed timeline for its integration.** Given this uncertainty, Terra Classic will prioritize Cosmos-native Oracle solutions while monitoring developments around Chainlink CCIP.

The available options are:

1. **Wait for Chainlink CCIP:**
    a. If Chainlink enables CCIP on Cosmos SDK, Terra Classic can **adopt Chainlink Oracles natively**.
    b. This would allow direct price feeds **without the need for bridges**.
    c. **Risk:** No confirmed timeline for CCIP support on Cosmos SDK.
2. **Use a Cross-Chain Bridge (Axelar, Gravity Bridge):**
    a. This approach enables **importing Chainlink prices** from Ethereum to Terra Classic.
    b. **Risk:** Additional costs and possible bridge vulnerabilities.
3. **Continue Improving Cosmos-Native Oracles (Nibiru, Band Protocol):**
    a. Instead of depending on Chainlink, **improving NibiruChain's Pricefeeder** could provide a **secure, low-cost, and efficient** alternative.
    b. **Governance could allocate resources** for enhancing native Oracles.

Terra Classic will remain adaptable, selecting the best approach based on **ecosystem growth, governance decisions, and technological advancements**.

5. Governance-Controlled Oracle Selection

- Oracle providers are selected through **community governance proposals**.
- The **Oracle selection process is reviewed quarterly** to ensure optimal performance.
- **Voting on new Oracles** can be initiated if:
    - An existing Oracle becomes unreliable.
      A new provider offers better pricing accuracy, decentralization, or cost savings.

6. Expected Benefits

- **Improved Stability:** Reduces risks associated with a single point of failure.
- **Security Enhancement:** Chainlink's industry-grade security prevents price attacks.
- **Cost Optimization:** NibiruChain's Pricefeeder offers low-cost, high-frequency updates.
- **Decentralization:** Involves multiple stakeholders in price reporting and governance.
- **Full Automation:** No human intervention is required, ensuring seamless operations.

By implementing a **diversified and automated Oracle system**, Terra Classic ensures **secure, real-time, and tamper-resistant price feeds**, preventing catastrophic failures and enhancing the ecosystem's long-term viability.

C. Mechanism for Automatic Validator Compliance

To ensure the integrity and reliability of the Oracle system within the Terra Classic ecosystem, a **Mechanism for Automatic Validator Compliance** is established. This mechanism enforces validator participation, ensures data accuracy, and penalizes non-compliance to maintain the robustness of the Layer 1 Oracle infrastructure.

1. Core Objectives of Automatic Compliance

1. **Enforce Reliable Data Submission:** Validators must provide accurate and timely price data to the Oracle module.
2. **Ensure Fair Participation:** All validators must actively contribute to price reporting to prevent manipulation.
3. **Implement Automated Penalties for Misbehavior:** Validators submitting incorrect or delayed data face automatic penalties.
4. **Reward Consistent Performance:** Validators providing accurate data are rewarded with a portion of transaction fees or staking incentives.

2. Validator Performance Monitoring

The system continuously tracks and evaluates validator behavior based on the following criteria:

- **Accuracy of Price Reports:** Cross-checking submitted prices against the median aggregated price.
- **Timeliness of Submissions:** Validators must submit price data within each price update cycle.
- **Consistency:** Ensuring validators participate regularly and do not selectively avoid reporting.

Metric	Requirement	Action for Non-Compliance
Price Accuracy	Must be within 1.5% of median Oracle price	Warning -> Slashing for repeated errors
Timely Submission	Must submit price within the 10-second window	Warning -> Temporary exclusion
Participation Consistency	Must report at least 95% of the time over 30 days	Staking penalty -> Removal after 3 offenses

3. Automated Compliance Enforcement

To maintain Oracle efficiency, an automated enforcement mechanism ensures:

1. **Penalty System for Inaccurate or Missing Data**
    a. Validators submitting prices **outside the acceptable deviation range (>1.5%)** will receive an **automated warning**.
    b. If errors persist, a **portion of their staked collateral** is slashed.
    c. **Repeated failures (3+ offenses in 30 days) result in validator exclusion** from Oracle participation.
2. **Reward System for Reliable Validators**
    a. Validators with **99%+ accuracy over 30 days** receive additional staking rewards.
    b. **Top-performing validators** gain higher weight in Oracle governance.
    c. Rewards are funded through a portion of transaction fees collected from Oracle-dependent operations.
3. **Fallback & Redundancy Mechanism**
    a. If a validator **fails to submit data**, a backup validator is automatically selected to ensure continuous price updates.
    b. The backup validator is determined based on **historical accuracy and participation rate**.

c. This prevents single points of failure from disrupting the Oracle system.

4. Governance & Adjustments

- **Thresholds and penalties are adjustable** through governance proposals to adapt to evolving network conditions.
- The **community can vote on performance thresholds**, penalties, and reward structures.
- An **independent audit committee** will periodically review validator performance metrics and suggest improvements.

5. Expected Benefits of Automatic Compliance

- **Increased Oracle Reliability:** Ensures stable and continuous price reporting.
- **Reduced Risk of Manipulation:** Penalizes validators attempting price manipulation.
- **Incentivized Participation:** Rewards validators contributing accurate and timely data.
- **Fully Automated Enforcement:** No need for manual intervention, making compliance **efficient and fair**.

This **Automatic Validator Compliance Mechanism** is essential for maintaining the security and efficiency of Terra Classic's Oracle infrastructure, ensuring that only **accurate and reliable validators** participate in price reporting

D. Integration of Aggregation and Anomaly Detection

To enhance the security and reliability of Terra Classic Oracle system, this section outlines the integration of **aggregation mechanisms** and **anomaly detection models** to ensure accurate, real-time pricing while preventing market manipulation or data inconsistencies.

1. Core Objectives

1. **Enhance Data Accuracy:** Aggregate multiple Oracle sources to minimize price deviations.
2. **Prevent Price Manipulation:** Detect and flag irregular price submissions to maintain data integrity.
3. **Ensure Real-Time Monitoring:** Implement automated checks to validate submitted prices continuously.
4. **Automate Correction Mechanisms:** Reduce the need for human intervention while ensuring stable operations.

2. Data Aggregation Mechanism

To prevent reliance on a single price source, the Oracle system will use a weighted median aggregation model, ensuring fair and accurate price reporting.

Process for Aggregating Prices:

1. Collect price submissions from multiple Oracle validators.
2. Filter out anomalies using statistical deviation models.
3. Compute the weighted median price, ensuring a balance between different data sources.
4. Publish the aggregated price on-chain for use in smart contracts and financial operations.

Metric	Method Used
Data Sources	Multi-Oracle Inputs
Aggregation Method	Weighted Median
Price Stability Check	Historical TWAP

Outlier Detection	Z-Score & Deviation Analysis

3. Anomaly Detection & Mitigation

To safeguard against incorrect or manipulated price data, the system implements **multi-layered anomaly detection**.

1. **Outlier Detection via Z-Score & Standard Deviation Analysis**
    a. If a reported price deviates by **more than 3 standard deviations** from the aggregated median price, it is flagged as an anomaly.
    b. Such anomalies trigger **automatic weighting adjustments** or **temporary exclusion of outlier data**.
2. **Cross-Oracle Consistency Checks**
    a. Compare price deviations between multiple Oracle providers.
    b. If an Oracle reports a price **deviating more than 5% from the median**, it triggers a **governance alert**.
    c. If the deviation persists for **multiple consecutive updates**, the Oracle is temporarily **excluded** from aggregation.
3. **TWAP-Based Failover Protection**
    a. If multiple Oracles show excessive deviations, a **Time-Weighted Average Price (TWAP)** over **30 minutes** is used as a fallback.
    b. If deviations persist for 60 minutes, a **backup Oracle (e.g., current Terra Classic Oracle, Band Protocol, Pyth Network)** is activated.

Threshold	System Response
Deviation >3σ (Z-Score)	Data flagged, reweighted
Price deviation >5% (Multi-Oracles)	Governance alert triggered
Deviation persists >10 minutes	TWAP-based price fallback
Deviation persists >60 minutes	Backup Oracle activated

4. Automated Governance & Adaptive Learning

- **Governance-Controlled Thresholds:** All anomaly detection parameters can be adjusted via governance proposals to optimize performance.
- **Machine Learning-Based Pattern Recognition (Future Upgrade):** The system will analyze past anomalies to improve detection accuracy dynamically.

5. Expected Benefits

- **Increased Oracle Reliability:** Reduces risks of price manipulation or misreporting.
- **Automated Safeguards:** Prevents human intervention delays in case of extreme deviations.
- **Adaptive and Scalable:** Governance and AI-driven adjustments allow real-time optimizations.
- **Failover Protection:** TWAP fallback and backup Oracle mechanism ensure continuous operation.

This **Integration of Aggregation and Anomaly Detection** ensures Terra Classic maintains a **robust, accurate, and manipulation-resistant Oracle system**, securing the stability of all price-sensitive operations.

XII. Implementation Phases

The successful deployment of the EUTC repeg strategy requires a carefully structured implementation plan, divided into well-defined phases. Each phase represents a logical progression in terms of infrastructure, governance readiness, technical complexity, and ecosystem adoption.

This phased approach ensures that the system evolves securely, transparently, and in coordination with the Terra Classic community.

The objectives of these implementation phases are to:

- Minimize systemic risk by rolling out components in a controlled and verifiable sequence.
- Align technical dependencies with functional milestones and governance timelines.
- Enable early testing, feedback, and adjustments before full-scale activation.
- Build market confidence in the EUTC repeg process through transparency and reliability.

The implementation roadmap is divided into the following three major phases:

- **Phase 1: Preparation and Pool Deployment** - Establish the foundational infrastructure, including oracle upgrades, collateral enforcement, and initial liquidity provisioning.

- **Phase 2: Stabilization and Automation** - Transition to automated systems for collateral allocation, fee-based stability mechanisms, and yield operations, with stronger oracle validation.

- **Phase 3: Adoption and Growth** - Scale the stablecoin ecosystem, introduce new assets and stablecoins (e.g., KRTC), and progressively decentralize the system's core modules.

Each phase is supported by governance involvement, real-time monitoring, audit checkpoints, and iterative community validation.

A. Phase 1: Preparation and Pool Deployment

Duration: Month 0 to Month 6
Purpose: Establish the foundational infrastructure for the EUTC repeg strategy.

Phase 1 is critical to ensure that the entire repeg mechanism is built upon secure, transparent, and verifiable components. This phase focuses on deploying the key technical modules, activating the oracle infrastructure, implementing collateral enforcement logic, and creating the initial liquidity pool for EUTC. The goal is to prepare the ecosystem for controlled minting and to build trust with the Terra Classic community through transparent governance and monitoring.

1. Objectives of Phase 1

- Upgrade and deploy a reliable, diversified Oracle system.
- Deploy the Layer 1 Collateral Management Module to enforce the 150% overcollateralization ratio.
- Reactivate and update the Market Module to allow EUTC minting based on verified collateral.
- Launch the initial EUTC <> LUNC liquidity pool with governance-defined parameters.
- Define and activate validator compliance requirements and governance thresholds.

2. Technical Development Priorities

Component	Priority	Dependencies	Key Deliverables
Oracle System Upgrade	**High**	None	Reliable price feeds with fallback mechanisms
Collateral Management Module	**High**	Oracle operational	Enforce onchain overcollateralization (150%)
Market Module Reactivation	**Medium**	Collateral module operational	Controlled EUTC minting linked to collateral
Governance Parameter Setup	**High**	Oracle + Collateral live	Voting thresholds, validator incentives, slashing
EUTC <> LUNC Pool Deployment	**After**	Minting operational	Pool launched with initial supply and market ratio

Note: *The Oracle system and Collateral Management Module must be developed first to support the Market Module and liquidity deployment.*

3. Community and Governance Engagement

- Launch governance proposals to approve:
    - Initial collateralization ratio (150%)
    - Oracle configuration and validator participation parameters.
    - Parameters for EUTC <> LUNC liquidity pool.
    - Reactivation of the Market Module with updated constraints.
- Community validators must opt-in to the new oracle system and meet participation thresholds.
- Publish documentation and tutorials to onboard users, validators, and liquidity providers.

4. Expected Milestones

Milestone	Estimated Timeline
Oracle upgrade live on testnet	Month 1
Collateral module audited and deployed	Month 2
Market Module reactivated for EUTC minting	Month 3
Governance vote on pool ratio and supply cap	Month 4
EUTC <> LUNC liquidity pool launched	Month 5-6
Validator compliance monitoring enabled	Month 6

Phase 1 concludes once EUTC is mintable under strict collateral conditions, a liquid market is active via EUTC <> LUNC pool, and all core systems are functional and governed by the community.

5. Governance Actions Required for Phase 1

Below is a summary of the governance proposals that must be submitted and passed during or prior to Phase 1 to enable the successful deployment of all core components.

Proposal Name	Objective	Parameters to be Voted	Whitepaper Reference
Approve Collateralization Ratio for EUTC	Define minting ratio for EUTC	Ratio = 150%	Section 4.2.2 / 12.1
Activate Oracle System with Governance Parameters	Approve oracle architecture and validator compliance rules	Deviation thresholds, quorum, rewards, slashing	Section 11.2 / 11.3 / 12.1
Reactivate Market Module with Mint Restrictions	Authorize controlled EUTC minting via Market Module	Max mint cap, collateral gate, emergency pause conditions	Section 4.4.2 / 4.4.3 / 12.1
Launch EUTC <> LUNC Liquidity Pool	Deploy initial liquidity pool and define ratio	Initial ratio (e.g. 1 EUTC = 10,000 LUNC), liquidity source (CP, burntax)	Section 5.1 / 12.1
Validator Compliance and Oracle Incentive Rules	Formalize validator requirements for oracle participation	95% uptime, 1.5% accuracy tolerance, reward/penalty structure	Section 11.3 / 12.1

Each proposal will be introduced alongside an explanatory forum thread, community Q&A, and a testnet demonstration where applicable. These decisions forums the operational and economic backbone of the EUTC repeg rollout.

B. Phase 2: Stabilization and Automation

Duration: Month 7 to Month 9
Purpose: Transition from initial deployment to automated, self-regulating mechanisms to stabilize the EUTC peg, secure liquidity flows, and streamline yield operations.

Following the successful activation of the core infrastructure during Phase 1, Phase 2 focuses on stabilizing the system through the introduction of autonomous mechanisms. These include real-time collateral monitoring, fee-based peg correction, automated liquidity rebalancing, and secure yield generation-all governed by community-defined rules. This phase significantly reduces manual interventions while ensuring strong guardrails are in place.

1. Objectives of Phase 2

- Strengthen peg stability through the Divergence Fee Mechanism.
- Automate liquidity allocation using the Liquidity Pool Management Module.
- Launch the Collateral Yield Management Module to make excess collateral productive.
- Enhance Oracle reliability with real-time anomaly detection and redundancy.
- Activate real-time dashboards and monitoring for all modules.

2. Technical Development Priorities

Component	Priority	Dependencies	Key Deliverables
Divergence Fee Mechanism Module	**High**	Oracle + Liquidity pool live	Dynamic fee system to penalize off-peg trades
Liquidity Pool Management Module	**High**	Collateral + Liquidity pools operational	Module to route funds and manage ratios across pools
Collateral Yield Management Module	**Medium**	Stable overcollateralization	Yield strategies launched (LPing, lending, staking)
Oracle Enhancements	**Support**	Oracle system deployed	TWAP fallback, anomaly alerts, multi-source verification
Real-Time Monitoring Dashboards	**Support**	Data from all active modules	Public dashboards for collateral, liquidity, and peg status

3. Community and Governance Engagement

- Governance proposals will be submitted to:
    - Activate and configure the Divergence Fee parameters (rate curve, thresholds, destinations).
    - Approve Liquidity Pool Management rules (distribution frequency, ratio caps).
    - Define initial yield distribution and reinvestment policies.
    - Set Oracle anomaly detection thresholds and backup activation rules.
- Community testers will validate automated functions on testnet before mainnet activation.
- Launch educational material and public dashboards to explain automatic mechanisms.

4. Expected Milestones

Milestone	Estimated Timeline
Divergence Fee module deployed and tested	Month 7
Liquidity Pool Manager activated onchain	Month 7-8
Collateral Yield module live with first strategies	Month 8
Dashboards and metrics published	Month 8
Oracle anomaly detection activated	Month 8-9
Yield distribution begins	Month 9

5. Governance Actions Required for Phase 2

The following governance proposals will be required to enable and configure the modules introduced during Phase 2.

Proposal Name	Objective	Parameters to be Voted	Whitepaper Reference
Activate Divergence Fee Mechanism	Stabilize peg through dynamic fee structure	Fee curve, deviation thresholds, allocation ratio burn (burn/liquidity)	Section 4.2.4 / 8.2 / 12.2
Enable Liquidity Pool Management Module	Automate pool balancing and ratio enforcement	Distribution frequency, pool limits, overflow handling	Section 4.2.1 / 10.1 / 12.2
Approve Yield Reinvestment and Distribution Policies	Initiate use of excess collateral to generate and distribute yield	Reinvestment %, distribution frequency, eligible assets	Section 9.5.2 / 9.5.3 / 12.2
Set Oracle Anomaly Detection Parameters	Protect against manipulation or faulty feeds	Deviation tolerance (e.g., 5%), fallback (TWAP), failover rules	Section 11.2 / 11.4 / 12.2

These proposals ensure that the system becomes progressively more autonomous, resilient, and capable of adjusting dynamically to market behavior, while maintaining full onchain governance and transparency.

C. Phase 3: Adoption and Growth

Duration: Month 10 to Month 12+
Purpose: Expand ecosystem adoption, onboard new users and partners, and prepare for multi-stablecoin scalability while consolidating decentralization and yield sustainability.

Phase 3 represents the transition from stabilization to long-term growth and adoption. The infrastructure is now mature, automated, and resilient.

The focus shifts toward expanding liquidity, increasing real-world usage of EUTC, preparing for the onboarding of future stablecoins (e.g., KRTC, GBTC), and reinforcing decentralization through broader validator and governance participation.

1. Objectives of Phase 3

- Grow liquidity and utility of EUTC within and beyond Terra Classic.
- Onboard new protocols, dApps, and integrations using EUTC.
- Prepare infrastructure for deployment of new stablecoins backed by Terra Classic assets (e.g., KRTC, GBTC).
- Expand and optimize yield strategies across pools via inter-pool synergies.
- Consolidate decentralization of modules, monitoring, and governance controls.

2. Key Development Areas

Component	Priority	Dependencies	Key Deliverables
Ecosystem Integration Layer	**High**	EUTC liquidity active	Partnerships with DEXs, lending protocols, payments, etc.
Stablecoin Pool Framework (multi-asset)	**Medium**	L1 modules operational	Templates to deploy additional stablecoins with isolated pools
Collateral Pool Customization Logic	**Medium**	Yield + Collateral modules live	Pool-specific strategies, reinvestment rates, asset eligibility
Inter-Pool Coordination Layer	**Support**	Multiple pools deployed	Optimize yield flow between EUTC, KRTC, GBTC and future pools
Governance Decentralization Enhancements	**Support**	Governance modules live	Expanded voter access, committee rotation, long-term roadmap votes

3. Community and Governance Engagement

- Proposals will focus on:
    - Deployment of new stablecoins and their associated collateral pools.
    - Adjustment of reinvestment/distribution ratios based on performance.
    - Rebalancing incentives to align long-term participation (e.g., no-staking yield model).
    - Expanding the validator set and refining governance rules for DAO-like control.
- Educational outreach will target new users, protocols, and integrators.
- Grants and incentive programs may be proposed to bootstrap integrations.

4. Expected Milestones

Milestone	Estimated Timeline
Launch of first additional stablecoin (e.g., KRTC)	Month 10-11
Activation of pool-specific collateral parameters	Month 11
Inter-pool yield routing operational	Month 11-12
Governance upgrade proposals adopted	Month 11-12
Ecosystem integration reports and dashboards published	Month 12+

5. Governance Actions Required for Phase 3

The following governance proposals are needed to support growth, onboarding of new stablecoins, and long-term decentralization.

Proposal Name	Objective	Parameters to be Voted	Whitepaper Reference
Deploy New Stablecoin Collateral Pool (e.g., KRTC)	Enable minting of new stablecoins backed by Terra Classic assets	Collateral ratio, eligible assets, mint cap, governance scope	Section 7 / 9.6 / 12.3
Customize Collateral Parameters per Pool	Tailor strategies for individual stablecoin pools	Reinvestment %, distribution %, asset allocation strategy	Section 9.5 / 9.6 / 12.3
Activate Inter-Pool Yield Coordination	Optimize yield flow between pools	Routing logic, caps, fallback options	Section 9.6.2 / 12.3
Governance Decentralization Enhancements	Broaden access and accountability in governance	Committee structure, vote weights, proposal frequency	Section 12.3
Approve Ecosystem Grants & Incentives	Encourage adoption of EUTC and new stablecoins	Grant amounts, target projects, KPIs for ecosystem impact	Section 12.3

These actions will complete the transition of the Terra Classic ecosystem from recovery to expansion, positioning EUTC and its stablecoin family as foundational assets for decentralized finance and beyond.

D. Development Order and Technical Prioritization

The successful implementation of the EUTC repeg strategy relies not onlu on functional phases but also on a technically sound development sequence. This section outlines the recommended order in which modules and systems should be developed and deployed, based on their dependencies, importance, and interactions.

This prioritization ensures system coherence, security, and the progressive activation of features aligned with available infrastructure and governance capacity.

1. Development Order Overview

Priority	Module / Component	Justification
1	**Oracle System Upgrade**	Core price feed dependency for all modules (collateral, divergence, minting).
2	**Collateral Management Module (L1)**	Foundation for overcollateralized minting of EUTC.
3	**Market Module Reactivation & Mint Logic**	Enables controlled issuance of EUTC based on validated collateral.
4	**EUTC <> LUNC Liquidity Pool**	Required to establish a market and begin peg dynamics.
5	**Liquidity Pool Management Module**	Automates allocation of funds and pool ratio maintenance.
6	**Divergence Fee Mechanism Module**	Peg correction mechanism activated once liquidity is functional.
7	**Collateral Yield Management Module**	Makes excess collateral productive once overcollateralization is sustained.

2. Cross-Module Dependencies

Dependent Module	Depends On
Market Module	Collateral Module + Oracle
Liquidity Pool Management Module	Market Module + Initial Liquidity Pool
Divergence Fee Mechanism	Oracle + Liquidity Pool
Yield Management Module	Collateral Module + Stable Liquidity Base

Each module builds upon the stability and data provided by earlier components. Delaying critical dependencies (e.g., Oracle or Collateral module) would compromise the security and consistency of the system.

3. Governance & Audit Integration

Each module activation should be preceded by:

- A governance vote validating its activation and configuration.
- A testnet phase (when applicable) to simulate expected behavior.
- A security audit (internal or external) to ensure resilience.

Development prioritization must remain flexible to accommodate governance feedback, resource constraints, and potential external contributions, but this sequence provides a foundational reference for coordinating efforts.

E. Implementation Timeline

This section provides a chronological roadmap for the deployment of the EUTC repeg strategy over a 12-month period. Each timeline block aligns with the strategic phases defined in Sections 12.1 through 12.3 and incorporates dependencies outlined in the development prioritization (Section 12.4).

The purpose of this timeline is to offer a realistic projection that balances security, community coordination, technical development, governance processes, and audit requirements.

1. Implementation Roadmap

Timeline	Component / Milestone	Category	Dependencies
Month 0-1	Oracle System Upgrade (Testnet)	Oracle	None
Month 1-2	Collateral Management Module Development & Audit	Core Infrastructure	Oracle Live
Month 2	Governance Vote: Collateral Ratio & Oracle Participation	Governance	Oracle + Community Readiness
Month 2-3	Market Module Reactivation with Mint Logic	Minting & Stability	Collateral Module
Month 3	Governance Vote: Market Module Parameters	Governance	Collateral + Oracle Ready
Month 4	Launch of EUTC <> LUNC Liquidity Pool	Liquidity	EUTC Minting Enabled
Month 4-5	Liquidity Pool Management Module (Routing + Dispatch)	Automation Layer	Pool Deployed
Month 5-6	Divergence Fee Mechanism (Activation + Parameters)	Stability Mechanism	Oracle + Pool Live
Month 6	Governance Vote: Divergence Fee Parameters	Governance	Fee Module Ready
Month 6-7	Collateral Yield Management Module (Testnet Launch)	Yield Mechanism	Overcollateralization Stable
Month 7-8	Dashboard Launch (Collateral, Peg, Oracle, LP Metrics)	Monitoring & Transparency	Modules Reporting Data
Month 8	Governance Vote: Yield Policies & Reinvestment Rules	Governance	Yield Module Audited
Month 9	Public Activation: Collateral Yield Management Module	Yield	Governance Approved
Month 10	Launch of Second Stablecoin (e.g., KRTC, GBTC) – Testnet	Expansion	Multi-pool Framework Ready
Month 11	Governance Vote: New Pool Parameters + Collateralization	Governance	Community Review of Performance
Month 12	Inter-Pool Yield Coordination Activation	Optimization	At Least 2 Pools Deployed

2. Timeline Highlights

- **First 6 months** focus on security, decentralization, and core infrastructure (Oracle, Collateral, Market Module).
- **Months 7-9** mark the transition to automation, monitoring, and economic utility (Yield + Fees).
- **Months 10-12+** support adoption, scaling to additional stablecoins, and ecosystem integrations.

This timeline is indicative and subject to adjustments based on governance votes, audit outcomes, testnet results, and community feedback.

F. Development Workflow Kanban

To complement the structured phases and timeline, this section introduces a **Development Workflow Kanban**, organizing tasks across four operational stages: **Backlog, In Progress, Under Review, and Completed**. It provides a collaborative tool to track progress, assign responsibilities, and ensure alignment with the implementation plan.

This format is especially useful when used in platforms like Notion, Trello, GitHub Projects, or **community dashboards**.

1. Kanban Structure

Backlog	In Progress	Under Review	Completed
Oracle module redesign and multi-source integration	Oracle testnet validation	Governance review: Oracle validator rules	Oracle system deployed on testnet
Collateral module logic and slashing mechanisms	Collateral module smart contract development	Audit review of Collateral module	Governance vote on 150% ratio
Divergence fee mechanism specification	Divergence module implementation	Community simulation test on testnet	Divergence fee module live
LP Management routing strategies	Routing logic integration with EUTC<>LUNC pool	Ratio balancing logic and failsafe testing	Pool Manager launched
Yield strategy research (LP, staking, lending)	Yield module prototyping	Backtest + parameter audit	Yield Manager active (testnet or mainnet)
Dashboard UI and metrics architecture	API integration with data providers (LUNC Metrics)	Community feedback on visualizations	Dashboard public release
KRTC stablecoin design framework	KRTC collateral pool modeling	Governance vote on KRTC pool	KRTC launched (testnet)

2. Integration and Monitoring

- Each column can be synchronized with GitHub issues, Trello cards, or Notion tasks.
- Tags like **Module**, **Phase**, **Lead Dev**, **Status**, and **Needs Vote** are recommended for team coordination.
- Dashboards should be shared publicly to ensure transparency for community contributors and governance participants.

This Kanban is intended as a living workflow structure. It will evolve based on audit reports, test results, governance votes, and ongoing developer feedback.

XIII. Risk Assessment and Mitigation

A. Volatility of Collaterals

The use of Terra Classic native assets (e.g., LUNC and USTC) as collateral for the minting of EUTC introduces inherent risks tied to their price volatility. Given their historical instability, particularly during the collapse of UST in 2022, addressing volatility is a central pillar of the repeg strategy.

1. Risk Explanation

- **Market Exposure:** LUNC and USTC are highly reactive to market sentiment, on-chain governance decisions, and external macroeconomic factors.
- **Collateral Devaluation:** A sudden drop in the price of collateralized assets could cause the system's overcollateralization ratio (150%) to fall below safe thresholds.
- **Minting Suspension Risks:** If the ratio drops too far, EUTC minting is automatically paused, which could limit ecosystem growth or usage temporarily.

2. Preventive Mechanisms

To mitigate the impact of collateral volatility, the following strategies are implemented:

- **Strict Overcollateralization (150%):** Ensures that even with short-term price swings, the EUTC supply remains sufficiently backed.
- **Real-Time Oracle Monitoring:** The system continuously monitors the value of the collateral basket using diversified data sources to detect sharp declines and automatically trigger safeguards.
- **Minting Limits:** Minting is dynamically adjusted or paused if the minimum ratio is not met.
- **Emergency Thresholds:** Governance can introduce additional "buffer zones" (e.g., a soft warning at 160%, hard halt below 140%) to prevent systemic risk.

3. Recovery Strategies

If the collateral value continues to drop:

- **Dynamic Liquidation (Future Consideration):** Under governance control, the system may enable partial liquidation or recapitalization of underperforming assets.
- **Governance-Triggered Rebalancing:** The community can vote to introduce new Terra Classic-native collateral types (e.g., bonded LUNC, whitelisted LP tokens) to restore confidence.
- **Yield-Driven Buffer Replenishment:** The Collateral Yield Management Module reinvests returns into the collateral pool to rebuild buffers over time.

4. Long-Term Mitigation

- **Diversification of Collateral Assets:** As the Terra Classic economy matures, new native tokens or synthetic instruments could be authorized to reduce correlation risk.
- **Collateral Tiers:** Implementing risk-adjusted tiers of assets (e.g., Tier 1 = stable native, Tier 2 = volatile) would allow the system to assign lower minting power to more volatile assets.

By acknowledging volatility as a permanent trait of the ecosystem and embedding flexible safeguards, the EUTC repeg system avoids dependency on price predictability, instead building resilience into its collateral framework.

B. Insufficient Liquidity and Supply

A lack of sufficient liquidity or EUTC supply in the early stages of the repeg process presents a critical challenge. Without adequate depth in the EUTC <> LUNC pool and a scalable minting pipeline, the stablecoin risks becoming illiquid or volatile, discouraging adoption and weakening confidence.

1. Risk Explanation

- **Liquidity Gaps:** Shallow liquidity pools increase slippage and price volatility, deterring traders and integrations.
- **Minting Bottlenecks:** If collateral inflows are too slow or insufficiently allocated, the system cannot mint enough EUTC to meet organic demand.
- **User Distrust:** Low market availability can erode confidence in EUTC's utility as a stable, scalable currency.

2. Initial Mitigation Strategies

- **Community Pool Funding:** An initial seed of $200,000 to $300,000 in liquidity sourced from the Community Pool supports early activity in the EUTC <> LUNC pool.
- **Burn Tax and Tax Tobin Allocations:** As outlined in Section 4, a portion of transaction taxes is redirected toward building liquidity sustainably over time.
- **Governance-Controlled Minting via Market Module:** Minting is authorized only when collateral thresholds are met, and supply needs are validated through market signals.

3. Supply Scaling Mechanisms

- **Dynamic Recalibration:** The Collateral Management Module adjusts minting caps and eligibility based on collateral value fluctuations.
- **Yield-Based Growth:** The Yield Management Module generates passive revenue that can be reinvested into the collateral pool to unlock additional minting capacity.
- **Emergency Minting Reserve:** An optional governance-approved emergency mint pool (e.g., 5–10% of projected total supply) could be held to respond to spikes in demand.

4. Governance-Driven Flexibility

- **Adjustable Parameters:** Governance may vote to adjust:
    - Mint caps per time interval (e.g., max 100,000 EUTC/week)
    - Collateral ratio thresholds (within defined safety bounds)
    - Tax redistribution percentages feeding the liquidity pool
- **Monitoring KPIs:** On-chain dashboards will track mint/burn ratios, liquidity depth, and price slippage to signal when adjustments are needed.

By planning for controlled growth and dynamic liquidity provisioning, the EUTC repeg plan mitigates early-stage shortages and builds a scalable foundation for broader adoption.

C. Adoption and Ecosystem Risks

Even with robust technical infrastructure and economic safeguards, the long-term success of EUTC depends on its adoption across users, developers, validators, and external partners.

Limited adoption or ecosystem engagement could lead to stagnation, reduced network utility, and eventual loss of community momentum.

1. Risk Explanation

- **Low User Demand:** Without sufficient incentives or real-world use cases, users may not adopt EUTC as a preferred stablecoin.
- **DApp and Protocol Inertia:** Developers may be reluctant to integrate EUTC if the ecosystem lacks liquidity, incentives, or tooling support.
- **Validator and Community Apathy:** Weak participation in governance and Oracle-related duties can compromise decentralization and reliability.
- **Reputation Legacy:** Terra Classic still faces skepticism due to its past collapse, requiring active effort to rebuild trust.

2. Adoption Strategies

- **No-Staking Yield Model:** EUTC holders earn passive yield directly, offering a competitive alternative to traditional DeFi platforms and stablecoins.
- **DEX and Protocol Integration:** Targeted onboarding of DEXs, lending platforms, and payment rails using grants or liquidity incentives.
- **Marketing and Outreach Campaigns:** Education and visibility efforts focusing on EUTC's differentiators: transparency, yield, decentralization.
- **Early Adopter Incentives:** Community-approved airdrops, rewards for liquidity provision, and fee-sharing mechanisms to bootstrap usage.

3. Ecosystem Support Measures

- **Oracle and Governance Participation:** Clear tooling and incentives for validators to remain active and compliant with Oracle feeds and votes.

- **Developer Toolkits:** Open-source SDKs, API documentation, and grants for builders to integrate or expand EUTC-compatible apps.

- **Cross-Ecosystem Partnerships:** Collaborations with Cosmos-based chains or dApps to expand EUTC's utility across the IBC landscape.

4. Long-Term Commitments

- **Roadmap Transparency:** Continuous publication of development and governance updates to maintain engagement and trust.

- **Onchain KPIs for Ecosystem Health:** Dashboards tracking adoption metrics (e.g., active wallets, protocol integrations, TVL, trading volume).

- **Iterative Governance:** Adoption-focused modules (e.g., the Yield Manager) can be progressively refined based on community feedback.

Adoption is not guaranteed by design alone. It must be cultivated through consistent delivery, aligned incentives, and community-driven evolution.

The repeg strategy accounts for these social and economic layers alongside the technical ones.

D. Governance Challenges

Governance lies at the heart of the EUTC repeg strategy. It enables decentralized control, module evolution, and community-driven innovation.

However, the same openness and flexibility that make governance powerful also introduce risks of inefficiency, manipulation, and decision paralysis.

1. Risk Explanation

- **Low Voter Participation:** Without active validator and community involvement, critical proposals may fail due to lack of quorum.
- **Short-Term Bias:** Token holders may favor short-term benefits (e.g., high yield) over long-term sustainability (e.g., collateral safety).
- **Governance Gridlock:** Conflicting interests can slow or block necessary upgrades or responses to market shifts.
- **Parameter Volatility:** Frequent or erratic changes to protocol settings (e.g., tax rates, mint caps, yield splits) can harm system credibility.

2. Safeguards and Solutions

- **Governance Committees:** Establish specialized, rotating working groups (e.g., risk, oracle, liquidity) to propose informed recommendations.
- **Minimum Quorum and Delay Periods:** Require a minimum participation threshold and time delays before proposal enactment to prevent rushed changes.
- **Parameterized Voting Templates:** Standardize common proposals (e.g., tax adjustments, pool ratios) to improve clarity and reduce confusion.
- **Onchain History and Audits:** Publish governance decision logs and module audit trails to ensure transparency and accountability.

3. Education and Engagement

- **Proposal Templates and Tutorials:** Guide new users in how to participate or draft proposals with standardized formats.
- **Validator Incentives:** Offer partial yield boosts or recognition to validators who vote consistently and accurately on key governance matters.
- **Community Dashboards:** Provide real-time access to current proposals, vote breakdowns, and participation rates.

4. Adaptive Framework

- **Modular Upgrade Paths:** Allow for governance to upgrade or sunset modules progressively, without requiring complete protocol resets.
- **Fork-Resistant Design:** Ensure that changes can be implemented via governance rather than external forks, maintaining ecosystem cohesion.

Governance is both a strength and a challenge in decentralized ecosystems. The repeg plan incorporates guardrails, education, and community-driven design to turn this complexity into a resilient and inclusive decision-making process.

XIV. Governance Framework

A. Role of Decentralized Governance

Decentralized governance is a foundational pillar of the EUTC repeg strategy. It ensures that critical decisions – including module activation, parameter adjustments, and economic policy – are made transparently by the Terra Classic community, not by centralized authorities.

This governance model promotes long-term alignment between stakeholders, fosters trust, and enables continuous adaptation in response to market conditions and ecosystem growth.

1. Governance as an Execution Layer

- **Community-Led Control:** Every major system component (Market Module, Oracle, Yield Manager, etc.) operates under governance-approved parameters.
- **Permissionless Proposal Process:** Any wallet holding the required minimum can submit proposals on-chain, enabling broad community participation.
- **Binding Decisions:** Once a proposal reaches quorum and passes the approval threshold, it is enacted automatically or via module-based logic.

2. Governance Scope and Authority

Governance is empowered to:

- Set and modify protocol parameters such as:
    - Collateralization ratios (e.g., from 150% to 130%)
    - Divergence fee rates (e.g., 0.2% to 0.5%)
    - Yield distribution ratios (e.g., 70% reinvest / 30% payout)
- Approve module activation, deactivation, or upgrades.
- Allocate funds from the Community Pool for development, liquidity, or audits.
- Introduce new collateral types, liquidity pools, or stablecoins.

3. Multi-Module Governance Cohesion

Each Layer 1 module – such as Collateral Management, Divergence Fee, Yield Manager, and Liquidity Pool Manager – includes its own governance-bound logic:

- **Scoped Autonomy:** Modules operate independently but share a unified governance source.
- **Cross-Module Dependencies:** Changes in one module (e.g., yield policy) may require coordinated updates to others (e.g., reinvestment thresholds).
- **Onchain Tracking:** Each module maintains a public configuration file, tracked and audited via the governance interface.

4. Community Empowerment

- **Validator Participation:** Validators are expected to vote consistently on high-impact proposals to maintain oracle participation status.
- **Delegator Incentives:** Community education, KPIs, and dashboards help delegators evaluate validator performance and governance engagement.
- **Progressive Decentralization:** Over time, trusted multisigs and working groups should be replaced by fully on-chain, verifiable governance mechanisms.

Decentralized governance transforms Terra Classic from a protocol into a public utility – collectively owned, transparently operated, and perpetually evolving under the will of its contributors.

B. Community Voting Mechanisms

The strength of the repeg strategy depends on the effectiveness, transparency, and accessibility of its governance voting system. Terra Classic's native governance module enables token holders to propose, debate, and vote on changes that affect protocol behavior, economic parameters, and module activation.

1. Voting Structure

- **Proposal Creation:** Any user with a sufficient deposit (e.g., 100,000 LUNC) may submit a proposal. This deposit is refunded if quorum is reached.
- **Voting Period:** Each proposal is open for voting for a fixed duration (e.g., 7 days), during which delegators and validators can cast their votes.
- **Vote Types:**
    - **Yes:** Approve the proposal as written.
    - **No:** Reject the proposal without deposit burn.
    - **No with Veto:** Reject and penalize the proposer if malicious.
    - **Abstain:** Participate in quorum calculation without expressing a preference.

2. Quorum and Thresholds

To ensure fair and representative decisions, proposals must meet the following conditions:

- **Quorum:** At least 40% of total staked voting power must participate.
- **Pass Threshold:** At least 50% of non-abstaining votes must be "Yes" to pass.
- **Veto Threshold:** If more than 33.4% of voters select "No with Veto," the proposal fails and the deposit is burned.

These thresholds are subject to change via governance but are designed to balance security with efficiency.

3. Voting Delegation

- Delegators may inherit the vote of their validator by default.
- Delegators can override validator votes by casting their own.
- Active engagement is encouraged, especially for proposals affecting monetary policy, collateral risk, or stablecoin expansion.

4. Governance Proposal Types

Typical proposals within the repeg framework include:

Proposal Type	Purpose
Parameter Change	Adjust module parameters (e.g., fee %, ratio caps, tax splits)
Module Activation/Deactivation	Enable or disable a Layer 1 module (e.g., Divergence, Yield Manager)
Fund Allocation	Redirect Community Pool funds to liquidity, development, or audits
Collateral/Pool Addition	Authorize new collateral types or stablecoin pools
Emergency Response	Trigger temporary overrides during anomalies (e.g., Oracle failures)

5. Onchain Governance Interface

- All proposals and votes are published onchain and visible through dashboards such as:
    - Terra Station
    - Ping.pub
    - Luncmetrics
    - Validator.info
- Modules such as the Oracle, Divergence Fee, and Liquidity Manager expose public configurations that reflect current voted parameters.

Clear, transparent, and secure voting mechanisms are the foundation of community ownership. By structuring governance with fairness and accountability, the repeg plan empowers Terra Classic to evolve in a participatory and sustainable way.

C. Transparency and Accountability Measures

Transparency and accountability are essential to maintaining trust in a decentralized system. For the repeg plan to succeed long-term, every decision, allocation, and governance outcome must be easily auditable and publicly verifiable by all participants.

1. Onchain Governance Logs

- All proposals, vote results, and parameter changes are recorded immutably onchain.
- This data is accessible through interfaces such as:
    - Terra Station
    - Ping.pub
    - LUNCScan
- Governance metadata includes proposer wallet, timestamps, final vote breakdown, and module impact.

2. Module Configuration Snapshots

- Each Layer 1 module (e.g., Collateral Manager, Yield Module, Divergence Fee) will maintain a live **onchain configuration registry**.
- Before-and-after states of parameter updates are recorded and versioned.
- These registries are queryable via REST and gRPC endpoints to support community dashboards and external audits.

3. Public Treasury Reporting

- All spending from the Community Pool (e.g., for liquidity seeding, audits, or development) is tracked onchain and aggregated into monthly dashboards.

- Treasury KPIs include:
    - Funds allocated vs. used
    - Current balance and top spending categories
    - Upcoming proposals requesting funds

4. Validator Governance Scorecards

- Validators will be ranked based on participation in governance, including:
    - % of proposals voted on
    - Alignment with delegator votes
    - Oracle compliance (where applicable)
- These scorecards can inform delegation decisions and community trust.

5. Community Dashboards and Reports

- The ecosystem will support public dashboards such as:
    - LUNC Metrics
    - StakeBin
    - LUNCDash
- These interfaces visualize:
    - Proposal outcomes
    - Parameter states
    - Liquidity and collateral metrics
    - Yield and burn flow tracking

Governance must not only be democratic – it must be visible, verifiable, and consistent. These transparency measures ensure that all contributors are empowered with the data they need to keep the system honest and aligned with its mission.

XV. Conclusion

A. Vision for the Future

The EUTC repeg strategy is more than a technical blueprint – it is a renewed commitment to the values of decentralization, resilience, and economic self-determination that originally defined Terra Classic. In rebuilding trust and utility around a new euro-pegged stablecoin, the ecosystem charts a course toward sustainable, transparent, and inclusive financial infrastructure.

1. A Resilient Monetary Layer

- EUTC aims to become a foundational stable unit of account for the Terra Classic economy and beyond.
- By anchoring its value to the euro and maintaining strict overcollateralization with native assets, it offers stability without dependence on centralized fiat bridges.
- Its stability is not enforced by market speculation, but by real collateral, community oversight, and automated safeguards.

2. A Modular and Evolving Ecosystem

- The repeg plan introduces Layer 1 modules that are designed to grow over time:
    - Yield generation for passive holders
    - Adaptive liquidity provisioning
    - Oracle robustness and validator incentives
- These modules can be extended to support new stablecoins (e.g., KRTC, GBTC, JPTC…) and new applications (e.g., remittances, payments, synthetic assets).

3. Community as the Cornerstone

- All critical decisions – including parameter adjustments, fund allocations, and new collateral onboarding – are handled via decentralized governance.

- With transparent dashboards, public voting histories, and governance scorecards, power is returned to the community.

- Participation, education, and inclusion are no longer optional — they are the engine of the protocol's legitimacy.

4. Global Opportunity

- While the initial focus is on restoring Terra Classic's credibility and function, the vision extends to interoperable use across Cosmos and IBC-enabled networks.

- EUTC may serve as a model for how communities can launch and govern their own decentralized, yield-producing, collateral-backed currencies — without the need for VC funding, centralized issuers, or opaque guarantees.

Terra Classic's recovery does not rely on rewriting the past, but on building a better, more antifragile future — one where the community is in control, the tools are transparent, and the system works for everyone, not just early adopters.

B. Call to Action for Community Participation

The successful implementation of the EUTC repeg plan is not merely a technical or financial undertaking – it is a collective mission.

Every validator, developer, token holder, and builder has a role to play in restoring the credibility, resilience, and innovation of the Terra Classic ecosystem.

1. Read, Review, and Challenge the Proposal

- This whitepaper is open to critique, suggestions, and iteration.
- Community members are encouraged to:
    - Discuss its components on governance forums and social channels.
    - Raise potential concerns about risks, feasibility, or governance.
    - Propose amendments or clarifications before formal voting.

2. Participate in Governance

- Stake your LUNC, vote on proposals, and help shape the future of the ecosystem.
- Proposals covering the repeg rollout, module deployments, and funding will be submitted in phases – your voice will matter at each stage.

3. Support Early Development

- **Validators:** Ensure Oracle compliance and consistent voting.
- **Developers:** Contribute to open-source tooling, dashboards, and module implementation.
- **Designers and Writers:** Help make complex systems understandable and accessible.

4. Contribute to Liquidity and Adoption

- Provide initial liquidity in the **EUTC <> LUNC pool**.
- Help bootstrap integrations with DEXs, Cosmos dApps, and wallets.
- Onboard users through education, tutorials, and translations.

5. Stay Informed and Share Knowledge

- Follow community channels for proposal timelines and module updates.
- Promote transparency by sharing dashboards, voting results, and treasury reports.
- Help create a welcoming space for new contributors, especially from outside the current Terra Classic ecosystem.

Rebuilding Terra Classic will not be accomplished by code alone. It will require participation, patience, and vision.

This whitepaper is an invitation – to learn, to engage, and to build something resilient, together.

XVI. Appendices

A. Appendix A: Formulas and Calculations

This appendix provides a detailed breakdown of the key formulas used across the repeg system, covering collateralization, minting, yield distribution, and liquidity provisioning.

1. Collateralization Ratio

This formula ensures that each EUTC minted is backed by sufficient onchain collateral:

$$Collateralization\ Ratio = \frac{Total\ Collateral\ Value\ (in\ €)}{Total\ EUTC\ Supply}$$

Target Ratio: 150%
That is, for every 1 EUTC, at least €1.50 in collateral must be held.

2. Maximum Mintable EUTC

$$Max\ EUTC\ Supply = \frac{Total\ Collateral\ Value}{Collateral\ Ratio}$$

Example:
If the pool holds €1,500,000 in collateral and the ratio is 150% (1.5), then:

$$\frac{1{,}500{,}000}{1.5} = 1{,}000{,}000\ EUTC$$

3. Yield Reinvestment vs Distribution

$$Total\ Yield = Collateral\ Yield\ (Annual)\ \times\ Collateral\ Value$$

$$Reinvested\ Portion = Total\ Yield\ \times\ Reinvestment\ Ratio$$

$$Distributed\ Portion = Total\ Yield\ \times\ Distribution\ Ratio$$

Example:
Collateral pool earns 20% APY on €1,000,000 → €200,000
If 70% is reinvested and 30% distributed:

- Reinvested: €140,000
- Distributed: €60,000

4. Divergence Fee Application

$$Divergence\ Fee = Trade\ Volume\ \times\ Fee\ Rate$$

Example:
Trade of 10,000 EUTC with a 0.5% fee:

$$10{,}000\ \times\ 0.005 = 50\ EUTC\ collected$$

5. Tax Tobin Allocation

$$Tax\ Collected = Transaction\ Volume\ \times\ Tobin\ Tax\ Rate$$

$$Liquidity\ Allocation = Tax\ Collected\ \times\ 20\%$$

$$Oracle\ Pool\ Allocation = Tax\ Collected\ \times\ 70\%$$

$$Community\ Pool\ Allocation\ = Tax\ Collected\ \times\ 10\%$$

B. Appendix B: Glossary of Terms

Term	Definition
EUTC	Euro-pegged algorithmic stablecoin backed by Terra Classic-native collateral and governed onchain by the community.
Repeg	The process of restoring a stablecoin's peg (1 EUTC = 1€) through mechanisms such as collateralization, liquidity management, and oracles.
Collateral Pool	A reserve of Terra Classic assets (e.g., LUNC, USTC) backing the value of minted EUTC to ensure overcollateralization and price stability.
Collateralization Ratio	The ratio of collateral value to EUTC supply, used to guarantee the backing of stablecoins (initially set at 150%).
Market Module	Core module responsible for minting and burning stablecoins based on market activity, oracle prices, and governance-set parameters.
Divergence Fee Mechanism	A fee applied to trades when the EUTC price deviates from its peg, discouraging arbitrage and generating liquidity for the protocol.
Tax Tobin	A replacement for the burn tax, redistributing a fixed transaction fee across the Oracle Pool, Liquidity Pool, and Community Pool.
Collateral Yield Module	A Layer 1 module designed to deploy idle collateral into low-risk yield strategies and distribute or reinvest returns into the ecosystem.
Liquidity Pool Manager	A module responsible for allocating stablecoin liquidity to specific trading pools based on governance-approved ratios and performance metrics.
Overcollateralization	The practice of requiring more value in collateral than the value of minted stablecoins to protect against price volatility.
Governance Proposal	An onchain vote where token holders decide protocol changes, parameter updates, fund usage, or module deployment.

Quorum	The minimum percentage of voting power required to validate a governance proposal (default: 40%).
No with Veto	A vote option that, if selected by more than 33.4% of voters, rejects a proposal and burns the proposer's deposit.
Community Pool	Treasury fund used for protocol development, ecosystem grants, audits, or liquidity seeding — managed through governance.
Oracle System	Infrastructure used to provide real-time external price data to the chain (e.g., for EUTC, LUNC) using validator votes and aggregation logic.
IBC	Inter-Blockchain Communication protocol used in Cosmos-based chains to transfer assets and data across networks.
KRTC	A potential future Korean-won-pegged stablecoin backed by Terra Classic-native collateral and integrated using the same modules as EUTC.

C. Appendix C: References and Sources

This appendix lists the technical specifications, governance documents, community discussions, and third-party data sources that informed the development of the EUTC repeg strategy.

1. Terra Classic Documentation and Repositories

- Terra Classic Core GitHub: https://github.com/terra-money/classic-core
- Terra Docs (Cosmos SDK and Market Module): https://classic-docs.terra.money/
- Terra Classic Agora Forum:
  - https://agora.terra.money
  - https://common.xyz/terra-luna-classic-lunc
- Terra Station Governance Proposals Archive: https://station.terra.money

2. Community Dashboards and Explorers

- LUNC Metrics: https://www.luncmetrics.com
- Terra Classic StakeBin: https://terraclassic.stakebin.io
- LUNCScan Explorer: https://luncscan.com
- Vyntrex Oracle Aggregator: https://vyntrex.io
- LUNCDash: https://luncdash.com
- Ping.pub Terra Classic: https://ping.pub

3. DeFi and Stablecoin Research

- MakerDAO Documentation (CDP systems and overcollateralization): https://docs.makerdao.com
- Circle (USDC architecture): https://www.circle.com
- Tether (USDT reserve model): https://tether.to
- Frax Finance Hybrid Models: https://docs.frax.finance
- Ethena Labs: https://ethena.fi

4. Oracle Technologies

- Chainlink Documentation: https://docs.chain.link
- Nibiru Chain Oracle Module (GitHub): https://github.com/NibiruChain
- Cosmos SDK Oracle Modules (Injective, Kujira): GitHub and community proposals

5. Governance Best Practices

- Cosmos Hub Governance Guidelines: https://hub.cosmos.network
- Osmosis Proposal Template Repository: https://github.com/osmosis-labs

6. Public Discussions and Community Inputs

- Twitter/X community discussions (2023–2024)
- Telegram governance groups, validator and L1 devs channels
- Discord: Terra Classic Governance and Development Channels
- Feedback received from community reviewers and validators

These resources were instrumental in shaping the functional, technical, and governance components of the repeg strategy. The ecosystem is encouraged to build upon them, fork the tools, and continue evolving in a transparent, open-source manner.