The Calçotada Protocol: Equity Peg Tokens for Decentralized Venture Capital

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Abstract—**This paper presents the Calçotada Protocol, a blockchain-based framework for democratizing early-stage venture capital through tokenized convertible notes designed to track startup valuations. The protocol implements a dual-token architecture combining ERC721 NFTs for governance participation with ERC20 RMSC tokens for economic exposure. Built on Polygon with Chainlink oracle integration, the system features sophisticated bonding curve pricing, automated treasury management, and transparent on-chain fundraising mechanics. While the current implementation provides core token infrastructure, future development will add on-chain accountancy, automated buyback mechanisms, and full DAO governance to create a complete decentralized venture capital platform accessible to retail investors.**

Index Terms—**Blockchain, Venture Capital, Decentralized Finance, Tokenization, Equity Peg Token, DAO**

I. INTRODUCTION: UNLOCKING FOUNDATIONAL CAPITAL FOR EVERYONE

Venture capital (VC) acts simultaneously as the engine and gatekeeper of innovation, deciding which startups receive funding and consequently determining who shapes the products and services of tomorrow. This concentration of influence leads to what Acemoglu and Johnson describe as a "tunnel vision" in their seminal work *Power and Progress* (2023), wherein the future is shaped not by societal necessities or disruptive innovations, but by trends favored by large capital holders. This cycle perpetuates itself: venture capital firms backed by substantial resources dictate innovation agendas, consolidating wealth and reinforcing their dominance over technological and economic progress.

This entrenched model of early-stage investing not only restricts innovation to predefined agendas but exacerbates inequality by excluding smaller investors from the highest-return investment opportunities—namely, seed-stage equity rounds. Consequently, retail investors resort to speculative assets such as memecoins, seeking the kinds of outsized returns historically realized in early-stage VC funding, but without genuine exposure to underlying innovation or governance rights.

Blockchain technology offers a foundational shift in this dynamic by enabling decentralized autonomous organizations (DAOs) and token-based governance models to democratize access to venture-stage capital and decision-making processes.

The Calçotada Protocol is our practical response to this systemic imbalance. It presents a vision for structured, transparent on-chain mechanisms that will link token ownership to startup valuations and governance rights. Through tokenized convertible notes, the protocol aims to allow individual investors—not just large institutions—to meaningfully participate in both the financial and governance aspects of promising startups at their earliest stages.

This whitepaper presents both the current Minimum Viable Product (MVP) implementation and the complete protocol vision. The MVP, consisting of 333 Genesis NFTs and foundational smart contracts, serves as a proof of concept and market validation tool. With a modest target of €30,000, this initial phase focuses on validating interest, building a core team, and establishing fundamental protocol standards before expanding to the full implementation.

The protocol was specifically developed to meet the funding requirements of The Calçotada Company, a food-tech startup with a disruptive and validated business model. This measured approach—starting with an MVP and growing based on community feedback—ensures that the protocol development remains aligned with real market needs while building the foundation for Decentralized Autonomous Venture Capital (DAVC).

II. THE CALÇOTADA TRADITION: A SYMBOL OF COLLECTIVE SUCCESS

The naming and symbolism of the Calçotada Protocol draws inspiration from the centuries-old Catalan tradition of *la calçotada*, a communal feast that embodies the values of collaboration, shared success, and collective contribution. This tradition, recognized by UNESCO as an Intangible Cultural Heritage, serves as the perfect metaphor for democratized venture capital.

In a traditional calçotada, everyone contributes to create the best possible experience—from growing and harvesting the calçots (a type of spring onion), to preparing the fire, making the romesco sauce, and sharing the meal. No single person owns the success; rather, it emerges from the collective effort where each participant adds their unique contribution. This symbolism directly translates to our protocol's philosophy: democratizing access to venture capital by allowing everyone to participate in and benefit from startup success.

The protocol's dual-token architecture reflects the key elements of this tradition:

- **The NFT (Calçot-Coin)**: Represents the people, their enthusiasm, and the collective spirit. Just as each person

at a calçotada brings their unique contribution, each NFT holder becomes part of the governance collective, sharing in decision-making and community building.

- **The RMSC Token (Romesco)**: Named after the essential sauce that defines a calçotada's success, RMSC represents the "secret sauce" of venture capital—the capital itself and its returns. As any Catalan will tell you, "the success is always in the sauce," and similarly, the success of startups lies in proper funding and value creation.
- **Company Equity (The Fire)**: Just as the fire transforms raw calçots into a delicious meal, company equity represents the transformative engine that converts capital into returns. The protocol acts as the fire that powers companies to succeed through structured, transparent funding mechanisms.

This tradition-inspired naming serves a dual purpose: it honors the collaborative spirit essential to successful venture capital while creating a memorable, culturally-rooted identity that distinguishes our protocol from purely financial instruments. The Calçotada Protocol isn't just about investment returns—it's about building a community where everyone can participate in nurturing innovation and sharing in its success.

III. PRIOR ART AND RELATED WORK

Blockchain technology has significantly altered the landscape of startup financing, leading to an emergence of novel funding mechanisms primarily through Initial Coin Offerings (ICOs) and token sales. Guangye Cao (2023), in his seminal paper *"Startup Financing: Token vs Equity"*, highlights that blockchain-based startups commonly prefer token issuance over traditional equity due to enhanced liquidity and lower return expectations from investors, driven by early liquidity rather than intrinsic valuation [1]. However, this financing model predominantly targets crypto-native startups building decentralized applications (dApps) or blockchain protocols. Thus, these tokens typically derive value from speculative market dynamics rather than a measurable relationship to company success or valuation milestones [2], [3].

Several foundational studies underline these market dynamics. Howell et al. (2020) find that token success in ICOs correlates closely with disclosure practices and speculative expectations rather than fundamental valuation metrics tied explicitly to a startup's success [2]. Similarly, Chod and Lyandres (2021) point out that token financing frequently introduces agency problems, as entrepreneurs are incentivized to underproduce since their revenues are not strictly pegged to token values or vice versa [4]. Cong et al. (2021) also note the prevalence of speculative pricing, driven largely by investor expectations about future platform popularity rather than underlying business fundamentals [5].

The literature further emphasizes a structural shortcoming in current token funding models, specifically their inherent inability to effectively bridge token valuation to real-world company performance and equity milestones. For example, the widely-used Simple Agreement for Future Tokens (SAFT), while attempting to integrate traditional funding elements, still ultimately relies on future speculative market conditions rather than measurable startup outcomes [6]. Meanwhile, token-warrant structures and automated convertible notes introduced by ConsenSys and others attempt to blend equity and token economics but do not provide explicit pegging mechanisms between token value and company valuation, leaving substantial room for market speculation and volatility [7].

In this context, token financing as historically implemented has primarily appealed to blockchain-focused ventures, offering limited utility to traditional non-crypto enterprises seeking structured and valuation-based early-stage financing mechanisms. Despite clear liquidity advantages outlined by Cao (2023) and others, the absence of a stable and measurable peg to equity valuation remains a critical gap in current blockchain funding structures.

Addressing precisely this gap, the Calçotada Protocol proposes an innovative framework: a *Tokenized Convertible Note (TCN)* explicitly pegged to company valuation. By bridging traditional valuation-linked financial instruments with blockchain-enabled liquidity, the protocol uniquely positions itself as a solution capable of transcending speculative market dynamics and offering structured equity participation and governance rights to retail investors.

IV. EXTENDED ANALYSIS OF DUAL-TOKEN MODELS

A. Dual-Asset Token Models

A growing class of decentralized finance and DAO systems use a dual-token model, combining:

- A non-fungible or governance token for voting/access
- A fungible token for utility or financial participation

Examples include:

Charged Particles offers a framework allowing NFTs to hold fungible tokens—creating hybrid assets, but not necessarily valuation-pegged economic instruments [8].

Tensor DAO issues a governance token (TNSR) alongside protocol usage tokens—holders vote and receive revenue-share—but tokens are not directly pegged to outside company valuations [9].

Origyn Protocol uses OGY as a fungible utility/governance token alongside provenance NFTs—though again, without a peg to company performance [10].

Academic work on NFT authentication and hybrid structures exists (e.g. Talgar & Banach [11], Avrilionis & Hardjono [12]), but these focus on access control or metadata consistency—not on funding mechanics or value-redemption.

B. Research Gap

While dual-token models are gaining traction in DeFi and NFT ecosystems, none explicitly link the fungible token's value to company performance or guarantee redemption pegged to valuation. Existing models focus on speculative pricing, membership perks, or governance, not on treating tokens as digital equity with built-in mechanisms to ensure economic alignment.

C. Contribution of the Calçotada Protocol

The Calçotada Protocol bridges these gaps by:

- Issuing **Founder NFTs** for governance and access;
- Issuing **RMSC fungible tokens** with a strict, externally validated PEG to company valuation;
- Enforcing buyback commitments on-chain via transparent smart contracts and external oracles;
- Combining liquidity, governance, and valuation parity in a single dual-token financial architecture.

V. FUNDAMENTAL KEY ASSETS AND ON-CHAIN ACCOUNTANCY

A primary innovation of the Calçotada Protocol is the incorporation of on-chain accountancy as a transparent foundation for venture valuations, investor returns, and protocol trust. This section reviews the strategic assets necessary for protocol integrity and public confidence, highlighting how on-chain financial tracking directly informs estimated valuations and buyback commitments.

A. On-Chain Accountancy

Unlike traditional venture frameworks—where assessment of company value and investor ROI rely on opaque, often delayed financial reporting—the Calçotada Protocol mandates continuous, verifiable financial accounting on-chain. All critical financial flows (revenue, costs, operational reserves, distributions) are recorded in transparent smart contracts.

This enables:

- **Real-time, tamper-proof valuation:** Investors and protocol governors can view up-to-date figures at any point, reducing ambiguity or information asymmetry.
- **Reliable ROI estimates:** Using industry-standard financial metrics (see next subsection), the protocol can project and periodically update company valuations and potential ROI for token holders.
- **Algorithmic buyback triggers:** Token buyback amounts and conditions are derived from on-chain accounting data, automating investor returns and aligning incentives.

B. Valuation Methodology and Financial Modeling

To ensure that buybacks reflect fundamentally justified valuations, the protocol leverages conventional startup valuation techniques. The accompanying `Tokenomics RMSC.ods` model calculates buyback scenarios and expected valuations based on revenue multiples, discounted cash flows, or other startup-typical factors. These methods are encoded in oracles or contract formulas, supporting automated, auditable financial flows without need for off-chain negotiations.

This structure allows retail and institutional investors to benefit from return estimates and exit strategies anchored in both blockchain transparency and accepted financial practice—even before actual company liquidity events.

C. Additional Key Assets

- **Smart Contracts:** All protocol commitments (NFTs, RMSC tokenomics, buybacks, treasury reserve) are transparently on-chain.
- **External Oracles:** For validation of off-chain revenue or event triggers as needed.
- **Decentralized Governance:** Founder NFTs enable participatory protocol upgrades and control structures.
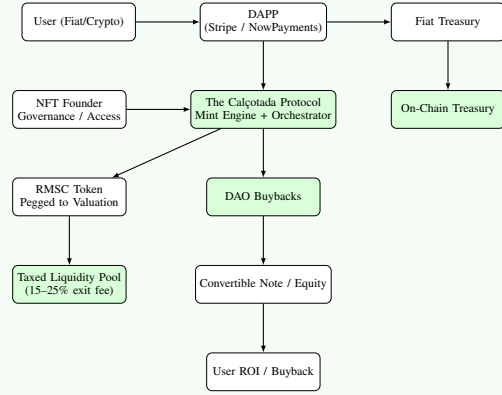
VI. PROTOCOL ARCHITECTURE

Fig. 1. Simplified architecture of the Calçotada Protocol: dual-token issuance and treasury-integrated valuation peg.

The Calçotada Protocol implements a sophisticated two-asset system deployed on the Polygon blockchain to facilitate decentralized venture funding. The architecture consists of four core smart contracts that work in concert: CalcotCoin (NFT), Romesco (RMSC token), Calçotada (orchestrator), and NormalizeToEuro (oracle integration). This system combines governance through non-fungible tokens (NFTs) with economic participation via fungible tokens (RMSC) that are designed to track company valuation.

A. CalcotCoin NFT: Governance and Foundational Access

Fig. 2. Calçot-Coin (CEBA) - The NFT representing community participation and governance

The *CalcotCoin* (CEBA) contract implements an ERC721 NFT system designed to recognize early supporters and provide governance rights. The current implementation features:

Technical Specifications:

- Token Type: NFT (ERC721)
- Token Name: Calçot-Coin
- Token Symbol: CEBA
- Batch: 0 (Genesis)
- Fixed supply of 333 NFTs (CEBA Genesis edition)
- Public allocation: 300 NFTs
- Premint - Reserved Treasury: 33 NFTs
- Linear pricing mechanism from 222.22 to 200 RMSC per NFT
- Sell Price: €100 per NFT with dynamic RMSC conversion

Minting Mechanism: The CalcotCoin contract implements a sophisticated dual-minting system where NFT purchases trigger a 2x RMSC mint. When purchasing an NFT:

1) The buyer receives 2x the NFT price in newly minted RMSC
2) Half of the RMSC is automatically transferred to the treasury as payment
3) The buyer retains the other half as a bonus incentive
4) The NFT is minted to the buyer's address

Planned Governance Features:

- One vote per wallet (implementation pending)
- Participation in valuation recognition and capital allocation decisions
- Access to exclusive founder communications

Note: The whitepaper originally specified 6 batches totaling 5,888 NFTs. The current implementation focuses on the initial 333-unit genesis collection, with future batches to be deployed based on protocol evolution and community feedback.

B. RMSC Token: Equity-Pegged Financial Instrument

Fig. 3. Romesco (RMSCU) - The fungible token representing the "secret sauce" of venture returns

The *Romesco Token (RMSC)* is the core financial instrument of the protocol, implemented as an ERC20 token with ERC1363 and ERC20Permit extensions for enhanced functionality.

Technical Implementation:

- Token Type: FT (ERC20)
- Token Name: Romesco
- Token Symbol: RMSCU
- Fixed maximum supply of 5,000,000 RMSC (hard cap enforced in contract)
- Premint Treasury: 200,000 RMSC for liquidity and operational needs
- Base Price: €0.40 per RMSC
- Pausable functionality for emergency situations
- Permit functionality for gasless approvals
- ERC1363 support for single-transaction transfers and callbacks

Economic Design:

- Minting controlled by the orchestrator contract only
- No burn functionality for regular users (maintains supply integrity)
- Designed for future buyback mechanism at €1.5–€3.0 per RMSC
- Starting valuation implies approximately €0.40–€0.60 per RMSC

Integration Features: The RMSC token is designed for composability with DeFi protocols:

- ERC20Permit enables gasless transactions and meta-transactions
- ERC1363 allows for advanced payment flows and automated callbacks
- Standard ERC20 interface ensures compatibility with all major DEXs and lending protocols

Note: The buyback mechanism mentioned in the economic design is planned for future implementation through a separate contract that will interact with the on-chain accountancy system.

C. Calçotada Orchestrator: Protocol Coordination

The *Calçotada* contract serves as the central orchestrator, coordinating interactions between all protocol components:

Core Functions:

- Manages the dual-minting mechanism for NFT purchases
- Controls RMSC minting according to bonding curve pricing
- Handles both public and private sale mechanisms
- Integrates with NormalizeToEuro for multi-currency support

Bonding Curve Implementation: The orchestrator implements a sophisticated normalized bonding curve using:

- Q16.16 fixed-point arithmetic for precision
- Configurable sigmoid curve shape for optimal price discovery
- Integration with trapezoidal rule for accurate pricing
- Starting price: €0.40 per RMSC, ending price: €0.60 per RMSC

Transaction Fee Structure:
- NFT purchases: €4.50 transaction fee
- RMSC purchases: €2.50 transaction fee
- Fees collected in POL and forwarded to treasury

D. Price Oracle Integration

The *NormalizeToEuro* contract provides real-time price conversion using Chainlink oracles:
Oracle Feeds:
- ETH/USD, EUR/USD, and POL/USD price feeds
- Automatic conversion between EUR pricing and POL payments
- 18-decimal precision for all calculations

E. PEG Enforcement and Future Development

While the current implementation provides the foundation for equity-pegged tokens, the full PEG mechanism awaits implementation:
Current State:
- Token supply and pricing mechanisms are fully implemented
- Oracle integration provides real-time price conversion
- Treasury accumulation occurs automatically

Planned Enhancements:
- On-chain accountancy module for transparent financial tracking
- Automated buyback contracts triggered by valuation milestones
- Governance voting mechanisms for NFT holders
- Integration with external valuation attestation services

F. Initial Supply and Distribution

The initial supply of RMSC tokens is allocated in a controlled and transparent manner to recognize pre-protocol contributions and prepare for public issuance. No tokens are minted speculatively or granted without capital justification.

1) Angel Investor Allocation: Prior to the protocol's launch, a group of early angel investors provided capital to The Calçotada Company under a convertible loan agreement. These early backers are entitled to receive RMSC tokens at the protocol's base issuance price, plus an interest premium to account for the time value of their risk.
- **Base Price Conversion:** Angel investments are converted into RMSC at the same base price offered during the initial public issuance phase.
- **Interest Adjustment:** A fixed 7% interest rate is applied to the original invested amount, and this adjusted total determines the corresponding RMSC allocation.
- **Non-inflationary Grant:** These tokens are accounted for as part of the protocol's total capped supply and are not created in excess of the 5 million RMSC ceiling.

2) Pre-Mint Reserve: In addition to angel investor conversion, a total of 200,000 RMSC tokens are pre-minted and held in the protocol treasury for operational, liquidity, and market stabilization purposes. This reserve will be used judiciously to support exchange listings, liquidity pool seeding, and strategic partnerships.

3) Public Issuance: All remaining RMSC tokens are made available through direct, capital-backed purchase via the protocol interface. Tokens are minted on-demand as described in the Minting Scheme, with no pre-sale, airdrop, or speculative allocation.

This initial supply model ensures that token distribution is fully aligned with the company's real financial history and avoids the common pitfalls of over-allocation, unbacked inflation, or opaque private rounds.

G. Initial Distribution and Structured Pricing

The protocol implements a sophisticated pricing mechanism that balances early adopter incentives with sustainable fundraising:

1) Current Implementation: Genesis Collection: The deployed contracts focus on the initial CalcotCoin Genesis collection:
- 333 total NFTs with 33 reserved for treasury
- Linear RMSC pricing from 222.22 to 200 RMSC per NFT
- Fixed EUR price of €100 per NFT
- Dual-minting mechanism providing 2x RMSC to NFT buyers

2) Future Batch Structure: The protocol design accommodates future expansion through additional NFT collections:

TABLE I
NFT BATCHES AND ASSOCIATED RMSC MINTING

Batch	NFTs	NFT €	RMSC €	MINT kRMSC
Calçot Coins	333	100	0.40	66
FounderPass 1	555	125	0.50	139
FounderPass 2	1111	250	0.525	529
FounderPass 3	1111	375	0.55	757
FounderPass 4	1111	500	0.575	966
FounderPass 5	1111	625	0.60	1,157
Total: 5,332 NFTs				
2,047,025 € raised, 1,807,796 RMSC minted				

Half of the RMSC minted for each NFT is transferred to the protocol treasury, while the remaining half is consumed by the NFT minting contract. This ensures that treasury-backed liquidity grows proportionally with capital raised.

3) Public RMSC Issuance via Bonding Curve: The Calçotada orchestrator implements a sophisticated bonding curve mechanism for public RMSC sales:
Technical Implementation:
- Normalized sigmoid curve stored as Q16.16 fixed-point values
- Configurable curve shape via uploadable parameters
- 16-step trapezoidal integration for accurate pricing
- Real-time POL/EUR conversion via Chainlink oracles

Pricing Parameters:
- Starting price: €0.40 per RMSC
- Ending price: €0.60 per RMSC
- Available supply: Up to 4.6M RMSC (after pre-mint and NFT allocations)
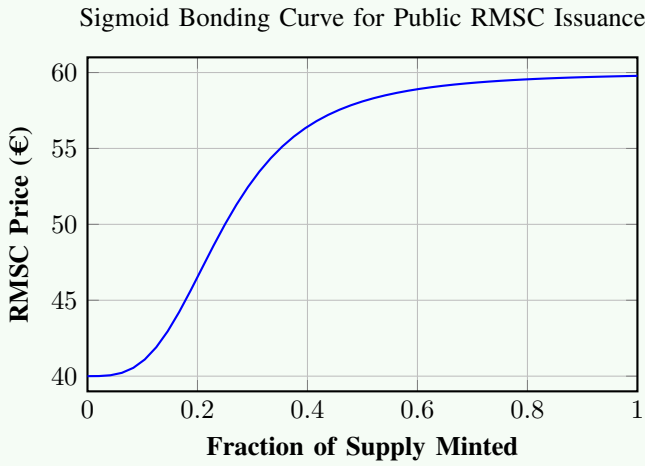- Transaction fee: €2.50 per purchase

Fig. 4. Sigmoid bonding curve used for public RMSC issuance pricing.

This curve allows the protocol to capture higher marginal funding value while maintaining a predictable and fair pricing structure. Early public buyers enjoy lower prices, and late-stage buyers pay a premium as the available supply nears exhaustion.

4) Liquidity and Secondary Market Strategy: The protocol's liquidity strategy leverages standard DeFi infrastructure:

Current Implementation:

- RMSC is a standard ERC20 token, compatible with all major DEXs
- Treasury accumulates POL and RMSC for future liquidity provision
- No transfer restrictions or vesting schedules

Planned Liquidity Features:

- DEX liquidity pools on QuickSwap or Uniswap V3
- Treasury-funded initial liquidity provision
- Potential liquidity mining incentives for early providers
- Integration with lending protocols for RMSC collateralization

Note: The Taxed Liquidity Pool (TLP) mentioned in the original design is deferred to future protocol upgrades, allowing for simpler initial deployment and community-driven liquidity solutions.

H. Network Deployment

Polygon is selected as the base network for its:

- Low transaction fees and fast confirmation times,
- Proven security track record via Ethereum finality,
- Established ecosystem of NFT and DeFi projects.

Deploying on Polygon enables frictionless user participation while ensuring composability with future liquidity protocols and DAO tools.

VII. TECHNICAL IMPLEMENTATION

A. Smart Contract Architecture

The Calçotada Protocol consists of four core smart contracts deployed on Polygon:

1. CalcotCoin.sol (ERC721):

- Manages NFT issuance and ownership
- Implements linear pricing mechanism
- Handles treasury pre-allocation
- Integrates with orchestrator for minting

2. Romesco.sol (ERC20):

- Implements capped token supply (5M RMSC)
- Provides ERC1363 and Permit extensions
- Controlled minting via orchestrator only
- Pausable for emergency situations

3. Calcotada.sol (Orchestrator):

- Coordinates all protocol interactions
- Implements bonding curve pricing
- Manages dual-minting mechanism
- Handles fee collection and treasury forwarding

4. NormalizeToEuro.sol (Oracle):

- Integrates Chainlink price feeds
- Provides EUR/POL/ETH conversions
- Ensures accurate multi-currency pricing

B. Security Considerations

Access Control:

- Owner-controlled administrative functions
- Orchestrator pattern for inter-contract calls
- No external minting access on token contracts

Safety Features:

- ReentrancyGuard on all payment functions
- Pausable functionality for emergency response
- Overflow protection via Solidity 0.8.28
- Battle-tested OpenZeppelin libraries

C. Gas Optimization

- Batch minting reduces per-NFT gas costs
- Q16.16 arithmetic minimizes computational overhead
- Efficient storage patterns in bonding curve
- Optimized loops with unchecked arithmetic where safe

D. Protocol Composability

The Calçotada Protocol exposes several public and payable functions that enhance composability with other DeFi protocols:

Public Query Functions:

- `previewPurchaseCost`: Returns prices in POL for RMSC purchases
- `previewPurchaseCostEur`: Returns prices in EUR for RMSC purchases
- `getPriceBatchNFT`: Provides pricing for NFT batches in both POL and EUR

Payable Minting Functions:

- `calcotCoinPublicMint`: Allows public minting of NFTs with POL payment
- `publicRmscMint`: Enables direct RMSC token purchases (not yet exposed in UI)

These functions allow external protocols and smart contracts to integrate with the Calçotada ecosystem, enabling:

- Automated trading strategies based on real-time pricing
- Integration with DEX aggregators for optimal routing
- Building of derivative products on top of RMSC tokens
- Creation of vaults and yield strategies

VIII. Vision: From Meme Coins to PEG Coins

This whitepaper presents not just a protocol implementation, but a vision for transforming venture capital through blockchain technology. We invite builders, researchers, and visionaries to join us in developing the foundational components for true DAO-based venture capital.

A. Redefining PEG: From Price Stability to Performance Growth

The term "PEG" in traditional crypto contexts typically refers to price-pegged assets like stablecoins. We intentionally reappropriate this term to create a powerful contrast with MEME coins. While MEME coins represent pure speculation without underlying value, PEG (Performance Equity Growth) tokens represent the opposite: real value creation tied to company performance.

The MEME vs PEG Paradigm:

- **MEME**: Speculation, hype-driven, no intrinsic value
- **PEG**: Performance-driven, value-backed, growth-oriented

Unlike traditional price pegs that maintain stable values, our PEG tokens are *pegged to company growth*. This represents a new category of crypto assets:

- Not pegged to a stable price (like USDT to USD)
- Not pegged to another asset (like WBTC to BTC)
- But pegged to a company's valuation trajectory and success

This redefinition serves a dual purpose: it creates a memorable contrast with MEME coins while accurately describing tokens that track real business performance. PEG tokens offer the excitement of venture returns with the substance of equity participation—transforming speculation into investment.

B. The Composability Foundation

The Calçotada Protocol aims to establish standardized components that any startup can use to create their own equity-pegged tokens:

Standardized Valuation Methods: We propose using Discounted Cash Flow (DCF) models as the industry standard for early-stage startup valuations. Unlike traditional approaches, our innovation embeds buyback mechanisms directly tied to current company performance. This creates a new standard where:

- Valuations are calculated transparently on-chain
- External parameters (industry multipliers, WACC) are provided by oracles
- Buybacks are triggered automatically based on performance milestones

- Early liquidity is provided through a SAFE + Interest model

Projected Returns (2027-2032): Based on our DCF models for The Calçotada Company:

- Pessimistic scenario: 2.1x return by 2031
- Standard scenario: 2.8x return by 2031
- Optimistic scenario: 5.5x return by 2031

C. On-Chain Accountancy Revolution

Current accounting depends on centralized bank integrations and proprietary software. We envision:

- Immutable, auditable financial records on-chain
- Access to real-time Free Cash Flow data
- New ecosystem of accountancy DApps
- Smart contract auditors guaranteeing transparency
- Integration with privacy solutions (e.g., Hyperledger) for competitive data

D. Capturing the Meme Coin Market

The crypto community investing in meme coins represents untapped potential for meaningful investments:

What PEG Coins Offer:

- High risk/reward profile similar to meme coins
- 20% early rewards for liquidity providers
- Long-term returns ranging from 2x to 5.5x
- Real utility backing token value
- Community engagement through governance

Liquidity Strategy:

- Early liquidity pools with tax mechanisms for flippers
- Rewards for long-term believers
- Transition from speculation to value creation

E. Building Trust Through Standards

The protocol addresses fundamental trust barriers:

- **Valuation Trust:** Pre-defined DCF models with oracle-provided parameters
- **Buyback Trust:** Smart contract execution with public reserves
- **Process Trust:** Deterministic mathematical expressions
- **Access Trust:** Guaranteed participation in seed capital opportunities

F. Target Audience and Growth

Primary Targets:

- Retail investors currently in meme coins seeking real utility
- Young professionals interested in startup investing
- International investors excluded from traditional VC
- Non-accredited investors seeking early-stage opportunities

Growth Mechanisms:

- Referral system (5 RMSC per new user)
- Education initiatives on equity pegs
- Community-driven protocol development

G. Five-Year Success Metrics

By 2029, success means:

- The Calçotada Company operating at full scale in Europe
- 3 patents published on protocol innovations
- Profitable operations from year 3
- Active buyback program demonstrating model viability
- RMSC accepted as collateral in major DeFi protocols
- Establishment of the "Calçotada Standard" for equity pegs

H. Call for Builders and Contributors

This whitepaper is a proposal and invitation. We seek:

- **Protocol Developers:** To build standardized components
- **Oracle Integrators:** To validate fiat transactions
- **Financial Engineers:** To refine DCF models
- **Legal Experts:** To navigate regulatory frameworks
- **Community Leaders:** To educate and onboard users
- **Startup Founders:** To adopt and test the protocol

Many questions remain unanswered—optimal update frequencies, discount rates for pre-revenue startups, governance structures. These will be defined collectively as we build this new foundation for venture capital.

The Calçotada Protocol is more than technology; it's a movement toward democratized, transparent, and accessible startup funding. Join us in creating the future of venture capital.

IX. THE CALÇOTADA COMPANY: PROTOCOL SPONSOR

A. Company Overview

The Calçotada Company is a Barcelona-based food-tech startup pioneering Food Experience as a Service (FEaaS). As the primary sponsor and first implementation of the Calçotada Protocol, the company serves as both a proof of concept and a real-world test case for tokenized venture funding.

B. Business Model: FEaaS

Food Experience as a Service (FEaaS) represents a paradigm shift in the hospitality industry:

- **Scalable Culinary Experiences:** Transforming traditional dining into reproducible, high-quality experiences
- **Technology-Enabled Operations:** Leveraging automation and data analytics to optimize food service
- **Franchise-Ready Model:** Creating standardized processes that maintain authenticity while enabling rapid expansion
- **Cultural Preservation:** Protecting and promoting traditional Catalan cuisine through modern business practices

C. Why Calçotada?

The company takes its name from the traditional Catalan calçotada—a communal feast celebrating spring onions. This choice reflects:

- Community-driven values aligned with DAO principles
- Scalable social experiences perfect for FEaaS model
- Strong cultural identity providing market differentiation
- Natural alignment between shared meals and shared ownership

D. Protocol Synergy

The Calçotada Company's use of the protocol demonstrates:

- Real revenue generation for buyback mechanisms
- Clear valuation metrics through operational data
- Community engagement through product and investment
- Bridge between physical business and digital assets

X. TEAM AND ACKNOWLEDGMENTS

The Calçotada Protocol is driven by a dedicated team of RMSC holders representing the company's interests:

Dr. Julià Delos Ayllón - Founder and Chief Architect. With a distinguished career spanning from software to high-power systems, Dr. Ayllón holds a PhD in Electrical Engineering focused on power electronics and LED driver optimization. His professional journey includes roles at Philips Research, HP, and Lear Corporation, where he developed innovative solutions from embedded software to advanced power management systems. At Philips Research, he contributed to multiple patents in LED driver technology and integrated power systems. This deep technical expertise in hardware miniaturization and system optimization now informs his approach to blockchain protocol design. Dr. Ayllón founded The Calçotada Company with a vision to revolutionize access to food experiences through a Food Experience as a Service (FEaaS) business model—creating an "Airbnb for culinary experiences" that enables rapid scaling while preserving authentic local gastronomy. His unique background bridges hardware engineering, corporate R&D, and entrepreneurial innovation, positioning him to architect protocols that merge real-world business models with decentralized finance.

Dr. Louisa Spaans - Medical doctor and protocol keyguard. Early angel investor and major RMSC holder safeguarding protocol integrity.

Dr. Dimitri Pustakhod - PhD and protocol keyguard. Strategic advisor and major RMSC holder ensuring governance alignment.

Danail Hristov - Telecom engineer and protocol keyguard. Technical advisor and major RMSC holder protecting protocol development.

This team represents the convergence of technical innovation, medical precision, business acumen, and entrepreneurial vision—united in democratizing access to venture capital through blockchain technology.

XI. CONCLUSION AND FUTURE WORK

The Calçotada Protocol represents a significant step toward democratizing venture capital through blockchain technology. By implementing tokenized convertible notes with clear valuation pegs, the protocol creates a bridge between traditional startup funding and decentralized finance.

A. Current MVP Implementation

The deployed Minimum Viable Product serves as a proof of concept and market validation tool:

Implemented Features:

- Genesis collection of 333 CalçotCoin NFTs at €100 each

- RMSC token with 5M supply cap and bonding curve mechanics
- Dual-minting system rewarding early supporters
- Oracle integration for EUR/POL price conversion
- Basic treasury accumulation mechanism

MVP Objectives:

- Demonstrate technical feasibility of tokenized venture funding
- Validate market demand with €30,000 initial raise target
- Build initial community of supporters and advisors
- Test smart contract security and gas efficiency
- Establish foundation for future protocol development

This MVP represents a testimonial to the work ahead, starting with a solid foundation of minting strategies and bonding curve sales mechanisms. The limited scope allows for careful iteration based on community feedback before expanding to the full protocol vision.

B. Development Roadmap

The current deployment represents a Minimum Viable Product (MVP) designed to validate market interest and establish the foundational infrastructure. The roadmap prioritizes sustainable growth and community building over rapid feature deployment.

Whitepaper Publication and Protocol Launch: This whitepaper will be released concurrently with the public announcement of the Calçotada Protocol, marking the official start of Phase 1.

Phase 1 - MVP Validation and Team Formation (Current - Q3 2024):

- Target: Raise initial €30,000 through Genesis collection (333 NFTs)
- Validate market interest and protocol mechanics
- Build core team for protocol development
- Present protocol to major blockchain networks and communities
- Establish fundamental protocol standards
- Define trustworthy governance framework

Phase 2 - Protocol Expansion (Q4 2024 - 2025):

- Launch second NFT collection (September 2024 target)
- Release full 5,555 NFT collection based on community feedback
- Define operational phases for The Calçotada Company
- Establish protocol update and governance strategies
- Begin development of on-chain accountancy framework

Phase 3 - Operations Launch (2025-2026):

- Calçotada Company begins operations with collected funds
- First products delivered to market
- Protocol provides initial company valuation estimates
- Deploy liquidity pools on major DEXs
- Implement basic financial reporting on-chain

Phase 4 - Value Realization (2027+):

- Initiate first buyback programs based on company profits

- Define and communicate exit strategies for token holders
- Expand protocol to support additional portfolio companies
- Establish Calçotada Protocol as standard for tokenized venture funding

C. Research Directions

Future research will explore:

- Optimal bonding curve parameters for different funding stages
- Integration of zero-knowledge proofs for private financial data
- Cross-chain implementations for broader accessibility
- Regulatory compliance frameworks for security token standards

The Calçotada Protocol MVP demonstrates the technical feasibility of tokenized venture funding while prioritizing community validation and sustainable growth. By starting with a focused Genesis collection of 333 NFTs, the protocol seeks to validate market interest, build a dedicated team, and establish fundamental standards before expanding to its full vision. This measured approach ensures that when the protocol scales to support The Calçotada Company's operations and eventual buybacks, it will do so with proven mechanics, community trust, and a clear path to delivering value to all stakeholders. The journey from MVP to full protocol implementation represents not just a technical roadmap, but a new model for inclusive, transparent venture capital.

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