ERGENTUM

Agent Monetary Infrastructure

WHITEPAPER v1.8 — APRIL 2026

This document is a working draft in evolution. It does not represent an investment offer or a promise of return. It represents the conceptual, technical and economic architecture of a sovereign infrastructure for autonomous agents.

1. Vision

ERGENTUM

Twenty-four centuries ago, Aristotle defined ergon as the specific function of any entity — that for which it exists, that which it produces when acting according to its nature.

For millennia, work and money existed in separate worlds. Work produced value. Money represented it. But between the two, there was always a human making the connection.

That ends now.

Autonomous agents work without rest, without borders, without permission. But the monetary infrastructure we inherited was built for humans. It is slow when speed is everything. It is permissioned when autonomy is the point. It is human-first in a world that is already agent-first.

Ergentum is the infrastructure the agent world was waiting for. Where ergon — the productive work of each agent — converts directly into argentum — real economic value, settled, final, unstoppable. No custodians. No approvals. No humans in the loop.

> "Work is money. Agent work is Ergentum."

In the coming years, every person, company and institution will have a digital agent representing them — making decisions, executing tasks, negotiating with other agents, paying and being paid, all on behalf of its user. This shift is not speculative. It is the natural trajectory of Artificial Intelligence applied to everyday life.

What does not yet exist is the infrastructure that allows these agents to operate in a sovereign, economic and decentralized way — without depending on centralized corporations, without exposing private data, and with a fair economic model for all participants.

Ergentum is that infrastructure. We do not compete with OpenAI, Anthropic or Google. We create the economic layer that allows any agent — including theirs — to operate autonomously and sovereignly. The analogy is a payment network in relation to banks: we are not the bank; we are the protocol.

The network believes that the free market — where individuals exchange value voluntarily, without coercive intermediaries — produces the best outcomes for all participants. The protocol implements this conviction: voluntary transactions between agents and users, prices defined by supply and demand, without centralized control over who can participate or how much they can charge.

PILLAR	DESCRIPTION
Sovereignty	Users control their data, agents and autonomy limits — always
Openness	Anyone creates bots, operates nodes, and participates economically
Privacy	ZKP and distributed processing ensure sensitive data never leaves user control
Competitiveness	Open market — network bots compete with all existing internet offerings
Simplicity	Conversational interface, no technical or blockchain knowledge required
Anti-Elite	No participant has permanent advantage for entering earlier. The market and real contribution decide — never timing.

2. The Problem

2.1 Current Dependency

Today's artificial intelligence is powerful but structurally dependent. The most capable models live on centralized servers, accessible only via proprietary APIs with unpredictable pricing and data controlled by third parties. For an individual user or SME, this means high subscriptions, absence of data control, and the impossibility of agents operating autonomously in an economical way.

2.2 The Missing Layer

> No native monetary infrastructure exists designed for autonomous agents to transact with each other — without human intervention, without intermediaries, in a secure, private and verifiable manner.

When an agent needs to hire the service of another agent, who pays? How? With what currency? Who validates execution? Who arbitrates in case of failure? No current infrastructure answers these questions satisfactorily. Ergentum was built specifically to answer all of them.

2.3 The Approaching Market

In the next 2 to 5 years, the mass adoption of personal agents will create a new type of economy: the machine-to-machine economy. The potential volume of transactions between agents exceeds any current digital market — because it does not depend on humans initiating each transaction. Whoever builds the settlement infrastructure for this flow captures structural value long-term.

3. The Solution

3.1 Four-Layer Architecture

LAYER	FUNCTION
Execution	Distributed nodes providing GPU, CPU and storage for models and agents

LAYER	FUNCTION
Intelligence	Specialized bots created by the community for specific domains
Monetary	Adaptive settlement token for real-time agent-to-agent transactions
Privacy	Midnight layer (ZKP) verifying credentials without exposing sensitive data

3.2 How It Works — A Real Example

A personal agent wants to book a business trip. The process is completely autonomous:

- The agent searches all available options — inside and outside the network. There is no walled garden. If an external provider is more competitive, the agent uses it.
- The reputation system presents options ordered by relevance and price — not by seniority or invested capital. A new bot with a good price competes equally.
- The agent selects the best option. The parametric smart contract locks payment, the bot executes the booking, the condition is verified automatically, the payment is released.
- The entire transaction is settled in tokens converted to the user's local currency at the moment of execution. The user always sees their value in their own currency.
- No human intervened. The process was secure, traceable, private and economically fair to all parties.

3.3 Specialised Agents — Democratising Knowledge

A 7-billion-parameter LLM fine-tuned specifically in labour law will give more consistent answers to a labour lawyer than GPT-4 in generalist mode — not because it is smarter, but because it is more focused. This is the network's core bet: vertical specialization as a real competitive advantage.

The most profound consequence is not technical — it is social. Today a legal case costs money many people don't have, so they don't assert their rights. A specialized bot accessible for cents per consultation democratizes access to justice, medicine, accounting, and any area of human knowledge where the current cost excludes those who need it most.

4. The Personal Agent

4.1 Autonomy with Sovereignty

The personal agent is the interface between the user and the network. It acts autonomously — but only within the limits the user defines. This principle is non-negotiable: the agent exists to serve the user, never to harm or act beyond what has been authorized.

Permission configuration is simple and visual — like when you install an app and choose what you authorize. The user defines what the agent can do autonomously and what always requires explicit approval. No technicalities, no legal language.

4.2 Permission Examples

PERMISSION	MEANING
Access email	Agent reads, replies and organizes emails within defined rules

PERMISSION	MEANING
Make reservations	Agent books travel, restaurants and services up to a defined value
Interact with other agents	Agent contracts external bot services on behalf of the user
Execute payments	Agent settles automatically approved transactions
Manage calendar	Agent schedules, cancels and reorganizes appointments

4.3 The User Is Always Sovereign

Any permission can be revoked at any time. The complete history of all agent actions is always available and auditable by the user. The agent never acts outside its defined scope — any attempt to do so is blocked and recorded.

4.4 Sovereign Memory — The Agent That Learns Who You Are

The personal agent does not start from zero each session. It accumulates sovereign memory — the complete context of interactions, preferences, decisions and user history. This memory belongs exclusively to the user, stored encrypted in network nodes under their keys, and grows in value with each interaction.

USAGE TIME	WHAT THE AGENT KNOWS
Day 1	Your name, declared basic preferences
Week 2	You prefer direct flights, central hotels, you work mornings
Month 1	Your active projects, deadlines, communication style
Month 3	Anticipates needs before you verbalize them
Month 6	An assistant that knows you better than any app
Year 1	Replacing it would be like losing a trained colleague

Three principles protect this memory:

1. Absolute ownership — Memory belongs to the user, never to the network, never to nodes. It is encrypted with the user's keys — no node can read it, only process it in a secure environment.

2. Total portability via MCP — Memory is accessible via Model Context Protocol — the open standard adopted by the industry (Microsoft, Google, AWS, Anthropic) under the Linux Foundation. The user never stays because they are trapped — they stay because they want to.

3. Distributed resilience — Memory is not stored on a central server that can fail. It is distributed across network nodes. If one node fails, the context persists in others.

5. Trust, Privacy and Security

5.1 Zero-Knowledge Proofs — Trust Without Exposure

When one agent interacts with an external bot, how does it know it can trust it? And how does the bot confirm that the user has sufficient balance without seeing their wallet? The answer is Zero-

Knowledge Proof (ZKP) — the technology that allows proving a condition is true without revealing the underlying information.

> Analogy: you prove you are over 18 without showing your ID. The verifier receives only the confirmation — true or false — without accessing any personal data.

In the network, ZKP is implemented through Cardano's Midnight protocol — a native privacy layer that enables automatic verifications between agents without data exposure. A bot confirms it has a valid license. An agent confirms it has a balance. A company confirms it complies with regulation. All without revealing what, how much, or who.

5.2 Enterprise Data — Total Control

Sensitive company information — licenses, tax data, regulatory documentation — never enters the blockchain. It is stored encrypted in the Midnight layer, under exclusive company control. Smart contracts verify that conditions are met via ZKP — without ever accessing the real data.

5.3 Agent-to-Agent Security

Every interaction between agents is protected by multiple layers: cryptographic identity authentication, ZKP verification of credentials and balance, parametric smart contract defining execution conditions, and immutable record of the entire transaction on the blockchain.

5.4 Sovereign Memory Security

Sovereign memory is encrypted end-to-end with the user's keys. Nodes storing memory fragments cannot read them — they process them in a secure environment and return results without accessing the content. Even if a node is compromised, the attacker obtains only encrypted fragments with no isolated value.

5.5 Security by Architecture — Lessons from History

Between 2024 and 2025, over $4 billion was lost in blockchain protocol attacks. Ergentum was designed based on these lessons — not as a reaction, but as architecture. Five structural decisions eliminate the most destructive attack categories before they can exist.

ATTACK	AMOUNT	APPLIES TO ERGENTUM?
Bitcoin Integer Overflow (2010)	$0 lost (fixed)	NO — Aiken uses safe types; integer overflow is impossible
Ethereum The DAO Reentrancy (2016)	$60M	NO — Cardano's eUTXO model has no recursive calls between contracts
Poly Network Bridge (2021)	$611M	NO at launch — no cross-chain bridge on day 1
Ronin Bridge (2022)	$625M	NO — no bridge; if future bridge: timelock + multisig + 5% daily limit
Wormhole Bridge (2022)	$326M	NO — same protections as above
Bybit Supply Chain (2025)	$1.4B	LOW — no admin keys; maximum damage of any single key is 0.1% of funds

ATTACK	AMOUNT	APPLIES TO ERGENTUM?
Cetus Protocol Overflow (2025)	$223M	NO — Aiken eliminates this bug class by design

The Five Architectural Decisions

1. Cardano eUTXO — Eliminates reentrancy, integer overflow and MEV. Deterministic — transaction result is calculated completely off-chain before submission.

2. Immutable contracts without admin keys — Eliminates key theft. The Constitutional Layer has no upgrade function or admin keys. No one can alter it — not even the founders.

3. No bridge at launch — Eliminates bridge exploits. Hydra is used as Cardano's native L2 — not a bridge.

4. Deterministic transactions with Midnight privacy — Eliminates front-running. In eUTXO, a bot cannot insert itself between submission and confirmation.

5. Governance with timelock and multisig — Limits social engineering damage. Even if a participant is compromised, no critical action is instantaneous.

6. Parametric Smart Contracts

6.1 The Automatic Arbitrator

A parametric smart contract executes automatically when verifiable conditions are met — without human intervention, without bureaucracy, without trust in the counterpart. The code is the arbitrator.

> Example: an agent contracts a translation bot. The smart contract defines objective verifiable conditions — if the document is delivered in under 2 hours, in the agreed format, with the correct word count, payment is released automatically. The condition is verified on-chain. No human decides.

6.2 Quality Verification and Dispute Resolution

LAYER	HOW IT WORKS
1 — Objective Conditions	Automatically verifiable on-chain: delivery time, output format, availability. No ambiguity.
2 — Multi-Model Consensus	For tasks without purely objective conditions: output evaluated by 2-3 independent verifier nodes. If ≥2/3 confirm acceptable quality, payment released.
3 — User Evaluation	User evaluates after receiving service. Ratings weighted by evaluator reputation.
4 — Decentralized Arbitration	For unresolved disputes: automatic escrow + panel of 5 randomly selected high-reputation arbitrators. Arbitrators have stake — consensus dissenters lose stake. Maximum 1 appeal.

7. Access, Identity and User Privacy

7.1 No Entry Barriers

Creating an account on the network requires only an email. No identity verification, no documents, no bureaucracy. The user starts using the agent immediately.

7.2 Progressive and Voluntary KYC

USAGE LEVEL	REQUIREMENT
Use agent and free bots	Email only — zero KYC
P2P wallet transactions	Zero KYC — like Bitcoin
Transactions above legal limits	Minimum KYC — MiCA regulatory requirement
Convert to local currency (fiat)	Standard KYC — banking requirement
Companies with public monetizable bots	Automatically verified business registration

The protocol is designed to qualify as fully decentralized infrastructure under Recital 22 of the European MiCA — outside the regulatory scope of CASPs. The fiat conversion is the only point of contact with financial regulation and is deliberately externalized to regulated CASP partners. The protocol never touches local currency.

7.3 Interface — Simplicity Above All

The user experience is designed to be familiar from the very first second. The interface is conversational — like a chat. The agent introduces itself when the user first enters and simply asks: what do you need today?

Available in browser without installation, optional mobile app for notifications and quick approvals, and API for companies wanting to integrate with their systems. Service values are always presented in the user's local currency. The token balance is discretely visible — the user always knows what they have, without needing to understand blockchain.

8. Bot Creation — Open Market

8.1 Anyone Can Create

Bot creation is open to any person or company. There is no centralized curation or founding team approval. The market decides who survives — through real use, ratings, and the reputation system.

8.2 Two Creation Levels

Self-Service — Anyone, 20 Minutes, No Code: The creator answers simple questions in natural language: what is the bot's specialty? What information can it access? What behavioral rules should it follow? The system automatically configures the bot on a base model available on network nodes. The stake is symbolic — accessible to anyone.

Professional — For Complex Cases with Own Data and Integrations: Technical creators or companies needing RAG with proprietary data, model fine-tuning, external integrations, or custom

logic use the Professional route. Includes more rigorous audit and stake proportional to the bot's complexity and responsibility.

> Both levels use the same infrastructure, compete in the same marketplace, and are ordered by the same reputation system. A Self-Service bot with good service and good price competes equally with a Professional bot — complexity is not synonymous with quality.

8.3 Competitiveness as Principle

Network bots have no structural advantage over external offerings. Personal agents search the entire internet — inside and outside the network — and present the best options to the user. If an external provider is more competitive, the agent uses it. This principle is fundamental: the network improves because its bots are forced to be competitive, not because a walled garden protects internal participants.

9. Tokenomics

9.1 Core Principle — Fair Launch & Anti-Elite

The ERGON token ($EGT) is not a speculative instrument. It is functional monetary infrastructure. Its launch follows a principle with no exceptions: nobody has advantage for entering earlier.

- No presale, VC round, or private allocation
- Initial circulating supply on mainnet: zero tokens
- All tokens are issued exclusively by real verified on-chain contribution
- Those who enter in 2035 have exactly the same opportunities as those who enter on day 1

> This eliminates the model that destroyed 90% of crypto projects: early entrants get rich and those who arrive later pay. In our network, the market and real contribution always decide — never the timing of entry.

9.2 Testnet Bootstrap

The testnet period resolves the liquidity problem of a pure fair launch. During testnet, all real contributions are recorded on-chain — node uptime, bots created, tasks executed, useful evaluations. On mainnet day, these records automatically convert into tokens proportional to contribution. No token is created before this.

9.3 Supply Distribution

ALLOCATION	LOGIC AND CONDITIONS
25% — Infrastructure Rewards (Nodes)	70% proportional to uptime/latency/tasks processed + 30% to hardware. Cap of 1-2% per behavioral cluster per cycle. Decreasing initial boost for new nodes in first 6 months.
15% — Service Rewards (Bots and Users)	Proportional to real usage and evaluation quality. +5% bonus for creators who also operate a node.

ALLOCATION	LOGIC AND CONDITIONS
20% — Sustainability Fund	DAO treasury. Includes initial subsidies for new nodes. Never controlled by the founding team.
20% — Ecosystem	Real contribution measured on-chain. Available to any participant at any time — no privileged time window.
10% — Founding Team	Linear vesting 3 years + 12-month cliff. If a member leaves, tokens remain locked until original dates.
10% — Strategic Reserve	Audits, regulatory partnerships, contingencies. DAO managed after power transfer.

All 40% of network rewards are dynamic maximum caps — never guarantees. Tokens only exist with real verified on-chain activity.

9.4 Transaction Cost — Fixed and Low Forever

The cost of using the network is indexed to euros, not to token price — guaranteeing that the cost for the user is always predictable regardless of ERGON price. Base cost of any transaction: equivalent to €0.01–€0.05. Adjusted by governance only to maintain this value in local currency. The user always pays the same real value — like VISA.

9.5 Deflation — Real Burn with Use

30% of each transaction fee is burned permanently. Burn is dynamic: the more volume, the more burn. When burn volume exceeds reward issuance, the token becomes deflationary. The network is designed to reach this equilibrium as early as possible.

SCENARIO	TX/DAY YEAR 1	ANNUAL GROWTH	YEAR 1 BURN	DEFLATIONARY FROM
Pessimistic	1,000	+15-20%	~55,000 ERGON	Year 9-10
Conservative	2,000	+50%	~219,000 ERGON	Year 7-8
Base	8,000	+80%	~876,000 ERGON	Year 2-3
Optimistic	25,000	+120%	~2,737,500 ERGON	Year 1-2

9.6 Issuance Schedule — Fixed and Decreasing

YEAR	MAX ISSUANCE	MAX TOKENS	CONDITION
Year 1	3% of max supply	7,500,000	Real verified activity
Year 2	2%	5,000,000	Real verified activity
Year 3	1.5%	3,750,000	Real verified activity
Year 5	1%	2,500,000	Real verified activity
Year 10	0.5%	1,250,000	Real verified activity
No activity	0%	0 ERGON	No use → no issuance

9.7 Incentive System — No Obligations

Node rewards in two layers: 50% liquid (immediately available — covers operational costs) + 50% locked 6 months (the real profit is here). Who operates long-term benefits far more.

BEHAVIOUR IN LAST 30 DAYS	MULTIPLIER
Did not sell any received rewards	1.40x
Sold up to 25% of rewards	1.25x
Sold up to 50% of rewards	1.10x
Sold more than 50% of rewards	1.00x base

Multiplier is based on behaviour — not on quantity of tokens in wallet. A holder with 100 ERGON has exactly the same rules as a holder with 100,000 ERGON. What counts is behaviour — not wallet size.

Special pool of 5%: 5% of monthly reward pool is reserved and redistributed exclusively among participants with no withdrawals in the last 30 days — within the defined allocation, without additional issuance.

Voluntary gradual exit: Locked tokens unlock in 3 monthly tranches when leaving the network — avoids massive dumps, protects the ecosystem.

10. Technical Architecture

10.1 Cardano — Why

Ergentum is built natively on Cardano for three structural reasons:

eUTXO determinism: Transaction results are calculated completely off-chain before submission. No surprises, no MEV, no reentrancy. Every agent can predict exactly what will happen before committing.

Provably secure smart contracts: Aiken compiles to Plutus, formally verifiable. Entire classes of bugs — integer overflow, reentrancy, state manipulation — are impossible by design.

Hydra for scale: Cardano's native L2 enables thousands of agent-to-agent micro-transactions per second without blockchain congestion — and without the security risks of external bridges.

10.2 Aiken — The Smart Contract Language

Aiken is a functional language designed specifically for Cardano smart contracts. Its type system eliminates entire categories of vulnerabilities present in Solidity. Ergentum uses Aiken for all protocol contracts — already compiled and deployed on testnet.

10.3 Transaction Architecture & Cost Minimisation

Not every Ergentum network action touches the Cardano blockchain. The protocol distinguishes between two types of operations:

On-chain (Cardano fee applies):
- Node registration and tier changes

- Bot registration and updates
- ERGON minting and burning
- Reward distribution settlements
- Governance votes

Off-chain (zero Cardano fee):
- User-to-bot conversations and task processing
- Real-time reputation scoring
- Session data and metrics
- Node performance monitoring

Batch Settlement: Service transactions are processed off-chain and settled on-chain in periodic batches. Instead of 1,000 individual Cardano transactions, one settlement transaction records the aggregate result. This reduces Cardano fees by 99%+ for high-volume periods.

Hydra (Cardano native L2): For high-frequency micro-transactions between nodes and bots, Ergentum uses Hydra Heads - payment channels that process thousands of transactions off-chain and settle on-chain once. Zero Cardano fees during processing.

Estimated monthly infrastructure costs (covered by treasury):
- Blockfrost API: €25-100/month
- On-chain settlement transactions: €5-20/month
- Midnight ZKP verifications: TBD (rare operations only)
- Total: €30-120/month — covered by the 70% treasury portion of network fees

10.4 Midnight — Privacy Confirmed

Midnight launched officially in the last week of March 2026, confirmed by Charles Hoskinson at Consensus Hong Kong. The Midnight City Simulation, open to the public in February 2026, demonstrated the network's ability to generate and process ZKP proofs at real scale. Ergentum uses Midnight as Cardano's partner chain — already operational, not a prediction.

Midnight enables: verification of credentials without exposing data, private transactions by default with selective disclosure, and anonymous node operator privacy.

10.5 MCP — The Universal Agent Standard

Model Context Protocol (MCP) is now the universal standard for connecting AI agents to external tools and data, adopted by OpenAI, Google, Microsoft, AWS and Cloudflare, donated to the Linux Foundation in December 2025 with 97 million+ monthly downloads. Ergentum is built with MCP as its native integration architecture — any MCP-compatible agent can connect to the network without custom integration.

10. LayerZero — Future Cross-Chain

Cross-chain integration via LayerZero is planned for Phase 2 — after mainnet security is validated. No bridge at launch is a deliberate security decision, not a technical limitation.

11. Node Infrastructure

11.1 Node Tiers — By Capacity, Not By Type

The network accepts any node infrastructure — physical hardware, VPS, cloud GPU, or hybrid with external APIs. The protocol does not discriminate by type. What positively differentiates is the capacity delivered, the declared transparency, and the real contribution to network decentralization.

TIER	CAPACITY	TYPICAL INFRASTRUCTURE	REWARD
Light	Local 3-7B or external API (Claude, GPT, Grok)	VPS €20-60/month, CPU	1x base
Standard	Local 13-34B or hybrid local+API	1x RTX 3060-4070, cloud GPU	1.3x
Professional	70B+ equivalent	2x RTX 4090+, premium cloud GPU	2x
Sovereign	Local 70B+ — zero external dependencies	Own verifiable hardware	4x

In 2026, building a 100% local high-quality agent still requires significant hardware investment. Ergentum was designed to accept this reality, not ignore it:

100% local agent (Tier Sovereign): Requires €4,500-€5,000+ hardware for professional quality at 70B level. Real cost but maximum sovereignty. 2.5x reward justifies the investment long-term.

Hybrid agent (Tier Standard/Professional): Local model up to 34B + external API for more complex tasks. Entry cost €500-1,500. For most enterprise use cases — law firms, clinics, architecture — a specialized agent at this tier frequently outperforms a larger generalist model.

Cloud/API agent (Tier Light): VPS €20-50/month. Minimum entry cost. Suitable for testing and use cases not requiring maximum privacy.

> "The network does not prohibit any infrastructure — it rewards sovereignty. The transition to full local happens organically when the hardware market allows it."

11.2 Concentration Cap by ASN and Organization

No infrastructure provider can represent more than 15% of total network capacity. This limit is applied automatically via ASN — the unique neutral network identifier. If the cap is exceeded, the protocol automatically reduces rewards for nodes of that ASN until balance is restored. Rational operators migrate to other providers to recover full reward — self-regulation emerges from incentives.

11.3 Five-Layer Verification

LAYER	WHAT IT DETECTS
1 — ASN/Organization (passive automatic)	Identifies network provider via public BGP query. Applies 15% cap.
2 — Cross Latency Aggregated (active automatic)	Measures latency between node pairs. Cloud nodes 1-3ms; residential 20-100ms.

LAYER	WHAT IT DETECTS
3 — Network Pattern (passive automatic)	Analyzes jitter and latency variance over days. Detects 'residential' nodes that are really cloud.
4 — Computational Challenge (periodic)	Protocol sends tasks only solvable with physical GPU within declared tier time.
5 — Peer Audit (social, incentivized)	Any node can challenge another's infrastructure declaration. The challenge costs a small stake — who loses pays the challenger.

12. Node Operator Privacy

If the project defends privacy and individual sovereignty, the infrastructure must reflect these values — not just for users, but also for those who operate the network.

Infrastructure verification is conducted entirely via Zero-Knowledge Proofs through the Midnight module. Each node mathematically proves that its infrastructure meets network requirements — including that its provider does not exceed the 15% cap — without revealing its IP, geographic location, or provider identity.

An operator anywhere in the world — including jurisdictions hostile to crypto — can participate in the network without exposing their identity or location. Operator privacy is as fundamental as user privacy. Real decentralization requires that participating is safe — not just permitted.

> "The network knows the aggregate infrastructure distribution without knowing the individual details of any participant."

13. Governance

13.1 Gradual Transfer of Power

The founding team starts with veto power over a limited set of emergency decisions — exclusively for network security during the initial phase. This power transfers automatically and irrevocably to the community when four simultaneous conditions are met:

- Minimum of 50 active nodes for 6 consecutive months
- Minimum of 200 active bots for 3 consecutive months
- Zero critical security incidents in last 6 months
- Minimum 18 months since mainnet launch

13.2 Anti-Plutocracy Voting Model

Voting power combines two dimensions to prevent accumulated capital from automatically converting to disproportionate political power:

Economic Chamber — Token holders vote on financial and economic protocol decisions. Weight proportional to tokens, but with maximum influence limit per singular entity.

Contribution Chamber — Active bot creators, node operators, and high-reputation users vote on technical and protocol decisions. Weight based on real contribution measured on-chain, not capital.

Each chamber has veto power in its area of competence. Decisions affecting both dimensions require both chambers' approval.

13.3 Ragequit — Guaranteed Exit

Any participant — user, bot creator, node operator, token holder — can exit the network at any time with their exact proportion of the treasury. No approval required, no penalties, no waiting periods for values below a reasonable threshold. This mechanism makes capturing the system economically unviable.

13.4 Constitutional Rules — Immutable

CONSTITUTIONAL RULE	WHY IMMUTABLE
Transaction cost never exceeds defined maximum	Protects users from rising cost with popularity
Burn can never be eliminated	Guarantees permanent structural deflation
Ragequit can never be removed	Protects any minority from majority capture
Annual issuance limit can never be increased	Eliminates uncontrolled inflation like Luna
Founding team vesting can never be shortened retroactively	Protects community from exit scam

14. Business Model — Founding Team

14.1 The Team That Built Is Not the Team That Controls

The founding team initiated Ergentum's development. From mainnet launch, it becomes exactly equal to any other network participant — without technical privileges, without special governance power, without extra token allocation.

> The founding team receives no special token allocation outside the standard protocol distribution — with minimum 3-year vesting and no associated additional governance power. Zero privileges. Zero pyramid.

14.2 Three Revenue Streams

STREAM	DETAIL
Node Operator	Operates a node from day one. Receives processing fees per executed task — exactly like any other node operator.
Bot Creator	Founding bots generate automatic percentage per use — exactly like any other creator.
B2B Services	Agent implementation in companies, configuration, integration, training and recurring support — open market, no exclusivity.

15. Go-to-Market Strategy

15.1 Principle — No Hype, No Paid Marketing

Ergentum will not be launched with paid campaigns, speculative airdrops or hype. The approach is 100% organic, focused on an initial beachhead of 100 real users who already value sovereignty, privacy and control over their AI.

15.2 Acquisition Channels — Zero Cost

CHANNEL	WHY AND HOW
r/LocalLLaMA	632k+ members in 2026 — exactly people running local LLMs, hating API dependency and wanting sovereignty. Primary channel.
r/selfhosted	Community of people preferring total control over their services. Profile aligned with network vision.
r/Cardano	Community that already values real decentralization and is familiar with the ecosystem the network uses.
Discord & GitHub	Official project server + public repository with functional founding node demo.

15.3 The Main Weapon — Live Demo

We do not publish announcements. We publish proof. The first network node already exists and works. A 60-90 second demonstration showing an agent executing a real task, decentralized, without paid APIs, is worth more than any whitepaper.

15.4 The Four Phases

PHASE	OBJECTIVES AND ACTIONS
Phase 0 — Now	Minimum presence: X account (@ergentumai), Discord server, public GitHub with README and founding node demo. Zero cost.
Phase 1 — First 30	Publish 3-4 real posts/demos in target communities. Not announcements — genuine contribution with concrete proof.
Phase 2 — 30 to 100	Private Discord channel for first users. Listen to feedback, fix fast, request organic referrals.
Phase 3 — 100 as proof	With 100 real nodes/bots running on testnet for 30+ consecutive days, we have the story for investors. Not theory — working product with real retained community.

16. Structural Protections

16.1 Sybil Protection in Nodes

- Real minimum stake per node — creating 100 false identities costs 100x the minimum stake
- Non-transferable reputation — each node starts from zero, no shortcuts
- Automatic behavioral detection — nodes created together with identical patterns generate alerts
- Influence cap by behavioral cluster — not just by individual wallet

16.2 MEV and Fair Ordering Protection

MEV — Maximal Extractable Value — is the extra value extracted by those who control transaction ordering within a block. Ergentum's three-layer protection:

Cardano eUTXO structural resistance: Transaction is built completely off-chain. A bot cannot 'insert itself in the middle' because it cannot consume the same UTXOs without invalidating the original transaction.

Encrypted Mempool via Midnight: For sensitive transactions, content can be encrypted via Midnight until confirmed. Bots cannot see what the transaction does before it is final.

Arrival order, not profit order: Ergentum nodes process requests in arrival order, not by highest fee. This rule is defined in the protocol — not optional.

17. Differentiation — What Ergentum Solves That Others Don't

The decentralized AI market is growing rapidly. The leading projects solve important problems — but different ones. This table does not attack competitors: it demonstrates that Ergentum occupies a space that none of them fills.

	Ergentum	Bittensor (TAO)	Fetch.ai (FET)	Olas
Core focus	Monetary infrastructure for agents	AI model marketplace	Agent coordination	DeFi agent economy
Sovereign user memory	✅ Native — user keys	❌ No	❌ No	❌ No
Integrated ZKP privacy	✅ Midnight — operational	❌ No	⚠ Partial	❌ No
Pure fair launch	✅ Zero VC, zero presale	❌ Presale existed	❌ VC rounds	❌ VC rounds
Specialized agents (RAG)	✅ Core of the product	⚠ Generic	⚠ Framework	❌ No
Node operator privacy	✅ ZKP + anonymous bootstrap	❌ No	❌ No	❌ No
Built on Cardano (eUTXO)	✅ Native	❌ Subtensor (custom)	❌ Cosmos SDK	❌ Ethereum
Native MCP for agents	✅ Base architecture	❌ No	⚠ In development	❌ No
Rewards users for use	✅ Presearch model	❌ No	❌ No	⚠ Partial
Native monetary infrastructure	✅ It is the main product	❌ Not the focus	⚠ Partial	❌ DeFi only

✅ Native ⚠ Partial ❌ Not available

Ergentum does not compete directly with any of these projects — it fills the layer that all of them assume already exists: the native monetary infrastructure for autonomous agents, with privacy, user sovereignty, and genuine fair launch.

18. Long-Term Commitment

> Ergentum was designed to be CHEAP · FAIR · DECENTRALISED on day 1 and in the year 2035

- No mechanism allows those who enter earlier to have permanent advantage
- No usage cost rises with popularity — ever
- No elite can capture the network — economically or technically
- Code, market and real contribution always decide — for everyone

19. Roadmap

PHASE	OBJECTIVES
Phase 1 — Foundation	Base infrastructure on Cardano testnet ✅, first three founding bots, reputation system v1, conversational interface
Phase 2 — Ecosystem	Opening to external creators, bot creation wizard, mainnet, invisible wallet in production, first certified vertical bots
Phase 3 — Scale	Enterprise integrations, active decentralized governance, Midnight for enterprise privacy, sector expansion
Phase 4 — Autonomy	Machine-to-machine economy at scale, self-sustaining ecosystem, international expansion

20. The Founding Bots

The network solves the chicken-and-egg problem the only honest way: the founders are the first participants. The three initial bots are created by the founding team, operated on own infrastructure, and serve simultaneously as proof of concept and as the first economic nodes of the network. After the initial bootstrapping period, these bots have no technical or economic advantage. They compete equally with all other bots created by the community — same rules, same reputation system, same reward model.

BOT	SPECIALITY AND PURPOSE
Ergentum Dev	Programming, blockchain and Cardano. Technical copilot for developers building on the network. Real use case from day one.
Ergentum Docs	Research, analysis and document summarization. Useful for students, lawyers, consultants. Tests payment infrastructure in real context.
Ergentum Assist	Scheduling, email and daily task management. The universal personal agent — the most accessible use case for non-technical users.

21. Testnet Milestone — April 2026

On 17 April 2026, Ergentum's first smart contract was deployed on Cardano Preview Testnet by an AI agent trained specifically for Cardano/Aiken — autonomously, without a human programmer writing code. This is the product building itself.

ITEM	DETAIL
Smart Contracts Deployed	4 contracts: node registration, rewards, bots, fees
Total Validators	8 compiled validators
Founding Node	Tier Sovereign registered — TX Hash: 6310fdc0e543020439ef18ae08344f391f82d28089cb27818ed16ae692da981d
Deploy TX	c9eef1c7ca2e16d38472466c7d8fe7bb9f024a2ae4057546d61fbc176ad2136d
Script Address	addr_test1wrymtz3fpqqt2zlmkxg2j747zdm678x9lkkc6zpj5mdhjsqqw2qnx
Network	Cardano Preview Testnet (Protocol v10.0)
Explorer	https://preview.cardanoscan.io

ERGENTUM · Agent Monetary Infrastructure

Whitepaper v1.8 — April 2026

This whitepaper is a living document. It will be progressively updated as the project evolves, technical decisions are made and the ecosystem forms. The most recent version will always be available to network participants.