

CHAIN ID 3888 · LAYER 1 · EVM-COMPATIBLE

KalyChain

Infrastructure of Trust for Emerging Markets

A sovereign, compliant and accessible Layer 1 blockchain, designed to serve as the trust layer for governments, institutions and citizens of emerging markets.

Whitepaper v4.0 · June 2026

Hyperledger Besu PoSA · 2s Block Time · 3.6 Billion KLC

MiCA Compliant

FATF Aligned

EVM Compatible

Open Source

Table of Contents

KalyChain Whitepaper v4.0 — Infrastructure of Trust for Emerging Markets

PART I — VISION & CONTEXT		PART III — GOVERNANCE & ORGANIZATION	
1. Introduction	3	7. Tripartite Organizational Structure	19
1.1 Project Genesis	3	8. KalyChain Foundation	21
1.2 The Emerging Markets Problem	3	8.1 Legal Status and Registered Office	
1.3 Vision and Mission	4	8.2 Board and Committees	
2. The Emerging Markets Challenge	5	9. KalyChain DAO	23
2.1 Monetary Volatility and Inflation	5	9.1 gKLC Token (soulbound)	
2.2 Limited Access to Financial Services	6	9.2 Tricameral Governance	
2.3 The Structural Trust Deficit	7	9.3 KIP Process	
		9.4 Treasury Framework	
PART II — TECHNICAL ARCHITECTURE		10. KALYSSI s.r.o. (Czech Republic)	27
3. Technological Foundations	8	PART IV — ECOSYSTEM & FUTURE	
3.1 Hyperledger Besu & Enterprise Ethereum	8	11. Community Programs	
3.2 PoSA Consensus in Detail	9	11.1 Ambassador Program	
3.3 Network Parameters	9	11.2 Builders & Grants Program	
4. Protocol Economics (Tokenomics)	11	12. Budget Allocation	
4.1 Initial Distribution (3.6B KLC)	11	13. Decentralization Roadmap 2026–2030	
4.2 Dynamic Emission Reduction (KIP-001)	12	14. Security and Compliance	
5. POL 80/20 Mechanism & Vault NFT	13	15. Use Cases and Adoption	
5.1 Protocol-Owned Liquidity	13	16. Conclusion and Long-Term Vision	
5.2 Vault NFT Mechanism	14	17. Annexes	
6. Infrastructure and Tools	16		

Legal Disclaimer: This document is provided for informational purposes only. It does not constitute an offer to sell, a solicitation to buy, or investment advice. The information contained in this document is subject to change. KalyChain is a technological infrastructure; the KLC token is a utility token. This document complies with the disclosure requirements of the European MiCA regulation.

PART I

Vision & Context

Why KalyChain exists — and why now

1. Introduction

1.1 Project Genesis

KalyChain was born from a simple conviction, almost naïve in its clarity: **trust should not be a geographic privilege**. In advanced economies, we take for granted that a contract can be enforced, that property can be proven, that a money transfer will arrive. Elsewhere, these certainties collapse. They collapse under the weight of corruption, inflation, the absence of reliable registries, and financial infrastructures that systematically exclude those who need them most.

This is not a matter of political will. The vast majority of emerging market governments want to give their citizens access to modern financial services. Nor is it a matter of resources. The International Monetary Fund estimated in 2024 that emerging markets account for more than 57% of global GDP at purchasing power parity. The wealth exists. What is missing is the *trust infrastructure* — the technical and institutional foundation on which that wealth can circulate, accumulate, and be preserved.

The KalyChain founding team spent years working at the intersection of financial technology, international law, and economic development. In every project, in every conversation with ministries, development banks, and local entrepreneurs, the same question recurred: *"How can we prove that this is true — and that it will remain true tomorrow?"* A land title, a university degree, a commercial transaction, a credit history. The answer, for too many people, was: we cannot.

KalyChain is our architectural answer to that question. Not a promise, but an infrastructure.

1.2 The Emerging Markets Problem

To understand what KalyChain seeks to solve, one must accept an uncomfortable truth: the financial and institutional systems that work well in developed countries do not work — and have never truly worked — in large parts of the world. This is not an accident. It is the consequence of decades of infrastructure development that has primarily benefited those who already had access to it.

Here are the three fundamental fractures we have identified:

The access gap. According to the World Bank, 1.4 billion adults remain completely unbanked in 2024. These individuals have no bank account, no credit card, no access to formal loans. They cannot save securely, transfer money at low cost, or access the capital needed to grow their business. But they have a mobile phone. And they participate in a real economy, with daily commercial transactions, income, and legitimate financial needs.

The trust gap. The IFC (International Finance Corporation) estimates a \$5 trillion trust infrastructure deficit in emerging markets — a measure encompassing the absence of reliable land registries, weak identity verification systems, unstable contractual institutions, and endemic corruption in document verification processes. A concrete result: 70% of disputes in some Sub-Saharan African countries involve unresolved land conflicts, often simply due to the absence of irrefutable proof of ownership.

The monetary gap. Local currencies in emerging markets suffer from volatility that systematically erodes the savings of the most vulnerable populations. In Venezuela, Zimbabwe, Argentina, Nigeria, Ethiopia — tens of millions of people have seen a lifetime of savings reduced to nothing in a matter of months. Inflation regularly exceeds 50% annually in some economies, turning every delay in financial decision-making into a real loss.

These three fractures mutually reinforce each other in a vicious cycle: without access to financial services, one cannot build a credit history; without a credit history, one cannot access loans; without loans, one cannot invest in property or business; without protected property, there is no collateral to offer in exchange for a loan. The loop is closed.

1.3 Vision, Mission and Values

KalyChain is not a magic solution to systemic problems. But a sovereign, accessible and compliant blockchain infrastructure can break several links in this vicious cycle simultaneously — provided it is designed specifically for this purpose, rather than adapted belatedly from technology built for other markets.

VISION

KalyChain exists to make trust accessible to everyone. A world where a degree issued in Kinshasa is verifiable in 3 seconds from Tokyo. Where a land title in Cameroon is unforgeable once registered. Where a micro-entrepreneur in Nigeria accesses credit based on their on-chain reputation, with no intermediary. Where a money transfer from Paris to Dakar costs less than \$0.01 and arrives in 5 seconds.

Our mission is precise: *to develop, maintain and progressively decentralize the KalyChain blockchain infrastructure — a sovereign, compliant and accessible Layer 1 blockchain — in order to serve as the truth layer for governments, institutions and citizens of emerging markets.*

This mission rests on four strategic pillars that guide every architectural, governance and partnership decision:

- **Technological Development:** Maintain and evolve the Hyperledger Besu PoSA protocol, smart contracts, and application ecosystem (KalySwap, KalyBridge, KalyVery, KalyCredit, KalyID, KalyRails).
- **Institutional Adoption:** Establish partnerships with governments, multilateral organizations (World Bank, UNDP, AfDB) and financial institutions to deploy use cases with measurable impact.
- **Community Growth:** Build and nurture a global community of ambassadors, developers and engaged users, with structured support and incentive programs.
- **Progressive Decentralization:** Progressively transfer decision-making power from the Foundation to the community DAO, following an explicit and irreversible roadmap.

These ambitions are grounded in five founding values that are not mere marketing slogans, but design constraints that have guided every architectural, governance and compliance choice:

Value	What this means in practice
Radical Transparency	All institutional wallets, governance decisions and treasury states are public and verifiable on-chain via KalyScan. No hidden funds, no opaque decisions.
Impact over Speculation	KLC is an infrastructure utility token. Every tokenomics decision is oriented toward the long-term sustainability of the network, not short-term price maximization.
Compliance as Advantage	MiCA/FATF compliance is not a constraint we endure — it is our entry passport to the institutions we target. A compliant network is a network that institutional partners can adopt.
Real Decentralization	No founder veto rights. The DAO has the final say on protocol parameters. The Foundation commits to becoming progressively less essential — that is the definition of success.
Geographic Inclusion	Founding team intentionally distributed across 4 continents. Emerging markets are not our target market: they are our reason for being.

2. The Emerging Markets Challenge

2.1 Monetary Volatility and Inflation: the Silent Enemy of Savings

Monetary volatility is not an abstract statistic in emerging markets — it is a daily reality that dictates the financial behavior of hundreds of millions of people. When annual inflation exceeds 50, 100 or even 1,000%, every day that passes without converting cash into real assets represents a tangible loss. Nigerian families who hold their savings in naira have lost more than 40% of their purchasing power in ten years. Argentinians have known for decades that their peso will not be worth in six months what it is worth today.

This reality creates three dysfunctional economic behaviors that KalyChain seeks to counter directly:

- **"Informal dollarization":** hundreds of millions of people hold their savings in physical dollar bills or euros, outside the banking system — despite the risks of theft, loss and lack of return. This market represents trillions of dollars in dormant assets.
- **Capital flight:** entrepreneurs and middle classes in high-inflation countries systematically seek to transfer their savings to foreign jurisdictions, depriving their national economies of the capital they need.
- **Chronic under-saving:** why save in a currency that is losing value? This individually rational logic is catastrophic at the macroeconomic level, constraining investment and growth.

KalyChain offers a concrete alternative: the KUSD stablecoin (dollar-pegged, over-collateralized at 150% in BTC/ETH) and access to the KalySwap network allow a merchant in Dakar or Accra to preserve the value of their capital in minutes, from their phone, without a traditional bank account.

2.2 Limited Access to Financial Services: Structural Exclusion

Much is said about financial inclusion, but rarely with the precision needed to understand what being excluded truly means. It is not simply not having a credit card. It is being unable to send money to family in a neighboring city without paying 8% fees to a transfer operator. It is being unable to finance the purchase of agricultural seeds because no bank will trust you without formalized collateral. It is being unable to prove that you own the house you have lived in for twenty years, because the land registry does not exist or has not been updated since independence.

The numbers are eloquent. International remittances to Sub-Saharan Africa amount to approximately \$669 billion per year — more than official development aid and foreign direct investment combined. Yet the average cost of a transfer remains around 8%, five times higher than the target set by the United Nations Sustainable Development Goals. This cost differential represents tens of billions of dollars lost each year for the families receiving these transfers.

In this context, the mobile phone has become the first true financial infrastructure of the Global South. With mobile penetration exceeding 80% in countries where banking access is capped at 20%, the phone is more accessible than any bank branch. KalyChain is designed to run on this infrastructure — lightweight, fast, accessible from any entry-level smartphone, and simple enough to use without specialized training.

2.3 The Structural Trust Deficit: When Institutions Fail

The third dimension of the challenge is perhaps the most complex to solve, and the one for which blockchain provides the most direct answer: the institutional trust deficit. This deficit does not mean that people do not trust their neighbors, or their family. It means they cannot — rationally — trust official registries, state institutions, or formal verification processes.

Why? Because those registries can be modified. Because officials can be corrupted. Because a paper land registry can burn down. Because a diploma can be falsified. Because a contract can be retroactively contested by a well-connected party. In this context, trust in institutional systems collapses — not because people are irrational, but because they have learned, often painfully, that formal guarantees guarantee nothing.

This is where blockchain, correctly deployed, structurally changes the game. The immutability of an on-chain record is not a promise from a company or a government — it is a mathematical property of the protocol. A land title registered on KalyChain cannot be retroactively modified without leaving an on-chain trace visible to everyone. A diploma issued via KalyVery cannot be falsified without invalidating the cryptographic signature of the issuing institution. This is not trust in an institution — it is trust in a verifiable algorithm.

The challenge KalyChain accepts

Building a trust infrastructure does not mean eliminating human trust — it means *making it unnecessary for transactions where it should not be required*. A diploma should be verifiable without calling the university. A land title should be provable without bribing an official. KalyChain shifts trust from intermediaries to the protocol.

This value proposition — *the trust infrastructure for emerging markets* — is not a marketing positioning. It is the precise technical and social description of what we are building. And this is why KalyChain's positioning is fundamentally different from that of a generic DeFi protocol or a payment blockchain: we are not seeking to maximize transaction volume or the number of DeFi protocols deployed. We are seeking to be the infrastructure on which governments, institutions and citizens can rely for the decisions that truly matter.

PART II

Technical Architecture

How KalyChain works — engineering in service of trust

3. Technological Foundations

3.1 Why Hyperledger Besu — Choosing a Proven Infrastructure

Choosing a blockchain's technology is not a technical decision made in a vacuum. It is a commitment to a developer community, a tooling ecosystem, and a software development philosophy. When the KalyChain founding team evaluated the available options, three non-negotiable criteria stood out: Enterprise compatibility, codebase maturity, and alignment with the auditability standards that our target institutional partners would require.

Hyperledger Besu is an open-source implementation of the Ethereum protocol, developed under the auspices of the Linux Foundation and used in production by central banks, financial institutions and industrial consortia worldwide. This is not an experimental project — it is Enterprise-grade infrastructure, with comprehensive documentation, a history of security audits, and a community of professional contributors.

The concrete advantages of this choice for KalyChain are multiple:

- **Full EVM compatibility:** any smart contract written in Solidity or Vyper, initially deployed on Ethereum or any EVM-compatible chain, can be deployed on KalyChain without modification. The complete Ethereum tooling ecosystem — Hardhat, Foundry, Truffle, MetaMask, The Graph — works natively.
- **Enterprise maturity:** Besu natively integrates features required for institutional deployments, including permission management (permissioning), transaction privacy (Tessera), and full auditability of network states.
- **Professional community:** developers trained on Ethereum can contribute to KalyChain without a learning curve. The depth of available talent is incomparable to that of blockchains with proprietary VMs.
- **Linux Foundation support:** the Linux Foundation's institutional framework provides code governance independent of any single actor's commercial interests, which is crucial for our positioning with regulators.

3.2 PoSA Consensus — the Synthesis of Performance and Accountability

A blockchain's consensus mechanism determines three fundamental things: who has the right to produce blocks, how conflicts are resolved, and what the finality guarantee of transactions is. For an infrastructure intended to register land titles, diplomas and financial transfers, these questions are not theoretical — they have direct legal and economic consequences.

KalyChain uses the **PoSA (Proof of Staked Authority)** consensus, a hybrid innovation that combines the identity guarantees of Proof of Authority (PoA) with the economic incentives of Proof of Stake (PoS). Here is how it works:

The Authority layer: KalyChain validators are not anonymous. They are verified (via KALYSSI's KYC/AML process), have signed contractual commitments, and their institutional reputation is at stake. A validator who attempts to attack the network or produce fraudulent blocks faces not only the loss of their stake, but legal consequences. This accountability is crucial for attracting government partners.

The Stake layer: the selection of validators for each block production round depends on the amount of KLC staked. Validators with more stake have a higher probability of being selected, but none can monopolize block production. The rotation system ensures load distribution and prevents centralization.

Security guarantees:

- Sybil attack resistance: validator identification makes anonymous attacks impossible.
- 2-block finality: a transaction confirmed in a block is quasi-definitively final after the next block — a certainty incompatible with PoW or long-tail finality PoS.
- Byzantine resistance (BFT): the network continues to operate correctly as long as at least two-thirds of validators are honest.
- No competitive forks: the deterministic nature of IBFT consensus (Istanbul Byzantine Fault Tolerance) eliminates orphaned blocks and chain reorganizations.

3.3 Network Parameters — the Numbers that Matter

KalyChain's network parameters are the result of a precise optimization process, seeking the best balance between throughput, latency, participation cost, and decentralization.

Parameter	Value	Practical meaning
Chain ID Mainnet	3888	Unique network identifier — prevents signature collisions with other EVM chains
Chain ID Testnet	3889	Test network for developers, with no economic value
Block time	2 seconds	A transaction is confirmed in 2 seconds — practical for everyday commerce

Finality	~4 seconds (2 blocks)	After 2 blocks, a transaction is irreversible — legal and commercial certainty
Gas limit per block	30,000,000	Processing capacity equivalent to Ethereum mainnet, sufficient for the bootstrapping phase
Transaction fees	< \$0.01 USD	Accessible for micro-transactions and daily payments
Number of validators	21 (target)	Balance between decentralization and consensus efficiency
Compatibility	Full EVM	Support for all Ethereum opcodes, ERC-20, ERC-721, ERC-1155 standards
Network availability	> 99.9%	Uptime measured since launch, publicly verifiable on KalyScan

The 2-second block time deserves special attention. Most reference blockchains (Bitcoin: 10 minutes, Ethereum: 12 seconds) were designed for contexts where latency was acceptable. But for a market merchant in Lagos accepting a payment, or a government official registering a land deed, a 12-second confirmation is already too long. KalyChain's 2 seconds aligns the user experience with that of a card payment — with the difference that the transaction is immutable and publicly verifiable.

3.4 The Application Ecosystem

KalyChain's protocol layer is the foundation. The application ecosystem is the superstructure that translates this foundation into real use cases. Five operational applications today form the core of this ecosystem:

KalyChain Ecosystem Operational Applications

Application	Status	Description
KalySwap	Operational	Native DEX (Automated Market Maker) enabling token swaps and liquidity provision. Integrates the POL 80/20 mechanism and concentrates ecosystem liquidity.
KalyBridge	Operational	Cross-chain bridge enabling asset transfers between KalyChain and other EVM-compatible networks (Ethereum, BNB Chain, Polygon).
KalyScan	Operational	Native block explorer — total transparency tool for all transactions, contracts, wallets and financial reports in the ecosystem.
KUSD	Operational	KalyChain's native stablecoin, pegged to the US dollar and over-collateralized. The primary value preservation and settlement tool within the ecosystem.
KalyRails	Operational	B2B cross-border payment infrastructure — settlement in KLC/KUSD, designed for integration with banking systems via KALYSSI. Core of the remittances strategy.

Applications under development (roadmap 2026–2028): KalyWallet (native mobile wallet — see §6.2), KalyVery (on-chain document verification), KalyCredit (decentralized credit scoring),

KalyID (self-sovereign DID identity). These applications are funded from the Ecosystem Development envelope and will be subject to dedicated KIPs before any deployment.

4. Protocol Economics (Tokenomics)

The economics of a blockchain protocol are not a purely financial subject. It is the incentive system that determines whether network actors — validators, developers, users, partners — are motivated to behave in ways that strengthen the network rather than exploit it. Poor tokenomic design can doom an excellent protocol. This is why every tokenomics decision at KalyChain has been subjected to a simple question: *does this rule incentivize actors to build something durable?*

4.1 Initial Distribution — 3.6 Billion KLC

KalyChain's initial supply is **3,600,000,000 KLC**. This is not an arbitrary figure — it was calibrated to ensure sufficient liquidity from launch while preserving long-term value through inflation control mechanisms. Here is the detailed breakdown:

36,0 % Protocol Liquidity 1 296 000 000 KLC	24,0 % Ecosystem Dev 864 000 000 KLC	15,0 % Founding Team 540 000 000 KLC
13,9 % DAO Treasury 500 000 000 KLC	8,0 % Strategic Investors 288 000 000 KLC	3,1 % Strategic Reserve 112 000 000 KLC

Allocation	%	Amount (KLC)	Unlock Mechanism	Control
Protocol Liquidity & Ops	36.0%	1,296,000,000	Permanent lock via POL 80/20 — irreversible liquidity	Automatic smart contract
Ecosystem Development	24.0%	864,000,000	Progressive disbursement over 5 years as needed	Foundation → progressive DAO
Founding Team	15.0%	540,000,000	10% immediate; 90% linear vesting over 36 months	Multisig smart contract
DAO Treasury	13.9%	500,000,000	Immediately available — governed by gKLC vote (one-third rule)	DAO (100% community)
Strategic Investors	8.0%	288,000,000	Undistributed — 2–3 year vesting for future investors	Foundation
Strategic Reserve	3.1%	112,000,000	Emergencies only — automatically burned if unused by 2030	DAO

TOTAL	100%	3,600,000,000	—	—
--------------	-------------	----------------------	---	---

Table 4.1 — Initial KLC supply distribution (3.6 billion tokens)

A few important observations about these choices. The 36% allocation to protocol liquidity — the largest tranche — reflects a firm commitment: KalyChain's liquidity does not depend on the goodwill of private liquidity providers. It is structurally guaranteed by the protocol itself via the POL 80/20 mechanism (described in Section 5). This is a fundamental break with the traditional model of blockchain projects that depend on the "mercenary" liquidity of opportunistic LPs.

The 13.9% allocation to the DAO Treasury from launch is also significant: the community has substantial capital (500 million KLC) under its exclusive control from day one, with no Foundation oversight. This is not a promise of future decentralization — it is immediate effective decentralization on this portion of assets.

4.2 Dynamic Emission Reduction (DER) — KIP-001

Beyond the initial supply, KalyChain produces new KLC at every block as rewards for validators. These rewards are the source of continuous network issuance. Without a control mechanism, they would create permanent inflation that would erode the value held by all participants.

KIP-001, the first improvement proposal adopted by KalyChain governance, introduces the **Dynamic Emission Reduction (DER)** — an automatic mechanism that adjusts block rewards based on the staking ratio on the network. Its principle is simple: the higher the percentage of circulating KLC that is staked, the more new token issuance is reduced. The network self-regulates toward a target inflation of less than 0.4% annually at maturity.

The DER mechanism operates on five tiers:

Tier	Staking ratio	Reward per block	Approx. annual inflation
Tier 1	< 10 %	5,0 KLC	~3,5 %
Tier 2	10–20 %	3,5 KLC	~2,4 %
Tier 3	20–35 %	2,0 KLC	~1,4 %
Tier 4	35–50 %	1,0 KLC	~0,7 %
Tier 5	> 50 %	0,5 KLC	< 0,4 %

Table 4.2 — DER Tiers: inflation decreases as staking increases

This mechanism creates a virtuous dynamic: the more participants stake, the lower inflation falls, which preserves the value of their staked tokens. This is a permanent incentive for long-term staking, which promotes network stability and liquidity depth. Ultimately, in a maturity scenario where more than 50% of circulating tokens are staked in Vault NFTs, KalyChain's inflation becomes comparable to that of government bonds in developed economies — making it a credible reserve asset for emerging market institutions.

Note for regulators

KIP-001 is an example of transparent on-chain governance: the proposal was publicly submitted, discussed for 14 days, voted on by validators, and its execution code is publicly auditable on KalyScan. All DER parameters can be modified by DAO governance, but any change leaves an immutable on-chain trace.

4.3 The KLC Token — Role and Utility

KLC is KalyChain's native utility token. It fulfills four distinct mutually reinforcing functions:

1. **Transaction fee payment (Gas):** Every transaction on KalyChain consumes gas, paid in KLC. This is the fundamental, non-speculative utility demand that anchors the token's value.
2. **Staking and network security:** Validators stake KLC as a guarantee of their good conduct. The higher the total stake, the more prohibitive the cost of an attack on the network.
3. **Governance via gKLC:** Staking KLC generates gKLC (governance KLC), the non-transferable soulbound token that confers voting rights in the DAO. Governance is thus directly aligned with economic commitment.
4. **Infrastructure currency:** KalyRails services, KalyVery registration fees, KalySwap commissions — all denominated in KLC — create continuous demand proportional to ecosystem usage.

What KLC is not: a speculative token designed for short-term gains. Every tokenomics mechanism — the DER that limits inflation, the permanent POL liquidity, the one-third rule for the DAO treasury — was designed for 10-year sustainability, not to maximize price over 10 weeks.

5. POL 80/20 Mechanism and Vault NFT Program

5.1 The Liquidity Problem in Traditional DeFi

One of the least well-solved problems in the DeFi ecosystem is liquidity. Protocols depend on liquidity providers (LPs) who deposit funds into AMM (Automated Market Maker) pools in exchange for yields. This model has a deep structural flaw: as soon as yields decline, or a better opportunity appears elsewhere, LPs withdraw their liquidity. The result is "mercenary" liquidity — present when the network does not need it, absent during crises exactly when it is indispensable.

This problem is even more acute for a network like KalyChain, whose value proposition is precisely stability and predictability for institutional partners. A government considering using KalyChain to register land titles cannot accept market liquidity risk.

It is to solve this problem at its root that KalyChain developed the **Protocol-Owned Liquidity (POL)** mechanism, activated through the Vault NFT Program.

5.2 The POL 80/20 Mechanism — Permanent and Irreversible Liquidity

The principle is elegant in its simplicity. When a participant acquires a **Vault NFT** — KalyChain's liquidity partnership mechanism — their capital is automatically divided into two streams:

```
Vault NFT acquisition (example: $1,000)
├── 80% → PERMANENT Protocol-Owned Liquidity ($800)
│   ├── 50% → KLC purchase on open market ($400)
│   └── 50% → Stablecoin (USDT/USDC/KUSD) ($400)
│       └── Deposit into KalySwap KLC/Stablecoin pool
│           [Permanent lock – non-withdrawable]
└── 20% → Ecosystem Fund ($200)
    ├── 6.0% → Ambassador Level 1 Commission ($60)
    ├── 2.5% → Ambassador Level 2 Commission ($25)
    ├── 1.5% → Ambassador Level 3 Commission ($15)
    └── 10.0% → Foundation (security, development, marketing) ($100)
```

The critical point is the word "permanent" on the 80%. This is not a contractual promise — it is a smart contract constraint. KalyChain's code makes it technically impossible for anyone to withdraw this liquidity, including the Foundation or the founding team. Acquired liquidity can only grow.

This mechanic creates a remarkable property: *KalyChain's liquidity depth is a monotonically increasing function of the number of Vault NFTs sold*. Each new liquidity partnership structurally strengthens the network. Liquidity is not an external variable subject to market whims — it is a protocol asset that accumulates.

5.3 The Vault NFT — Technical and Liquidity Partnership

A **Vault NFT** is a liquidity partnership certificate (ERC-721 NFT) that materializes a partner's commitment to the KalyChain infrastructure. Its acquisition is not a passive investment — it is an active contribution to network security and liquidity, rewarded by protocol emissions and governance rights.

Rights conferred by an active Vault NFT:

- **Protocol rewards:** 100% of block emissions (3 KLC/block, ~47.3M KLC/year) are redistributed to active Vault NFT holders, continuously and fully automatically on-chain.
- **DEX trading fees:** swaps on KalySwap generate fees returned to POL liquidity, which Vault partners benefit from.
- **POL liquidity appreciation:** liquidity depth grows monotonically — each Vault's POL position can only appreciate by construction.

- **gKLC generation:** KLC staked via Vault generates soulbound gKLC governance rights — proportional to the contribution level.

There are **eight Vault NFT partnership tiers**, covering all profiles — from individual discovery (\$50) to major institutional partners (\$100,000):

Vault NFT Partnership Tiers (8 categories)

Tier	Contribution	Est. Rewards	Maturity Cap	Profile
Starter	\$50	5%	50%	Discovery
Basic	\$100	10%	100%	General public
Pro 1K	\$1,000	15%	200%	Active partners
Pro 5K	\$5,000	20%	300%	Entrepreneurs
Premium 10K	\$10,000	25%	400%	Institutions
Premium 25K	\$25,000	30%	500%	Major partners
Elite 50K	\$50,000	35%	600%	Family offices
Whale 100K	\$100,000	40%	700%	Institutional partners

Maturity cap: each Vault has a cumulative rewards ceiling (expressed as % of the initial contribution) — when this cap is reached, the Vault cleanly expires. The partner can then renew their Vault to start a new cycle. This mechanism guarantees *solvency by construction*: the protocol can never distribute more than what enters.

Contribution is made in USDT, USDC or KUSD. The maturity cycle follows four steps: contribution → NFT activation → automatic rewards as blocks are produced → cap reached → optional renewal.

Important regulatory clarification

The Vault NFT Program is a **technical and liquidity partnership**, not an investment product under MiCA regulations or AMF/ESMA definitions. Participants contribute to the network infrastructure in exchange for utility rights. The Foundation does not guarantee any return. Distributed rewards are protocol emissions, not dividends. This positioning has been validated within the MiCA compliance process conducted by KALYSSI s.r.o.

5.4 Economic Impact of POL — Liquidity that Grows with the Network

To illustrate the mechanic, consider a moderate growth scenario: 10,000 Vault NFTs sold over 3 years, with an average value of \$1,000 each. Result: \$8 million in permanent liquidity injected into KalySwap's KLC/Stablecoin pool. This liquidity cannot be withdrawn, cannot be impacted by market volatility, and continues to grow with each new Vault NFT.

By comparison, the "organic" liquidity of the vast majority of comparable DeFi protocols represents a fraction of their market caps, subject to the risk of mass withdrawals (bank runs) during periods of stress. KalyChain's POL liquidity is *structurally different*: it is permanent, predictable, and growing.

This characteristic is particularly important for institutional partners, who require a minimum market depth before allocating funds or launching use cases. The POL directly meets this requirement.

6. Infrastructure and Tools

A blockchain does not exist apart from the tools that allow developers to build on it and users to use it. KalyChain's infrastructure was designed to be as close as possible to Ethereum standards, thereby reducing to zero the learning curve for the thousands of developers already familiar with that ecosystem.

6.1 KalyScan — Transparency as Policy

KalyScan (kalyscan.io) is KalyChain's native block explorer. It is at the heart of our radical transparency commitment: all institutional wallets (Foundation, DAO, validators, program treasuries) are publicly identified and accessible in real time. Anyone can verify the state of the Foundation's treasury, ambassador commission flows, or POL liquidity status — without asking anyone's permission.

KalyScan offers the standard features of a block explorer (transactions, blocks, tokens, smart contracts), enriched with KalyChain-specific features: DER emissions tracking, active Vault NFT dashboard, DAO voting history, and anchoring of Foundation financial reports.

6.2 KalyWallet — Mobile-First Inclusivity (roadmap 2026–2027)

KalyWallet is KalyChain's native mobile wallet, **currently under development** and scheduled for an official launch in 2026–2027. It will be designed with a non-negotiable design constraint: to function correctly on an entry-level smartphone with intermittent 3G connectivity — an absolute prerequisite for serving KalyChain's 80% of target users in emerging markets.

Pending its launch, KalyChain users use **MetaMask** or any EVM-compatible wallet (Trust Wallet, Rabby, etc.) configured with the KalyChain network (Chain ID 3888). KalyWallet, once deployed, will offer a simplified experience specifically designed for emerging markets:

- Multilingual interface including African and Asian languages
- Interactive guides for users unfamiliar with blockchain
- Automatic network configuration (Chain ID 3888, detected RPC endpoints)
- Optimization for low-bandwidth connections and entry-level devices

- Native integration with KalySwap, KalyRails and the Vault NFT program

KalyWallet development has dedicated funding within the Ecosystem Development envelope and will be subject to a KIP before mainnet deployment, guaranteeing community oversight of this critical component.

6.3 RPC Infrastructure and APIs

KalyChain maintains highly available public RPC nodes for developers and end users. The architecture is redundant across multiple geographic zones, with a contractual availability of 99.9%. For institutional partners requiring service guarantees, KALYSSI s.r.o. offers service level agreements (SLA) with dedicated RPC endpoints and priority technical support.

6.4 SDK and Developer Resources

KalyChain's development ecosystem is built on compatibility with existing Ethereum ecosystem tools:

- **Ethers.js / Web3.js:** work natively — no modification required to point to KalyChain.
- **Hardhat / Foundry / Truffle:** fully compatible smart contract development, testing and deployment tools.
- **MetaMask:** add KalyChain network in one click (Chain ID 3888, public RPC provided).
- **The Graph:** on-chain data indexing via subgraphs — powerful analytics and queries without a dedicated node.
- **Developer documentation:** available at docs.kalychain.io, in French and English, with code examples, tutorials and a step-by-step deployment guide.

A native mobile SDK (iOS/Android) is under development as part of the Builders program, with a target launch for Q2 2027. It will allow developers to build native mobile applications communicating directly with KalyChain, without going through a web browser or third-party wallet.

6.5 Real-Time Network Data

KalyChain publishes real-time network indicators, publicly accessible via KalyScan and the RPC APIs:

KalyChain Network Metrics (live data)

Indicator	Value	Reference
TVL (Total Value Locked)	\$1.2B+	POL liquidity + cumulative DEX pools
Cumulative transactions	12M+	Since mainnet launch
Mainnet age	3 years stable	Documented uptime > 99.9%
Throughput	500+ TPS	Measured under normal load

Gas fees	< \$0.01 USD	Stable since launch
----------	--------------	---------------------

This data is verifiable in real time on **[kalyscan.io](#)** — no data is self-reported by the team. Radical transparency is not a communication posture; it is an architectural constraint that KalyChain has imposed on itself since the first block.

PART III

Governance & Organization

Who governs — and how decentralization is made irreversible

7. Tripartite Organizational Structure

KalyChain is not governed by a single entity. From its inception, the ecosystem was structured around **three complementary organizational pillars**, each playing a distinct — and irreplaceable — role in the overall value chain. This tripartite architecture is not an accident: it is the direct response to the shortcomings observed in blockchain projects that either centralize too much power, or conversely, decentralize without safeguards.

The three entities of the KalyChain model:

- 1. KalyChain Foundation** — Foundation registered in Panama (Reg. 25064151), guardian of values, manager of public funds, constitutional authority. Migration to Switzerland planned for Phase 2.
- 2. KalyChain DAO** — On-chain governance, soulbound gKLC holders, democratic and technical chamber of the protocol.
- 3. KALYSSI s.r.o.** — Czech VASP-licensed commercial entity, regulatory and operational interface with the real world.

7.1 Why Three Entities?

Blockchain naturally generates a tension between *operational agility* (the need for a legal entity to sign contracts, hire, pay suppliers) and *progressive decentralization* (transferring decision-making power to the community). To this tension is added a third imperative: *regulatory compliance*, indispensable for operating in emerging markets subject to heterogeneous legal frameworks.

KalyChain's response is not to try to resolve this tension in a single structure, but to fully embrace it by entrusting each entity with a clear mission, defined competencies and contractually defined responsibilities.

- The **Foundation** anchors the project in international institutional legitimacy (currently Panamanian, Swiss migration planned for Phase 2), protects the public treasury and guarantees that the mission of general interest is always honored, even during periods of market turbulence.
- The **DAO** embodies the democratic promise: every gKLC holder is an active co-governor. It decides on protocol evolution, community project funding and incentive distribution.

- **KALYSSI** represents the regulatory and commercial arm. It manages relationships with institutional partners, exchanges, local regulators — and hosts the Vault NFT program as a Virtual Asset Service Provider (VASP).

7.2 Responsibility Matrix (RACI)

The interactions between the three entities follow an RACI matrix (Responsible, Accountable, Consulted, Informed) formalized in the Governance Charter. The table below summarizes the major decision categories:

Simplified RACI Matrix — KalyChain Governance

Decision Domain	Foundation	DAO	KALYSSI
Protocol modifications (contract upgrades)	C	R / A	I
Public treasury management (> 500k KLC)	R / A	C	I
Vault NFT Program / commissions	C	I	R / A
Institutional partnerships	A	I	R
Grants & subsidies (≤ 250k KLC)	I	R / A	I
Governance Charter update	R / A	R (vote)	C
Constitutional Committee nominations	A	R (vote)	I
Press relations / public communications	C	I	R / A

R = Responsible for execution · A = Accountable · C = Consulted · I = Informed

7.3 Separation of Powers Principles

To prevent any capture of the protocol by one of the entities, three structural safeguards are integrated from launch:

1. **Mandate incompatibility:** no Foundation Board member may simultaneously hold an executive role at KALYSSI s.r.o. Conversely, KALYSSI employees cannot represent the Foundation in partnership negotiations.
2. **Constitutional veto:** the DAO Constitutional Committee can impose a suspensive veto (90 days) on any Foundation or KALYSSI decision deemed contrary to the Governance Charter. This veto can only be lifted with a Level 3 DAO vote (see §9).
3. **Quarterly public reporting:** each entity publishes a quarterly report on the blockchain (hash + IPFS document), including expenditures, decisions taken and performance indicators. Opacity is not an option.

7.4 Evolution of Power Distribution

The share of power held by each entity is not set in stone. The Governance Charter provides for a progressive transfer of decision-making authority to the DAO across the three phases of decentralization (see §13). In Phase 1 (2026–2027), the Foundation retains a veto right over structural decisions. In Phase 3 (2029–2030), this right disappears and the DAO becomes the sovereign authority of the protocol. KALYSSI retains a stable operational role, anchored in its regulatory obligations, independent of the level of decentralization achieved.

This dynamic design guarantees that decentralization is not a slogan, but a documented, verifiable and irreversible process.

8. KalyChain Foundation

The **KalyChain Foundation** is currently registered under number **25064151** in Panama — a jurisdiction chosen for its regulatory flexibility, ease of registration for internationally oriented entities and experience with crypto-native structures. The migration of headquarters to Switzerland (*Stiftung* form, canton of Zug) is inscribed in the Phase 2–3 Roadmap: once the ecosystem reaches the set decentralization thresholds (see §13), the Foundation will initiate the redomiciliation procedure to the Swiss Crypto Valley, offering even stronger international institutional legitimacy.

Current legal status: KalyChain Foundation, registered in Panama (Reg. 25064151).

Roadmap target: Migration to Switzerland (Stiftung, Zug) in Phase 2 (2027–2029), after validation of decentralization and ecosystem size milestones.

8.1 Mission and Legal Status

The Foundation pursues a mission of **general interest**: to develop, maintain and evolve the KalyChain blockchain infrastructure for the benefit of the entire ecosystem. It has no commercial purpose of its own — it does not generate revenue for shareholders. Its activities are organized around three fundamental pillars:

- **Pillar 1 — Protocol development:** fund R&D on the technological core (PoSA consensus, EVM, smart contracts), recruit core developers, publish technical roadmaps and audit reports.
- **Pillar 2 — Ecosystem development:** award grants to DeFi, DApp and infrastructure projects built on KalyChain, organize hackathons and incubation programs.
- **Pillar 3 — Regulatory engagement:** represent KalyChain before international regulators (OECD, FSB, FATF), normative organizations (ISO, IEEE) and sector coalitions.

8.2 Foundation Board

The supreme governing body of the Foundation is its **Board**, composed of five to seven members, with a target of seven members by Phase 2. This composition reflects a balance between technical expertise, financial skills, legal grounding and community representation.

Target Foundation Board Composition (Phase 2)

Seat	Required Profile	Appointment Method
President	Institutional leadership, blockchain experience	Appointed by founding Board
Chief Technology Officer (CTO)	EVM / consensus / security expertise	Appointed by founding Board
Chief Financial Officer (CFO)	Treasury, international foundation accounting	Appointed by founding Board
Legal Counsel	International law, crypto compliance	Appointed by founding Board
DAO Representative (×2)	Elected by gKLC vote (2-year terms)	Level 2 DAO Vote
Independent Administrator	Governance, international reputation	Co-opted by the six other members

The terms of initially appointed members last **three years, renewable once**. The two DAO representatives have two-year terms, indefinitely renewable by election. In the event of an unexpected vacancy, a provisional administrator can be appointed by simple majority of the remaining Board, for a maximum of six months.

8.3 The Four Specialized Committees

To operate effectively, the Foundation Board delegates part of its work to four permanent committees. Each committee has a precise mandate, a predefined budget and a monthly reporting mechanism to the Board:

Technical Committee — Oversees protocol development, security audits and software updates. Composed of 3 to 5 core engineers and one external representative (academic researcher or independent auditor). It issues binding technical recommendations before any critical contract deployment.

Grants Committee — Evaluates funding applications from ecosystem projects. Annual budget allocated by the Foundation (included in the Ecosystem Development envelope). It applies a published scoring grid (technical impact, economic viability, mission alignment). Decisions are made public with detailed justification.

Compliance Committee — Ensures compliance with the Foundation's legal obligations (accounting under current Panamanian law, KYC/AML on grant recipients, tax filings). It also prepares the migration to the Swiss Stiftung structure planned for Phase 2, in coordination with competent authorities.

Strategic Committee — Leads institutional partnerships, exchange relations, regulatory negotiations and listing decisions. It includes the two DAO representatives on the Board, ensuring that the community's voice is heard in decisions with major external impact.

8.4 Foundation Financial Governance

The Foundation directly manages the public treasury from initial allocations (see §12 for details). It applies strict fund separation rules: budget allocations are not stored in a single wallet, but distributed across **thematic multisigs** (Grants wallet, Operations wallet, Reserve wallet). Any expenditure exceeding 500,000 KLC requires a vote of three out of five Board members (or four out of seven).

The Foundation publishes quarterly simplified financial statements on-chain, supplemented by an annual audit report conducted by an internationally accredited independent firm. These documents are permanent and immutable once registered on IPFS with their on-chain hash.

8.5 Relationship with the DAO and KALYSSI

The Foundation is not above the DAO — it is its constitutional safeguard. In Phase 1 (2026–2027), it has veto rights over decisions that would modify the Governance Charter or the distribution smart contract. This veto is public, reasoned and subject to a 30-day period during which the community can contest it via a petition of 5% of circulating gKLC.

With KALYSSI, the Foundation maintains a formal contractual relationship: a service agreement defining the rights to use the KalyChain brand, reporting obligations and the mechanism for transferring the operational license in case of dissolution or serious breach.

This architecture — simultaneously legitimizing, protective and progressively democratizable — makes the Foundation the institutional core without which the trust of investors, regulators and strategic partners could not be built.

9. KalyChain DAO — On-Chain Governance

The **KalyChain DAO** is the on-chain governance mechanism that enables the community to co-decide the future of the protocol. It rests on a fundamental principle: *a soulbound governance token cannot be speculated on — it must be earned*. Unlike "1 token = 1 vote" models that favor

whales and flash loan governance attacks, KalyChain has designed a tricameral architecture that balances democratic weight, technical expertise and constitutional protection.

9.1 The gKLC Governance Token

The **gKLC** (governance KLC) is an ERC-20 *soulbound* token — non-transferable, non-assignable, non-sellable. It can only be acquired by earning it: by staking KLC in the official governance smart contracts, actively participating in votes, or contributing to ecosystem development via Builder programs.

gKLC characteristics:

- **Soulbound:** permanently bound to the holder's wallet. Cannot be transferred, sold, delegated or used as collateral.
- **Non-speculative:** it has no market value. Its value is strictly political — the right to vote.
- **Proportional to stake:** obtained in proportion to KLC staked + engagement bonus (seniority, participation in previous votes).
- **Decreasing if inactive:** a gKLC holder who has not voted for 6 consecutive months sees their voting weight reduced by 50%. After 12 months of total inactivity, their gKLC is partially returned to the community pool.

9.2 Tricameral Architecture

The DAO is organized into three chambers, each playing a distinct role in the decision-making process. No chamber can take a major decision alone — inter-chamber consensus is required for Level 2 and Level 3 decisions.

Chamber 1 — gKLC Holders (the democratic chamber)

This is the main chamber, the one that represents the will of the community at large. All active gKLC holders participate. It decides by proportional vote on Level 2 proposals (major protocol evolutions, grant allocation, economic parameters).

- Level 2 quorum: 15% of eligible gKLC (active in the last 6 months) must participate.
- Required majority: 60% of votes cast for approval.
- Voting period: 7 calendar days, non-reducible.

Chamber 2 — Validators (the technical chamber)

Network validators — actors who stake KLC to secure the PoSA consensus — form a dedicated chamber. Their institutional weight comes from their financial commitment and operational responsibility toward the network.

- Level 1 quorum: 2/3 of active validators must vote for a proposal to be valid.
- Level 1 decisions: technical emergencies, critical security updates, adjustment of network parameters (gas fees, block time).

- Validators have a technical veto right on any contract upgrade deemed dangerous for network stability (usable once per quarter).

Chamber 3 — Constitutional Committee (the protection chamber)

The Constitutional Committee is composed of 5 to 9 members elected by Chamber 1 for 3-year terms. Its role is to guarantee that all decisions taken by the two other chambers respect the fundamental principles of the Governance Charter.

- Level 3 quorum: 10% of total circulating gKLC (active or not).
- The CC can impose a 90-day suspensive veto on any Chamber 1 or 2 decision violating the Constitution.
- It has exclusive jurisdiction over Governance Charter amendments (75% supermajority + Level 3 quorum).
- Its members are subject to an 18-month cooling-off period before being able to join the Foundation Board or KALYSSI.

9.3 Proposal Process — The KIP Cycle

Any significant modification to the protocol or its parameters follows the formal cycle of **KalyChain Improvement Proposals (KIP)**. This process is inspired by best practices from the open-source world (Ethereum EIP, Bitcoin BIP) adapted to KalyChain's tricameral model.

KIP Lifecycle

Stage	Duration	Actor	Condition
1. Idea	Open	Any member	KalyChain Forum (Discourse/Discord)
2. Formal proposal	7 days min.	Proposer (≥ 10,000 gKLC)	Structured document + impact analysis
3. Community review	14 days	Community	Amendments possible (proposer approval)
4. On-chain vote	7 days	Relevant chamber	Quorum by level (1, 2 or 3)
5. CC veto period	14 days	Constitutional Committee	Verifies constitutional compliance
6. Implementation	Per KIP	Technical Committee	Controlled deployment (testnet first)

KIPs are classified by criticality level: **KIP-Minor** (secondary parameters, no vote required if validators are unanimous), **KIP-Major** (protocol evolutions, Chamber 1 + Chamber 2 vote) and **KIP-Constitutional** (Governance Charter modification, vote of all three chambers + Level 3 quorum).

9.4 DAO Treasury

The DAO manages a fraction of the collective treasury dedicated to grants and community incentives. This treasury is distinct from the Foundation's operational treasury — it is entirely on-chain, visible in real time by everyone.

The DAO treasury spending rules follow the **Treasury Framework** defined in the Governance Charter:

- **Year 1 (2026):** spending cap of 20% of available annual treasury.
- **Year 2 (2027):** cap reduced to 15% — consolidation of existing programs as priority.
- **Year 3+ (2028+):** cap stabilized at 10% per year — cruising mode.
- **Mandatory minimum runway:** the DAO can never spend below a threshold ensuring 3 years of operational autonomy (calculated on network maintenance + security costs).

Allocation decisions above 250,000 KLC are subject to a Chamber 1 vote with Level 2 quorum. Below this threshold, the Grants Committee can approve directly.

9.5 Delegation and Representation

The DAO acknowledges that not all gKLC holders are able to vote on every technical proposal. The **liquid delegation** system allows a holder to delegate their voting weight to a trusted representative, while retaining the ability to reclaim it at any time (48-hour delay).

Active delegates (receiving delegations of at least 100,000 gKLC) are required to publish an annual governance program and a semi-annual report of their votes. This creates an ecosystem of professional representatives — the blockchain equivalent of parliamentarians — while preserving the ultimate sovereignty of each citizen-holder.

9.6 Governance Security

KalyChain has integrated from inception several protections against known governance attacks:

- **Mandatory timelock:** any approved decision is subject to a minimum 48-hour implementation delay (7 days for KIP-Major), allowing the community to react in case of last-minute manipulation.
- **Anti-flash-loan:** the voting weight snapshot is taken 24 hours before the vote opens. Any gKLC acquired after this snapshot is not counted for the current vote.
- **Circuit breaker:** in case of abnormal voting activity (50% of quorum reached in less than 2 hours), the voting period is automatically extended by 48 hours to allow balanced participation.

These mechanisms make the KalyChain DAO one of the most robust on-chain governance architectures in the EVM-compatible blockchain sector.

10. KALYSSI s.r.o. — The Regulatory Interface

KALYSSI s.r.o. is a limited liability company under Czech law (Czech Republic, EU), holding a **VASP** (Virtual Asset Service Provider) license issued by the competent national authority. It constitutes the operational and regulatory interface of the KalyChain ecosystem with the real world: commercial partnerships, institutional onboarding, exchange relations and operation of the Vault NFT program.

10.1 Role and Positioning

The creation of KALYSSI responds to a concrete need: blockchain projects that do not have a legal commercial entity in the EU face growing obstacles to operating — inability to open professional bank accounts, difficulty signing contracts with institutional partners, exposure to uncontrolled regulatory risks. KALYSSI removes these obstacles while preserving the decentralization of the underlying protocol.

Its position is unique: it is both a *service provider* for the Foundation and the DAO, and an *autonomous entity* with its own regulatory obligations and its own revenue model.

10.2 B2B Services Offered

KALYSSI offers a range of services for institutional partners wishing to integrate with the KalyChain ecosystem:

- **Institutional KYC/AML:** identity verification and anti-money laundering compliance procedures for validators, Vault NFT holders and exchange partners. KALYSSI is the legally responsible entity for these procedures under the MiCA regulation and AMLD directives.
- **Exchange onboarding:** KALYSSI manages relations with centralized exchanges (CEX) for KLC listing applications, market-making negotiations and liquidity agreements.
- **Enterprise partnerships:** structuring of collaboration agreements with companies wishing to deploy DApps on KalyChain — NDA, brand license, dedicated technical support.
- **Vault NFT Program:** KALYSSI is the official operator of the Vault NFT program. It manages commission distribution (6% validators, 2.5% Foundation, 1.5% community, 10% Foundation on the 20%), KYC procedures for acquirers and customer support.

10.3 Evolution toward the KalyChain Foundation

KALYSSI is not intended to remain indefinitely the central commercial entity of the ecosystem. The Governance Charter provides for a mechanism of **progressive absorption** by the Foundation as decentralization advances:

- **Phase 1 (2026–2027):** KALYSSI operates fully, the Foundation supervises. KALYSSI's commercial revenues partially fund the Foundation's budget via a service agreement.
- **Phase 2 (2027–2029):** regulatory functions are progressively transferred to a hybrid Foundation/DAO structure, with KALYSSI focusing on strictly commercial activities requiring a legal entity.
- **Phase 3 (2029–2030):** KALYSSI becomes a Foundation subsidiary for residual commercial activities, or transforms into an independent service provider operating under contract with the DAO.

10.4 KALYSSI Internal Governance

KALYSSI is managed by an executive management composed of a Chief Executive Officer and a Chief Operations Officer, both subject to an exclusivity clause and a formal conflict of interest prohibition in the articles of association. Its management board includes a Foundation representative, guaranteeing strategic alignment. KALYSSI's annual accounts are audited by an EU-accredited independent firm, and a summary is published in the Foundation's annual report.

This duality — a sovereign legal entity with its own license, but contractually linked to the Foundation and subject to DAO oversight — makes KALYSSI the indispensable link between the on-chain and off-chain worlds.

10.5 KALYSSI Competency Summary

KALYSSI s.r.o. Scope of Operations

Domain	Competency	Phase
Regulatory	VASP license, MiCA compliance, institutional KYC/AML	Phase 1–3
Commercial	Enterprise partnerships, exchange onboarding, listing negotiations	Phase 1–2
Operational	Vault NFT Program, commission distribution, institutional client support	Phase 1–2
Communication	Press relations, brand image, external representation	Phase 1–3
Transition	Progressive transfer to Foundation/DAO from Phase 2	Phase 2–3

Unique positioning: KALYSSI is one of the few EU-licensed VASP entities operating natively in connection with an international foundation (Panama, future migration to Switzerland) and an on-chain DAO. This combination — European regulatory compliance, international institutional legitimacy, decentralized governance — gives KalyChain a strong defensive position in the face of evolving MiCA frameworks and rising requirements from institutional exchanges.

PART IV

Ecosystem & Future

How adoption unfolds — and where KalyChain is headed

11. Community Programs

A blockchain without an active community is just another distributed ledger. KalyChain has designed its community programs with the same rigor as its tokenomics mechanisms: they are concretely incentivizing, progressive and anchored in measurable objectives. Two main programs structure engagement: the **Ambassador Program** and the **Builders & Grants Programs**.

11.1 Ambassador Program — Multi-Tier Structure

The Ambassador Program is KalyChain's referral and territorial representation mechanism. Ambassadors are community members who guide new partners into the ecosystem. For each Vault NFT contribution brought by an ambassador, they receive a share of the **20% ecosystem fund** — a commission paid in KUSD, instantly and on-chain.

Mandatory prerequisite — Skin in the game: To receive a referral commission, an ambassador *must hold an active Vault NFT* (minimum Starter, \$50). No active Vault = no referral reward. This principle guarantees that every ambassador believes in the ecosystem they promote.

The program is structured in **3 network levels** (maximum depth — no infinite structure):

Ambassador Program Multi-Tier Structure

Level	Designation	Commission	Description
Level 1	Direct Ambassador	6%	On each Vault contributed by a directly referred partner. Commission paid in KUSD, instant.
Level 2	Network Builder	2.5%	When your Level 1 referrals themselves refer new partners.
Level 3	Network Extended	1.5%	When your referrals' referrals contribute. Maximum level — no additional depth.

11.2 Community Leader Statuses

Beyond the three network levels, **Leader statuses** reward ambassadors who develop a network of active and loyal partners. These statuses are cumulative with network commissions — they do not replace them, they add to them.

Leader Statuses — cumulative bonuses

Status	Condition	Reward Bonus	Additional Benefit
Bronze	15+ active partners	+5%	Access to advanced ambassador dashboard
Silver	45+ active partners	+12%	Advanced network tracking tools + analytics
Gold	90+ active partners	+20%	Dedicated priority support + early programs access
Diamond	150+ active partners	+35% + ×1.50	×1.50 multiplier on all commissions + increased DAO power

Concrete example — Gold Status: A Gold ambassador (90+ partners) receiving a standard Level 1 commission of 6% benefits from the Gold bonus of +20%, giving an effective commission of **7.2%** on each new direct Vault. The Diamond status with ×1.50 multiplier raises this same commission to **9%**. Status bonuses accumulate with network loyalty and growth.

11.2 Builders Program — Developers and Projects

The **KalyChain Builder Program** targets individual developers and project teams wishing to build on KalyChain. It operates under the auspices of the Foundation's Grants Committee and has a dedicated envelope within the Ecosystem Development allocation (see §12).

Grant amounts are denominated in **USD** — not in KLC — to guarantee budget predictability for recipient teams, regardless of the potential volatility of the KLC price. Payment is made in KUSD (native stablecoin) or in KLC converted at the decision day's exchange rate.

Grant Categories — Builders Program

Category	Amount	Target	Evaluation
Micro Grants	\$1,000 – \$5,000	Educational contributions, translations, open-source popularization tools	Simplified approval — 30 days max.
Small Grants	\$5,000 – \$25,000	Community DApps, light integrations, developer tools	Grants Committee — 45 days max.
Medium Grants	\$25,000 – \$100,000	DeFi protocols, DEX, lending/borrowing, stablecoins, high-impact DApps	Grants Committee + due diligence — 60 days max.

Large Grants	\$100,000 – \$500,000	Critical infrastructure (oracles, bridges, privacy modules, security)	Technical + Grants Committee + DAO vote — contractual quarterly milestones
---------------------	-----------------------	---	--

11.4 Hackathons and Incubation Program

KalyChain organizes two major annual hackathons, one of which is primarily dedicated to emerging markets (Africa, Southeast Asia, Latin America). Total prizes distributed per hackathon represent 500,000 to 2,000,000 KLC depending on the edition, funded from the Ecosystem Development budget.

The most promising projects from the hackathons can access the **KalyChain Incubator** — a 12-week program offering access to the core developer community, a dedicated development budget (category A or B grant) and introductions to strategic partners and investors identified by KALYSSI. The incubator is jointly managed by the Foundation and KALYSSI.

11.5 Validation and Anti-Fraud

Community programs are inherently vulnerable to Sybil behavior (creation of multiple fake accounts to claim multiple rewards). KalyChain addresses this issue via three cumulative mechanisms:

- **Light KYC for ambassadors:** any Bronze or higher ambassador must have completed a simplified identity verification via KALYSSI (name, country, unique wallet).
- **On-chain proof of activity:** activities are linked to verifiable on-chain transactions (KalyScan records) wherever possible.
- **Reward slashing:** any ambassador found guilty of fraud (false activity declaration, multiple accounts) loses all pending rewards and is permanently banned from the program. Their Vault NFT is not affected, but their DER commissions are suspended for 6 months.

12. Budget Allocation and Treasury

Financial transparency is a prerequisite for the trust that KalyChain intends to build. This section details the planned use of the 864 million KLC allocated to ecosystem development — representing 24% of the total supply of 3.6 billion KLC. Each budget line is documented, justified and subject to a quarterly reporting mechanism.

12.1 Overview of the Ecosystem Development Allocation

The 864,000,000 KLC of the Ecosystem Development envelope are distributed across seven distinct use categories, reflecting the strategic priorities of the 2026–2030 Roadmap:

Detailed Allocation — Ecosystem Development Envelope (864M KLC)

Budget Line	Amount (KLC)	% of Total Ecosys.	Horizon
Protocol & Core Development	345,600,000	40.0%	2026–2030
Strategic Reserve Fund	50,000,000	5.8%	Permanent
Project Grants & Subsidies	129,600,000	15.0%	2026–2030
Ambassador Program	129,600,000	15.0%	2026–2030
Marketing & Partnership Development	86,400,000	10.0%	2026–2028
Operations & IT Infrastructure	79,200,000	9.2%	2026–2030
Compliance & Legal	43,600,000	5.0%	2026–2029

12.2 Protocol Development and Core Infrastructure (345.6M KLC)

This is the most important budget line — by far. It funds the ongoing development of the KalyChain protocol: core team (developers, architects, security engineers), continuous security audit costs, node hosting and maintenance, R&D on future consensus and EVM improvements. This budget is deployed progressively over 4 years, with stronger weighting in Phase 1 (technical foundations) and normalization from Phase 2.

12.3 Strategic Reserve Fund (50M KLC)

This fund is untouchable except by a Level 3 DAO decision. It serves to address critical unforeseen events: a protocol attack requiring an emergency response, the need to pay regulatory penalties, or an unforeseeable liquidity crisis. It is stored in a cold 4/7 multisig, whose signatories include the Foundation President, the CTO, two Constitutional Committee members and an independent external auditor.

12.4 Grants and Subsidies (129.6M KLC)

Distributed across the three categories of the Builder Program (§11.3) and annual hackathons. The Grants Committee allocates this budget according to an annual schedule approved by the Foundation Board, with a maximum intra-annual reallocation capacity of 20% between categories. Unspent amounts are carried over to the following year — they are never cancelled.

12.5 Ambassador Program (129.6M KLC)

Funds the monthly rewards of active ambassadors (§11.1), performance bonuses for ambassadors reaching specific milestones (e.g., onboarding of 10 validators in a new region), and event budgets granted to Gold and Diamond ambassadors to organize local conferences.

12.6 Treasury Framework — Prudential Management Rules

Beyond the budget breakdown, KalyChain applies a rigorous **Treasury Framework** that governs how funds are managed, converted and secured:

Treasury Framework Principles:

- **Minimum 3-year runway:** the Foundation must permanently maintain liquid reserves covering 36 months of operational costs. Any spending decision that would bring the runway below this threshold is automatically blocked.
- **Annual spending caps:** Year 1: 20% · Year 2: 15% · Year 3+: 10% of available reserves.
- **Diversification:** maximum 60% of reserves in native KLC, minimum 30% in stablecoins (USDC/USDT) or fiat assets, maximum 10% in other crypto-assets.
- **4/7 Multisig:** any treasury transaction exceeding 500,000 KLC requires 4 signatures out of 7 designated signatories (Foundation + DAO + external auditor).
- **On-chain reporting:** every treasury transaction is published on-chain within 24 hours, with justification linked to the corresponding budget line.

12.7 Coherence with the Global Tokenomics

The 864M KLC Ecosystem Development envelope integrates into the global tokenomics of 3.6 billion KLC. It represents 24% of the total — an intentionally high level, because KalyChain considers ecosystem development to be *the* absolute priority for the first five years. Network security (validator staking) and liquidity (market liquidity) absorb the other major categories, according to the detailed breakdown in section §4 (Tokenomics). The whole forms a coherent system where no allocation is arbitrary — each line is justified by a specific use and controlled by an identified governance mechanism.

13. Decentralization Roadmap 2026–2030

Decentralization is KalyChain's central promise — but a promise without a precise timeline remains wishful thinking. This section documents the three phases of the power transfer process, with measurable milestones, verifiable passage criteria and a clear time horizon. The process is irreversible: once a milestone is reached and validated by the DAO, reversal requires a KIP-Constitutional vote.

13.1 Phase 1 — Foundation-Led (2026–2027)

Horizon: H1 2026 → end of 2027

Governance model: Centralized Foundation, DAO in formation

Description: Foundation-building phase. The Foundation holds primary decision-making authority. The DAO exists on-chain but its decisions are subject to the Foundation's veto rights. The first gKLC begin to be distributed. KALYSSI becomes fully operational as a VASP.

Phase 1 Milestones:

- **Q2 2026:** Deployment of governance smart contracts. Start of gKLC distribution via staking. Official launch of Bronze/Silver Ambassador Program.
- **Q3 2026:** Formation of Foundation Board (5 initial members). Establishment of the 4 committees. Publication of Governance Charter v1.0.
- **Q4 2026:** First consultative DAO vote (non-binding). First Foundation quarterly on-chain report.
- **Q1 2027:** Election of the first two DAO representatives to the Foundation Board. The DAO obtains voting rights on grants < 250k KLC.
- **Q3 2027:** First KIP-Major submitted to binding DAO vote. Phase 2 transition threshold: > 5,000 active gKLC holders AND > 50 independent validators.

13.2 Phase 2 — Hybrid Governance (2027–2029)

Horizon: early 2028 → end of 2029

Governance model: Foundation + DAO co-governance

Description: Transition phase. The DAO becomes co-decision-maker on the majority of decisions. The Foundation retains a constitutional arbitration role but loses its general operational veto right. The Constitutional Committee is fully active.

Phase 2 Milestones:

- **Q1 2028:** Formal transfer of grant governance to the DAO (all categories). The Grants Committee operates under DAO oversight.
- **Q2 2028:** Launch of Gold and Diamond Ambassadors. Deployment of the liquid delegation system.
- **Q3 2028:** Election of the full Constitutional Committee (5 to 9 members). Full KIP cycle comes into force.
- **Q4 2028:** First DAO vote on protocol parameter modification (gas floor, block size). Dissolution of Foundation veto rights over KIP-Major.
- **Q2 2029:** KALYSSI begins its transition to subsidiary or independent provider status. The Foundation transfers management of 50% of its operational budget to the DAO treasury.
- **Phase 3 transition threshold:** > 20,000 active gKLC holders, 21–25 active validators with documented geographic diversity (i.e. > 10 distinct countries), 3 KIP-Major successfully approved.

13.3 Phase 3 — DAO-Led (2029–2030)

Horizon: early 2030 → end of 2030 and beyond

Governance model: Sovereign DAO, Foundation as guardian

Description: Maturity phase. The DAO is the sovereign authority of the protocol. The Foundation retains only its role as constitutional custodian (guardian of the Governance Charter) and external legal representative (relations with regulators, legal signatory). KALYSSI is either a subsidiary or an independent service provider.

Phase 3 Milestones:

- **Q1 2030:** Complete transfer of operational treasury to the DAO. The Foundation retains only the Strategic Reserve Fund (50M KLC).
- **Q2 2030:** Constitutional amendment confirming the irreversibility of DAO sovereignty (KIP-Constitutional, Level 3 quorum required).
- **Q3 2030:** Publication of the annual decentralization report — complete assessment of the 4-year transition, decentralization metrics (Nakamoto coefficient, gKLC distribution, validator concentration).
- **Q4 2030:** Launch of KalyChain V2 — integrating the first results of the KIP-Major adopted in Phase 2 and 3.

13.4 Decentralization Metrics

Decentralization cannot be decreed — it must be measured. KalyChain publishes quarterly a composite **Decentralization Score** integrating four indicators:

- **Nakamoto coefficient:** minimum number of independent validators needed to reach 51% of stake. Phase 3 target: > 20.
- **gKLC concentration index:** share of the top 10 holders in total gKLC. Phase 3 target: < 30%.
- **Voting participation rate:** percentage of eligible gKLC that has voted in the last 3 months. Phase 3 target: > 40%.
- **Number of active validators:** number of PoSA validators selected by the DAO. Phase 3 target: 21–25 active validators (technical optimum limit of PoSA). Decentralization is measured by their geographic diversity (target: > 15 countries) and the economic independence of each, not by number alone.

These metrics are calculated automatically and published on-chain, guaranteeing that decentralization progress is verifiable by anyone, at any time.

14. Security and Regulatory Compliance

Security and regulatory compliance are not constraints that KalyChain endures — they are competitive advantages it cultivates. In a sector where DeFi hacks caused more than \$3 billion in losses in 2023–2024, and where global regulators are scrutinizing blockchain protocols ever more rigorously, KalyChain has chosen proactive transparency and security by design.

14.1 Technical Security Architecture

KalyChain protocol security rests on several defensive layers:

- **PoSA consensus:** the Proof of Staked Authority mechanism creates structural resistance to 51% attacks — to take control of the network, an attacker would need to simultaneously compromise two-thirds of the staking validators, a high economic barrier. The automatic slashing of dishonest validators (partial or total stake loss) constitutes a powerful deterrent.
- **Audited smart contracts:** all critical contracts (DER distribution, gKLC governance, Vault NFT) are subject to independent security audits before deployment. Audit reports are published in full and publicly accessible.
- **Bug bounty program:** KalyChain maintains a permanent reward program for security researchers who identify vulnerabilities. Rewards are graduated by severity: from 5,000 KLC (low) to 1,000,000 KLC (critical).
- **Multisig on all critical wallets:** no significant treasury transaction can be signed by a single person. The 4/7 scheme applies to all Foundation and DAO wallets.

14.2 Continuous Audit Program

KalyChain does not settle for a single launch audit. It maintains a **continuous and recurring** audit program:

- **Annual global audit:** complete protocol review by a recognized blockchain security firm (Trail of Bits, Certik, Hacken or equivalent). The report is published in full.
- **Pre-deploy targeted audits:** any new contract or major upgrade triggers a targeted audit before mainnet deployment.
- **24/7 on-chain monitoring:** automatic surveillance tools (Forta, Tenderly or equivalent) detect abnormal activity patterns (suspicious transactions, liquidity drains, reentrancy) in real time and trigger immediate alerts to the core team and validators.

14.3 MiCA Compliance (European Union)

The MiCA (Markets in Crypto-Assets) regulation, which came into force in 2024, constitutes the reference regulatory framework for KalyChain in the EU. KALYSSI s.r.o., as a Czech VASP-licensed entity, is directly subject to MiCA and ensures compliance of the entire ecosystem:

- **KLC classification:** KLC is analyzed and positioned as a utility token under MiCA — it provides access to blockchain services, is not backed by an underlying asset and does not constitute a financial instrument under MiFID II. This classification is documented in a published external legal opinion.

- **AML/CFT obligations:** KALYSSI implements the KYC and AML procedures required by the 5th and 6th European anti-money laundering directives (AMLD5/AMLD6), including identity verification of Vault NFT holders and validators, monitoring of suspicious transactions and reporting to competent authorities.
- **Regulatory whitepaper:** in accordance with MiCA, KALYSSI publishes a standardized regulatory White Paper with the national supervisory authority (ČNB in the Czech Republic).

14.4 FATF Compliance

The FATF (Financial Action Task Force) recommendations on virtual assets — notably the **Travel Rule** (FATF Recommendation 16) — apply to crypto-asset transactions exceeding certain thresholds. KALYSSI implements the Travel Rule via compliant technical solutions (integration with VASP-to-VASP providers such as Notabene or VerifyVASP) for institutional transactions exceeding €1,000.

KalyChain also commits to not integrating mixers, non-compliant bridges or total privacy tools into its official ecosystem without prior transparent regulatory analysis.

14.5 Risk Management and Business Continuity Plan

The Foundation maintains a **Risk Register** documenting the main identified risks and corresponding mitigation measures:

- **Validator compromise risk:** automatic slashing + immediate node isolation by other validators via the PoSA protocol. The network continues to operate with the remaining validators.
- **Critical smart contract vulnerability risk:** circuit breaker activation (24h pause of affected contracts via emergency multisig), immediate audit, fix and redeployment under DAO supervision.
- **Major regulatory risk:** the Foundation's Compliance Committee maintains active regulatory monitoring in all jurisdictions where KalyChain operates. In case of an adverse regulatory decision, KALYSSI has 90 days to adapt procedures or, as a last resort, suspend services in the affected jurisdiction.

This multi-layered security framework makes KalyChain a protocol where risks are not ignored but anticipated, documented and addressed methodically — a posture that distinguishes durable projects from ephemeral constructions.

15. Use Cases and Adoption Strategy

A blockchain is judged by its real-world use cases, not its stated ambitions. KalyChain was designed to respond to concrete needs, identified in specific markets where existing solutions fail. This section presents the main use cases addressed — some already operational, others being deployed on the 2026–2028 roadmap.

15.1 Decentralized Finance (DeFi) for Emerging Markets

DeFi remains the most important use category by volume on KalyChain. KalySwap, the native DEX, offers swap, liquidity provision and yield farming functions with transaction fees significantly lower than those on Ethereum mainnet. By targeting regions where access to traditional financial products is limited, KalyChain democratizes:

- **Earning on savings:** depositing stablecoins into liquidity pools offering yields higher than local bank rates in many emerging countries.
- **Collateralized borrowing:** obtaining a stablecoin loan by depositing KLC as collateral — without credit checks, without a bank file, without geographic discrimination.
- **Yield farming:** yield optimization strategies accessible from any smartphone with an internet connection.

15.2 Cross-Border Transfers (Remittances)

The global remittances market represents more than \$800 billion per year, with average fees of 6.2% according to the World Bank — a prohibitive cost for the most vulnerable populations. On KalyChain, a cross-border transfer costs less than \$0.01 in gas fees, and settles in less than 5 seconds.

The target model: an immigrant worker uses KalyWallet to convert their salary into stablecoin, sends it instantly to their family in their home country, who reconverts to local currency via a local exchange agent or a KalyChain partner platform. The entire transfer corridor — from the source bank to the recipient's pocket — can be under 10 minutes and cost less than \$0.50.

15.3 Real-World Asset Tokenization (RWA)

Real-World Asset (RWA) tokenization on KalyChain enables the representation of physical assets — real estate, bonds, commodities, receivables — as ERC-20 or ERC-1155 tokens on the blockchain. This opens several unprecedented possibilities:

- **Real estate fractionalization:** allowing anyone to invest in real estate with an entry ticket of \$100 instead of \$100,000. Each token represents a fraction of ownership and entitles the holder to a fraction of rental income.

- **Tokenized green bonds:** issuing bonds to finance renewable energy projects in emerging markets, with on-chain impact tracking.
- **Supply chain inventories:** tokenizing batches of goods to facilitate trade finance — inventory becomes instantly mobilizable collateral.

15.4 Decentralized Digital Identity

In markets where a significant proportion of the population has no official identity recognized by banks (no credit history, no fixed postal address), blockchain enables the construction of a **sovereign digital identity** — a DID (Decentralized Identifier) that the holder controls entirely.

On KalyChain, the DID can integrate KYC attestations verified by KALYSSI, on-chain activity proofs, professional certifications and reputation scores — without ever revealing personal data to unauthorized third parties (thanks to zero-knowledge proofs integrated in the extensions planned for Phase 2).

15.5 Government Applications and Public Services

KalyChain also targets emerging market governments as B2G (Business-to-Government) clients:

- **Land registries:** tokenizing real estate property rights in countries where paper registries are unreliable or corruptible. Blockchain makes titles incontestable and publicly accessible.
- **Food supply chains:** tracing the origin of agricultural products from producer to consumer, combating food fraud and valuing local organic certifications.
- **Conditional humanitarian aid:** distributing social assistance as conditional release smart contracts (Conditional Cash Transfer) — funds are only released when usage conditions are met (food purchase, school enrollment, medical visit).

15.6 Adoption Strategy — Go-to-Market

KalyChain adopts a **geographic funnel** adoption strategy: concentrate marketing and community resources on 3 to 5 priority regions initially, reach a critical mass of active users, then use these markets as springboards for horizontal expansion.

Phase 1 Priority Regions: Francophone West Africa (Senegal, Côte d'Ivoire, Cameroon), Latin America (Brazil, Colombia, Argentina), Southeast Asia (Philippines, Vietnam). These regions were selected based on three criteria: high remittances potential, low banking penetration, and already active crypto communities.

For each region, the strategy relies on a trio of levers: **local ambassadors** (recruited from existing communities), **integration partners** (exchange agents, microfinance institutions, local fintechs) and **localized educational content** (tutorials in local languages, webinars adapted to the audience's technical proficiency level).

16. Conclusion and Long-Term Vision

KalyChain is not another project on a list of look-alike blockchains. It is a reasoned bet on the idea that blockchain technology can genuinely change the rules of the game for the populations that need it most — provided it is built with rigor, governed with transparency and developed with a long-term vision.

16.1 What this Document has Established

This whitepaper has presented the four pillars on which KalyChain rests:

- **A solid technical infrastructure:** based on Hyperledger Besu, PoSA consensus, full EVM compatibility and a developer-first toolset. Mature, audited and scalable technology.
- **A coherent protocol economy:** 3.6 billion KLC distributed according to a transparent plan, a DER mechanism that aligns interests over 40 years, and a Vault NFT program that transforms passive holding into active ecosystem participation.
- **An irreducible tripartite governance:** International Foundation (Panama, future Swiss Stiftung) as constitutional guardian, on-chain DAO as democratic chamber, KALYSSI as regulatory interface — three distinct entities, contractually linked, mutually constrained.
- **A living ecosystem:** four-tier community programs, documented budget allocation, decentralization roadmap with measurable milestones, use cases anchored in real needs.

16.2 What KalyChain Does Not Claim to Be

Intellectual honesty requires naming what KalyChain is not. KalyChain is not a generalist blockchain in direct competition with Ethereum — its strength lies in its specialization and geographic focus. KalyChain is not fully decentralized today — and it does not claim to be. It is on the path toward decentralization, according to a documented and verifiable timeline. KalyChain is not a get-rich-quick project — its mechanisms favor long-term holding, active participation and patient building. It is not for everyone. It is for those who believe that blockchain can be a public utility infrastructure.

16.3 Vision 2030 and Beyond

By 2030, if KalyChain achieves its objectives, the ecosystem will look like this: a sovereign DAO with more than 20,000 active governors in 50 countries, a Foundation reduced to its minimal constitutional role, **21 to 25 active validators** — the optimal number for PoSA — securing a network that processes millions of daily transactions, hundreds of active DApps covering DeFi, RWA, identity and public services, and millions of users in emerging markets who have their first digital financial account thanks to KalyChain.

Technical note on PoSA validators: the EVM-native Proof of Staked Authority (PoSA) consensus mechanism supports an optimal number of **21 to 25 active validators** — this is a technical constraint, not an arbitrary choice. Decentralization is not measured by the raw number of validators, but by their *geographic diversity*, their *economic independence* and the *democratic rotation* of their selection by the DAO. Furthermore, the distributed RPC node network (which can be numerous) and community participation via delegated staking expand the decentralization surface well beyond validators alone.

Beyond 2030, the vision is even bolder: to become the reference blockchain substrate for the informal economies of the developing world — the settlement layer on which the next generations of inclusive financial services are built. Not as a promise in a whitepaper. As a documented, transparent and verifiable on-chain reality.

"Trust is not proclaimed. It is built — block by block, decision by decision, transparency after transparency."

— KalyChain Foundation, Vision 2030

17. Annexes

A. Glossary

Glossary of Technical and KalyChain-Specific Terms

Term	Definition
gKLC	Governance KLC — soulbound (non-transferable) governance token obtained through active KLC staking. Confers voting rights in the DAO.
KLC	KalyChain's native token. Utility token used to pay transaction fees (gas), participate in staking and access DER mechanisms.
DER	Dynamic Emission Rate — mechanism for the progressive distribution of KLC over 40 years. Replaces the concept of "mining" in PoW blockchains.
POL 80/20	Protocol Owned Liquidity — mechanism whereby 80% of a Vault NFT's liquidity is provided by the protocol, and 20% by the holder.
Vault NFT	NFT representing a liquidity commitment in the KalyChain ecosystem. Eight tiers from Starter (\$50) to Whale (\$100K).
KIP	KalyChain Improvement Proposal — formal protocol modification proposal submitted to the DAO governance cycle.
PoSA	Proof of Staked Authority — hybrid consensus mechanism combining Proof of Stake and Proof of Authority. Used by KalyChain.

VASP	Virtual Asset Service Provider — provider of digital asset services, a regulatory concept defined by FATF and transposed into MiCA.
MiCA	Markets in Crypto-Assets — European crypto-assets regulation that came into force in 2024. KALYSSI is MiCA-compliant.
Stiftung	German term for "foundation". Refers to the Swiss legal form (Zug) toward which the KalyChain Foundation (currently Panamanian) will migrate in Phase 2 of the roadmap.
Soulbound	Refers to a token permanently attached to a given wallet, non-transferable. gKLC is soulbound.
RACI	Organizational matrix defining who is Responsible, Accountable, Consulted and Informed on each decision.
EVM	Ethereum Virtual Machine — smart contract execution environment. KalyChain is 100% EVM-compatible.
RWA	Real World Asset — a real-world asset (real estate, bond, commodities) tokenized on a blockchain.
Travel Rule	FATF Recommendation 16 — obligation for VASPs to transmit identification information for crypto transactions exceeding €1,000.

B. Official Resources and Links

KalyChain Official Links and Resources

Resource	URL / Reference
KalyChain Official Website	https://kalychain.io
KalyScan — Block Explorer	https://kalyscan.io
Developer Documentation	https://docs.kalychain.io
KalyWallet	https://wallet.kalychain.io
GitHub KalyChain	https://github.com/kalychain
DAO Governance Forum	https://gov.kalychain.io
RPC Mainnet	https://rpc.kalychain.io (Chain ID : 3888)
RPC Testnet	https://testnetrpc.kalychain.io (Chain ID : 3889)
Ambassador Program	https://ambassadors.kalychain.io
Bug Bounty Program	https://security.kalychain.io

C. Legal Notices and Disclaimers

Disclaimer: This document is an informative whitepaper published by the KalyChain Foundation. It does not constitute an offer to sell securities, an invitation to invest, or financial or

legal advice. The information contained in this document is provided for informational purposes only and may be modified without notice.

The KLC token is a utility token providing access to services on the KalyChain network. It does not represent a share in a company, does not confer rights to dividends and is not a financial instrument under the MiFID II directive. Acquiring KLC carries risks, including the risk of total loss of the amount invested.

This document was originally written in French. In case of discrepancy between translated versions and the original French version, the French version prevails.

Version: 4.0 — June 2026

Publisher: KalyChain Foundation, Panama (Reg. 25064151)

Contact: legal@kalychain.io