LEOS (Ł) Tokenomics Whitepaper

Global Trusted Currency
And Pangea Utility Payments

v1.3

By the Tonomy Foundation

Contents

Introduction

In the evolving landscape of digital economies, the Pangea Virtual Nation emerges as a pioneering entity, introducing LEOS (Ł) as its native currency. This currency is at the heart of Pangea's ecosystem and is designed to facilitate transactions, global payments, and access to core public services. The introduction of LEOS represents a strategic move towards establishing a more inclusive, secure, and efficient economic system within the digital realm.

Read the Pangea - Overview, Strategy and Governance whitepaper to learn more about Pangea.

LEOS acts as a global payments solution, backed by the permissionless global democratic governance framework within Pangea

Due to the importance of the LEOS currency, a full audit of the tokenomics was conducted by experts at the Swiss company Brightnode(https://brightnode.io), a reputable global tokenomics service provider.

Significance of LEOS within the Pangea Ecosystem

LEOS is more than just a digital currency; it is the lifeblood of the Pangea ecosystem, enabling seamless transactions and interactions among its citizens and entities. As the primary legal tender, LEOS is utilised for purchasing essential products and services, such as seats in Decentralized Autonomous Organizations (DAOs) and identity KYC verifications, necessary for maintaining the integrity and security of the virtual nation. This integration of LEOS into the core functionalities of Pangea underpins its crucial role in the ecosystem's economic and social fabric.

Need for a Better Currency System for Pangea

Traditional and central bank currencies often fall short in addressing the unique needs of virtual nations, primarily due to their centralised nature, susceptibility to geopolitical influences, and lack of flexibility.

Decentralised payment solutions already exist; however, they fail to meet Pangea's requirements for being mainstream-ready. This is due to the need for mainstream-ready usability of existing cryptocurrencies, low transaction fees and predictability, lack of social accountability which results in hacks, and poor wallet control features such as recovery and funds security management.

With its global citizenship and decentralised governance model, Pangea requires a currency system that transcends these limitations. LEOS is meticulously designed to meet these needs, offering a decentralised, secure, safe and scalable solution.

Terms

Contributor	A Citizen who contributes their time to the government or operations of the Pangea virtual nation. E.g. a delegate or core developer
Feature	One of the features that users can access using the Pangea platform. E.g. Citizens can incorporate a DAO in the Pangea DAO app
Service	A computer server that runs infrastructure for the network. Owned and controlled by a DAO. e.g. Blockchain Block Producer node
Staker	A Citizen or DAO decides to lock their LEOS coins to a Service

LEOS (Ł) Tokenomics

The Pangea ecosystem is a dynamic assembly of participants, each playing a vital role in its decentralized economy. The LEOS tokenomics framework (powered by the Tonomy Gov OS) is designed to support this intricate network, ensuring fluidity, security, and equitable participation for all involved.

Actors

- **Citizens:** Individuals who engage with the ecosystem, leveraging LEOS for transactions, services access, and governance participation, embodying Pangea's democratic ethos.
- **DAOs:** Collective entities undertaking various functions within Pangea, using LEOS for operations like incorporation, membership verification, and project execution.
- **Gov:** The central governance entity orchestrating the ecosystem's regulatory framework, economic policies, and automated resource allocation to maintain balance and adherence to founding principles.
- **Apps:** Software applications facilitating daily operations, from governance to communication, essential for the seamless functioning of the ecosystem.
- **Services:** Infrastructure services, including blockchain nodes and identity verification systems, form the technological backbone, ensuring Pangea's operational efficiency and security.

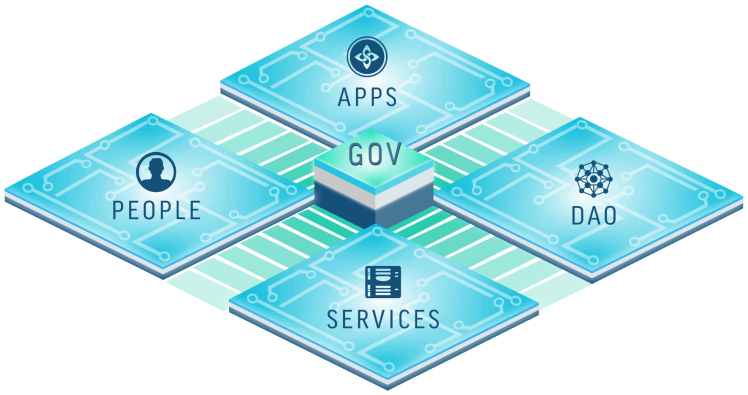


Figure 1: Actors in LEOS currency

LEOS Currency Model

Citizens and **DAOs** pay for Pangea Features through **Apps** using the LEOS currency, paid into a treasury fund governed by **Gov**. These features are equivalent to Pangea's public services when considered from a traditional state-nation perspective.

Gov manages the monetary policy of the ecosystem, which uses a smart contract to automatically pay for **Services** provided by **DAOs** that run the network infrastructure.

This flow can be seen in Figure 2 as a circular system in which all money circulates around the ecosystem. If the fees paid for public services through **Apps** "income" is equal to (or greater) than the costs to run the **Services** "expenses", then the ecosystem is said to be in equilibrium (or growth).

Figure 2: Circular Economic Model of Pangea

LEOS Uses

Figure 3: Different uses for LEOS

LEOS for Payments for Pangea's Features

Each core Pangea **App** allows **Citizens** and **DAOs** to purchase its features through a flexible Software as a Service (SaaS) model. This model has been designed to facilitate a familiar experience while adequately covering the underlying infrastructure costs for the services from mainstream users. Two examples of features are DAO seats available in Pangea DAO, and Citizen identity verification in Web 4.0 Apps available in Pangea Build.

Pangea features are all paid for in LEOS, though the amount of LEOS is determined using a $ USD price to provide predictability for **Citizens** and **DAOs** using the platform. The underlying currency, LEOS, remains a free market currency. The LEOS prices of the services are updated to facilitate predictable pricing models and services on a semi-regular basis, based on the volatility of the underlying LEOS price - aka, if the LEOS price changes significantly, then the service prices will be changed.

Using a pegged product or transaction price has been shown on prominent networks like Hedera to **attract significant institutional use of network features due to its predictability**. This drives the coin's utility, a leading long-term strategy for bringing LEOS currency stability as outlined in Pangea Vision 2030.

The most accessible place to see and understand these pricing models is on the Pangea website:

- Pangea Passport (always FREE)
- Pangea DAO
- Pangea Gov+
- Pangea Bankless
- Pangea Build

LEOS for Infrastructure Incentivization

Each of Pangea's features is powered by infrastructure provided by **Services** (server nodes in the network). The Tonomy Gov OS White Paper describes these infrastructure services in detail. Each type of **Service** requires a different number of nodes and has other trust properties. Such requirements have been used to design the three mechanisms used in Pangea to incentivise **Service** providers.

The Pangea Build **App** facilitates the infrastructure management of the network (goverened by **Gov**). The Pangea Build website shows the different **Services** and their incentives.

Services are all paid for in LEOS, though the amount of LEOS is determined using a $ USD price to provide predictability for **DAOs** running the **Services**. The underlying currency, LEOS, remains a free market currency, and the LEOS prices of the services are updated regularly to facilitate predictable utility.

Base Rewards

Each **Service** provider gets paid a base reward monthly. These rewards are designed to cover the minimum running infrastructure costs and are based on server node requirements.

Staking Rewards and Penalties

A staking reward pool is also provided for each **Service** requiring trust. **Services** that require more trust have a higher reward pool. This reward pool is distributed monthly based on the distribution of **Citizens** and **DAOs** that stake LEOS on the **Services**. Staking is done by locking LEOS coins in a fund attributed to a specific Service provider.

If the **Service** makes a mistake, they can also be fined. There are two parts to each fine. The base fine is charged to the **DAO** that runs the **Service**, while the stake fine is covered by all those that have staked in the **Service**.

This model incentivises Service providers to provision correctly running software while providing a shared risk and reward exposure for **Citizens** and **DAOs** that want to back the **Service** based on their trust in the **DAO** that runs it.

This is similar to staking pools on Ethereum but is more explicit, predictable for node operators, transparent, and fairly governed.

Incentives and Penalties Formular

Equation 1 shows the different components of how Services are rewarded. The **Service** provider takes the base reward and covers expenses (discussed in Service Resource Management). Stakers, also expected to include the **Service** provider (who knows they are trustworthy), share a fraction of the stake reward based on how much they have staked.

$$MonthlyRewards_{Service} = BaseReward_{Service} + Expenses_{Service}$$
$$MonthlyRewards_{Staker} = \frac{Stake_{Staker}}{TotalStaked_{Service}} \times StakeReward_{Service}$$

Equation 1: Rewards for Services

Equation 2 shows The different components of how Services are penalised. The **Service** provider takes a base fine, and stakers lose a fraction of their staked funds.

$$Fine_{Service} = BaseFine_{Service}$$
$$Fine_{Staker} = Fine\%_{Service} \times Stake_{Staker}$$

Equation 2: Fines for Services

The most accessible place to see and understand these fines is on the Pangea Build website.

LEOS for Governance and Operations Contributors

Actively contributing to the governance and operation of the Pangea virtual nation takes time and skill. From creating, reviewing, deliberating and voting on Pangea policies, such as monetary policies, to writing platform software and monitoring deployments, there are many important roles.

During the early stages of the network, while higher priority aspects of the network are tested and stabilised, contributors to the network are rewarded from the ecosystem fund. The Tonomy Foundation will be present and a primary active contributor in these early phases and a contributor, using funds from the LEOS currency sale to pay its contributors to support Pangea. In the long term, this is expected to transition to be balanced with higher feature prices or other income streams. More information on this translation can be found in the Pangea 2030 Vision document.

LEOS for Global Payments

LEOS extends its utility beyond the Pangea features by enabling bankless, peer-to-peer payments. This feature allows participants to engage in transactions with greater freedom and flexibility, free from the constraints of traditional banking systems. LEOS enhances its value proposition to users within and outside Pangea by fostering a more inclusive and self-regulating sovereign economic environment. Citizens and DAOs are expected to offer goods and services within and outside Pangea to each other using LEOS as a convenient, easy and global payment tender.

International payments are facilitated for Citizens and DAOs through the Pangea Bankless platform and its APIs.

Service Resource Management

The Pangea Build platform's features are structured to provide developers with the control and flexibility to utilise various underlying resources, optimising the performance and efficiency of their Web 4.0 **Apps** within the Pangea environment.

Service Resources Incentivation

Figure 4: Resource Payments

Apps within Pangea can be engineered to leverage different resources provided by **Services**, which are essential for these applications' diverse functionalities. Developers buy and control these through Pangea Build as Web 4.0 **Apps** are built and upgraded.

The critical service resources in the Pangea ecosystem are described in detail in the Tonomy Gov OS White Paper and are briefly described here:

- **Blockchain Node RAM:** This resource is crucial for storing stateful data related to smart contracts, including the contracts themselves. It ensures the persistence and accessibility of critical data across the network.

$$Expenses_{BlockchainNode} = Total\_RAM \times Price_{RAM}$$

- **DIDcomm Server Messages:** This service facilitates secure messaging between identities within the system, with charges applied per million messages sent. It is vital for maintaining communication integrity and privacy.

$$Expenses_{DIDComm} = \frac{Messages}{1{,}000{,}000} \times Price_{Messages}$$

- **Private Data Storage:** Apps can leverage sovereign storage vaults for storing user data, offering significant privacy and security advantages. The service includes backup capabilities, charged per gigabyte, to safeguard against data loss due to account access issues.

$$Expenses_{PrivateData} = Data \times Price_{Data}$$

- **Public Data Storage:** This resource allows apps to store data on a public decentralised cloud, essential for features like public profiles and accessible by the broader Pangea community, with fees applied per gigabyte of data stored.

$$Expenses_{PublicData} = Data \times Price_{Data}$$

- **Identity Verification Bridge:** Apps requiring user identity verification for compliance or anti-Sybil attack measures utilise this service, with charges per verification performed.

$$Expenses_{IdentityVerification} = Verifications \times Price_{Verification}$$

- **eIDAS QES:** Provides a mechanism for identity-verified users to sign documents with EU-recognized digital signatures, charged per signature, integrating high trust and compliance into digital transactions.

$$Expenses_{EidasSignatures} = EidasSignatures \times Price_{Signature}$$

Prices for the above services consider the base resource costs (e.g. RAM hardware running costs per month) to provide such services and the market supply and demand dynamics and competitors to provide a high-value service at a reasonable price. These prices can and are expected to be tweaked through Pangea's governance system.
Unsustainable

Economic Considerations and Security Measures

The pricing model for these services is meticulously designed to deter the overutilisation of network resources, thereby preventing potential denial of service attacks and ensuring the network remains accessible to all Pangea citizens. Attack prevention is further enhanced through anonymised verified identities in the network, as explained in Pangea - Governance and Strategy. This economic strategy is integral to maintaining the network's resilience and availability.

Furthermore, the fees collected for these underlying resources are directed to the **Service** providers through an automated **Gov** treasury pool, aligning the economic incentives of the ecosystem with the provision of high-quality, reliable services.

Citizen Blockchain Resource Accounting

Besides the resources mentioned above, the Pangea ecosystem also significantly emphasises the management of core blockchain resources, namely CPU (computation time for smart contracts) and NET (network bandwidth and transaction history storage). These resources are allocated exclusively to **Citizens** based on the identity verification level of the accounts, ensuring a fair and democratic distribution of network capacity.

This unique approach to resource allocation, where anonymised **Citizen** accounts exclusively initiate transactions, simplifies the blockchain resource model. It enhances the system's efficiency and upholds the principles of fairness and inclusivity central to the Pangea democracy.

Financial Safety, Sustainability, and Transparency

Democratic Governance

Pangea's economy and LEOS currency are governed by the Pangea liquid democratic governance system, which plays a crucial role in guiding its monetary policy decisions. This governance model allows for a more fluid and dynamic participation of citizens in decision-making, ensuring that policies remain adaptive and representative of the community's needs. The Pangea - Governance and Strategy documentation provides a deeper insight into this governance framework, illustrating its effectiveness in maintaining the financial health and sustainability of the ecosystem.

Financial Sustainability

Through this democratic process, governance is empowered to balance income and expenditures, as mentioned in the LEOS Currency Model and as seen in Equation 3, ensuring the ecosystem's long-term viability. The flexibility inherent in this approach allows Pangea to adapt over time and adjust to varying economic environments, ensuring its resilience and sustainability.

$$Income \geq Expenses$$

$$Fees_{Features} + Fines_{Services} \geq Rewards_{Services} + Rewards_{Contributors}$$

Equation 3: Core economic balance of Pangea

The Pangea Governance process is also used to select the infrastructure providers for the network. This will be based on their technical merit, and the amount staked to them will be used as an indicator but not a deterministic metric.

Pangea Economics Simulator

The Pangea Economics Simulator has been introduced to aid stakeholders in navigating the complexities of the ecosystem's economy. This tool enables users to simulate various economic scenarios, providing a tangible understanding of the ecosystem's financial dynamics. By adjusting specific variables, stakeholders can visualise the impact of different policies and conditions on the ecosystem's economy, fostering informed decision-making and strategic planning.

Pangea Economics Simulator

Safety, Fraud, and Hack Prevention Features

Figure 5: Safety features of LEOS

Anonymised Identity Verification

In security, Pangea places a significant emphasis on anonymised identity verification standards. This system not only ensures accountability within the ecosystem but also maintains the privacy and security of its citizens. By adhering to stringent verification standards, Pangea establishes a secure environment that deters fraudulent activities hackers and enhances the overall trustworthiness of the ecosystem.

Arbitration Features

Pangea has implemented an arbitration system capable of addressing disputes and misconduct within the ecosystem to safeguard LEOS holders further. This platform allows for

the trial and justice of accounts involved in fraudulent or malicious activities, leveraging the anonymised verification system to hold offenders accountable.

For more detailed information on these mechanisms, refer to the Pangea - Governance and Strategy documentation, which outlines the procedures and principles guiding the arbitration system.

Recovery Features

Understanding the risks associated with digital assets and identity, Pangea incorporates robust account recovery mechanisms. These features are designed to protect citizens' funds and access without placing them under the custody of network operators or governance contributors. This approach significantly reduces the risk of accidental or malicious loss, ensuring **Citizens**' assets remain secure even in device loss or compromised access.

LEOS Currency Utility and Benefits

Global Utilities of LEOS

LEOS, the native currency of the Pangea ecosystem, offers a broad spectrum of utilities both within and beyond the virtual nation's boundaries. Its design caters to a multifaceted approach, ensuring trust in internet services at an economical price while delivering high value.

Using Pangea's features, LEOS facilitates a range of core functionalities:

- **Pangea Passport:** LEOS enables reusable identity verification and access to Web 2.0, 3.0 and 4.0 Apps across the internet, providing better than banking security, natural compliance and seamless UX, all at a cost-competitive rate to existing internet identity and Web3 Dapps.
- **Pangea DAO:** In the realm of Decentralized Autonomous Organizations, LEOS serves as the currency for transactions, governance participation, and human resource and authorisation management and enabler of collaborative teams, enabling low-friction and always-accessible institutional management and agreements services in one seamless low-friction platform.
- **Pangea Bankless:** LEOS supports the Bankless platform, offering a decentralised financial infrastructure that allows for global peer-to-peer transactions without traditional banking systems, enhancing financial inclusivity and freedom. The ease of use and wealth management features set this apart from other Web3 Dapps.
- **Pangea Gov+:** LEOS is used for payments for auxiliary features such as arbitration cases and more within the governance model. Many Gov+ features are available for free to Citizens. Gov+ is the enabler for the trust of the currency, stemming from inclusive and participatory monetary policy management.
- **Pangea Build:** For developers and creators, LEOS enables access to essential resources and services in Pangea Build, supporting innovation and development of next-generation Web 4.0 Apps across the internet. It is also used as the incentive mechanism for Service providers that provide core network resources.

The website provides an easy and visual portal to understand better how much value the Pangea platform containing these tools can provide to existing markets.
https://pangea.web4.world

Benefits

User Experience and Accessibility: LEOS is designed to provide an exceptional user experience characterised by its global accessibility, ease of use, and scalability. Its integration capabilities allow for seamless interactions with various services and platforms within Pangea, enhancing the overall user experience.

Safety and Self-Regulation: The safety features embedded in LEOS, including mechanisms for self-regulation and social accountability, ensure a secure environment for transactions and interactions. These features protect users from fraudulent activities and foster a trustworthy ecosystem.

Transparent Monetary Policy: A clear and transparent monetary policy governs LEOS, which is crucial for maintaining its long-term stability and building trust among citizens and institutions. This policy is carefully crafted to ensure the sustainability of the Pangea ecosystem, balancing supply and demand while accommodating growth and innovation.

LEOS Currency Sale

The launch and distribution of LEOS coins are meticulously planned to ensure a fair, transparent, and strategic introduction into the economy. This section outlines the key components of the LEOS currency sale, including the initial distribution strategy, the structure of the currency sale rounds, and the vesting terms designed to align the interests of early adopters, team members, and partners with the long-term vision of the Pangea ecosystem.

The LEOS currency sale is offered by the Tonomy Foundation (Chamber of Commerce # 86537288), a Dutch non-profit organisation. While the Tonomy Foundation controls the LEOS token during the sale, it will not control LEOS when Pangea transitions to a democratically governed system, a planned and essential milestone in the roadmap. For more information on Pangea governance, please read the whitepaper.

It is important to understand what LEOS is not:

- An equity, or a stake in the Tonomy Foundation; and
- An equity, or a stake, that buys controlling rights and special privileges (compared to other Citizens) of the Pangea governance system

LEOS is a fraction of the currency from the Pangea economy. Buying LEOS in the currency sale is like prepurchasing some of the $ Dollars or € Euros at a discounted price before the launch of the USA or European Union. What owners of LEOS can do is outlined in LEOS Uses and further explored in LEOS Currency Utility and Benefits.

Recognising the foundation on which LEOS is built is also essential. That is a long-term stable governance system built using a modern democracy hybrid. The ecosystem is global and permissionless, maintaining the vision of many existing Layer 1 crypto protocols. Unlike most of these protocols, however, Pangea contains the facilities to autonomously self-regulating within the Pangea self-sovereign economic zone and protect its citizens from various forms of economic damage such as loss of private keys or hacks and theft commonly found in crypto, as described in Pangea - Governance and Strategy.

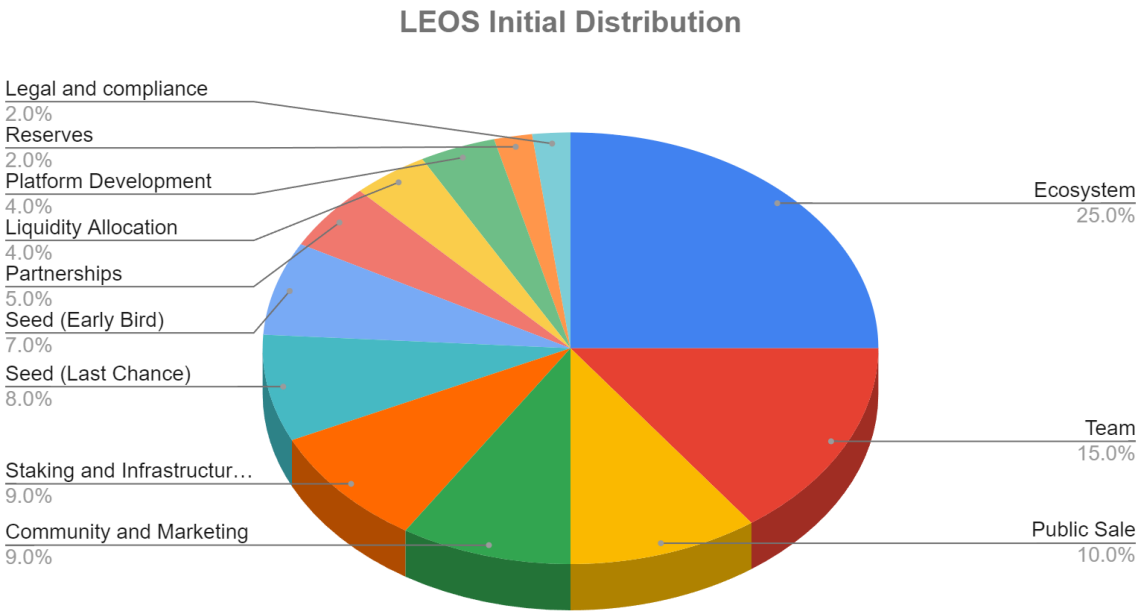
To ensure the highest levels of compliance in the still unclear regulatory environment of Web 3, cryptocurrency specialists at Taylor Wessing (https://www.taylorwessing.com) were consulted to advise the LEOS currency sale. Their expert globally recognised advice has also led the LEOS currency sale to comply with the upcoming EU regulation Markets in Crypto Assets (MiCA) regulations. LEOS will be one of the first MICA-compliant coins on the European market.

More information about the LEOS currency sale can be found at
https://pangea.web4.world/leos-currency

Initial Coin Distribution Strategy

LEOS has a capped total supply of 50 billion coins. There is no inflation or burning of LEOS tokens.

A comprehensive strategy to foster a robust and balanced ecosystem guides the currency's initial distribution. This strategy encompasses several key allocations:



LEOS Sale Rounds

The LEOS currency sale is structured in several rounds to facilitate orderly participation and LEOS adopters.

	Start date	FDV	Price	Raise Amount	Maximum Allocation
Seed (Early Bird)	April 2024	$10,000,000	$0.0002	$700,000	7%
Seed (Last Chance)	October 2024	$20,000,000	$0.0004	$1,600,000	8%
Public (TGE)	December 2024	$60,000,000	$0.0012	$6,000,000	10%

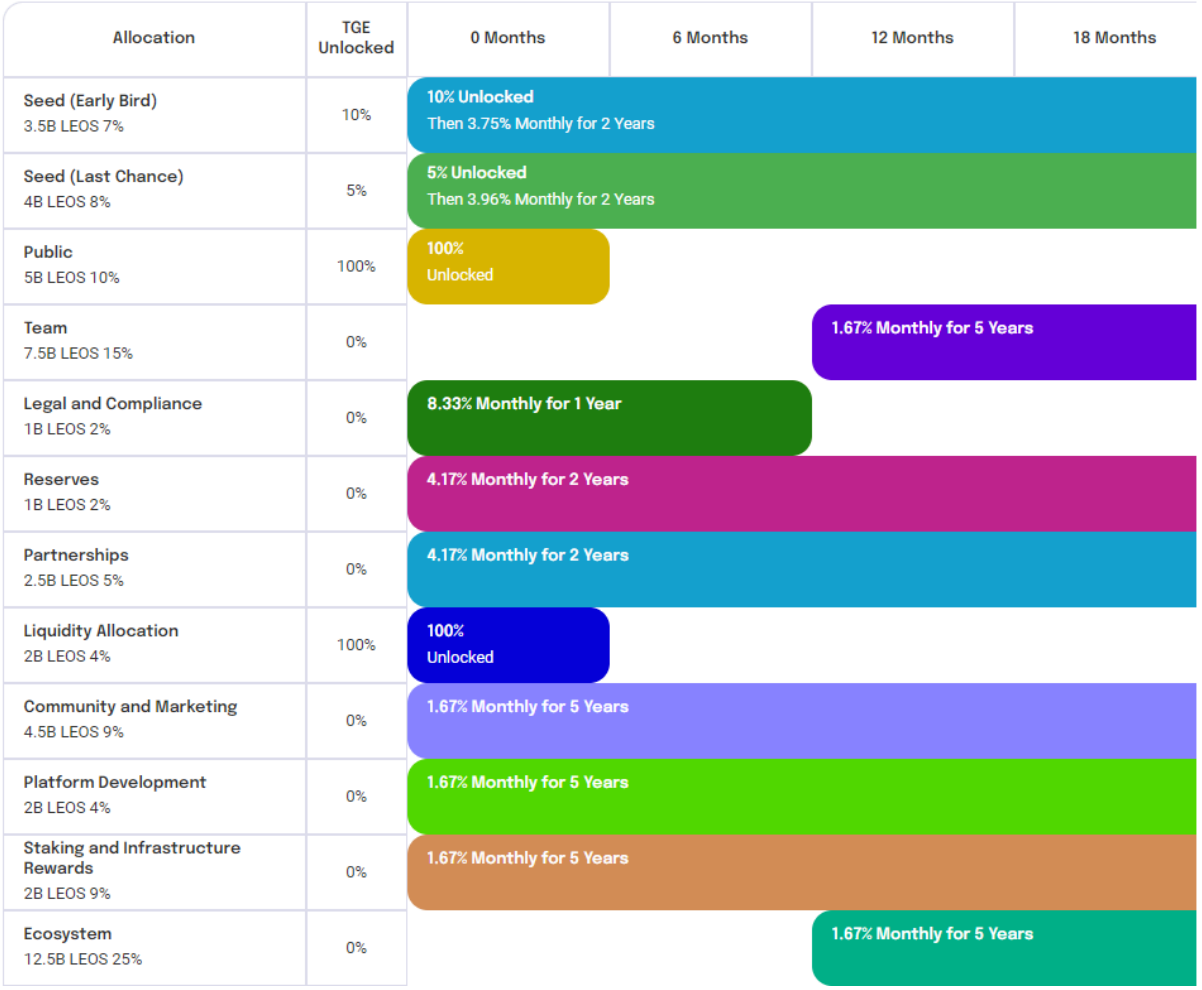
Table 2: LEOS Sale Rounds

The seed and strategic partnerships sales will go through selected Tonomy Foundation contacts and partnerships. The public sale is expected to be facilitated through a mix of self-hosted purchasing platforms and selected coin sale platforms on centralised and decentralised exchanges. LEOS can be purchased in exchange for USD, EUR, BTC, ETH or USDT.

Our valuation is based on significant research into recent and similar protocol launches. This has included a comprehensive analysis framework that looked at fundamentals, technology and innovation, tokenomics and distribution, regulatory landscape, market performance, and sentiment pre- and post-launch. We were guided by the advice provided by the Brightnode tokenomics team while conducting this analysis. This analysis identified and analysed Several successful and unsuccessful projects, to understand the best valuation and pricing strategy, including 5IRE, Humanode, Crypto Tex, Astra Protocol, Zetachain and Celestia. As Pangea positions itself as a web4 virtual nation, we recognised that our analysis has significant overlap with these projects while also extending or having different areas of focus.

Vesting Schedule

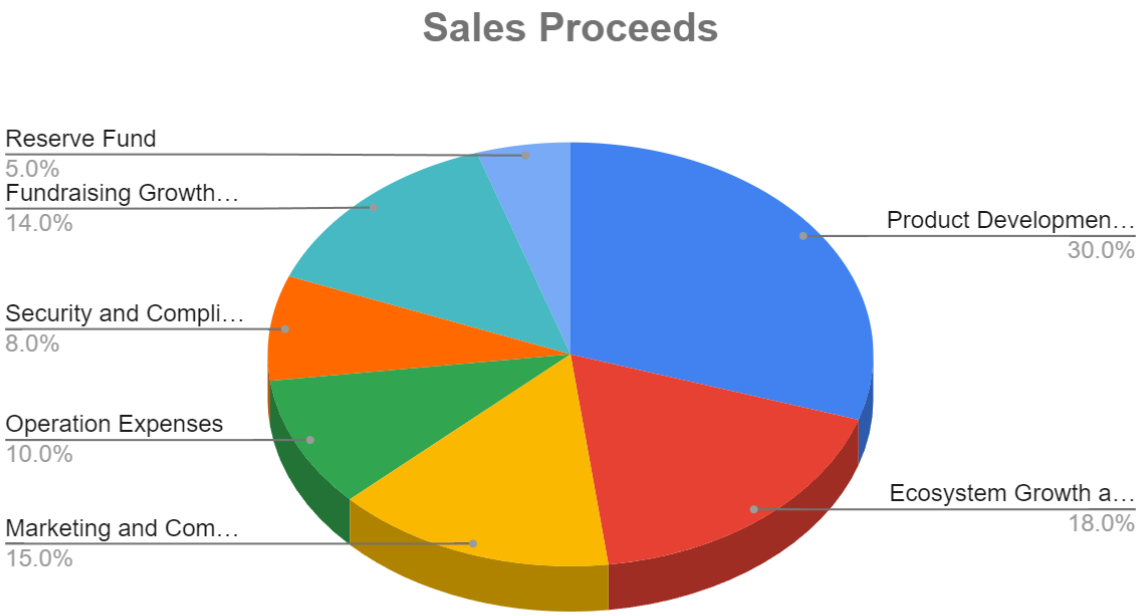
Vesting schedules are an integral part of the currency distribution strategy, ensuring that the interests of LEOS adopters, team members, and Pangea treasury funds are aligned with the long-term objectives of the Pangea ecosystem, as seen in the image below.



All dates are relative to the TGE (public sale), when all token vesting starts.

Use of LEOS Currency Sales Proceeds

The proceeds from the LEOS currency sale are crucial for the foundational and operational development of the Pangea ecosystem, done by the Dutch non-profit Tonomy Foundation. The strategic allocation of these funds aims to ensure the ecosystem's long-term sustainability, growth, and success. The following outlines the proposed percentage breakdown of how the funds from the LEOS currency sale will be utilised.



- **Product Development and Innovation (30%)**: To fuel the research, development, and continuous improvement of Pangea's technology, including the Tonomy Gov OS framework, Pangea Passport, DAO structures, and other essential digital infrastructure components.
- **Ecosystem Growth and Partnerships (18%):** To support the expansion of the Pangea ecosystem through strategic partnerships, collaborations, and integration with other platforms and technologies, enhancing the ecosystem's capabilities and reach.
- **Marketing and Community Engagement (15%):** For comprehensive marketing strategies, community building, and engagement initiatives to increase awareness, adoption, and active participation within the Pangea ecosystem.
- **Fundraising Growth and Development (14%):** To ensure the best success of raising the necessary funds to build and develop Pangea.
- **Operational Expenses (10%):** To cover the day-to-day operational costs of running the Tonomy Foundation, including administrative expenses, legal compliance, and other overheads.
- **Security and Compliance (8%):** To ensure the highest standards of security, privacy, and regulatory compliance across the Pangea ecosystem, safeguarding against risks and maintaining trust.
- **Reserve Fund (5%):** A contingency fund to address unforeseen challenges, capitalise on new opportunities, and provide financial flexibility and resilience to the ecosystem.

This allocation strategy is designed to balance immediate operational needs with long-term strategic objectives, ensuring that the LEOS currency sale proceeds are used effectively by the Tonomy Foundation to build a robust, secure, and thriving Pangea ecosystem. It reflects a commitment to transparency, accountability, and responsible financial management,

aligning with Pangea's vision of creating a sovereign, decentralised virtual nation powered by its community.

Conclusion

The LEOS Tokenomics document presents a comprehensive framework for the economic and operational foundation of the Pangea ecosystem and the utility of the LEOS currency as a means for global payments. At its core, LEOS serves as the native currency, facilitating various transactions within Pangea, from governance and identity verification to incentivising infrastructure and enabling global payments. The tokenomics model emphasises democratic governance, ensuring that monetary policy decisions are made inclusively and adaptively. The introduction of the Pangea Economics Simulator further underscores the commitment to transparency and stakeholder engagement, enabling participants to understand and navigate the ecosystem's economy.

The strategic allocation and distribution of LEOS currency, detailed in the LEOS Currency Salee section, highlights a balanced approach to supporting the ecosystem's growth while aligning the interests of early LEOS adopters, team members, and partners with Pangea's long-term success. The phased currency sale rounds and carefully structured vesting schedules reinforce this alignment, ensuring a steady and sustainable introduction of LEOS into the market.

Looking ahead, the role and evolution of LEOS within Pangea are poised for significant growth and expansion, in line with the vision outlined in the forthcoming Pangea Vision 2030 document. As Pangea develops and matures, LEOS will play a pivotal role in enabling the ecosystem to achieve its ambitious goals of creating a sovereign, decentralised virtual nation. The tokenomics framework laid out in this document sets the stage for a future where LEOS powers the Pangea ecosystem and contributes to reshaping the global digital economy, offering a model for financial trust, inclusivity, and participation.