

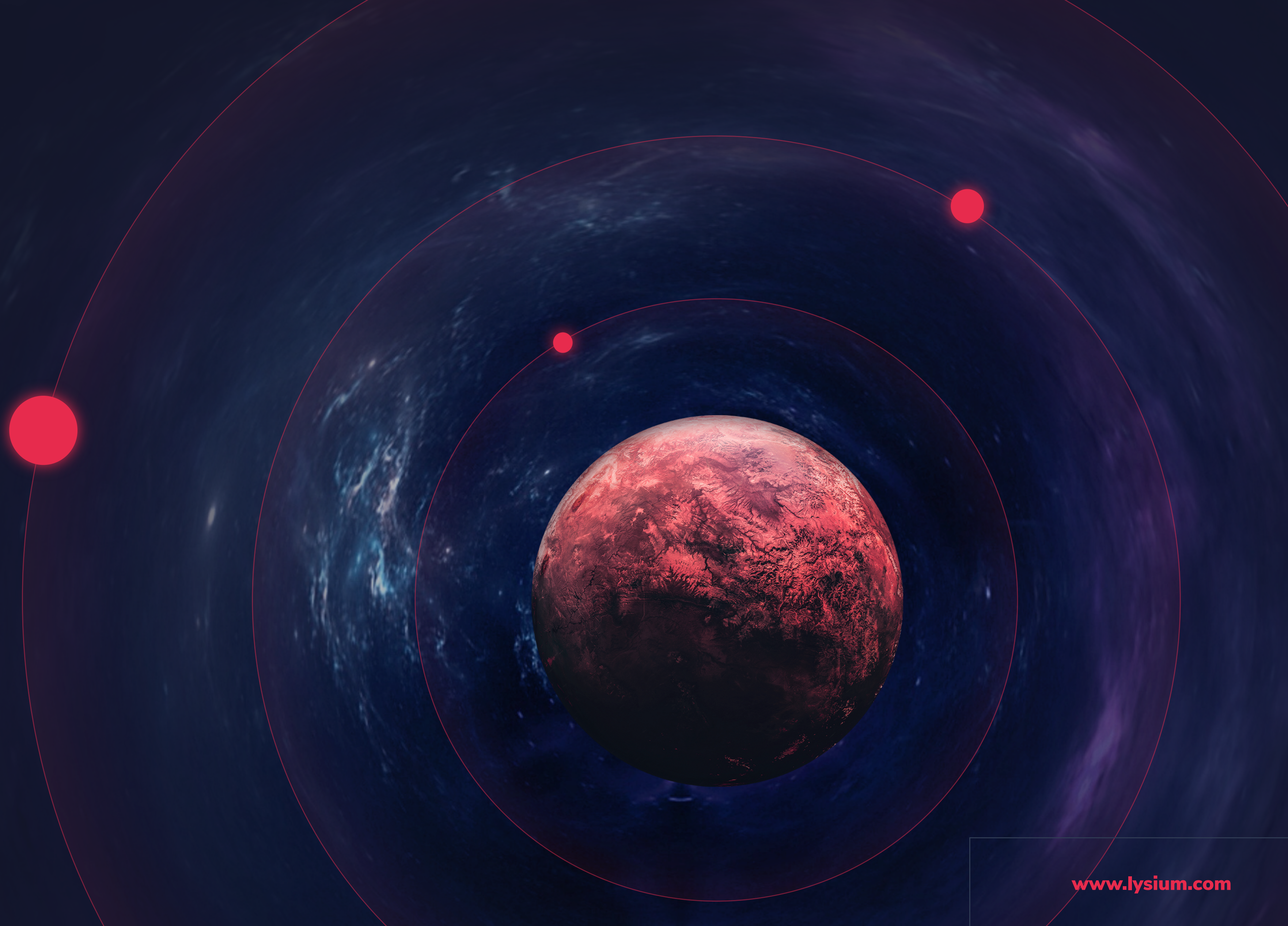


the
whitepaper

www.lysium.com

Lysium Network

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The Lysium mission

Travel In The Future: Fast, Secure & Easy.

Lysium Network is a project that started in 2022, with the goal of developing and deploying a blockchain network that provides a scalable, fast and cheap cryptocurrency transactions.

The Lysium mission is to build a powerful and decentralized crypto ecosystem. The system is developed having in mind a Multi-Virtual Machine Compatible (MVMC) solution. The first release is compatible with EVM (Ethereum-Virtual-Machine) and next releases will be compatible with Tendermint and Solana.

Lysium Network is a blockchain network with:

- Proof of Stake (PoS)
- 4th generation
- Layer 1

The network is built by a professional & experienced team that have worked on a number of successful blockchain projects in the past 6 years.



Network Fees



The transfer fee as well as other fees in the system are denominated in LSX tokens. The USD(\$) amount for a transfer fee estimation is based on a projection of the LSX token price.

The Lysium Network fee system is implemented as a logarithmic function based on the number of transactions an address on the network is doing.

The fee is applied to all outgoing transactions that modify the state of the network. "Lysium Token (LSX)" is the main internal crypto-fuel of the Lysium Network, and is used to pay transaction fees.

In general, there are two types of accounts: externally owned accounts, controlled by private keys, and contract accounts, controlled by their contract code.

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Scalability

With Bitcoin, the size of the current blockchain rests at about 15 GB, growing by about 1 MB per hour. If the Bitcoin network were to process Visa's 2000 transactions per second, it would grow by 1 MB per three seconds (1 GB per hour, 8 TB per year).

Ethereum is suffering a similar growth pattern, worsened by the fact that there will be many applications on top of the Ethereum blockchain instead of just a currency as is the case with Bitcoin.

A key difference between Lysium Network and other decentralized networks is the consensus protocol. Over time, people have come to a false understanding that blockchains have to be slow and not scalable.

The Lysium Network protocol employs a novel approach to consensus to achieve its strong safety guarantees, quick finality, and high-throughput without compromising decentralization. Capable of 20,000 real transactions per second (up to 200,000 MAX TPS on Lysium Testnet)– an order of magnitude greater than existing blockchains (fastest EVM-Compatible Chain).



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Block structure

Lysium Network block structure is unique, as it has 3 types of blocks: Normal blocks that are mined every 4 seconds, Mega blocks that are mined every 28,800 normal blocks (roughly every 24 hours), and a Giga block that is mined every 10,512,000 normal blocks (roughly every 365 days).

The block structure has a security system called Blockchain Cloud, that hashes and publishes the data from the Lysium Network to the Bitcoin network, and thus increasing the rewards for the validators. The bigger the block, the higher is the reward.

This block structure also helps the identification of transactions, as they are structured in specific timeslots.

The LSX stakers rewards (validators) are issued rewards based on the type of block they validate. For normal blocks (also called kilo blocks), they receive 30% of the fees. For mega blocks they receive 50% of the fees and for the giga blocks they receive 100% of the fees generated by the system.

**giga
blocks**

365 days / **100% fees rewards**

**kilo
blocks**

4 seconds / **30% fees rewards**

**mega
blocks**

24 hours / **50% fees rewards**

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Application Ecosystem

Lysium Network is built around the usefulness of the applications that run on it.

We have developed applications involving the following concepts:

NFT Multi-chain Platform: enables the minting, trading and transferring of NFTs between users of Lysium Network

Lysium DEX: A decentralized exchange enabling the trading of tokens on Lysium Network as well as stablecoins

ICO Platform: A platform for startups and projects that want to issue a token and raise funds from investors.

DeFi Crypto Gaming Platform: A platform for game developers to issue rewards and in-game tokens.

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Lysium Labs

The Lysium Labs is an accelerator program for blockchain startups that want to build amazing products. These new projects that will be launched on Lysium Network will also bring new users and use-cases for the blockchain network.

In order to apply for financing from Lysium Labs, you need to pass a review board that will determine the business-case for your product and company. As a startup, you will have to issue a token on the Lysium Network, as well as on our Decentralized Exchange.

The program will also finance Crypto Games that use the Play2Earn mechanism, where users can participate in competitions, challenges and will receive rewards for their interaction.



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Smart contracts

Lysium Network allows the development and execution of smart contracts running on Ethereum blockchain as well as other EVM solutions.

The blockchain solution enables other types of smart-contracts to be executed as: LSX Virtual Machine that will enable our own custom smart-contracts and programming language. This virtual machine will be optimised for applications running on the Lysium Network blockchain.

All the smart-contracts execution will be adapted for Sharding under 2 protocols: ASS (Accelerator Sharding Structure) and AIRMTA (AIR - Multiple Transactions Assignment)



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Tokenomics

The Lysium Network is powered by the LSX token. The LSX tokens are issued to investors, partners and team-members for their effort in bringing the vision behind the project to life. The distribution of tokens and supply values (total supply and max supply) are governed by Lysium Network smart-contracts.

Total Supply

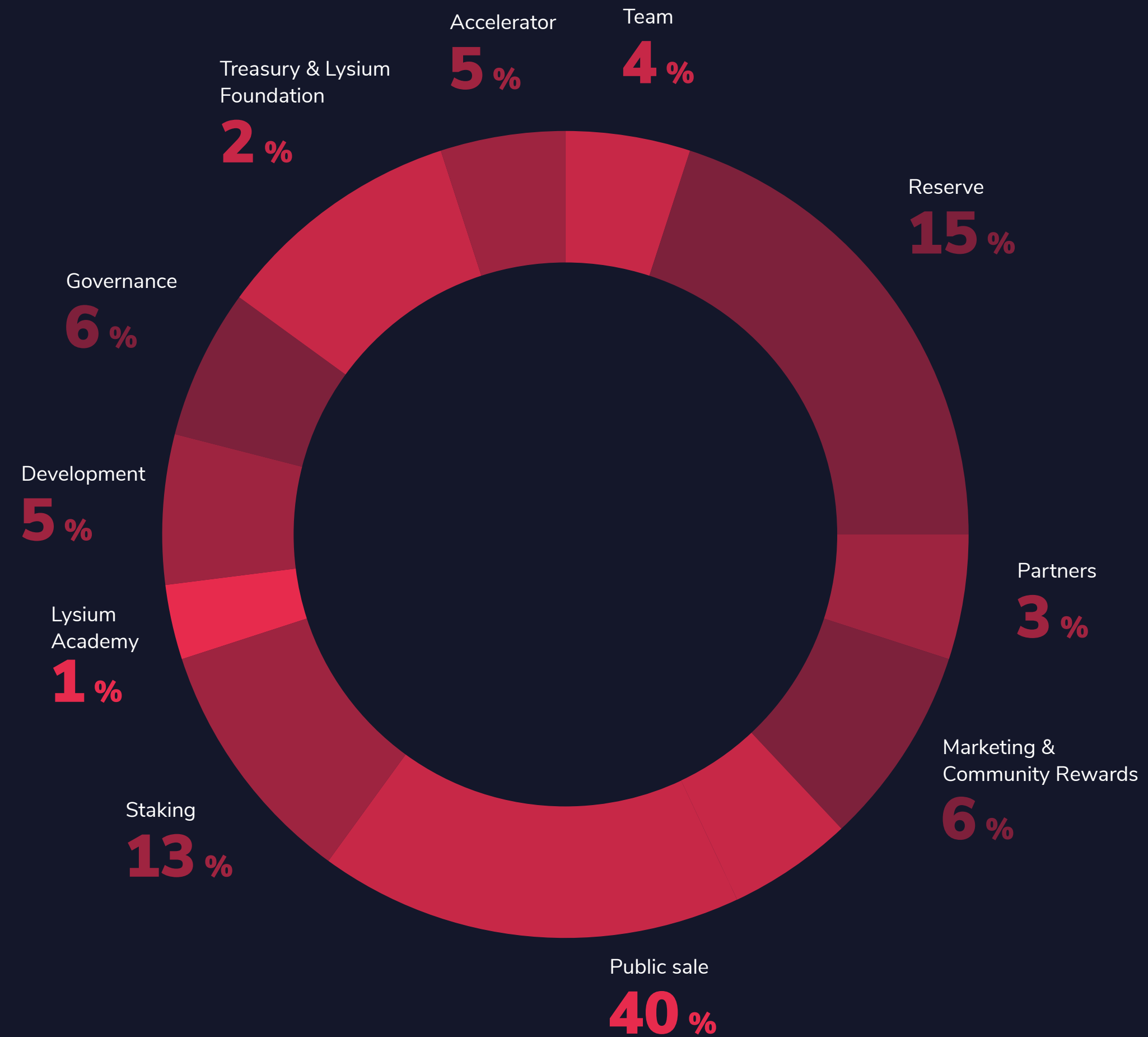
1.8b

LSX

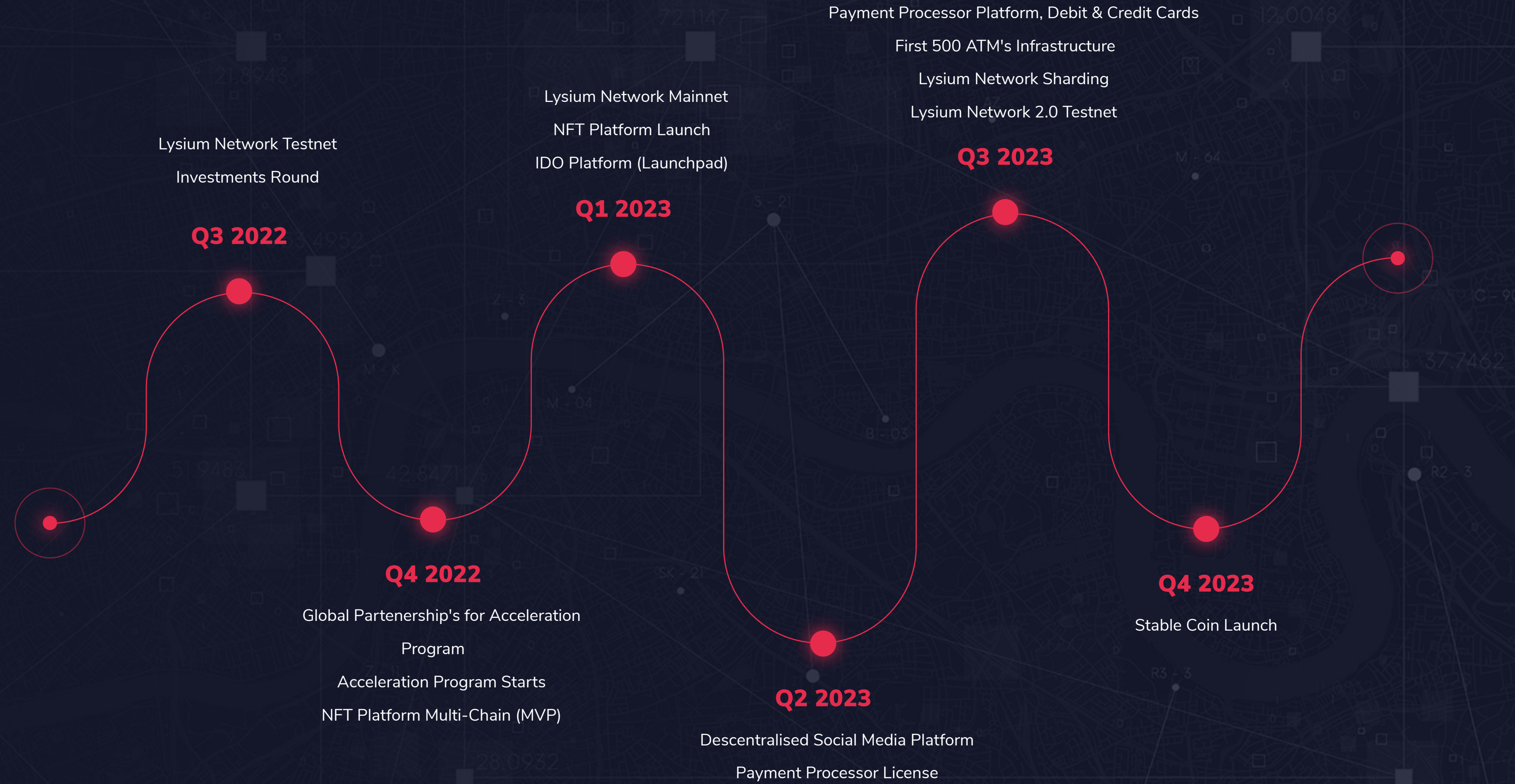
Max Supply

2.31b

LSX



Road Map



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Conclusions

Lysium Network is the first blockchain that is ultra portable and scalable that uses the innovative Proof-of-Trade Consensus mechanism. The protocol as well as the consensus is developed from scratch by our internal development team.

At the moment of the writing of this whitepaper, Lysium Network is the cheapest and secured blockchain solution on the market. Lysium Network is a Layer-1 blockchain technology as well as a 4th generation of this technology.

Lysium Network and Lysium Labs have a plan to implement a powerful and comprehensive DeFi Ecosystem that runs on a global scale, thus giving developers and users a chance to enjoy all the advantages of the blockchain network.

