## Aergo 2.0 A Decentralized Infrastructure for Web3

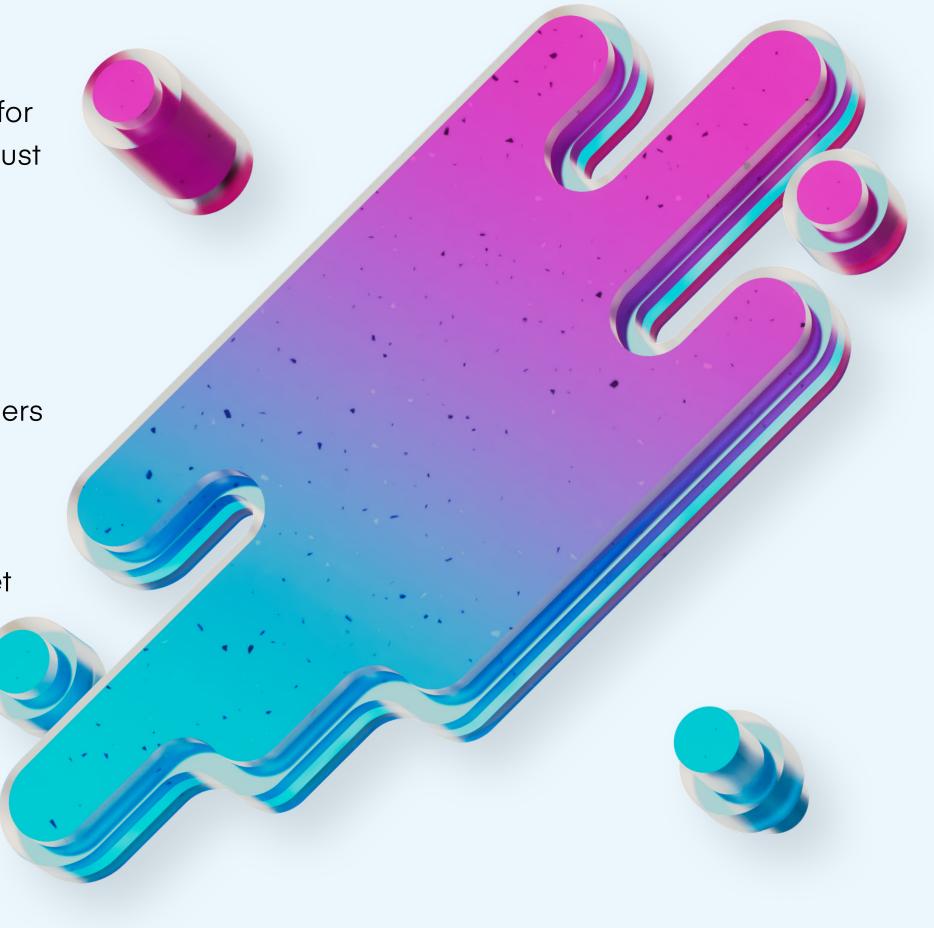


### Introduction

The purpose of this whitepaper is to articulate the vision for the use of blockchain technology by Aergo to build a robust ecosystem that spans the enterprise, entertainment, and government sectors in the emerging Web3 age.

By harnessing the decentralized and transparent nature of blockchain, we aim to revolutionize existing systems, enhance security and efficiency, and empower stakeholders in these domains.

This paper explores the potential benefits, challenges, and implementation strategies for utilizing Aergo mainnet to build a future-proof infrastructure that facilitates collaboration, innovation, and sustainable growth.



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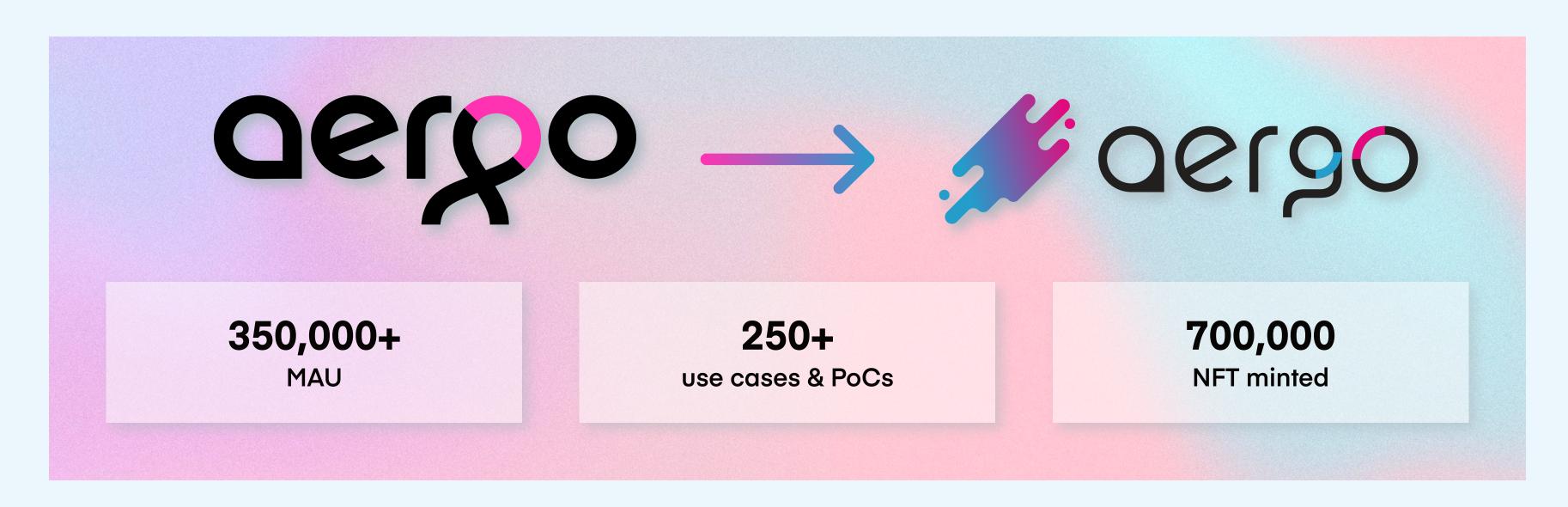
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### About Aergo

Aergo was conceived in 2014, before the concept of Ethereum or EVM even existed, based on the initial direction of "blockchain for the enterprise." Regardless of the industry and era, the need to quickly process large amounts of data in real-time with SQL/JDBC support has been consistent. Aergo has been targeting the market through a private blockchain that provides an environment where existing enterprise customers can directly integrate their data with the blockchain.



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### Aergo 1.0: Hybrid Blockchain for Enterprise

Aergo 1.0 was launched in 2019. The goal of the first version of Aergo blockchain was to bridge the gap between the enterprise and public blockchain world, providing a practical toolkit and infrastructure for everyday developers.

The first version of Aergo was highly successful, having been adopted by many Fortune 500 companies in order to solve real world problems.

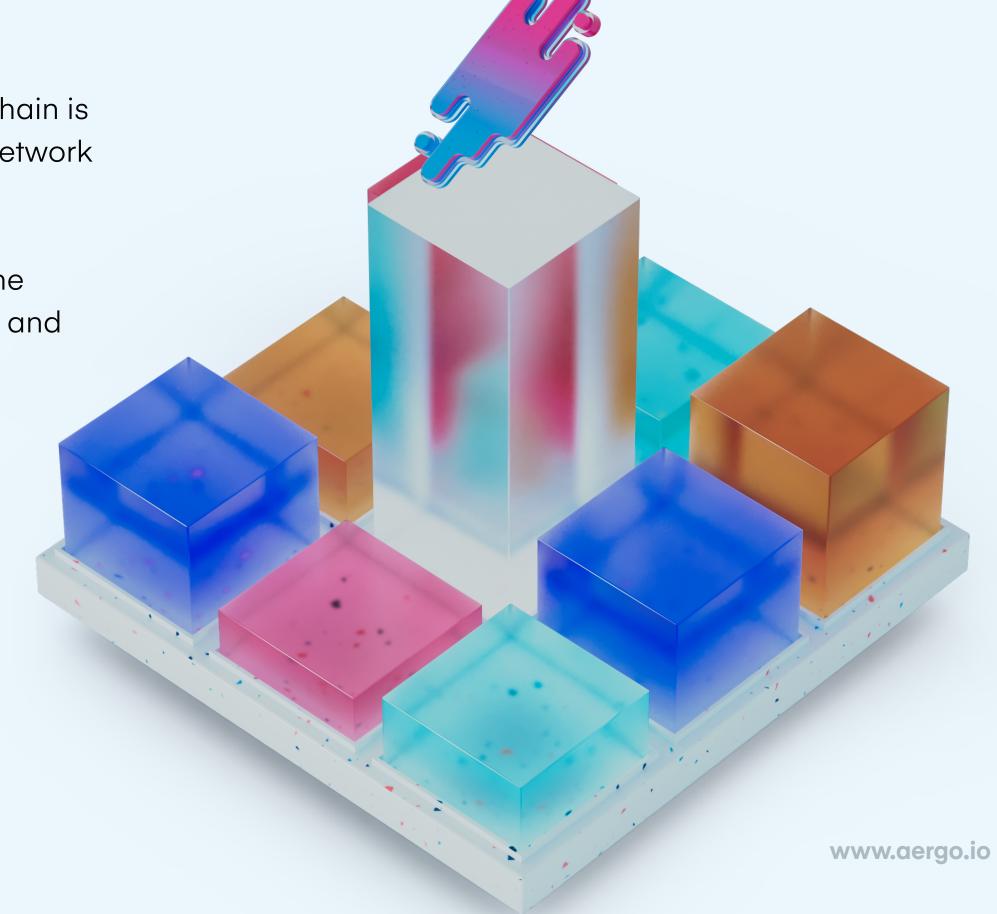
Many existing customers of Blocko, the lead technology and business partner for Aergo, chose to migrate to the Aergo technology stack in order to take advantage of its ease of development using SQL, Lua smart contract, and streamlined SDK with IDE support. At the same time, Aergo proved to be both fast and resilient, servicing millions of users everyday and satisfying enterprise grade Service Level Agreements.

While the technology matured, the business and market landscape for Aergo evolved further as well, as more and more enterprise blockchain adopters started to be interested in more decentralized applications of blockchain technology as well - the era for Web3 has started.

## Aergo 2.0: Decentralized Infrastructure for Web3

The core goal of the next generation of Aergo blockchain is to enable new businesses and use cases on Aergo network as a truly decentralized Web3 infrastructure provider.

All the core features of Aergo technology, including the ease of development, the enterprise-grade reliability, and the proven performance at scale will serve as the foundation for Aergo 2.0.



### Background

While the main goal of Aergo 1.0 was to provide enterprises with a decentralized toolkit to apply blockchain technology to solve existing problems, many wanted even more, envisioning entirely new business models that built on the decentralized aspect of the technology.

The evolution of Aergo 2.0 centers around the new adoptions and development we witnessed beyond the enterprise blockchain adoption. Aergo is evolving into a de-facto enterprise blockchain that targets a wide range of enterprise customers, rather than a platform limited to the cryptocurrency market.

### **New Adoptions for Aergo**

#### 1. Enterprise

- With the growing interest in the decentralized applications of blockchain, enterprises started to be interested in what lies beyond the private blockchain use cases.
- They are coming up with ever more complex Request for Proposals for full-hybrid blockchain infrastructure now, intending to be compatible with the Web3 revolution.
- As a result, Aergo mainnet is becoming a crucial component for even old school enterprise blockchain adopters.

#### 2. Entertainment

- With the advent of NFT and metaverse technology, Aergo saw huge success in **its** adoption by the entertainment industry in Korea.
- Along with one of the largest entertainment companies in Korea, Aergo and Blocko are establishing an entertainmentoriented blockchain solution to maximize Intellectual Property globally through Aergo-based NFT/SBT markets.
- The entertainment industry is interested in robust ways to mint and circulate NFTs linked to their IPs.
- dApps on Aergo including the BOOOST app, with the intention of bringing Web3 applications and the entertainment industry closer.

#### 3. NFT as a Service

- Through Blocko XYZ, Aergo has been providing NFT-as-a-service capabilities which have been hugely successful, servicing hundreds of thousands of active wallets every month with over 700,000 NFTs minted.
- Many of the enterprise partners mentioned above are hugely interested in the NFT capabilities as well.

#### 4. Silvermine and STO (Security Token Offering)

- Aergo's core technology partner, Blocko, has actively pursued the STO (Security Token Offerings) market leveraging Aergo mainnet. Aergo-based token management platform, SilverMine, supports various administrator functions and APIs required for security token offerings including secondary equity/unseasoned offering, token transfer, token split and more.
- Blocko recently joined forces with leading fintech companies to lead the market by providing consultation and guidance regarding token offerings in Korea.

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#### 5. Government

- Aergo offers a secure and decentralized solution for identity management. Aergo-based identities can streamline citizen authentication, simplify access to government services. Moreover, interoperability between different government agencies' and third parties' identity systems can be achieved through the Aergo mainnet.
- Aergo's immutability and timestamping capabilities are providing a tamper-proof and verifiable recordkeeping system, especially for the land registry. This enhances the authenticity and trustworthiness of important documentations including land titles.
- Aergo has revolutionized the voting systems by providing transparency, security, and verifiability. By recording votes on a blockchain, governments can ensure the integrity of the electoral process, prevent tampering, and enable real-time auditing. Aergo-based voting systems can increase trust among citizens, enhance voter participation, and streamline the vote-counting process.
- Aergo and Blocko are seeking market opportunities in various fields including NFT/SBT-based identity, electronic notary service and federal elections.

#### 6. Environment, Social, and Governance (ESG)

Aergo will offer ESG-centered services to help corporations, nonprofits, and regulators pursue ESG initiatives.



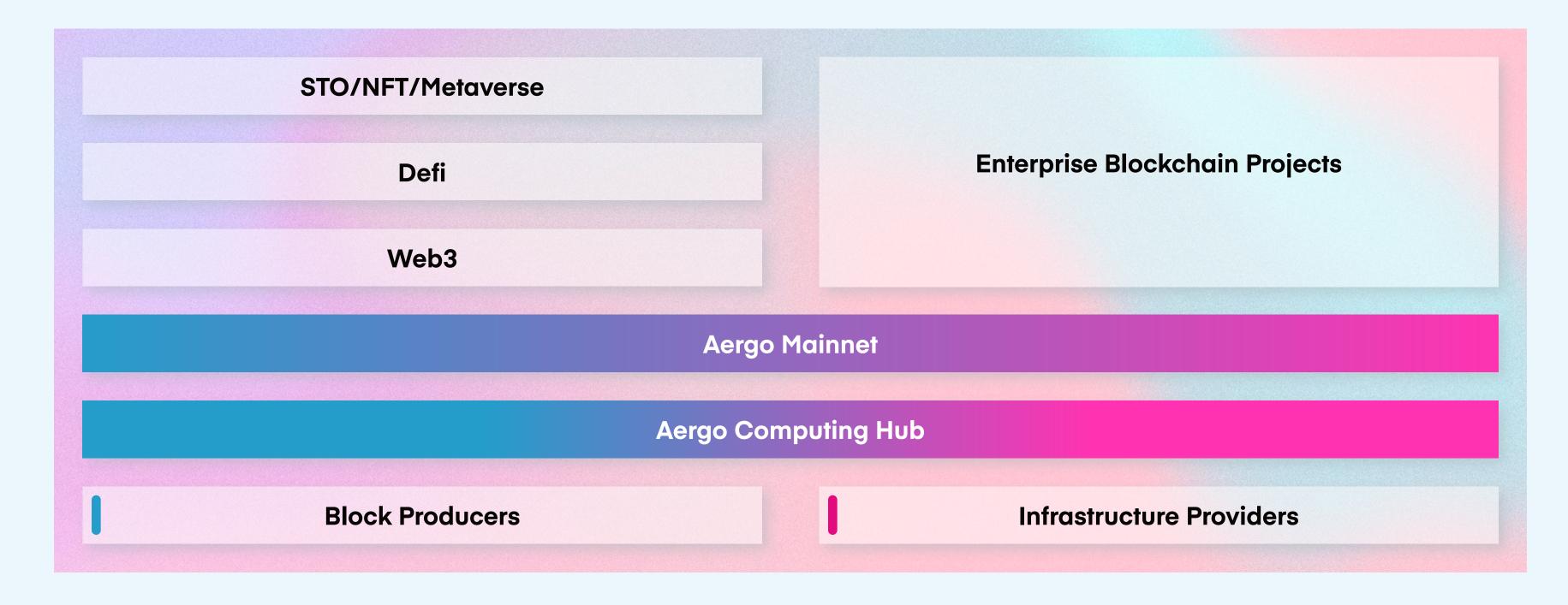
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### Aergo 2.0 Core Features

### Aergo 2.0 Ecosystem



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### **Aergo Core Enhancements**

We will be continuing to develop and enhance the Aergo kernel to support Web3 capabilities.

- Prior to the completion of the Web3 stack launch, the Aergo kernel will be extensively tested for its security and reliability.
- New features including composable transactions are under development and will enable truly trustless, decentralized transactions on Aergo smart contracts crucial for Web3 applications.
- The main goal of Aergo core at this stage is stability and security, as more and more values will be at stake as Aergo mainnet gains mainstream adoption.
- We are cooperating with various crypto exchanges to support Aergo mainnet directly in order to provide more direct access to Aergo network to developers and users, while infusing Aergo dApps with more liquidity in order to create business values.

### New Smart Contract Language

We will be enabling EVM support on Aergo smart contract platform.

- While Lua has been hugely popular among our enterprise developers, Solidity and Web3 have become the de-facto standard in DeFi, even in blockchain implementations outside the Ethereum ecosystem.
- Aergo EVM compatibility will allow existing projects to be ported to Aergo with minimal transition work as well as attracting new developers.

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### **Computing Hub**

We will be releasing the Computing Hub for Aergo for truly decentralized Web3 infrastructure.

- We tested the Infrastructure-as-a-Service concept with Aergo Hub in 2021 as a proof of concept to test the feasibility of blockchain-based utility computing application.
- Aergo Computing Hub will be a production-ready computing service built on the container technology leveraging Aergo ecosystem to seamlessly run Web3 applications in the cloud.
- Aergo Computing Hub will provide infrastructure options for existing and new Aergo enterprise customers interested in moving out of data centers as well.

### **Aergo DeFi**

We will be enabling new tokens, as well as NFTs to be issued and traded on the Aergo network.

- We are working with multiple crypto exchanges to support Aergo mainnet directly, providing a more direct way to bridge on-chain DeFi services with the CEX value chain.
- Our existing token bridge will be superseded by a more comprehensive support for connecting to other blockchain networks.
- We will be releasing a suite of on-chain DeFi services intended to infuse Aergo with enhanced liquidity and token utility.
- As more values will be at stake with the introduction of DeFi on Aergo, we will be conducting comprehensive review and testing for the integrity of Aergo implementation.

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### **Machine Learning**

As Machine Learning has become practical for everyday usage, we will be providing first-class support for ML for Web3 applications on Aergo.

- Since Torch framework is based on Lua, Torch7 developers will be able to reuse existing codebase on Aergo smart contract.
- We will be integrating TensorFlow Lite to utilize trained models within smart contracts directly.

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# Aergo Web3 Partnership Program and Developer Relations Program



### **AERGO Ecosystem Fund**

Aergo has created a comprehensive grant program that enables developers to acquire funding through the Foundation to develop their revolutionary application on the Aergo blockchain: AERGO Ecosystem Fund.

Through the launch of the \$10M AERGO Ecosystem Fund, the Aergo Foundation has solidified a comprehensive program that enables developers and entrepreneurs to acquire funding to develop their applications directly within the Aergo Ecosystem. This new fund absorbs the previously announced Defi Incubation Funding program, enabling us to expand our scope of investments to include GameFi, SocialFi, EduFi and other web3 opportunities.

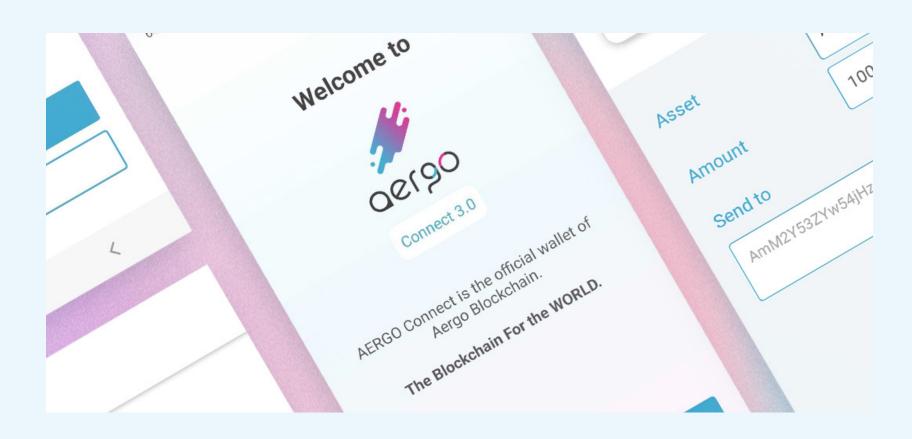
### **Developer Relations and Bug Bounty**

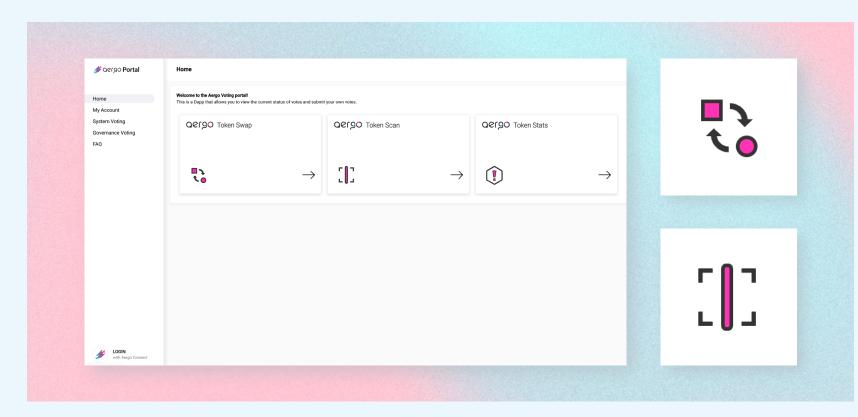
Aergo's developer relations program is designed to foster strong relationships with developer communities. We recognize the immense value that developers bring to the Aergo platform, and we are committed to providing the resources and support. We offer a range of initiatives including developer outreach, technical documentations and support. By fostering open communications and providing necessary resources, we strive to continuously improve our offerings and strengthen the relationship with the developer community.

As the Aergo ecosystem evolves and more strategic alliances come onstream, the potential for bugs and vulnerabilities arises. The bug bounty program incentivizes white hackers to report issues, possible vulnerabilities and help maintain a robust and secure platform.

Please refer to the Aergo Bug Bounty Program (https://github.com/aergoio/bug-bounty-program) page for more information.

### How to Get Started with Aergo?





### **AERGO Connect 3.0**

AERGO Connect 3.0 is the blockchain's mobile wallet where users can manage AERGO-based crypto collectibles (ARC 1 and ARC 2) and access to all AERGO-based dApps. Supporting fundamental features including staking and voting, AERGO Connect 3.0 is available on both Android and iOS.

#### **AERGO Portal**

AERGO Portal is a dApp that allows anyone to view the current status of votes as well as governance proposals, and submit votes for block producers/changes to the protocol.

### The Team Behind Aergo

As a team of professionals, we are passionate about discovering how blockchain technology can impact a wide range of industries, including infrastructure, logistics, finance, and even Web3. With Blocko, our key technology partner, we have built robust and scalable blockchain infrastructures for world-leading companies and government agencies including Samsung, Korea Exchange, Hyundai Motors, and others.

Based on our deep understanding of blockchain networks, we deliver secure, high-performance, and scalable infrastructure for decentralized platforms and applications.



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