White paper
Asemag DAO

AsemagDAO is a decentralized digital asset management infrastructure and management protocol based on DAO governance and empowering Web3.0

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1、Industry background

1.1 Background

Blockchain technology provides an unprecedented opportunity to address public dissatisfaction and distrust towards the dysfunctional centralized financial system. By distributing data into computer networks, this technology can provide transparency to every member of any group, without being controlled by central entities, resulting in an unbiased, transparent, and efficient license free system that can improve the current global financial and monetary structure and better serve the public interest.

Bitcoin was created for this purpose. Although Bitcoin is a successful cryptocurrency in many ways, it is not an ideal medium of exchange because its supply is fixed and its speculative nature causes price fluctuations, preventing it from further developing into a mainstream currency.

On the other hand, Bitcoin's weakness happens to be the advantage of Dai's stable currency, precisely because its design goal is to minimize price volatility. Dai is a decentralized and neutral asset backed cryptocurrency with a soft anchoring price in the US dollar. Stability is the meaning of Dai.

Since the single guarantee Dai was launched in 2017, user acceptance has continuously improved and has become the cornerstone of decentralized financial DApp. The success of Dai is also part of the entire movement in the stable currency industry, which is a cryptocurrency aimed at maintaining prices and currency functionality.

For example, in February 2019, JPMorgan became the first bank in the United States to create and test a digital currency anchored to the US dollar. With the development of the digital currency industry, some banks, financial service companies, and even governments want to create stable digital currencies (such as central bank digital currencies), as well as large non-financial companies. For example, Facebook announced Libra (a stable digital currency backed by equivalent physical assets) plan 4 in June 2019. However, such proposals violate the core value proposition of blockchain technology: establishing a public infrastructure that is not influenced by centralized power institutions or managers, and adopting it globally.

1.2 Relationship between Asemag DAO

The Dai Stable Coin System, now known as the Asemag protocol, currently accepts all Ethereum based assets approved by ADAO holders as collateral, and ADAO holders have the right to vote to determine the risk parameters of each collateral. Voting mechanism is a key part of Asemag's decentralized governance process

2、 What is the AsemagDAO protocol?

2.1 About the Asemag DAO protocol?

AsemagDAO is a decentralized digital asset management infrastructure and management protocol based on DAO governance and empowering Web3.0. The mission of AsemagDAO is to bring decentralization and DAO governance into the field of asset management. As a decentralized protocol based on DAO redefining asset management, AsemagDAO is bringing much-needed innovation to the traditional financial investment industry and continuously expanding the meaning of new asset investments in the process. Through fully decentralized governance and the introduction of performance-based reputation and reward systems, anyone can have a say in asset investment management and exchange it for positive contributions and rewards to the ecosystem.

Through a scientific governance system consisting of executive voting and governance voting, AsamagDAO allows ADAO holders to manage the financial risks of the Asamag protocol and Dai, thereby ensuring the stability, transparency, and efficiency of the protocol. The voting weight of ADAO is proportional to the number of ADAOs in the voting contract DSChief that the voter has. In other words, the more ADAO tokens a voter locks into a DSChief contract, the greater their decision-making power.

2.2.1 About the Dai Foundation

The Asemag Foundation is part of the global Asemag community and has created Asemag protocols with many external partners. The Asemag Foundation collaborates with the Asemag DAO community to guide decentralized governance of Asemag DAO projects and promote their full decentralization.

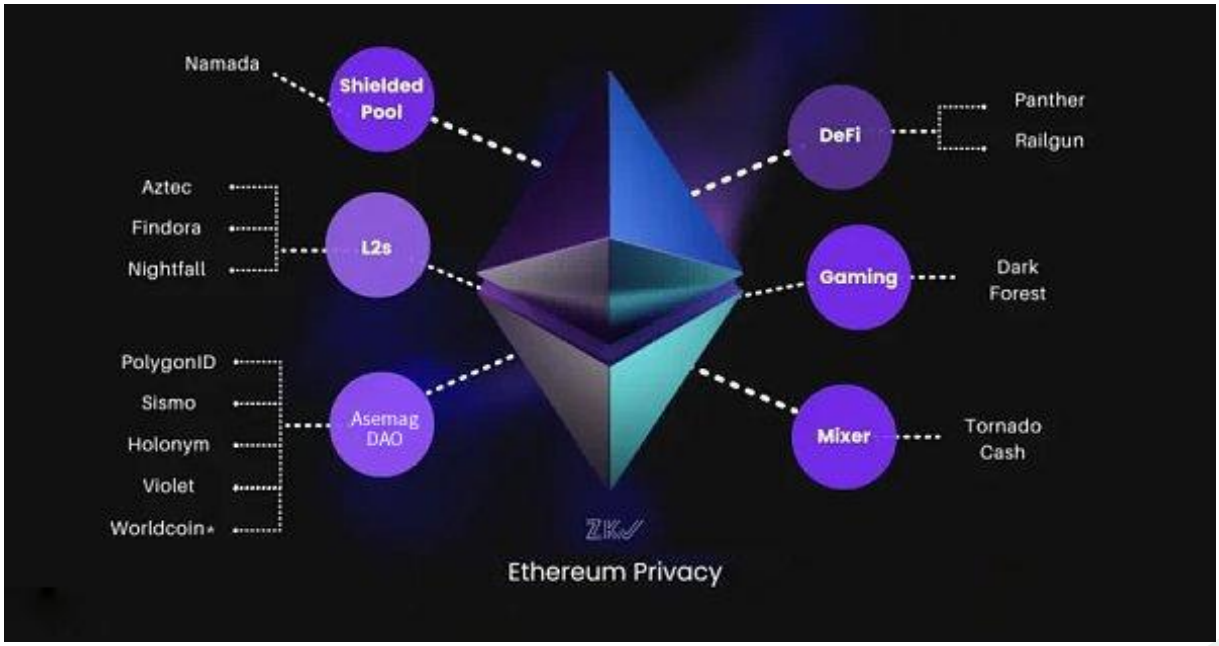
2.2.1 About the Dai Foundation

The Dai Foundation is an autonomous organization located in Denmark, independent of the Asemag Foundation. The Dai Foundation is responsible for managing important intangible assets of the Asemag community, such as trademarks and code copyrights, operating according to strict regulations that define its permissions. As stated in the Dai Foundation's authorization letter, the purpose of the foundation is to protect the parts of the Asemag protocol that cannot be decentralized through technology.

2.3 About the Asemag Protocol

The Asemag protocol is managed by ADAO holders of governance tokens from around the world. Through a scientific governance system composed of executive voting and governance voting, ADAO holders can manage the financial risks of the Asemag protocol and Dai, thereby ensuring the stability, transparency, and efficiency of the protocol. Each ADAO token locked in the voting contract is equivalent to one vote.

The Asemag protocol is one of the largest decentralized applications (DApps) on the Ethereum blockchain and the first decentralized finance (DeFi) application to be widely adopted.



3、Stable currency Dai

Stable currency Dai is an asset backed cryptocurrency with soft anchoring to the US dollar, and its issuance is decentralized and unbiased. Dai has been released on the Ethereum blockchain and some other popular blockchains; Holding Dai requires the use of cryptocurrency wallets or cryptoasset platforms.

The threshold for generating, accessing, and using Dai is very low. Users create a smart contract called "Asemag Vault" using the Asemag protocol and deposit assets to generate Dai. This process is not only the process of Dai entering the circulation field, but also the process of users obtaining liquidity. In addition, users can also purchase Dai from intermediaries or exchanges; or, more simply, as long as they are willing to accept Dai for payment, they can receive Dai.

Whether you generate, purchase, or receive Dai, it is no different from other cryptocurrencies in terms of usage: you can send Dai to others to purchase goods and services, and even transfer Dai to a savings account through the Asemag protocol function called "Dai Deposit Rate".

Every Dai in circulation is endorsed by excess assets - the value of collateral is always higher than the value of Dai's debt - and all Dai transactions are publicly visible on the Ethereum blockchain.

3.1 What are the functions of Dai similar to currency?

Generally speaking, currency has four major functions:

1. Value storage 2. Exchange medium 3. Accounting unit 4. Delayed payment standard

In order to meet the above functions, Dai has specially designed the following features and application scenarios.

3.1.1 Dai is a storage of value

Value storage refers to assets that can maintain value and will not depreciate significantly over time. Dai is a stable currency designed to ensure price stability even in highly volatile markets.

3.1.2 Dai is a medium of exchange

Exchange medium refers to all things that can represent value standards and are used to promote the sale, purchase, or exchange (transaction) of goods or services. In different types of transactions around the world, Dai stable coins can be used to achieve transactions.

3.1.3 Dai is a unit of accounting

The accounting unit is a standardized measure of value (such as the US dollar, Euro, Japanese yen) used for pricing goods and services. Currently, the target price for Dai is 1 USD (1 Dai=1 USD). Although Dai has not yet become a standard value metric outside the blockchain, it serves as a unit of account in the Asemag protocol and some blockchain DApps. Among them, the accounting of the Asemag protocol and the pricing of DApp services are both based on Dai rather than legal currencies such as the US dollar.

3.1.4 Dai is a deferred payment standard

In the Asemag protocol, Dai is also used to settle debts (for example, users use Dai to pay stabilization fees and close vaults). It is precisely this advantage that makes Dai so outstanding.

3.2 Collateral assets

Dai's creation, value endorsement, and price stability are all achieved through collateral assets deposited into the Asemag vault. Collateral assets refer to digital assets that are voted into the agreement by ADAO holders.

With the approval of the ADAO holder, any Ethereum based asset can be used as collateral for generating Dai on the Asemag agreement. When licensing a certain asset as collateral, ADAO holders must also select specific risk parameters accordingly. ADAO holders make these and other decisions through the Asemag decentralized governance process.

4、Asemag Vault

All approved collateral assets can be deposited into the Asemag Treasury smart contract generated using the Asemag protocol to generate Dai. Users can access the Asemag protocol and create vaults through various user interfaces (i.e. network access portals). These user interfaces include Oasis Borrow and various interfaces built by the community. Creating a vault is not complicated, but generating Dai means that users have a debt to the system; Dai needs to be returned and a stabilization fee paid in order to retrieve the collateral locked in the vault.

The vault is essentially unmanaged: users can directly interact with the vault and the Asemag protocol. As long as the price of the collateral is not lower than the minimum necessary level, the user enjoys complete and independent control over the collateral.

4.1 How to interact with Asemag Treasury

Step 1: Create a vault and lock in collateral

Users create vaults through the Oasis Borrow portal or community created interfaces such as Instaapp, Zerion, MyEtherWallet, and lock in specific types and quantities of collateral to generate Dai. When funds are deposited, the vault is considered secured.

Step 2: Generate Dai through a secured vault

After locking the collateral assets into a vault, the owner of the vault can use any non custodial cryptocurrency wallet to initiate and confirm transactions, generating a certain number of Dais.

Step 3: Repayment of debt and payment of stabilization fee

If you want to retrieve some or all of the collateral, the treasury owner must partially or fully repay the Dai generated by the TA and pay the stabilizing fee that accumulates continuously during the outstanding period of Dai. The stabilization fee can only be paid using Dai.

Step 4: Take out the collateral

After repaying Dai and paying the stabilization fee, the treasury owner can return some or all of the collateral to their wallet. After fully repaying Dai and removing all collateral, the vault will be vacant, waiting for its owner to lock in the assets again.

It is particularly crucial that different collateral assets need to be divided into different vaults. Therefore, some users may have multiple vaults, using different types of collateral and collateral rates.

4.2 Clearing of high-risk Asemag vaults

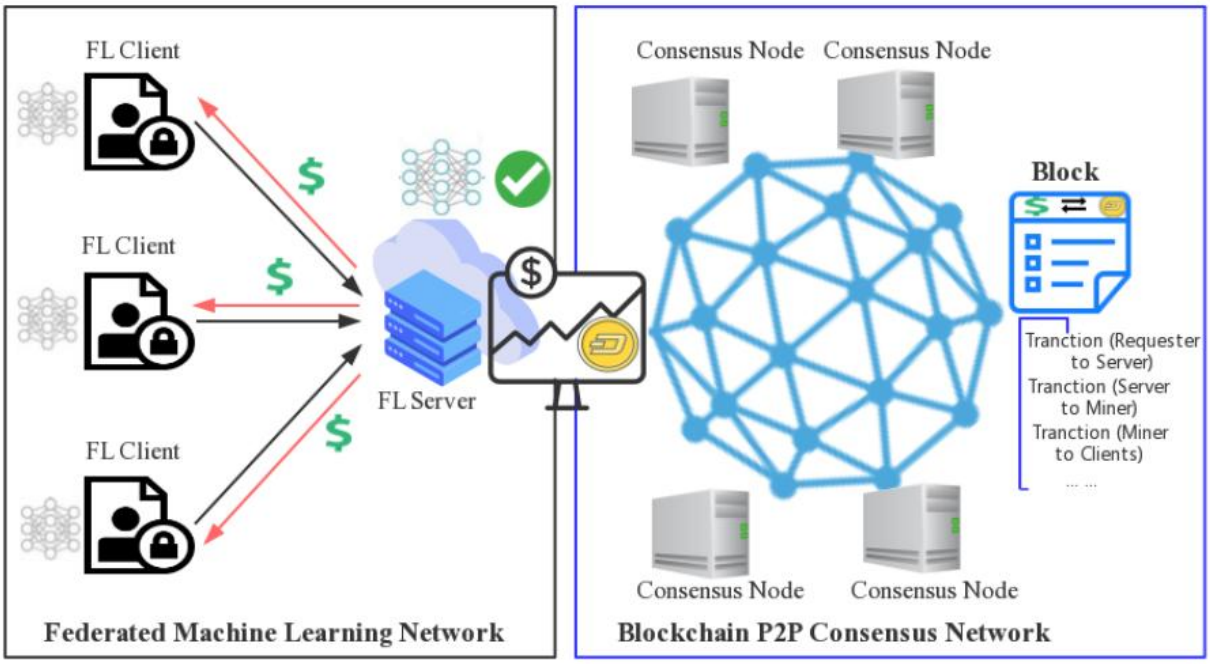
In order to ensure that there is always sufficient collateral in the Asemag agreement to endorse outstanding debts (i.e. the total value of outstanding debts calculated at the Target Price), any Asemag treasury that is deemed high-risk (according to the parameters specified by Asemag governance) will be cleared through an automated Asemag agreement auction process. The basis for determining the Asemag agreement is to compare the liquidation rate with the current collateral value to debt ratio of the vault. Each type of vault has its own liquidation rate, which is determined by ADAO holders voting based on the risk profile of different collateral assets.

4.3 Asemag Protocol Auction

Through the auction mechanism of the Asemag protocol, the system can still clear the vault even when the price information of the collateral cannot be obtained. During the liquidation process, the Asemag agreement will take out the collateral from the cleared vault and use a market based auction mechanism within the agreement to sell it. This is called a collateral auction.

The Dai obtained through collateral auction will be used to repay debts in the vault, including liquidation penalties. ADAO voters will set different liquidation penalties for different types of collateral.

If the amount obtained from the collateral auction is sufficient to settle the debt in the vault and pay the liquidation penalty, the auction will be converted into a Reverse Collateral Auction to minimize the number of collateral sold. The remaining collateral will be returned to its original owner.



If the amount obtained from the collateral auction is insufficient to repay the debts in the vault, the loss will become a liability under the Asemag agreement, which will be repaid by Dai in the Asemag Maker Buffer. If there is not enough Dai in the buffer, the Asemag protocol will trigger the Debt Auction mechanism. During the debt auction, the system will cast new ADAOs (increasing the amount of ADAOs in circulation) and sell them to users who use Dai to participate in the auction.

The Dai obtained from the collateral auction will enter the Asemag buffer fund. Asemag buffer funds can serve as a buffer to avoid excessive issuance of ADAO in the future due to insufficient collateral bidding and rising deposit interest rates.

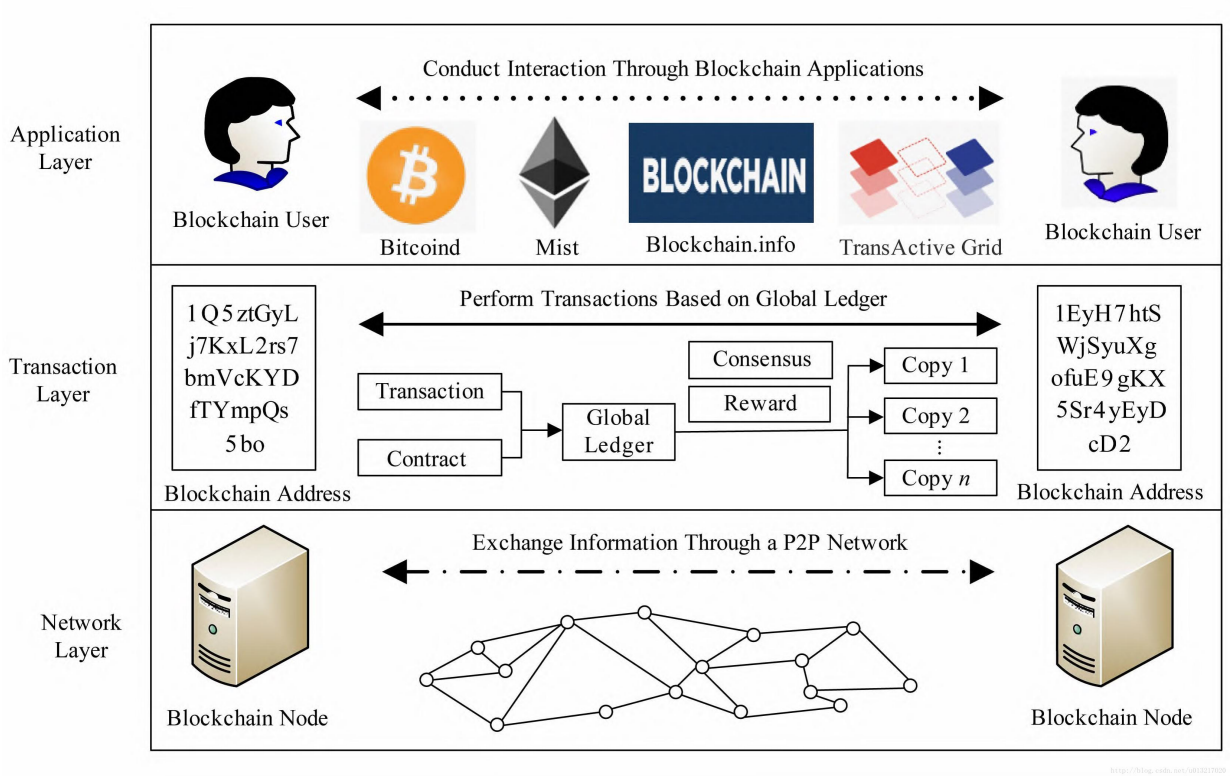
If the amount obtained from bidding and stabilization fees exceeds the upper limit of the Asemag buffer (set by Asemag governance), the excess will be sold through a Surplus Auction. During the surplus auction period, bidders use ADAO to bid for a fixed number of Dais, with the higher price being awarded. Once the surplus auction is completed, the Asemag protocol will automatically destroy the ADAO obtained from the auction, thereby reducing the total supply of ADAO.

Example of collateral auction process: Due to market conditions, the pledge rate of a large vault has dropped below the minimum threshold. An Auction Keeper detects this phenomenon and initiates a liquidation process for the vault. Assuming 50 ETH enters the auction process.

Each clearing firm can have its own bidding model. The bidding strategy includes the bidding price of the collateral (ETH in this case). The clearing agent initiating the liquidation will use the token price in their bidding strategy as the starting price for the first stage of the collateral auction. At this stage, the policyholder uses Dai to bid for a fixed amount of collateral, and the higher the price, the higher the bid. This quantity is indivisible, and the price offered by the bidder is the total price.

Setting up this clearing firm requires 5000 days to bid for 50 ETH. This part of Dai will be transferred from the vault engine to the collateral auction contract. The first stage of collateral auction will end when a certain DAI that has been charged into the collateral auction contract can repay the system's debt and pay the liquidation penalty.

In order to purchase collateral at the price specified in their bidding strategy, the clearing agent also needs to submit a quotation in the second stage of the collateral auction. The goal of this stage is to return as much collateral as possible to the owners of the vault in the face of market competition. At this stage, the clearing firm needs to use a fixed number of Dai to bid for as few ETHs as possible. For example, in this example, the clearing firm's bidding strategy seeks a bidding price of 125 Dai/ETH, that is, bidding for 40 ETH with 5000 Dai. The Dai obtained in this bidding will be transferred from the treasury engine to the collateral bidding contract. After the bidding period ends and the bidding deadline expires, the bidding manager wins the bid and obtains the collateral. The auction for collateral has come to a complete end.



5、 AsemagDAO token issuance

5.1 Governance of Asemag Protocol

DAO tokens are governance tokens of the Asemag protocol - allowing their holders to modify the Asemag protocol through voting. Changes to the governance variables of the Asemag protocol are unlikely to take effect immediately after approval by voting. If the voter chooses to activate the governance security module, these changes will be delayed in activation (up to 24 hours later). This period has given ADAO holders the opportunity to take action, and if necessary, they can trigger a shutdown mechanism to oppose malicious governance proposals (such as modifying collateral parameters to contradict current monetary policy or closing security mechanisms).

5.2 ADAO (Token) Issuance Mechanism

Pass abbreviation: ADAO

Total issuance: 400 million pieces

Specific allocation:

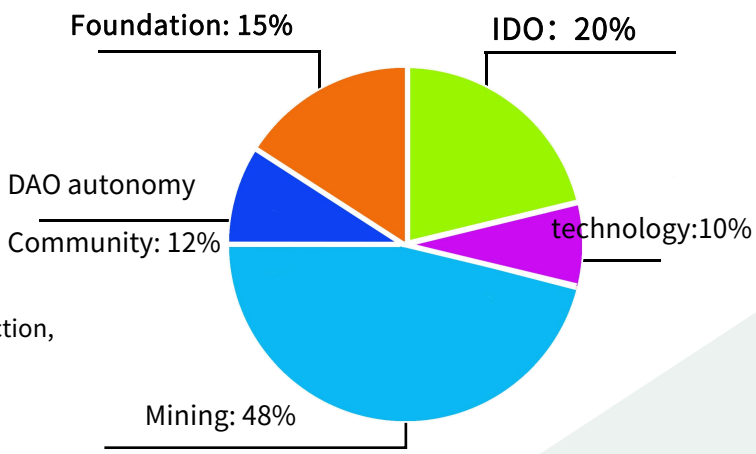
IDO: 20% (not locked, fully released before going online)

DAO Autonomous Community: 12% (mainly used for ecological landing, construction, and rewards)

Technology: 10% (locked for 3 years, followed by an annual release of 2%)

Mining: 48% (mined by globally recognized users)

Operations and air drop: 10% (irregular air drop, specific air drop standards are voted by the community)



5.3 ADAO Proposal Voting and Execution Voting

The Asemag governance process includes proposal voting and execution voting. The purpose of proposing a vote is to form a general consensus within the community before conducting an execution vote. This helps to ensure that governance decisions are carefully considered and consensus is reached before entering the voting process. The purpose of executing voting is to approve/reject changes to the system state, such as voting to determine the risk parameters of newly introduced collateral.

From a technical perspective, each type of voting is managed by smart contracts. A Proposal Contract is a smart contract that programmatically writes one or more effective governance behaviors. The proposed contract can only be executed once. Once executed, it will immediately make changes to the internal governance variables of the Asemag protocol. After execution, the proposed contract cannot be reused.

Any Ethereum address can deploy a valid proposal contract. ADAO token holders can choose an Active Proposal by voting for approval. The proposal for the Ethereum address with the highest number of affirmative votes will be selected as a valid proposal. Effective proposals will obtain management permissions for the internal governance variables of the Asemag protocol, and then modify these parameters.

5.4 The role of ADAO tokens in capital restructuring

In addition to its role in Asemag governance, ADAO tokens also serve as an auxiliary resource for the capital restructuring of the Asemag protocol. If the system debt exceeds the surplus, a debt auction will be triggered to increase the supply of ADAO tokens and recapitalize the system. This risk will motivate ADAO holders to unite and manage the Asemag ecosystem responsibly, avoiding excessive risks.

Responsibilities of ADAO Holders

ADAO holders can vote on the following matters:

- Introduce new types of collateral and set a set of risk parameters for them
- Modify or even add risk parameters for one or more existing collateral asset types

- Select the node group of the feeding machine
- Select a group of emergency information importers
- Trigger emergency shutdown
- Upgrade the system

ADAO holders can use funds from the Asemag buffer fund to pay for various infrastructure needs and services, including information input mechanisms and collateral risk management research. The funds in the Asemag buffer fund come from stabilization fees, liquidation fees, and other sources of income.

The design goal of the Asemag protocol governance mechanism is to be as flexible and scalable as possible. If the Asemag system matures under the guidance of the community, theoretically speaking, the form of proposal contracts will also become more advanced, such as a proposal contract that can bind multiple proposals. For example, the proposed contract can include both adjustments to the stabilization fee and adjustments to the DSR. However, these improvements still need to be jointly decided by ADAO holders.

6、Governance risks and mitigation measures

In order to maintain the successful operation of the Asemag protocol, Asemag governance needs to take necessary risk mitigation measures. The following provides a detailed description of some risks and corresponding mitigation measures.

Malicious participants launch malicious attacks on smart contract infrastructure

One of the biggest risks for the Asemag protocol is malicious participants. For example, a programmer may discover a vulnerability in a deployed smart contract and use this vulnerability to attack protocols or steal assets from the system.

In the worst-case scenario, all decentralized digital assets that serve as collateral in the agreement will be stolen and cannot be recovered.

6.1 Mitigation measures

The first priority of the Asemag Foundation is to maintain the security of the Asemag protocol, and the strongest defense of the Asemag protocol is formal verification. The Dai code library is the first formally validated decentralized application code library.

In addition to formal system verification, signing security audit contracts with the top security organizations in the blockchain industry, organizing third-party (independent) audits, and bug bounty programs are all part of the Asemag Foundation's security roadmap. You can access Asemag's multi guarantee Dai security report Github library to view formal verification reports and Asemag protocol audit reports.

These security measures form a powerful defense system; However, this system is by no means seamless. Even after formal validation, there may be problems with mathematical modeling of expected behavior, or the assumption of expected behavior itself may be an incorrect Black Swan event

7、The Future of Asemag DAO Protocol

6.1 Potential Market

For many decentralized applications, cryptocurrencies with stable prices are an important medium of exchange. Dai's potential market is no less than the entire decentralized blockchain industry. However, Dai's goal is far from inferior, but also to expand to other industries.

The following is a list of some parts of the current stable currency market:

- Working Capital, Hedging, and Leveraged Transactions: Asemag Treasury allows users to engage in license free transactions, and users can generate Dai as working capital through treasury guarantees. So far, tens of thousands of treasury owners have used ETH as collateral to generate Dai, and then used Dai to purchase ETH, thus achieving fully guaranteed leveraged transactions.
- Commercial receipts, cross-border transactions, and remittances: Dai can reduce foreign exchange volatility and eliminate the need for intermediaries, which means the cost of cross-border transactions will be significantly reduced.
- Charities and non-governmental organizations: They can use transparent distributed ledger technology.
- Game industry: For blockchain game developers, Dai is an ideal currency choice. After integrating Dai, game developers not only receive a currency, but also an entire economic system. With Dai's composability, game developers can build new player behavior mechanisms based on decentralized finance.
- Predicting the market: When making unrelated predictions, using highly volatile cryptocurrencies increases the risk of betting. Betters must take into account the risk of future price fluctuations for such assets, so it is not possible to participate in longer-term event forecasting. Stable currency Dai is a natural choice for predicting the market.

6.2 Asset Expansion

ADAO holders may be willing to include new assets in the collateral category, which will also be subject to Dai's risk requirements, parameters, and security measures (such as liquidation rate, stabilization fee, deposit interest rate, and debt ceiling).

6.3 Development Information Input Mechanism

Asemag DAO is the first reliable information input mechanism project running on the Ethereum blockchain. Therefore, many decentralized applications use the Asemag DAO pricing mechanism to ensure system security and continuously provide the latest price data. With the guarantees provided by the Asemag DAO and Asemag protocol, Asemag governance can broaden the core information input mechanism infrastructure, thereby better adapting to the needs of decentralized applications.

8、Disclaimer

6.1 Disclaimer

This white paper is only for the purpose of conveying information. The above information or analysis does not constitute an investment decision, and this document does not constitute any investment advice, investment intention, or solicitation of investment. This white paper does not constitute or should be understood as providing any buying or selling behavior, or inviting the buying or selling of any form of securities, nor is it a contract or commitment in any form; Asemag DAO believes that there are countless risks involved in the development, maintenance, and operation of ADAO and other cryptocurrency and blockchain systems, many of which are beyond the control of the foundation. In addition to the other content described in this white paper, each ADAO buyer should also carefully read, understand, and carefully consider the following risks. Investors should have a clear understanding of the risks associated with ADAO tokens. Once they participate in the investment, they acknowledge and accept the risks of the project, and are willing to personally bear all corresponding consequences or consequences for this; The Hezhong Medical Chain team shall not bear any direct or indirect asset losses caused by participating in the Hezhong Medical Chain project; Each ADAO buyer should pay special attention to the fact that Asemag DAO only exists in the virtual space of the network and does not have any tangible existence, therefore it does not belong to or involve any specific country.

6.2 Risk Reminder

To participate in the purchase of ADAO (i.e. digital asset exchange), please carefully read the Asemag DAO white paper, have a comprehensive understanding of Carbon's technological characteristics, the risk return characteristics of green seeds, and be aware that the Asemag DAO project will not provide returns or withdrawals of exchanged digital assets under any circumstances. The Asemag DAO team will use the digital assets raised by tokens in a reasonable manner according to the content disclosed in the white paper and regularly disclose them. Despite the Asemag DAO team's dedication, diligent work, and fulfilling its board management obligations, buyers still face the risk of losses, including potential policy risks, economic cycle risks, liquidity risks, information security risks, and public welfare chain fluctuations. Buyers need to fully consider their own risk-taking ability, make rational judgments, and make prudent decisions.