



DAO Hyperledger Omniverse  
(DHO)

White Paper 1.0

# DAO Hyperledger Omniverse

- 1 Background ..... 4**
  - 1.1 Introduction ..... 4
  - 1.2 DAO ..... 5
    - Legacy Organization ..... 5
    - Blockchain ..... 5
    - Agency ..... 6
    - DAOs ..... 7
    - DAO Topology ..... 8
    - The famous decentralized structure ..... 10
  
- 2 About Us ..... 11**
  - 2.1 Community ..... 11
  - 2.2 Member ..... 12
  - 2.3 NFT node ..... 12
  - 2.4 Basis ..... 13
  - 2.5 sub-DAO ..... 13
  - 2.6 Token ..... 13

<b>3 Operation Mode</b> .....	<b>14</b>
3.1 Financial Management.....	14
3.2 DAO Governance.....	14
3.3 Business Model.....	15
3.3.1 Sharing Project.....	15
3.3.2 Start Up a Project.....	16
3.3.3 Create Project.....	16
3.3.4 Publish Task.....	16
<b>4 TOKEN</b> .....	<b>17</b>
<b>5 Technical architecture</b> .....	<b>19</b>
5.1 general survey.....	19
5.2 DHO token specification.....	19
5.3 workflow.....	20
5.3.1 NFT vertical pile.....	20
5.3.2 DAO proposal.....	20
5.3.3 Operational crowdfunding.....	21
5.3.4 Project crowdfunding.....	22

# 1 Background

## 1.1 Introduction

The blockchain revolution is sweeping the world in full swing. The era of Wab3.0 is bound to come, which means that the post-Internet era will face a greater revolution, including the upcoming meta-universe, which will be a universe parallel to the physical world, with infinite interaction between the two. Wyoming is the world's first successful registration with the new term DAO governance, which means that with the arrival of WBE3.0 era, the governance mode of this world will undergo revolutionary changes. Therefore, we are prepared to be a lonely pioneer in the Great Revolution.

Since its birth on the earth, human beings have been inventing new methods through increasingly efficient structures to organize and expand the scale of cooperation, from nuclear families and tribes and countries to enterprises and the global economy. Up to now, the most advanced Internet has opened the door for real-time information exchange worldwide, but there is still a lack of universal coordination and economic ways for global peer production. By providing a reliable, open and programmable accounting system, blockchain has achieved this goal, thus making the decentralized autonomous organization (DAO) emerge as the times require.

DAO is an open, self-organized collective that coordinates through economic incentives and self-enforcement guidelines, and cooperates around common goals. Supported by the network effect, DAO provides an income model and incentive mechanism for the production of open and shareable resources (such as open source codes and music files). With the establishment of more open resources, DAO will be able to expand indefinitely, while maintaining its agility and consistency, and in many cases surpass the existing corporate structure. DAO attracts top talents in the blockchain field, and fulfills the promise of a more effective and flexible organization. However, the key factors of successful deployment in this field are still lacking, especially in the proper decentralized supervision system.

## 1.2 DAO

After thousands of years of continuous evolution, the ability to organize and coordinate a large number of individuals is one of the greatest forces (and driving forces) for social progress. In this section, we will introduce the challenges faced by today's legacy organizations and a new form of network organization, namely DAO.

### Legacy Organization

Cooperation can improve its efficiency in external competitive market forces. This is the basic origin of the company and the reason why the organization wants to develop. However, the coordination of a large number of agents is difficult and expensive, which is also the reason why organizations cannot grow indefinitely.

In the process of development, the organization needs a stricter structure, so it faces more severe challenges: a) keeping flexibility in response to rapidly changing conditions; B) Maintain the consistency of interests, trust and interaction among members. In short, the larger the organization, the more internal friction it needs to deal with; The smaller the organization, the more dominant the external competition is. Usually, the actual size of the company is the sweet spot to balance these two forces.

Sometimes, the introduction of new technology or mode conversion can reduce the coordination cost and further the scale and efficiency of the organization. This led to a change in the work and business situation, which in turn led to social changes, such as crowdsourcing and the invention of the Internet itself.

The Internet has achieved an open, real-time and peer-to-peer information exchange worldwide. Therefore, compared with the traditional media business, Internet media has been expanded more effectively and absorbed the latter quickly. However, the Internet itself does not support open, peer-to-peer value exchange and universal coordination, thus limiting its potential to promote global cooperation.

### Blockchain

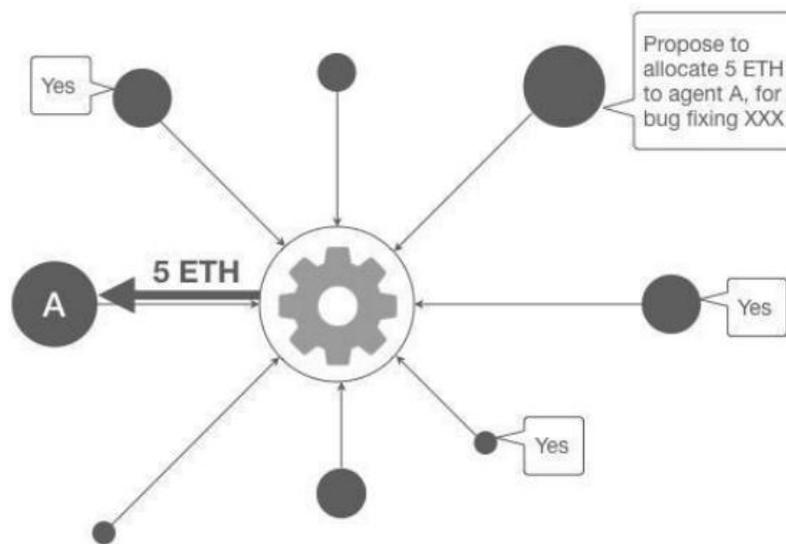
Blockchain is the second Internet revolution, and the value and business created can be compared with the Internet's contribution in information and media. By completely

eliminating the problems of negligence and trust, it achieved an unprecedented level of collective coordination, thus forming the technical foundation of decentralized autonomous organization (DAO). DAO is an extensible new form of self-organization and cooperation, which operates through intelligent contracts on blockchain. Many people think that DAO carries the promise of the future of business and work. However, although the issues surrounding this topic have great influence in the blockchain community, there is still a lack of DAO's successful regulatory system and operational foundation.

## **Agency**

The building blocks of DAO are intelligent companies or agents (we will use these two terms interchangeably). An agent is an atomic supervision unit, which is managed and operated through smart contracts on the blockchain. It has its own tokens (linked to the interests of the company's resources), its own reputation system (linked to the credibility and influence of the company's affairs) and its own supervision system (its "Articles of Association" embedded in smart contracts).

The regulatory agreement embedded in the agent smart contract can be anything made by anyone. A simple example is the proposal-based supervision system, in which the approval and execution of the required proposal (an operation of an intelligent company) are voted for/against by a majority vote. For example, the proposal may be about token distribution, and the vote may be weighted according to the reputation of voters. In the next chapter, we will give examples. In heuristic visualization, it might look like this:



Schematic diagram of blockchain agent

Solid ball represents the agent in the company; Their distance from the center reflects their influence or reputation (the closer they are, the greater their influence); The size reflects the share of local tokens (the bigger the ball, the more company tokens you hold). An agent suggested to allocate 5 Ethereum to agent A to reward its valuable contribution to fixing vulnerability XXX. The company's agents vote, and the voting rights are weighted according to their reputation. As long as most reputation holders agree to the proposal, the contract automatically executes the proposed token allocation.

## DAOs

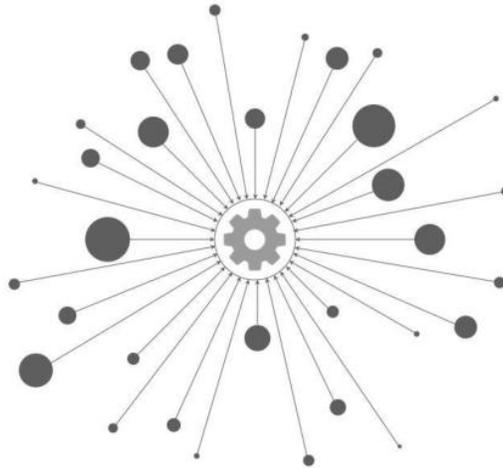
Agents run smart contracts on the blockchain. They follow unbreakable verifiable rules, which can only be changed according to the rules themselves. Depending on the regulatory system they choose, they may or may not achieve autonomy; For example, one token can reserve the veto power for the decision-making process of other tokens.

DAO is an agent mesh network without center, and it is also an agent itself. There is no single control point or failure point in the organization. Instead of centralized management, agents coordinate indirectly. This kind of coordination is also called

"stimulating work" in biology, which is triggered by incentives and codes. DAO is a self-organized entity, and as a whole, it is more like an organism than an organization.

## DAO Topology

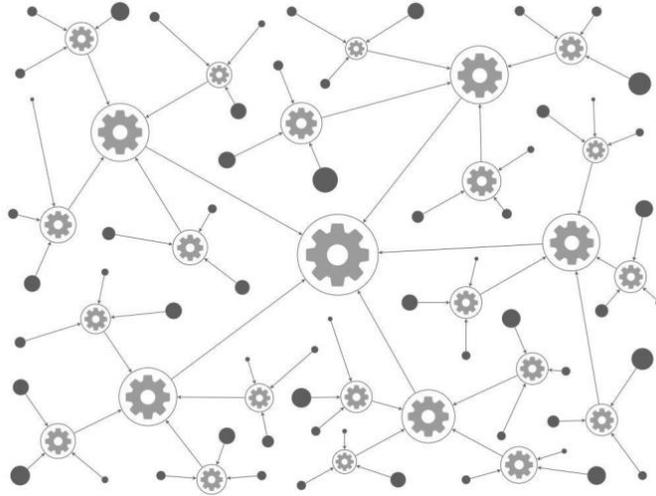
There are various decentralization modes, so agents have many modes to think about DAO. The common way to think about DAO is the large-scale assembly mode:



The assembly mode of DAO

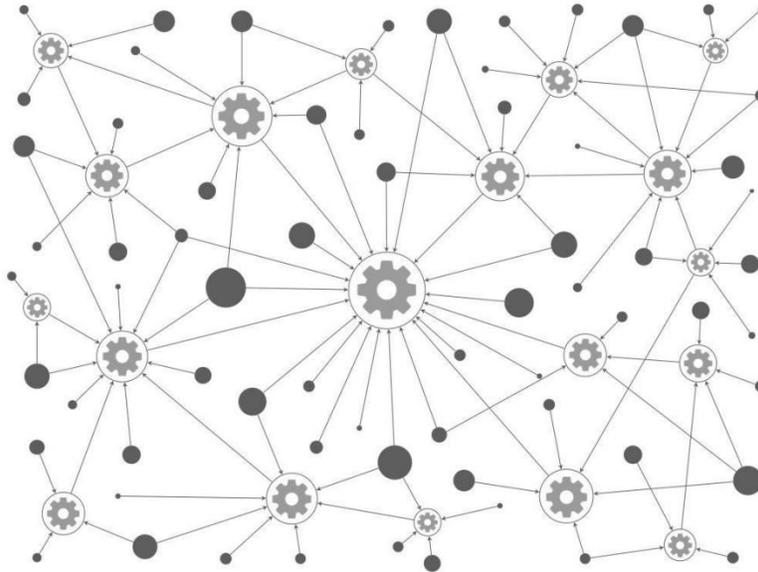
In the assembly mode of DAO, a large number of agents interact with each other in a single agent through their smart contracts, and they hold a reputation, so the decision-making power can be fairly distributed. Although it is the simplest, this model has inherent tension with expansibility; And while maintaining flexibility, this mode has limitations in processing capacity. We will introduce some techniques to expand the processing power of this DAO mode, but it can't be a complete answer by itself.

The second decentralization mode is fragmented federal supervision:



The fragmented federal supervision mode of DAO

In the extreme fragmented federal supervision mode of DAO, DAO is an agent with one agent, in which each agent has several agents, each agent itself is an agent, and so on. Actually, DAO may be somewhere between these two modes, and as a nested proxy network, DAO may be intertwined with other DAOs through shared proxies:



Complex mesh network mode of DAO

With the help of the infrastructure provided by DAO stack, these simple agents can form a complex mesh network. In order to give full play to the role of collective wisdom and benefit the whole organization, in DAO organization, power can be divided by the way of elite system.

## The famous decentralized structure

Decentralized structure is very common in nature. The human body is a decentralized structure composed of organs, sub-organs and secondary organs, which has been refined to atomic cells, which have their own internal structure. The function of the body is very decentralized, and no cell tells other cells what to do. Instead, each cell operates autonomously according to the input it receives from the environment. The feeling of organism (autonomous, living human) is a new phenomenon that only manifests itself at the collective level.

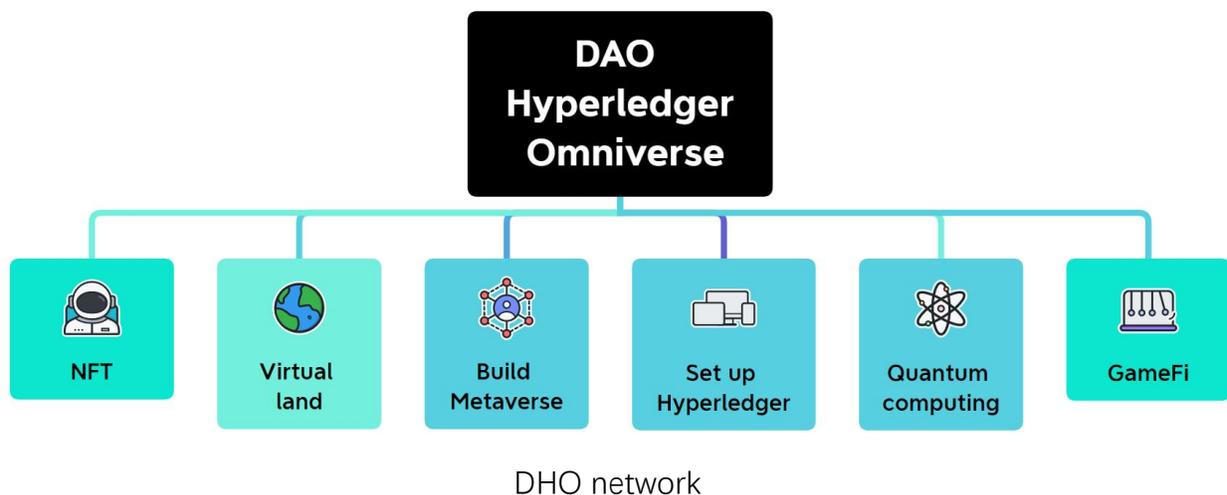
An ant colony is a decentralized structure. Its operation does not need central management or control (the queen ant does not decide the colony, but is responsible for laying eggs), and each ant will respond to its nearest environment. Wise bee colony is a new phenomenon at the collective level, which originates from the indirect coordination of ants, even without direct communication with each other.

Internet is a decentralized structure based on human beings. This is a decentralized system. Since its birth 50 years ago, the Internet has gradually expanded to 2 billion users. Its dynamic self is like a living system, although it helps it develop and upgrade over time. However, the Internet does not support internal value distribution, so it lacks an internal economic incentive model. Therefore, its function is limited to information distribution.

In fact, blockchain itself is the closest existing thing to DAO (more precisely, it should be DApp). This is an organization of centerless living beings managed by a large number of participating members (i.e. miners). Adopt a brand-new internal economic incentive model, which opens the door to unprecedented growth and adoption level. At the time of writing this white paper, the Bitcoin blockchain network has grown from zero to nearly \$100 billion, without any central management or coordination. Ethereum blockchain has also grown to \$30 billion in three years! (This means: during that time, the investment value of the lucky investors of Ethereum Crowdfunding increased by about 1,200 times). However, these value-based DApp have limited functions and require additional elements to start a general DAO that can be organized around a general purpose. DAO stack is the missing factor.

## 2 About Us

After a year-long in-depth exploration with Hyperledger Omniverse Laboratory, we are willing to become an organization that helps people in the real world connect with the meta-universe. We will develop tools to release the creativity of Metauniverse, integrate its important assets, and discover outstanding talents. In this way, we will establish a connection between MetaUniverse and the physical world in the creative work done by MetaUniverse with DAO, where people will be empowered based on their DAO status in MetaUniverse. Power is owned by and enjoyed by the people. The combination of this governance method and experimental research has been synthesized into DAO +Hyperledger Omniverse organization (hereinafter referred to as DHO). We believe that DAO will fundamentally change the way people build organizations, from startups to companies, non-profit organizations, and even nation-states.



### 2.1 Community

We are all members of the early start-up contributors and investors focusing on WBE3.0. Under the governance of DAO, we will share the latest investment information and opportunities to invest in qualified projects. We will lead the community, link global resources, and build a cross-time-zone, cross-race, and cross-faith group to work

together to ensure that our organization becomes the strongest DAO organization in building WBE3.0.

## **2.2 Member**

It is the core of the member community and the source of value. This is a fact, but it has never been taken seriously.

In DHO community, we started the community contribution standard, based on which we created reputation indicators. Members of the community can obtain their reputation tokens (i.e. NFT) through crowdfunding, voting, providing research reports and completing tasks, and they will have various permissions that match their reputation.

There are 3 different levels of members:

The first level: the original DAO, that is, the creation member. In the early stage of the project, a certain amount of private equity will be distributed to each member, which will become the highest decision-making level of the organization;

Level 2: token holding: making an initial proposal for the ecology to be built in the future;

Level 3: sub-DAO members; Link global resources.

## **2.3 NFT node**

Every community participant will have an NFT node in the future. NFT nodes can be traded in the NFT market after all 10,000 NFT nodes are activated.

Long-term ownership of NFT nodes will earn NFT as interest of earnings.

## **2.4 Basis**

O DHLab will manage its operating income on behalf of the community, and integrate market information at an early stage to make investment suggestions and assist in community asset management. The income will be owned by all DAO members, not only for investment, but also for developing and balancing the community ecosystem. Eco-fund will use multi-signature contract to manage encrypted assets.

## **2.5 sub-DAO**

Once the community members agree to the sub-DAO proposal, the sub-DAO is created. sub DAO inherits DHO based on DHO's management model. DHO will help DAO to do crowdfunding and bring more community members to participate in DAO.

## **2.6 Token**

The community token is the right island autonomy token. The total amount of tokens in the community is 200,000,000. Members of the community are voting using the community token. DAO will distribute benefits and bonuses to community token owners according to the number of tokens they own.

Community tokens can be traded.

# 3 Operation Mode

## 3.1 Financial Management

DAO organizations have two types of encrypted assets: NFT and other encrypted assets managed by DHO Token Ecological Fund, and multi-signature contracts are used to manage community assets.

The laboratory sets the threshold for asset management. As long as the total assets are below the minimum amount, the ecological fund has the right to invest. Once the ecological fund needs more assets for investment, DAO will initiate a proposal.

Only when the proposal is approved by DAO can the ecological fund use those assets for investment.

## 3.2 DAO Governance

DHO has created a contribution-based standard for DAO governance. DHO uses reputation level as voting weight. The more members contribute, the more reputation they gain, and the higher the voting weight they have.

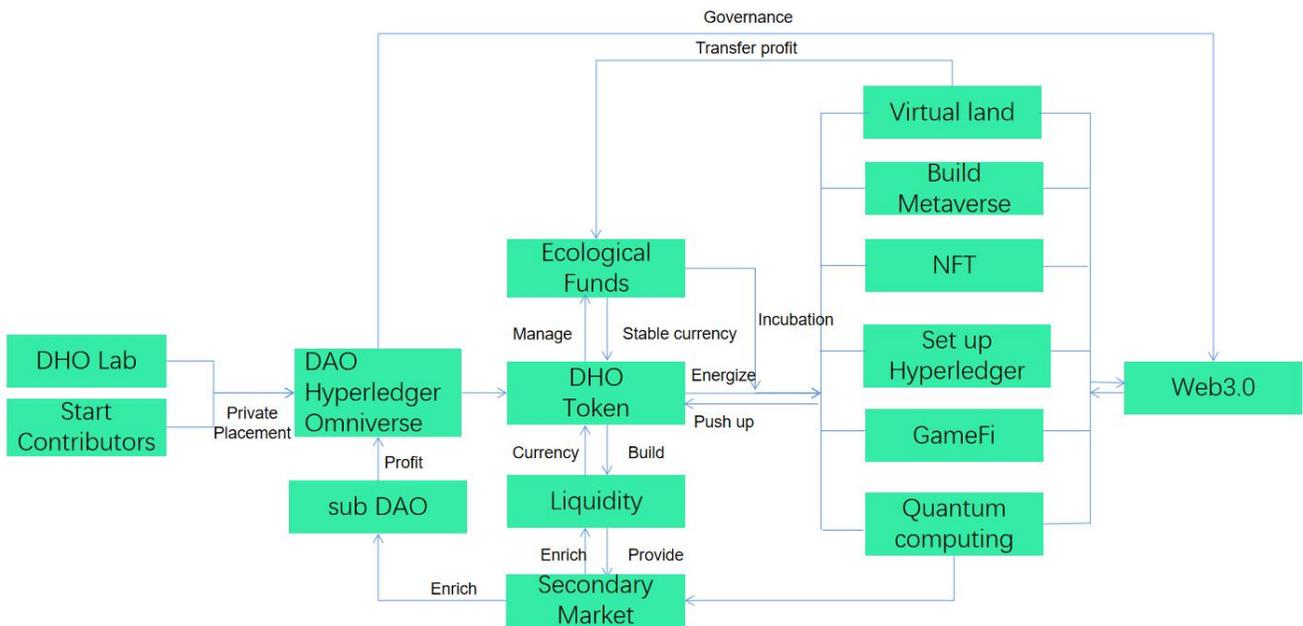
**Important: The security type proposal is a special proposal for everyone.**



DAO governance model

### 3.3 Business Model

The income mainly comes from investment in blockchain projects and the increase of currency value. As DHO is only in the early stage, currency value is the key, and investment projects and incubation projects are actually the main business model of DHO.



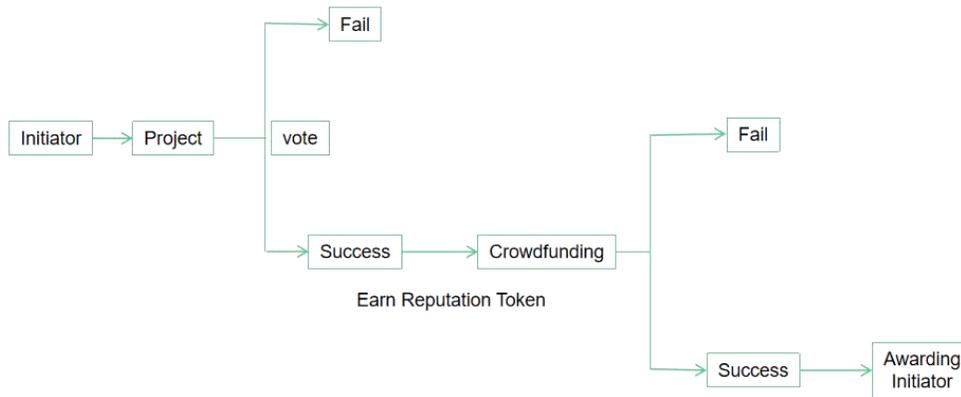
DHO ecological loop

#### 3.3.1 Sharing Project

DAO provides a platform to encourage members to share projects with each other. Members can create anything about the project, and this activity will be regarded as a contribution to the community, so they will get a reputation token.

Community rewards reputation tokens to creators who create high-quality content.

### 3.3.2 Start Up a Project



Project sharing mode

### 3.3.3 Create Project

We set a minimum reputation requirement for members who create new projects to ensure the project. Once the project proposal is approved, the project sponsor can obtain a reputation token.

There are two types of projects:

Investment, transaction

Operations, such as bifurcation agreements and creation/sales.

### 3.3.4 Publish Task



Task publishing mode

Task allocation system is another important cycle in the community economic model. Members publish tasks by burning reputation tokens, and if the tasks don't respond, they put in community tokens as additional incentives for the tasks. The

community will reward the reputation token for high-quality tasks.

## 4 TOKEN

ERC20 protocol issues token.

**Unique smart contract address: 0x27c08eedbf56fb51ac5d13727d1c9476e2b5cd7b**

Community token is DHO Lab Autonomy Token. The total amount of tokens in the community is 200,000,000.

### **Ecosystem = 45%**

Adopt multi-sign and intelligent contract for scientific management.

### **Sales = 15%**

DAO organizes proposals for domination.

### **Liquidity = 15%**

### **Private placement = 5%**

Locking time: 360 days

Unloading time: once every 90 days;

Unlock in four times

### **DHO laboratory = 9%**

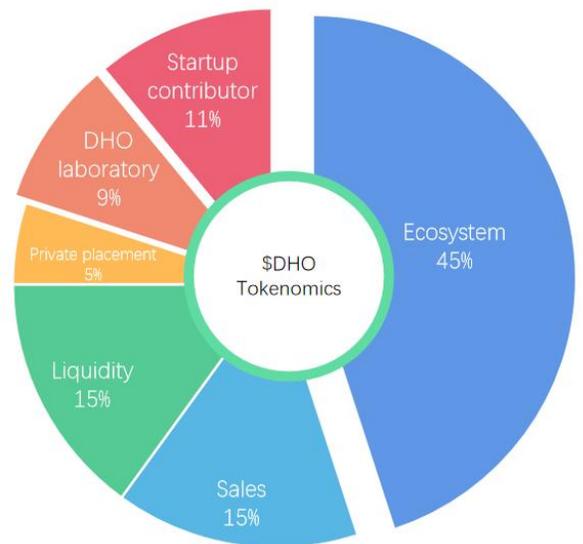
Locking time: 720 days

Unloading time: once every 90 days; Unlock in 8 times

### **Startup contributor = 11%**

Locking time: 540 days

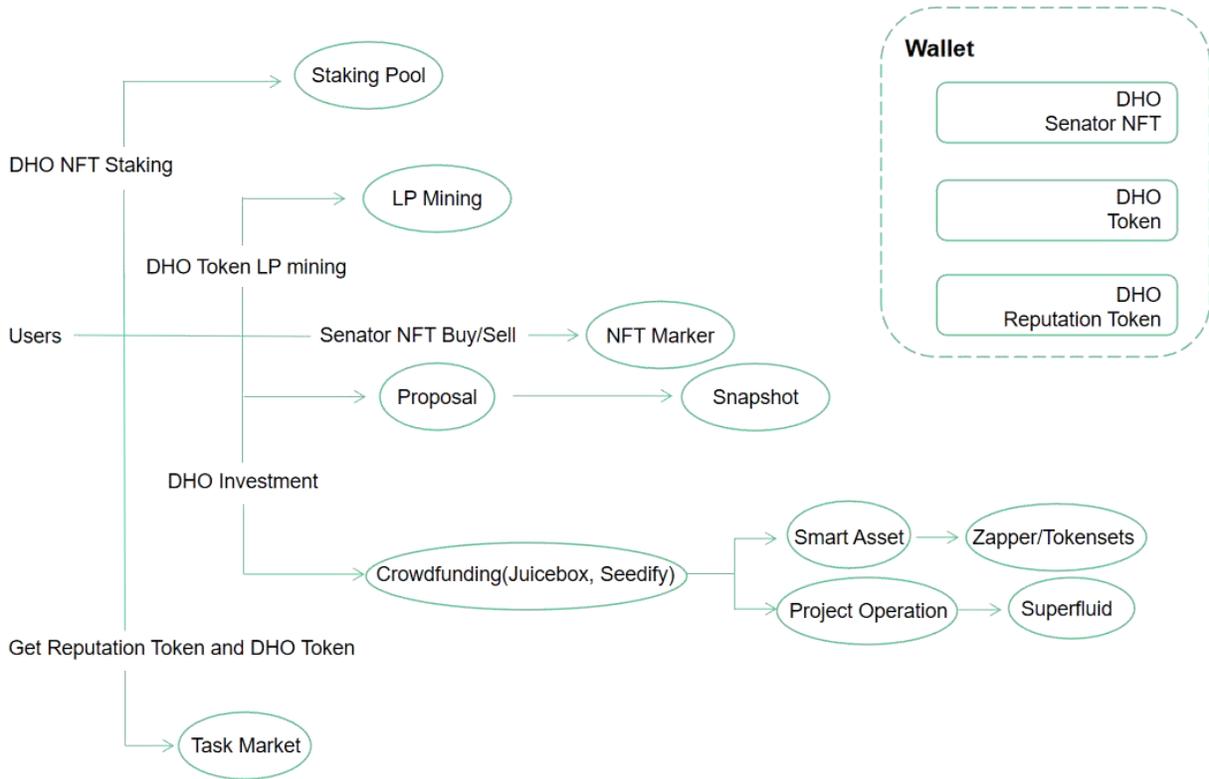
Unloading time: once every 90 days; Unlock in 6 times



PURPOSE	AMOUNT	%
ecosystem	90,000,000	45%
Sales	30,000,000	15%
private placement	10,000,000	5%
DHO lab	18,000,000	9%
Start contributor	22,000,000	11%
Liquidity	30,000,000	15%

# 5 Technical architecture

## 5.1 general survey



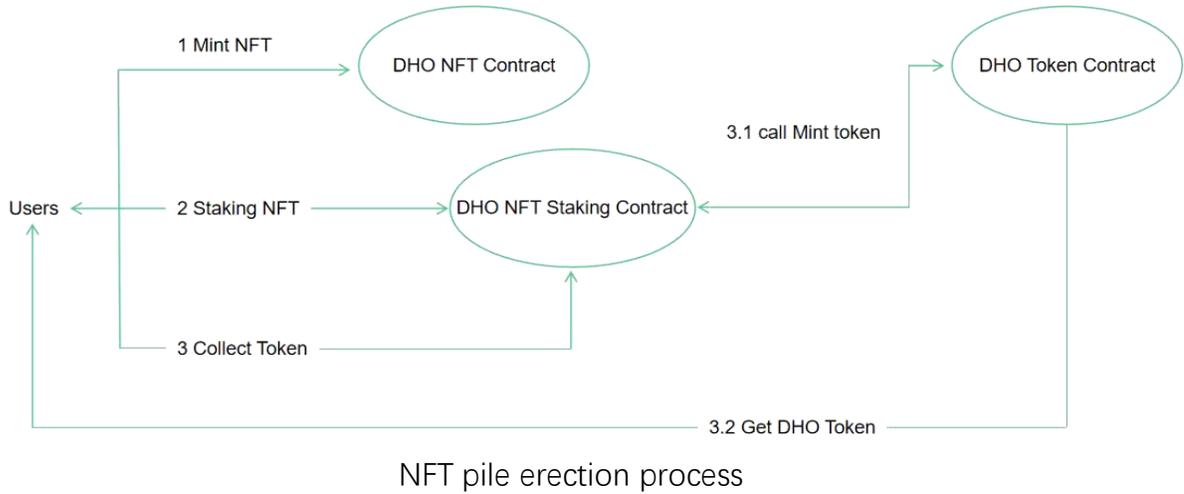
DHO technical architecture

## 5.2 DHO token specification

1. DHO NFT, ERC721, stands for DHO NFT node.
2. DHO token, ERC20, community token
3. DHO reputation token, ERC1238, reputation token

## 5.3 workflow

### 5.3.1 NFT vertical pile



1. Call NFT Mint
2. Incorporate user NFT into betting contract
3. Call the user bet contract collection token.
  - a. The contract calls rights symbolic contracts.
  - b. DHO Token Contract transfers tokens to users.

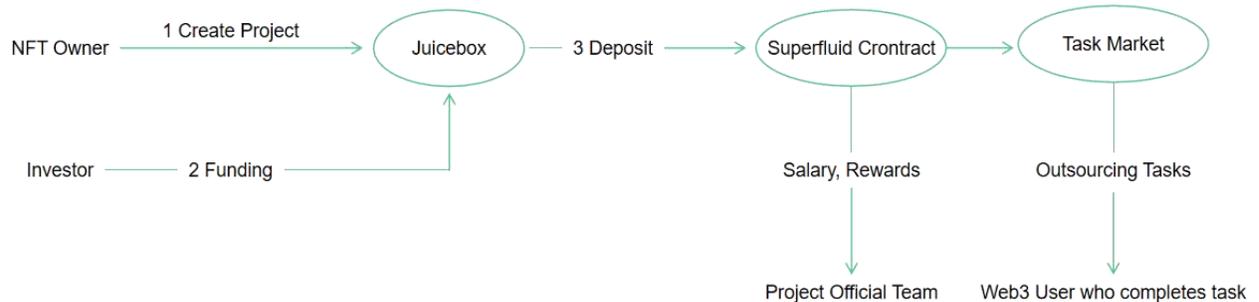
### 5.3.2 DAO proposal



1. NFT owner calls Snapshot to initiate proposal
2. Users vote for their DHO community tokens as specific proposals.

Once the DAO proposal is passed, it is becoming a crowdfunding project.

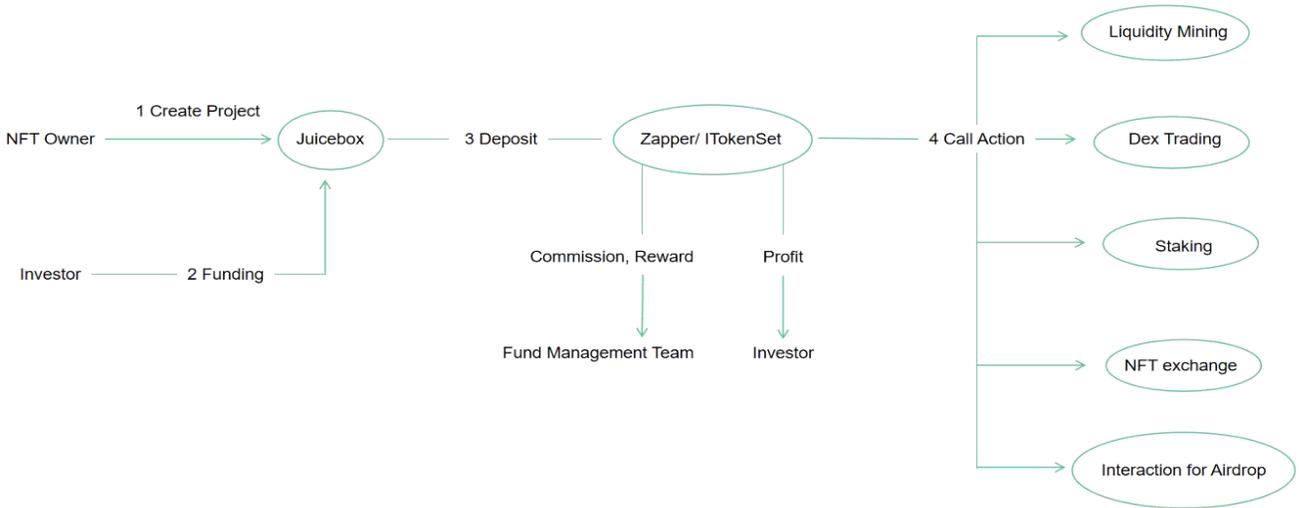
### 5.3.3 Operational crowdfunding



Crowdfunding process

1. NFT owners launch crowdfunding by using Juicebox protocol.
2. Users provide funds.
3. Once the funds are in place, the tokens will be deposited into the excess flow contract.
4. The project management team is using superfluid contract to manage the cash flow of encrypted assets.
  - a. Salary and bonus payment
  - b. Outsourcing task paymen

### 5.3.4 Project crowdfunding



#### Investment process

1. NFT owners launched crowdfunding projects through juicebox agreement.
2. Users provide funds.
3. Once the funds are in place, the tokens will be deposited into the investment contract.
4. The investment contract will use Zapper or SetToken agreement for activities.
  - a. DEFI LP mining company
  - b. Token transaction
  - c. Vertical pile demarcation
  - d. NFT trade
5. After the investment reaches the milestone
  - a. Distribute profits/bonuses to contract users
  - b. Assign management fees/bonuses to the contract management team.