

DAO Universe

Whitepaper

07 June 2019

Introduction

DAO stands for decentralized autonomous organization, while DAO Fund is technologically operated and regulated investment fund with decentralized governance on public, permissionless distributed ledger. It provides a new alternative vehicle for collective investments infrastructure, easy to use for anyone seeking an exposure to digital assets with fully transparent operations.

Motivation

At the moment, starting traditional investment fund is complicated and very capital intensive. Onboarding new clients requires compliance with vast number of regulations and requirements. All for the sake of protecting investors interests and capital control. Many processes in operations are not digital and require a lot of functional stuff. Compliance costs with paperwork processes originate quite a lot of direct and indirect costs, especially legal. Running Investment Fund is viable only after a certain scale of assets under management (AUM), which should be quite significant. Those barriers to entry create a superset of players operating at scale, while the costs are mostly laid down on a client

A lot of intermediaries involved to create a necessary conflict of interests, yet fraud and overindulgence are still flourishing on the market, as overcentralization problems occur. That problem may be aggravated dealing with digital sovereign assets on the blockchain.

We believe that DAO can solve many issues with centralization and cooperation, unlocking the ability to create community investment vehicle fairly distributing rewards for outstanding performance of governors. That is why **DAO Universe** was created.

Overview

Conceptually, as planets in the Universe subject to laws of physics, DAO's in **DAO Universe** are subject to economic laws, governed by its inhabitants. Inhabitants pursue a common goals and rely on each other to make investment decision hoping to increase the size of their DAO and value per each participant.

The main goal of **DAO Universe** is increasing the value of assets under management and increasing its social influence.

As DAO's in **DAO Universe** exists solely on the blockchain and owns digital assets to provide unprecedented transparency of asset management and decision making and higher risk/reward.

Definitions

DAO - An organization represented by rules encoded as a computer program that is transparent, controlled by shareholders and not influenced by a central authority.

DAO Universe - Community-based DAO Funds built on [Aragon](#) stack and aimed at profit maximization of assets under its management and social influence increase. There can be many DAO's in DAO Universe ecosystem serving different purposes and investment strategies.

Address - URL of DAOs from DAO Universe such as <https://mainnet.aragon.org/#/mars-dao.eth>. Each DAO has its own ENS name.

Participants - Any person having tokens in possession of DAO Universe is a Participant

Roles - There are no specific management roles in DAO Universe, however any **Participant** may take an active role in **DAO's Governance** and **Investment** activity. As a reward, such a **Participant** will earn **R tokens** and participate in Equity tokens (**Q tokens**) distribution.

Rewards distribution - Distribution of fees for management among **Participants** of the **DAO** proportionally to their **Reputation** (*R tokens*). This will incentivize **Participants** of the **DAO** to take an active role in governance of the **DAO**.

Contribution - An amount contributed to the DAO in exchange for **Q tokens**.

Redemption - Q tokens can be sold on the secondary market or redeemed for any other liquid asset in possession of DAO at any time within setted timeframe executed by conducting a vote. Q Tokens may be sold using Continuous liquidity mechanism of Uniswap exchange (Uniswap.io) according to available liquidity.

Trade - Q tokens can be freely traded via OTC or exchanges where available. R tokens are not tradable.

DAO Shutdown - Stopping of all activity and redemption of all Q tokens for Assets in DAO possession. Consensus of 75% Q Tokens need to approve that decision.

Governance

Anyone can participate in the **DAO Universe** by contributing to one of its **DAO's**. There is no minimum necessary contribution in the **DAO Universe**.

DAOs in **DAO Universe** are governed by two types of tokens: **Q type** - tokens and **R type**. All decisions in **DAO Universe** are made through voting procedure executed on the Ethereum blockchain.

Any contributor to the DAO becomes **Participant** of this DAO and receives **Q tokens** of the DAO according to his/her contribution. All contributions should be done in DAI, ETH or in any other liquid ERC-20 stable coin.

Q token and **R tokens** might be transferable or non-transferable ERC-20 tokens.

Each DAO is setting governing rules of functioning and operating according to Internal Governance Proposal approved by **Q - tokens holders** Voting.

Reputation

Reputation is a powerful mechanism to incentivize **Participants** to take an Active role in **DAO's Governance** and investment activity. **Participant**, no matter if he has or doesn't have **Reputation**, may earn **Reputation** for a following activity:

- 1) Voting. Any **Participant** who takes part in Votings of the **DAO** earns 1 (one) **Reputation** token, *before consensus has been reached*.
- 2) Proposals. Any **Participant** who makes proposal regarding **Governance** or **Investment proposal** earns **Reputation** tokens if the proposal has been accepted or executed.

Participant may initiate a **Vote** in the **DAO** only if he owns minimum required **Reputation** (a certain amount of tokens) set by the **Investment memorandum** of this **DAO**.

Reputation represents a right to take part in **DAO's** fees distribution. Any **Participant** who owns a **Reputation** tokens will get a reward from **DAO's** activity proportionally to the amount of his **Reputation** tokens stake.

Reputation injection - DAO Participants may arbitrary decide to mint new Reputation tokens for any account, rewarding contractors, active members or others by Reputation Voting. **Reputation injection** is limited to 5% of total supply of **R Tokens**.

The Roles

Every Participant can attend both roles in **DAO Universe**.

Active role.

Any **Participant** may take an active role in **DAO's Governance** and **Investment** activity. As a reward, such a **Participant** will earn **R tokens** tokens in the following situations:

- 1) For every vote in any ongoing votes, **Participant** has made before consensus has been reached.
- 2) For every accepted proposal, regarding **Governance** or **Investments**, **Participant** put on voting.

Passive role.

Any **Participant** may choose **Passive role** benefiting only from activity of other **Participants** of a **DAO**. **Participant** may choose an **Active role** at any time just by taking a part in **Voting process** or by making an **Investment proposal**.

The Funds

In **DAO Universe** several DAO's for different investment strategies will be created: high risk strategies (**Asteroids**), moderate risk strategies (**Planets**), low risk strategies (**Stars**).

All proposed financial strategies will be measured according to 5 basic parameters:

- Expected return $E(R_p)$
- Strategy Risk, return volatility σ_p
- Sharpe ratio $\frac{R_p - R_f}{\sigma_p}$
- Time horizon t
- Liquidity L

Strategies that don't fit the risk profile/time horizon/liquidity of a particular DAO won't be accepted.

The Assets

As DAO Universe investment benchmark is US Dollar, the DAOs can keep their part or all of their working capital in DAI as a stable currency.

Any other position should be considered as an investment action, which may only be executed after DAO investment proposal voting process.

Any participant should contribute into DAO with ETH or any other liquid ERC-20 stablecoin (according to the list approved by Participants voting). Participant should accept that all contributions other than ERC-20 stablecoins will be automatically converted by the DAO using a market order at the time frame outlined in parts of the **DAO Universe** Investment Memorandum.

Since DAO Vault is based on Ethereum blockchain **only** ETH and ERC-20 tokens are supported for now.

Technological stack

DAO Universe is built using AragonOS from Aragon Network (aragon.org).

Aragon stack consists of different Layers included in overall solution: DOM Layer (Client UI+App UI), JS layer (Aragon UI, Script, aragon.js server, aragon.js client), EVM layer (Kernel, ACL, EVM Scripts, Apps)

AragonUI uses iframes and provide consistent experience for users across Aragon apps.

Permissions in each DAO are set in *Access Control List*.

Each is DAO is deployed mainnet with initial pre-determined setup, and then permissions might be changed according to current Tokens majority rule. Majority rule and quorum can not be altered after deployment.

AragonPM registry includes a number of installed applications including APMRegistry, one ENSSubdomainRegistrar and Repo instances. Each repo has a human-readable names, such as `voting.aragonpm.eth`

Each Aragon APP may be upgraded with smart-contract modifiers with added initialized function.

For building additional apps we use AragonAPI, writing Javascript implementations to interact with AragonOS handling pathing, upgradeability and state of the contracts.

Each DAO comes with 2 token smart-contracts, governing each action, 2 Voting application, Agent Vault for transacting with third party Dapps.

Investment Proposals

Participants, owning **R tokens**, may submit Investment proposals for partially managing the Assets. The maximum amount of Assets, which can be provided to any participant (for management), depends on the amount of **R tokens**, held by Participant.

If **R token** voting approves the Investment proposal, the Participant, who submitted it, should act as a manager and execute the proposal:

- Complete transactions according to the terms, indicated in the Investment proposal (until the transaction will be executed by the code).
- Participant is entitled to receive, transfer the funds, conduct the deals and perform other actions for the purposes of the Investment proposal execution.
- If the deal cannot be executed on the terms, indicated in Investment proposal (market conditions got worse, etc.), Participant should transfer the received Assets to the Vault.
- Finalize the deal and return the Assets to the Vault.
- Provide the report on the finalized deal.

Investment proposal should comply with one of the investment strategies, introduced in DAO Universe, and match the implied Risk and Return parameters for the strategy.

In general, Investment proposals will contain the detailed information on the trading idea and the deal terms, which will help other DAO participants to make a sophisticated decision: deal type (long/short trade; stake, compound, lend, ??), trading pair, deal direction, amount of assets, entrance price, target price and return, duration, investment rationale, etc.

Long / Short Trade Investment Proposal Template

Parameter		Comments
Deal type		<ul style="list-style-type: none">- <i>spot trade</i>- <i>derivative trade</i>
Trading Pair		<ul style="list-style-type: none">- <i>ETH/DAI</i>-

Direction		<ul style="list-style-type: none"> - long - short
Amount of Assets		<i>Max amount limit, determined by the amount of MRR (% of AUM)</i>
Margin		<ul style="list-style-type: none"> - 1x - 2x - 3x -
Investment Thesis / Rationale		For ex: - ETH adoption will rise in the next 3 month because of increased DeFi application... - -
Execution price		For ex. ≤ 310 DAI per ETH
Target price		<i>For ex. 500 DAI for 1 ETH</i>
Expected return, (%)		
Expected return, annualized %		
Duration	up to 3 months	<i>or liquidated at market at the end?</i>
Take Profit		<i>? y/n, partially / fully?</i>
/ Stop Loss		<i>? y/n, partially / fully?</i>
Execution platform		<i>Decentralized exchanges</i>
Expected return $E(R_p)$		
Strategy Risk, return volatility σ_p		
Sharpe ratio $\frac{R_p - R_f}{\sigma_p}$		

Final notes

Onboarding faq

