DAO Universe Memorandum

(alpha version 0.0.4)

07 June 2019

Introduction

DAO stands for decentralized autonomous organization, DAO can be conceptualized as technologically operated and regulated investment vehicle with decentralized governance on public, permissionless distributed ledger. It provides a new alternative mechanism for collective co-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 value creation vehicle fairly distributing rewards for outstanding performance of active participants. 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 enforced by economic laws and governed by its inhabitants. Inhabitants pursue a common goals and rely on each other to make collective decisions aiming to increase the size of their DAO and value per each participant.

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

As DAO's in **DAO Universe** exist solely on the blockchain, they have exposure on digital assets and provide unprecedented transparency of asset withholding, decision making and higher risk/reward.

Definitions

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

DAO Universe - Community-driven DAO Funds built on [Aragon](#) stack and aimed to grow assets in management, value creation and increase social influence. There can be many DAO's in DAO Universe ecosystem serving different purposes and 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 of DAO Universe in possession 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 **Funds Allocation** activity. As a reward, such a **Participant** will earn **R tokens** and participate in additional 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 needed 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.

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 any other eligible ERC-20 stablecoin.

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 (IGP)** 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 **Fund Allocation** 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 **Reputation** tokens.
2) *Proposals*. Any **Participant** who makes proposal regarding **Governance** or **Fund Allocation** earns **Reputation** tokens if the proposal has been accepted and enacted..
3) *Staking*. Any **Participant** may stake (lock) Q tokens in exchange for R tokens according to Internal Governance Proposal of each DAO.
4) *Earning*. Any **Participant** may earn reputation by executing tasks for the benefit of DAO.

Participant may initiate a **Vote** in the **DAO** only if he owns minimum required **Reputation** (a certain amount of tokens) set by the **Internal Governance Proposal** 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 reward 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 **Funds Allocation** 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 **Funds Allocations**, **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 **Fund Allocation Proposals**.

The Vault

In **DAO Universe** several DAO's for different fund allocation 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 metrics:

- Expected return **E**(Rp)
- Strategy Risk, return volatility **σ**p
- Sharpe ratio $\frac{Rp - Rf}{\sigma p}$
- 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 funancial benchmark is US Dollar, the DAOs will keep part or all of their Funds in DAI or USDC as price neutral assets.

Any other allocation should be considered as an financial action, which may only be executed after DAO **Funds Allocation 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 then 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 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.

Fund Allocation Proposals

Participants, owning **R tokens**, may submit Fund Allocation 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 Fund Allocation Proposal, the Participant, who submitted it, should act as a manager and execute the proposal:

- Complete transactions according to the terms, indicated in the FAP (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 Fund Allocation Proposal execution.
- If the deal cannot be executed on the terms, indicated in FAP (market conditions got worse, etc.), Participant should transfer the Assets back to the Vault.
- Finalize the deal and return the Assets to the Vault.
- Provide the report on the finalized deal.

Fund Allocation proposals should comply with one of the strategies, introduced in DAO Universe, and match the implied Risk and Return parameters for the strategy.

In general, Fund Allocation Proposals should contain the detailed information on the terms, which will help other DAO participants to make a sophisticated decisions: type of transaction (swap between assets, stake, compound, lend, borrow), assets, direction, amount, target price, target price and return, duration, rationale, etc.

Fund Allocation Proposal Template

Parameter		Comments
Transaction type		- *spot trade* - *derivative trade*
Trading Pair		- *ETH/DAI* -
Direction		- *long* - *short*
Amount of Assets		*Max amount limit, determined by the amount of MRR (% of AUM)*
Margin		- *1x* - *2x* - *3x* -
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		*For ex. 500 DAI for 1 ETH*
Expected return, (%)		
Expected return, annualized %		
Duration	up to 3 months	*or liquidated at market at the end?*
Take Profit		*? y/n, partially / fully?*
/ Stop Loss		*? y/n, partially / fully?*
Execution platform		*Decentralized exchanges*
Expected return E(Rp)		
Strategy Risk, return volatility σp		
Sharpe ratio $\frac{Rp - Rf}{\sigma p}$		

Final notes

Onboarding faq