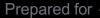
Unlocking the potential of Decentralized Autonomous Organizations (DAO) for traditional business models

June 2023





Get in touch with us



Igor Mikhalev
Partner
Amsterdam

- ► Emerging Technologies and digital ecosystems strategy expert
- ▶ 15 years of experience in start-up and state-of-the-art corporate and consulting environments leading Emerging Technologies and Digital Transformation



Dennis Post
Partner
Amsterdam

- ► Focus on Tax and Blockchain Technology
- ▶ 20 years of experience in Fiscal Law and EY Global Blockchain Tax Leaders



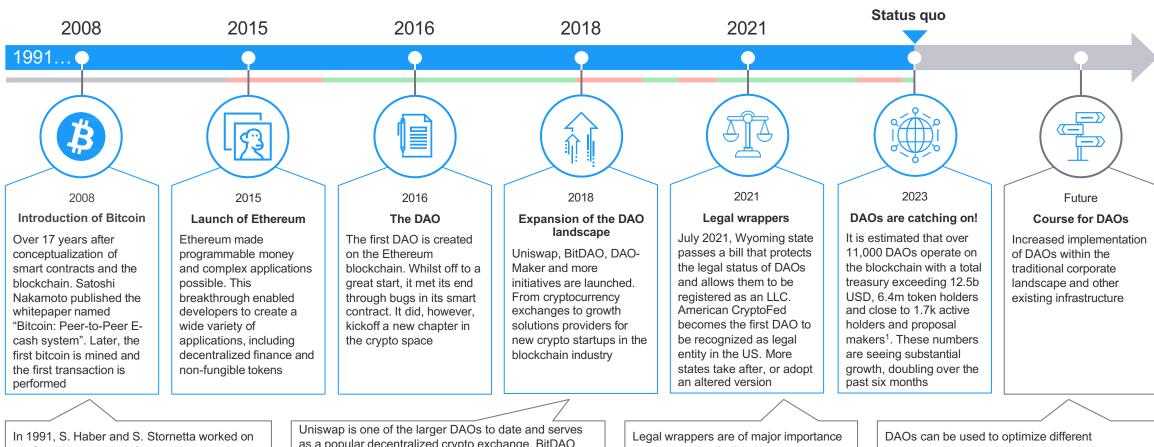
Content

- **▶** Why pay attention to DAOs
- ► DAO fundamentals
- ► Value of a DAO
- ► DAO in the context of legal, regulatory and tax requirements
- ► How to build a DAO



DAOs have existed since 2016 and have seen increasing amount of interest during the last three years

The DAO timeline



In 1991, S. Haber and S. Stornetta worked on the first blockchain. N. Szabo describes the first smart contract as: "a computerized transaction protocol that executes the terms of a contract"

Bull crypto market
Bear crypto market

Uniswap is one of the larger DAOs to date and serves as a popular decentralized crypto exchange. BitDAO invests funds in the growth of crypto projects and partners in the DeFi space. Another provider of funds of growth capital is DAO Maker being the driving force behind some successful projects in the crypto space

Legal wrappers are of major importance to stimulate the further implementation and advancement of DAOs in the current landscape. It boost confidence, provides stability and a certain level of protection

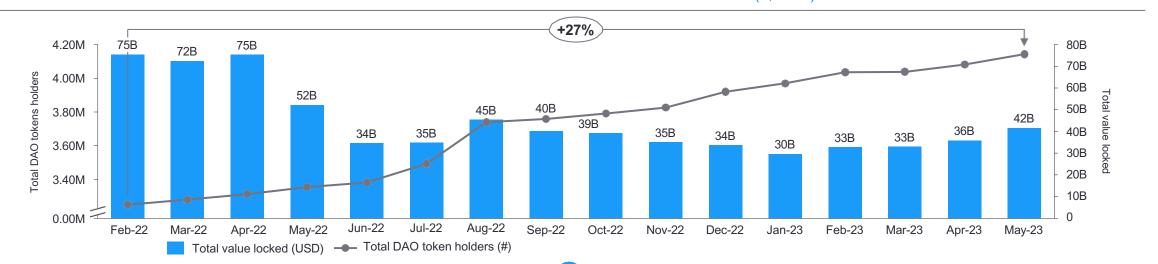
DAOs can be used to optimize different processes like a company's supply chain or enhance corporate transparency through shareholder voting, setting ESG goals or improved employee involvement



The DAO playing field is expanding at a rapid pace and showcases the interest in community-owned protocols

An overview of DAOs

Number of DAO token holders and the total value locked (#, USD)





DAO communities are growing despite the significant drawdown of total value locked, which is strongly correlated with the value of other digital asses



▶ People remain optimistic about the potential of DAOs. The number of market participants, who hold DAO tokens is increasing on a month-by-month basis



► As DAOs reach maturity and are more widely adopted, monetary and personnel resources can be allocated more efficiently, to make a greater impact



A number of crypto-native protocols are utilizing DAOs, to decentralize decision making and make it a public good.....

DAOs in the Web3 world





Uniswap is one of the biggest and most popular DAOs and operates as a cryptocurrency exchange built on the Ethereum blockchain

Since: 2020





MakerDAO is a decentralized organization that governs the Maker Protocol, dedicated to bringing stability to the cryptocurrency economy enabling users to create and borrow stablecoins

Since: 2017

- Crypto-native protocols are experimenting with DAOs on a large scale
- ► These protocols want to fully decentralize their organizations, by embedding the strategic decision making within the governance of the organization





The first DAO to be recognized as a legal entity in the US, thanks to a law passed in the Web3-friendly state of Wyoming. The DAO created stablecoin Ducat, which CryptoFed claims should be inflation and deflation proof with unlimited issuance

Since: 2020





This DAO provides support to blockchainbased projects and organizations through creation of smart contracts capable of carrying out legal services

Since: 2019



- ➤ As developments have occurred at rapid pace, the regulatory framework has lagged compared to the pace of innovation in the space
- ▶ In some jurisdictions, legal frameworks have been designed to accommodate DAOs and provide more legal / tax certainty for members

011100. 2013



....but also traditional corporate companies are experimenting and implementing DAOs

DAOs in the traditional world







Pfizer Ventures has participated in the fundraising of VitaDAO, a DAO focused on funding longevity research. The DAO raised \$4.1 million







NYX is launching an online beauty incubator, created to shine light on 3D creators and to give them a path of success within the Web3 ecosystem



Traditional companies are increasingly exploring DAOs as a way to improve their internal organization and decision-making processes







Genetica has launched the decentralized science platform GenomicDAO, which will be used to join forces for the advancement of Precision Medicine



Unicef is currently testing concepts for a DAO. The organization is building DAO prototypes to fairly distribute power and communication for a globally distributed digital public good. The solution is being built on top of Polygon



DAOs can help these companies streamline decision-making, increase transparency, and promote collaboration among employees



A number of companies have already launched DAO-based solutions or are in the process of doing so



DAO-based business models have the ability to effectively scale and compete with their centralized counterparts

Scale of DAOs

	A typical large centralized exchange	UNISWAP
Exchange volume	\$830B	\$586B
Revenue	\$3.1B	\$0.8B
Net income	(\$2.6B)	\$0.3B ¹
Market cap / Valuation	\$9.3B ²	\$3.6B ²
P/S ratio	2.9	4.6
Employees	4,510	104
Venture funding	\$499M	\$176M
Years since founding	11	5

In 2022, Uniswap processed ~71% of a comparable CEX's volumes with only ~2% of the headcount and ~35% of the venture funding

A DAO-based business model proves a significant venture performance improvement potential



^{1.} Implied net income based on a 0.05% protocol fee not yet activated by Uniswap, Uniswap documentation,

^{2.} CEX and Uniswap valuation on 31.12.2022, companiesmarketcap, coinmarketcap

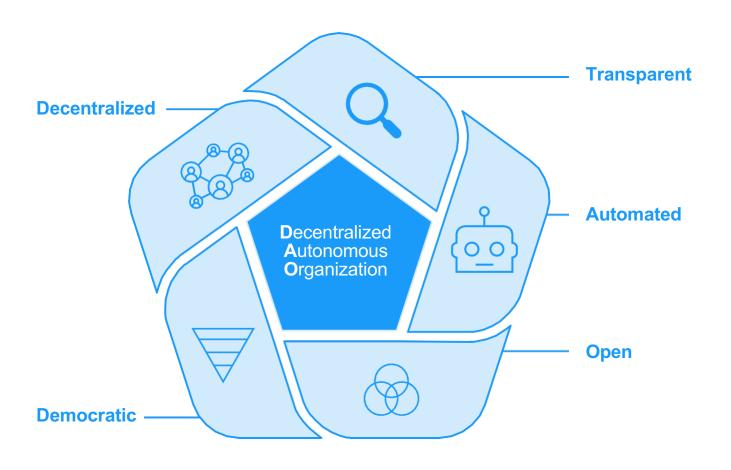
Content

- ► Why pay attention to DAOs
- **▶ DAO fundamentals**
- ► Value of a DAO
- ► DAO in the context of legal, regulatory and tax requirements
- ► How to build a DAO



The key characteristics of a DAO enable a new way of coordinating incentives across a large group of stakeholders in an autonomous way

DAO characteristics



DAOs are a new form of business organization that is native to the blockchain ecosystem

- ► They endeavor to create a decentralized organization based on a shared vision that operates automatically based on rules set at the outset by the founding members
- ▶ In its ideal form, a DAO is like a digital co-op that operates for a specific purposes, where transparent rules and algorithms take the place of a permanent management organization



DAOs differ from traditional organizations in the way they deal with decision making and the transparency they offer

Traditional vs. DAO structures

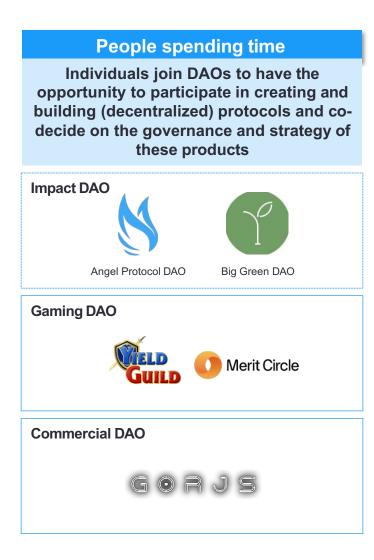
Traditional organizations DAOs Hierarchical Democratic, flat **Structure** Clear management powers, management dominance, Composability, community driven, governance separation of ownership / control challenges, difficult coordination Centralized **Decentralized** Governance Inflexibility, limited participant in governance, clear Decentralized governance, governance challenges, legal status, access to traditional sources of capital tax / legal uncertainty, opportunity to experiment **Private and restricted** Transparent and fully public **Transparency** Private and restrictions on the public involvement Surveillance potential, security vulnerabilities Invite-only Open **Accessibility** Higher barriers to entry Global reach, low barriers to entry **Automated Handling of** Requires human handling Adaptability, smart contract automation, flexibility / services Time consuming, prone mistakes speed to create sub-DAOs

Source: Aragon; EY-Parthenon analysis
Page 11

The landscape of DAOs is constantly evolving, DAOs can be grouped by their nature of their purpose into various categories

Grouping of DAOs

People pooling money Individuals join DAOs to have the opportunity to participate in the creation and incubation of ventures, invest in innovative projects or donate to a certain cause **Venture DAOs** S/C Seed Club Ventures **Grant DAO** MoonDAO Gitcoin DeFi DAO MakerDAO Uniswap



People sharing interest Individuals join DAOs to have the opportunity to participate in a community of like-minded people, who share common interests and work towards the same goal **Media DAO BANKLESS** RugDAO Bankless DAO **Social DAO** п Nouns DAO LinksDAO **DeSci DAO** LabDAO

Content

- ► Why pay attention to DAOs
- ► DAO fundamentals
- ► Value of a DAO
- ► DAO in the context of legal, regulatory and tax requirements
- ► How to build a DAO



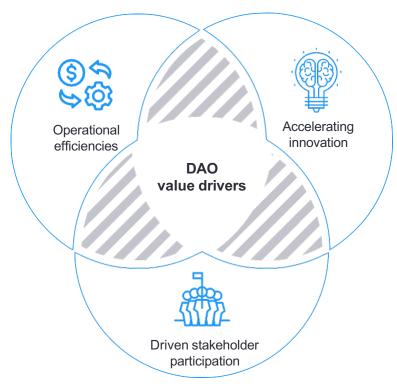
The true value of a DAO for traditional organizations arises from its decentralized nature which drives operational efficiencies, stimulates innovation and steers participation

Key DAO value drivers

Operational efficiencies



- ▶ DAOs reduce uncertainty and opportunism among participants (including competitors) by proposing a more complete contracting model
- ➤ The complete contracting model reduces transaction costs related to economic coordination
- DAOs introduce a different approach to principal-agent relations



2

Accelerating innovation

- DAOs deliver the possibility of business model innovations such as coopetition, setting up a consortium, and ecosystems of consortia
- Due to the interoperability the barriers to access other types of assets is lowered

3

Driving stakeholder participation

- ▶ DAO communities trigger network effects through stakeholders engagement and alignment
- ▶ The (pseudo-)anonymity, which blockchain technology provides may lead to lower barriers of entry for participants
- ▶ Being community driven by design, DAOs stimulate a sense of belonging creating stickiness to its common purpose

A strong purpose encourages people to participate and engage in a DAO. A number of key success factors is essential to thrive building this purpose

Designing a DAO

Purpose

The purpose provides a distinct direction for the activities and decision-making of the DAO

Having a clear and compelling purpose can be an important factor in achieving success, as it can provide direction, focus, and motivation for contributors and members of the DAO

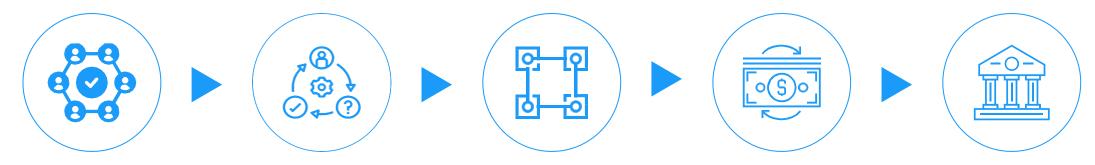
Key success factors

- Engaged, active and educated community
- Sustainable Web3 native business model
- Path to decentralization
- Balanced incentive and governance structure
- Legal wrapper with tax and regulatory support



Unlocking DAO success: with all key factors in place, building a strong and sustainable DAO ecosystem is possible

A roadmap towards a successful DAO



Engaged and active community

- ▶ A culture of trust and transparency, are essential for building a strong and resilient DAO ecosystem
- ▶ This fosters an engaged community resulting in attracting more members and increased participation in governance

Sustainable Web3 native business model

► A sustainable business

model is critical for a DAO's success because it enables the DAO to generate revenue, cover its operating costs, and fund its ongoing development and growth

Path to decentralization

- ► A path to decentralization is a critical success factor for a DAO because it enables the community to progressively assume more control and responsibility over the DAO's operations and decision-making
- ▶ This further increases the resilience of the DAO

Balanced incentive structure

- ▶ A balanced incentive structure motivates members to participate in governance, contribute to the DAO's growth and development ▶ It helps in ensuring a fair
- and equitable distribution of rewards, while maintaining a healthy level of the treasury

- Legal wrapper
- ► A legal wrapper can help protect the DAO and its members from legal, tax and regulatory risks, promote compliance with applicable laws and regulations, and facilitate the DAO's access to traditional financial services and markets



Content

- ▶ Why pay attention to DAOs
- ► DAO fundamentals
- ► Value of a DAO
- ► DAO in the context of legal, regulatory and tax requirements
- ► How to build a DAO



The current legal and tax landscape is characterized by a range of challenges which DAO entrepreneurs address in different ways

DAO set-up from a tax / legal perspective

Tax & legal challenges



How is (tax) liability arranged for DAO members, since DAOs that do not have a legally recognized corporate form may be considered general partnerships or business entities?



How can DAOs be compliant with the applicable tax frameworks, specifically with its global footprint?



Whether DAO tokens fall under regulation, which could potentially create additional (compliance) challenges

No action



Some organizations are not undertaking any action to approach these challenges

Current solution approaches

Applying a mix of centralized and decentralized methodologies

Creating novel, specialized corporate law frameworks for DAOs



A DAO may fit within legally recognized corporate forms or a newly created form of legal recognition

Source: EY analysis
Page 18

EY Partheno

New legal frameworks specifically designed for DAOs differ from traditional frameworks in their purpose, geographical dependency, maturity and permissibility

Traditional vs. DAO legal frameworks

Traditional legal framework		New legal framework
Designed for traditional business entities that are formed and administered as per corporate law to engage in business activities, charitable work, or other activities allowable	Purpose	Specifically designed in the last decade to encourage the creation of DAOs and help them to engage in business activities, charitable work or other activities allowable
Different types of traditional legal frameworks available, with some variation in term of entity properties, in many countries across the world	Geographical dependency	Currently only available in limited number of countries with significant differences in terms of entity properties
Well-established and well-researched legal frameworks developed over many years with well-established legal practice. This ensures stable and consistent case law practice	Maturity	Completely novel legal frameworks who are yet to be developed and researched. Little to none legal practice. Case law practice is yet to be established
To the extent permissible by the current legal and regulatory environment and established case law practice DAO creation is being made to fit currently applicable laws. This is only possible with the adjusted interpretation of the currently applicable legal practice and with significant concessions in terms of DAO properties	Permissibility	To the extent permissible by the current legal and regulatory environment, new frameworks are fully customized to fit the special properties of DAOs. However, only a few jurisdictions offer tailor made DAO legal frameworks
Cooperatives, corporations, LLCs, foundations, associations	Examples	DAO LLCs, DAO LCAs

EY Parthenor

Source: EY analysis Page 19

To choose an appropriate legal structure for a DAO, first evaluate key elements of the DAO, then consider the most suitable legal wrappers

Legal wrapper set-up considerations

Key elements



Scope and purpose

Determine a DAO's degree of interaction with the real world and whether its activities create potential legal & tax obligations for the DAO and its contributors / members



A proper legal wrapper requires evaluating potential liability scenarios and their impact on the contributors / members. Larger projects need to assess tax liabilities that could impact the DAO's business model



DAO membership consistency

Evaluate the DAO's membership both in terms of size, stability and fluidity will help determine proper legal wrapper



Degree of decentralization in deployed governance

Assess how legal structures can accommodate DAO token holders who direct or influence operations without increasing legal risks, such as court disregard or increased tax liability



Available resources

Depending on the resource availability DAOs will need to decide how much of those resources may be dedicated to the creation of the proper legal wrapper

EY Parthenon

Source: EY analysis Page 20

DAOs issuing tokens can have legal implications related to securities law, as the tokens may be considered financial instruments and subject to regulation

Governance and security tokens



each country?

1. Markets in Crypto-Assets Regulation (MiCa) Source: EY analysis



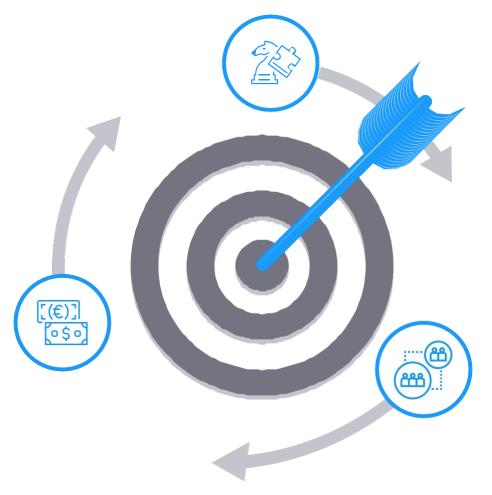
Content

- ► Why pay attention to DAOs
- ► DAO fundamentals
- ► Value of a DAO
- ► DAO in the context of legal, regulatory and tax requirements
- ► How to build a DAO



To establish a solid strategic foundation for the DAO, the end goals of the organization should be clearly defined and communicated

Define the purpose of the DAO





Strategic

Defining and executing long-term objectives and initiatives that drive the growth and success of the DAO



Financial

Designing a sustainable tokenomics structure for the DAO and establish a solid investment strategy



Societal

Creating a positive impact on society by addressing relevant social, environmental, or ethical issues through the DAO's operations, initiatives, and decision-making processes



Once the strategic roadmap is constructed, organizations need to tackle the five major challenges of implementation to successfully navigate the DAO landscape

DAO implementation challenges

Operational

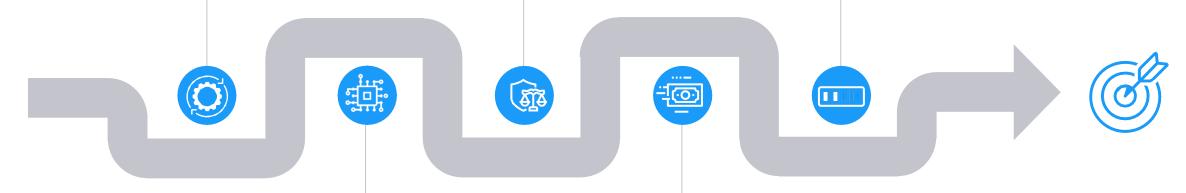
- ► Low participation rates of governance proposals
- ▶ Voter fatigue
- ▶ Concentration of token holders
- ▶ Bad leadership and / or malicious actors

Regulatory

- ▶ Lack of regulations / recognition
- ▶ Uncertain legal and tax status
- Dynamic DAO nature leads to a challenging compliance

Current state of the industry

- ▶ DAOs haven't been battle tested
- ▶ Increased scrutiny due to bad actors
- ▶ No current product-market fit



Technological

- ▶ Protocol attacks
- ▶ Discontinuation of protocol
- ▶ Bugs in smart contracts
- ▶ Irreversibility of smart contracts

Financial

- Volatility of tokens and treasury
- Budgeting
- ▶ Sustainable revenue streams
- ▶ Distribution towards contributors
- ▶ Risk management

The DAO framework from strategy to deployment can be used using EY capabilities; leveraging strategy, technology, tax and legal support



Business model development

Defining how a DAO will shape the future and add value to its community



Business case development

Evaluation of different benefits, costs and risks of alternative options after which the most optimal alternative is chosen



Ecosystem value

Product

DAO **Ecosystem**

Rules of engagement

Organization and talent

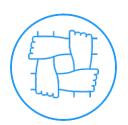
Partnerships

Technology



DAO Design phase

Develop the jurisdiction deployment strategy, legal wrapper support and tax strategy. Design technology solutions and roadmap preparation



Ecosystem build

Phased growth of the community and on-going tax support

I. Strategize

II. Design the Ecosystem

III. Deploy











EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ev.com.

Ernst & Young LLP is a client-serving member firm of Ernst & Young Global Limited operating in the US.

EY-Parthenon is a brand under which a number of EY member firms across the globe provide strategy consulting services. For more information, please visit ey.com/Parthenon.

© 2022 Ernst & Young LLP. All Rights Reserved.

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, legal or other professional advice. Please refer to your advisors for specific advice.

ey.com