

TOOLKIT

Empowering Communities

A toolkit on how to navigate
the tokenization landscape

*Providing support on the technical, legal, and business
aspects of tokens utilized within communities.*

- Where to start?
- Token value engineering, token taxonomy, structuring
- Technology, governance, considerations
- Legal and regulatory aspects of tokens
- The tax treatment of tokens



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illustration: where to start



- How do you incentivize members for their contribution?
- How do you ensure the active participation of the members?
- How do you make the community attractive to new members?
- How do you want the invested time/effort of members visible?

Toolkit: Where to start?

Incorporating tokens into a community or platform should be a strategic decision, not just a trend to follow. This ensures that the token genuinely promotes growth, sustainability and utility, aligning with the long-term vision and health of the ecosystem. Here are some key points to evaluate:

- **Goals and Added Value:** If the community aims to increase engagement or offer a new way to transact, determine if tokens contribute to these goals.
- **Alternative Solutions:** Consider if there are simpler or more efficient ways to achieve the same goals without creating a token.
- **Economic Model:** Design a robust economic model that ensures the long-term viability of the token. Consider supply, demand, distribution,

and inflation or deflation mechanisms. For more guidance, see chapter 3.2.

- **Technical Infrastructure:** Ensure the availability or development of the necessary technical infrastructure to support token issuance, distribution, and management. See chapter 3.4 for further information.
- **Legal and Regulatory Compliance:** Understand the legal implications of token issuance, including financial regulations and tax laws, and ensure compliance. Refer to Appendix 4 for details.

If careful consideration reveals that tokens could positively impact community engagement, operations, and growth, then implementing token solutions may be a good decision.

Token Value Engineering, Token Taxonomy and Structuring

When looking into the potential benefits of tokenization for a community, it's important to work on token value engineering, which means making sure tokens are valuable and useful. To ensure that everyone is on the same page with all the terms used to describe a token with all its aspects, a common taxonomy is instrumental.

Token Value Engineering

Token value engineering is a new field that combines creating business models with the growing world of digital assets, also known as tokens¹⁰. Unlike traditional token engineering, which focuses on the technical and economic design of tokens, token value engineering delves into the integration of tokens within the core value proposition of a business, ensuring alignment with the strategic business model. It's about identifying all the participants within the value network and understanding how value flows between them. This approach leads to an understanding of the actors' needs, how the value satisfies these needs, and the ways in which value flows generate revenue. According to [TheValueEngineers](#)¹¹ it outlines the foundational framework for token value engineering, breaking it down into its core components:

1. Value Proposition: The value proposition is the cornerstone of token value engineering. It articulates the unique offerings, defines the target customer segments, and clarifies the unique selling propositions (USPs) that differentiate the token from existing market alternatives. A well-engineered token value

proposition addresses specific pain points, delivering tangible benefits and creating real value for its users.

2. Value Network: The value network outlines the ecosystem of stakeholders and their contributions, providing a systemic view of how value is created and distributed. This includes identifying all entities that interact with the token, directly or indirectly. Think about token holders, developers, businesses, regulatory bodies and any other groups that contribute to or are affected by the token's existence.

3. Revenue Model: The revenue model is central to the token's economic viability. It delineates the value objects exchanged within the network and illustrates how the token generates income or stores value. This encompasses anything of value that is exchanged, such as services, access rights, data, or currency.

4. Delivery Model: The delivery model specifies how the token is implemented and distributed. It examines the technological infrastructure required to support the token's life cycle and how it facilitates the exchange of value objects.

By applying these principles, businesses can ensure that their token strategies are not only technically sound but also economically viable and strategically aligned with their long-term goals. Token value engineering thus becomes an indispensable tool in the architect's kit for designing the business models of the future. [TheValueEngineers](#) provide deep insights and methods for adding value in digital ecosystems, essential for aligning a token's use with community needs and future goals.



- How does integrating tokens into business models differ from traditional approaches?
- How can businesses ensure their digital asset strategies are economically viable?
- Why is a shared understanding of digital tokens crucial in a community?
- In what ways can understanding digital tokens contribute to strategic business planning?

illustration: value engineering

Token Taxonomy

Once there is a clear understanding of the value network and its components, token taxonomy can be applied. Token taxonomy is a framework used to classify and understand various aspects of digital tokens.¹² It bridges the gap between blockchain developers, line of business executives and legal/regulators allowing them to work together to model existing and define new business models and networks based on tokens. The framework's purpose is to take a step back and clearly define a token in non-technical and cross industry terms using real world, everyday analogies so anyone can understand them using properties and behaviors to describe and define them.

The Token Taxonomy Framework allows for the breakdown of tokens into several basic reusable parts:

1. Base token type: The foundation of any token is its base token type. Imagine taking part in a local community group that organizes events and activities. In this setting, "Base Token Types" are like the rules for creating and categorizing different types of community contributions or rewards. Starting with a basic concept, such as a type of event or service, creativity plays a key role in developing various forms of participation or recognition.

Examples of base token types are:

- Type: (non)/Fungible; Here, 'Fungible' means something like a general membership that's the same for everyone, and 'Non-Fungible' is like a special, one-of-a-kind privilege or reward.
- Unit: Fractional, whole, singleton; This could be like offering partial (fractional), complete (whole), or exclusive (singleton) access to

community resources or events.

- Value: intrinsic, reference; 'Intrinsic' value is something inherently valuable within the community, like special knowledge or skills, while 'reference' value might be linked to external factors, like exchange rates or market value.

2. Behavior: In the context of tokens used in communities, think of "Behaviors" as specific functions or rules that can be applied to various types of community tokens. These behaviors define what these tokens can or cannot do. For instance:

- Mintable: This behavior could be like a community creating new tokens for a volunteer program. Whenever new volunteers join, new tokens are 'minted' or created to acknowledge their participation.
- Burnable: Imagine a token that represents a ticket to a community event. Once used, the token can be 'burned' or made invalid, just like a physical ticket would be collected or marked at the event entrance.
- Transferable: This could be like a reward token that members earn for community service. They can choose to 'transfer' these tokens to other members, perhaps as a gift or in exchange for help with tasks.

3. Property set: Data that is stored in the token.

Imagine a community gardening group. To manage participation and rewards, they introduce a digital token system. Each token contains specific data or properties that are stored within it. This data can be checked so the community can easily see how many hours a member has contributed. This could include:

- Member ID: Identifies which community member the token belongs to.
- Date of Issue: The date when the token was given to the member.
- Type of Activity: Specifies the kind of activity the token represents, like planting, watering, or weeding.
- Hours Contributed: The amount of time the member spent on the gardening activity.
- Reward Points: Based on the hours contributed and the type of activity, the token might carry a certain number of reward points.

There are a lot of these behaviors, and the list keeps growing and changing as people come up with new concepts and ways to use tokens. The Token Taxonomy Framework is like a living document that continuously gets updated.

In conclusion, the token taxonomy provides a structured approach to understanding the diverse and ever changing landscape of digital tokens. Each token type has distinct characteristics, purposes, regulatory considerations, and technical foundations, reflecting the diverse and evolving nature of blockchain technology and digital assets.

Sources to design a token using the token taxonomy framework:

[Microsoft Visual Studio Code](#)

[The Token Designer Tool from the Visual Studio Marketplace](#)

[Token taxonomy framework](#)

¹⁰ <https://www.thevalueengineers.nl/>

¹¹ Wieringa, R., & Gordijn, J. (2023). *Digital business ecosystems: A comprehensive guide to mastering the dynamics of business networks*. TVEpress.

¹² InterWork Alliance. (n.d.). *Token Taxonomy Framework*. GitHub. Retrieved January 31, 2024, from [https://github.com/InterWorkAlliance/...](https://github.com/InterWorkAlliance/)



illustration: technology, governance, considerations

Technology, Governance, Considerations

As tokens have various use cases, it is important to note that each scenario requires a tailored approach to the total technology stack. The proper alignment of token technology with business objectives can not only drive innovation but also provide a competitive edge in the rapidly evolving digital economy.

Let's break down typical technology stack layers and components for implementing tokens in a business model:

- **Blockchain Infrastructure:** This is the foundational layer. On this Infrastructure the token will be built and maintained. Typical examples are Ethereum, Polygon, EOS etc. The choice of infrastructure is crucial as it can influence important elements like transaction

cost and the potential user base.

- **Smart Contracts:** Programmable contracts define the rules and behaviors of tokens. With smart contracts the tokens are actually built. All the functional behaviour of tokens as well as important governance elements (e.g. access rights, functional rights etc) are built into these token smart contracts.
- **Oracles:** Reliable data sources based on automatic decisions can be made by e.g. smart contracts. Often smart contracts are based on external data feeds. Services like Chainlink can provide these oracle services.
- **Wallets:** MetaMask, Trust Wallet, etc.: These are wallets that allow users to manage their tokens. uPort, Magic, etc.: These are solutions for decentralized identity and authentication.

- **Identity management:** Identity Management involves actions from third parties to validate, authenticate or confirm one's identity or specific elements.
- **Backend Systems:** There are 2 types of backend systems, categorised in a decentralised database and in a traditional database.
 - Decentralized or distributed Databases: For example, IPFS or Filecoin for storing data on-chain.
 - Traditional Databases: SQL or NoSQL databases for managing off-token information.
- **Frontend/Client Interface:** Client interfaces (websites, apps etc) that want to interact with blockchain infrastructures and smart contracts can do so using certain libraries and interface standards. E.g. Web3.js/Ethers.js are examples of JavaScript libraries that enable interaction with EVM based blockchain infrastructures from web applications. Applications that interact with blockchain infrastructures (for data or logic through smart contracts) are also called Decentralized Applications or dApps in short.

Certain other elements, services or applications that need to be considered in setting up token services are:

- **Decentralized Exchanges & Marketplaces:** Platforms where tokens can be traded or used. Examples: Uniswap, Sushiswap, OpenSea for NFTs.
- **Security: Auditing:** Smart contract code should be audited for vulnerabilities. Companies like ConsenSys Diligence and Trail of Bits offer these services. **Key Management: Solutions** like Hardware Security Modules (HSM) or multi-signature wallets to secure token-related operations.

- **Interoperability: Cross-Chain Bridges:** Tools and protocols like Cosmos or Polkadot's bridge that allow for (limited) communication between different blockchains.
- **Regulatory & Compliance Tools:** Services like Chainalysis or Elliptic can be used to ensure regulatory compliance, especially for businesses that deal with a significant amount of cryptocurrency transactions.
- **Analytics:** TheGraph, Dune Analytics: Tools to query and analyze blockchain data to gain insights into token usage and other metrics.

Governance

One needs to make a distinction between how a token itself is governed (see briefly under smart contracts above) and how tokens can be used for governance.

With regards to the governance of the token one needs to be very clear about who is in charge. This can be a continuum. On the one hand a token can be highly centralized, meaning one person or one company is in charge of the functionalities of the token, and on the other hand a token can be a (highly decentralized) community owned token (and of course anything in between).

In the case of a community owned token it is important that it is completely transparent:

- How the community will make decisions related to the token.
- What voting process or consensus mechanisms are in place.
 - If the business model includes decentralized governance, tools and platforms like Aragon or DAOstack can be used.



illustration: legal and regulatory aspects of tokens



- How do token characteristics affect legal classification?
- Why is compliance with securities laws important for tokens?
- What are the key aspects of the MiCAR regulation for tokens?
- What role do AML and KYC regulations play in token issuance?

Legal and Regulatory Aspects of Tokens

Tokens used in communities can serve many purposes. Therefore, the token can take many forms. This means that the legal and regulatory aspects of the token may differ, depending on the specific characteristics. When using tokens in a community, consider the following legal aspects:

Token Classification and Compliance with Securities Laws and Regulations: Determine if tokens are utilities, securities, or payment tokens, as this affects regulatory compliance. If the token confers voting rights or some share of profits, it might be classified as a security under local laws such as laws and regulations implementing MiFID II (see below) or the US's SEC regulations.

Anti-Money Laundering (AML) Laws and

Regulations: Adhere to AML laws and regulations, including Know Your Customer (KYC) procedures.

Tax Implications: Understand the tax treatment of tokens for both issuers and holders of tokens.

Consumer Protection Laws and Smart Contract Legality: Ensure smart contracts are legally binding and comply with contract laws. Ensure adherence to consumer rights and protection laws, especially if tokens can be bought or if they offer access to goods or services.

Data Privacy Regulations: Comply with data privacy laws, especially when collecting personal information from token holders. [The General Data Protection Regulation \(GDPR\)](#) has strict rules for

the processing of personal data if the community involves EU citizens, including how data is collected and used.

Cross-border Considerations: Be aware of legal implications if the token is used or traded across borders, as different laws and regulations may apply.

Intellectual Property Rights: Respect intellectual property rights in token design and implementation. If the token used in the community includes intellectual property rights, such as digital art sold, copyrighted work, the use of trademarks etc., it is important that ownership or a licence of the intellectual property rights is ensured and (if applicable) revenue models and/or royalty payments are included in the smart contract.

Regulatory Changes: Stay informed about changes in regulations related to cryptocurrency and tokens. Each of these aspects requires careful consideration to ensure legal compliance and reduce the risk of regulatory issues. When using tokens in communities, consider these regulatory aspects:

Financial Supervision Laws and Regulations: Assess if tokens fall under MiFID II, AIFMD, EMD 2 or other financial laws and regulations.

AML/CFT Requirements: For exchange services and wallet providers, comply with AML/CFT regulations under the Fifth AML Directive.

MiCAR and Transfer of Funds Regulation: From 30 December 2024, comply with the EU Markets

in Crypto-assets Regulation (MiCAR) and the Transfer of Funds Regulation. In addition, Crypto-Asset Service Providers (CASPs) will be subject to the **Anti-Money Laundering Regulation** when it becomes effective.

Crypto-asset Whitepaper: Issuers may need to publish a whitepaper with mandatory disclosures. Crypto-Asset Service Providers (CASPs) offering crypto-asset services may need a CASP licence.

Grandfathering Clause: Existing CASPs might benefit from a grandfathering clause until 1 July 2026 at the latest (for The Netherlands, this is expected to be 1 July 2025).

See for a more elaborate discussion of the legal and regulatory aspects of community tokens Appendix 4.

Download the whitepaper to find the sources to refer to for further information:
<https://www.2tokens.org/empowering-communities>





- What tax considerations arise from using tokens?
- How do different types of tokens affect tax implications?
- In what instances are tokens taxable as income?

illustration: the tax treatment of tokens

The Tax Treatment of Tokens

As digital tokens gain wider acceptance, the fast evolution of digital tokens into various forms means tax payers will encounter challenges and risks. Although one may expect that tokens will be taxed similarly to their functional equivalent in the real world, this is not always the case. Also, in some instances there may not be clear guidance on the tax consequences of the transfer or sale of a token. Tax payers will also need to manage increased compliance efforts to accurately record and justify the values of acquiring and disposing of their token assets¹⁵.

When considering the tax treatment of tokens, several key factors must be taken into account. These can vary per jurisdiction, but generally include:

1. Type of Token: Different tax implications for utility tokens, security tokens, stablecoins, etc. Substance typically prevails over form.
2. Nature of Transactions: Buying, selling, trading or using tokens for transactions. Each type of transaction may have different tax consequences, also depending on whether transactions are business driven or for personal purposes.
3. Capital Gains: Tax on profits made from selling tokens at a higher price than the purchase price. Long-term vs. short-term capital gains based on the holding period. Rules vary per country and sometimes per token. Not all countries apply capital gains taxation on tokens.

4. **Income Tax:** Receiving tokens as payment or reward (e.g., mining, staking) may be taxable as income. Holding tokens may also be subject to tax.
5. **Indirect taxes:** Many tokens may be subject to indirect taxation rules (e.g. VAT or GST). If the recipient or the transferor of the token is not known this may lead to unclear situations.
6. **Tax Reporting:** Parties that are viewed as a Reportable Crypto-Asset Service Provider may be required to report information on transactions involving tokens. Such information may be shared with other countries under the exchange of information treaties. Keeping detailed records of all transactions for accurate reporting is required to assess appropriate tax consequences.
7. **Value Assessment:** Determining the fair market value of tokens at the time of transactions and keeping record of the values used.
8. **Loss Deductions:** Potential to claim losses on token transactions to offset other gains. Loss offsetting may in some countries be limited or ring-fenced to specific sources of income.

9. **Jurisdiction:** Tax laws vary by country and region. International transactions may involve additional tax considerations. Countries may treat the same transaction differently
10. **Regulatory Changes:** Stay informed about changes in tax legislation related to digital assets, as new rules may be implemented over time.
11. **Professional Advice:** Consult with a tax professional for guidance specific to individual circumstances and local tax laws.

Understanding the tax implications of transactions involving tokens is crucial to ensure compliance with tax laws and to make informed decisions about buying, selling and using digital assets.

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