



CONCEPTUAL FRAMEWORK

FOR COUNTRIES AND VIRTUAL ASSETS
SERVICE PROVIDERS ON THE
VIRTUAL ASSETS PLAYING FIELD

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INTRODUCTION



Developments in recent years, in the field of new technologies, namely, with respect to the 4.0 Industrial Revolution in general, and blockchain in particular, have contributed to the advent of new products and services, have disrupted traditional financial services, and pose challenges for countries and organizations.

The deregulation associated with these new products and services presents high risks, in terms of criminality and economic stability, making it essential to understand the advantages and risks associated with virtual assets (VA) and virtual assets service providers (VASP).

Kismet's main objective is to set the standards on VA and VASP and to promote their implementation at strategic, legal and regulatory, and operational levels for an effective VA ecosystem.

Kismet's standard creation and enforcement contributes to a broader strategy on VA and VASP regarding the management of the associated risks. The final goal is to ensure a leveled playing field for VA and for VASP and to identify those, who pose significant threats to the financial industry.

Approach overview

Kismet's approach to VA and VASP is based on a comprehensive and integrated set of methodologies, which countries and VASP should adopt and implement in order to create an adequate VA ecosystem, consisting of:

- Conceptual framework
- Recommendations
- Risk assessment methodology

- Rating methodology.



In the conceptual framework, the different concepts related to VA and VASP are defined, to facilitate a broad understanding about complex concepts, by providing a common language, between the different key actors and between them and all the other stakeholders.

The Recommendations establish the basic principles for the implementation and management of a VA ecosystem, at strategic, legal and regulatory level, as well as regarding operational and risk management, aiming for medium and long-term sustainability.

The risk assessment methodology defines the set of risks to be analyzed to assess the correct adoption and implementation of the

Recommendations. For each risk identified, this methodology evaluates if a set of mitigating measures are in place, to calculate the VASP's risk exposure.

The rating methodology allows, based on the risk assessment methodology, to assign a rating to VASP, to demonstrate their level of adoption and implementation of the Recommendations, and measuring its effectiveness.

Kismet is committed to building a close and constructive dialogue with countries and VASP, other international stakeholders and national authorities, to protect the VA ecosystem and promote best practices regarding these assets.

This document contains Kismet's Conceptual Framework.

About Kismet

Kismet, a company under Dutch law, is a leading organization in providing rating for virtual assets service providers on the virtual assets playing field. Kismet's approach and rating solutions, help countries and VASP increase trust and credibility and enable stakeholders to identify opportunities, manage the risks of doing business with VA, and make better decisions.

Kismet's people are from diverse generations and varied cultural backgrounds. They have solid academic and distinct professional experience, which allows for a multidisciplinary and transversal approach to the VA ecosystem.

For more information about Kismet, visit kismetconsulting.eu.

1 | VIRTUAL ASSETS



101 | What is a virtual asset (VA)

Digital representation of value that is cryptographically protected and can be (digitally) traded or transferred and that can be used for payment or investment purposes.

101-1 | Examples

- Bitcoin
- Ethereum
- Monero
- Ripple
- Hyperledger
- R3 Corda.

101-2 | Not VA

Digital representations of fiat currencies, securities, and other financial assets. The following are not VA:

- e-money (e.g. balance on Tikkie/Jolt)
- digital securities (e.g. DEGIRO)
- digital representations of financial assets (e.g. digital signatures DocuSign, digital copies of contracts).

102 | What is a cryptocurrency

Any form of currency that only exists digitally, that usually has no central issuing or regulating authority but instead uses a decentralized system to record transactions and manage the issuance of new units, and that relies on cryptography to prevent counterfeiting and fraudulent transactions.

102-1 | Examples

- Bitcoin
- Ethereum
- Monero.

102-2 | Term recognition

The term cryptocurrency is not recognized or used by the International Monetary Fund (IMF), the Financial Action Task Force (FATF), or by EU regulators (e.g. the Dutch National Bank).

- Instead the IMF uses the term cryptoassets – defined as digital assets that use cryptography for security and are coins or tokens of distributed ledgers and/or blockchains, including asset-backed tokens.
- The Joint Money Laundering Steering Group (JMLSG) defines money as (a) money in sterling; (b) as money in any other currency, or (c) as money in any other medium of exchange, but not as cryptocurrency.

103 | Virtual assets vs. cryptocurrency

Cryptocurrencies are decentralized and cryptographically secured digital representations of value (in the form of coins or tokens). They are a subset of cryptoassets.

Cryptoassets are decentralized or centralized cryptographically secured digital representations of value (in the form of coins or tokens). They are a subset of VA.

104 | Mining

Utilizing computation power for the purpose of supporting, legitimizing, and monitoring a decentralized blockchain network.

2 | VIRTUAL ASSET SERVICE PROVIDERS



201 | What is a virtual asset service provider (VASP)

Any natural or legal person who, as a business, conducts one or more of the following activities or operations for or on behalf of another natural or legal person:

- exchange between virtual assets and fiat currencies
- exchange between one or more forms of virtual assets
- transfer of virtual assets
- safekeeping and/or administration of virtual assets or instruments enabling control over virtual assets
- participation in and provision of financial services related to an issuer's offer and/or sale of a virtual asset.

201-1 | Examples

- exchanges – that exchange among others also VA
- transfer businesses – that allow for the transfer of VA as well
- VA wallets – including traditional storage of value that also store VA
- custodian services providers – including key hosting, portfolio management services, execution only
- providers of financial services related to ICO – e.g. platforms that crowdfund for ICO
- businesses that allow clients to participate in an issuer's ICO – e.g. businesses that allow clients to trade their experience, advice, or labor for tokens.

201-2 | Example of service providers that are not VASP

Not falling under the category of VASP are for instance:

- financial advisory services (e.g. crypto investment advice – advice only)
- financial entities which provide goods and services to the VASP – that are not involved in the sale process of the VA
- a person not engaging as a business for or on behalf of another natural or legal person in the aforementioned activities – e.g. an individual who obtains VA and uses them to purchase goods or services on their own behalf or makes a one-off exchange or transfer.

VASP do not need to use cryptographic technology to be eligible for this denomination. They are VASP, whether they use decentralized or centralized platforms, smart contracts, or some other mechanisms.

202 | What is a VASP – exchange?

Depending on the jurisdiction, an exchange may refer to:

- money transmission exchanges
- any organization, association, or group of persons, whether incorporated or unincorporated, that constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers or for otherwise performing (e.g. with respect to securities) the functions commonly performed by a stock exchange as that term is generally understood and includes

the market place and the market facilities maintained by the exchange.

202-1 | Examples

- any exchange in VA-to-VA
- any exchange in VA-to-fiat
- any VA teller machine
- any exchange in fiat-to-fiat (as long as at a certain point there was a VA exchanged or transferred)
- any exchange in VA-to-commodities.

202-2 | Order book exchanges vs. peer-to-peer exchanges

Order-book exchanges:

- bring together orders for buyers and sellers
- enable users to find counterparties and discover prices
- enable trade among parties, potentially through the use of a matching engine that matches the buy and sell orders from users.

A peer-to-peer exchange platform is different from an orderbook exchange in that it is only a bulletin board where one buyer and one seller might locate one another and then go to a different location to affect the trade. In contrast, an order-book exchange also enables the transfer to take place on the exchange.

203 | What is a VASP – wallet?

Instrument enabling the safekeeping and the control over VA by the user and/or owner.

203-1 | Examples

VASP wallets may:

- be designed to safekeep user's VA – e.g. in the form of safe storage solutions
- enable the management and the transmission of VA by the user – e.g. in the form of safe management solutions.

204 | What is a VASP – custodian?

Services of safekeeping and/or administration of VA on behalf of other individuals. They include persons that have exclusive or independent control of the private key associated with VA belonging to another person or exclusive and independent control of smart contracts to which they are not a party that involve VA belonging to another person.

204-1 | Examples

- services designed to ensure the safekeeping of VA on behalf of the owner – e.g. in the form of connected servers, disconnected hard drives, etc.

- services designed to ensure that VA are managed and transmitted independently from the owner, under the assumption that such management and transmission will only be done according to the owner's and/or customer's instructions e.g. in the form of services that allow users to pay for services and goods through their interface or to manage smart contracts to which they are not a party of.

205 | What is a VASP – decentralized application (DApp)?

Decentralized (distributed) application are software programs that operate on a peer-to-peer network of computers running a blockchain platform – a type of distributed public ledger that allows the development of secondary blockchains – designed such that they are not controlled by a single person or group of persons and thus do not have an identifiable administrator.

205-1 | Examples

DApps may:

- be deployed by the operator and/or owner to perform a wide variety of functions – a.o. acting as unincorporated organizations that offer software solutions, exchange VA, etc.
- charge DApp users' fees for the owner and/or operator to run the DApp.

When DApps facilitate and/or conduct the exchange or transfer of value (whether in VA or traditional fiat currency), the DApp, its owner/operator, or both may fall under the definition of a VASP.

A person that develops a decentralized VA payment system may be a VASP when they engage as a business in facilitating or conducting the activities previously described on behalf of another natural or legal person.

3 | ANONYMITY ENHANCES



301 | What are privacy coins?

Privacy coins are anonymity enhancing VA that use enhanced security and privacy features meant to obfuscate a.o. its origin, transaction amounts, IP addresses.

301-1 | Examples

There are many (yet unknown) techniques that can be used to additionally obfuscate the source of a virtual asset and the identity of its owner. These may include:

- running part of the transactions on private servers
- using zero knowledge proofs
- ring signatures and stealth addresses
- running part of the transactions on anonymous networks (e.g. TOR, etc.)

302 | What are mixers or tumblers?

Exchanges that offer the additional service of mixing identifiable virtual assets so as to obscure the trail back to their original sources.

302-1 | Examples

Mixers and tumblers may:

- mix identifiable virtual assets both in digital and in analog environments – e.g. OTC mixers
- charge a transaction fee to obfuscate the origin of the virtual assets
- be centralized as well as decentralized platforms – e.g. DApp.

4 | INITIAL COIN OFFERING



401 | What is a token?

A (prepaid) entitlement to:

- the service (to be) developed – e.g. a reward, a vote, information
- a share in a project or a portion of the expected returns
- something that has no intrinsic value whatsoever but is expected to have due to its relative scarcity.

401-1 | Applications

Tokens may have a functionality beyond an exchange of value and can represent any asset (e.g. contract, property rights, IDs) or functionality (e.g. pre-payments) desired by its developers.

402 | What is an initial coin offering (ICO)?

A way for companies to obtain funding for the development of services.

During an ICO, the company issues digital tokens and allocates them to the digital wallet of:

- early adopters – e.g. who may be rewarded for their promotion, role in the current and/or future development of the token
- other shareholders – e.g. depending on the governance choices of the company
- external buyers – e.g. in exchange for a given fiat and/or VA per coin.

403 | ICO vs. security offerings

Only when tokens are marketed on the basis of their expectation to offer a higher return on investments (e.g. by increasing in price due to large scale adoption, or due to product success) can they be seen (in some jurisdictions) as "securities".

5 | SMART CONTRACTS



501 | What is a smart contract?

A smart contract is a self-executing contract with the terms of the agreement between buyer and seller being directly written into lines of code:

- the code and the agreements contained therein exist across a distributed, decentralized blockchain network
- the code controls the execution, and transactions are trackable and irreversible.

Smart contracts permit trusted transactions and agreements to be carried out among disparate, anonymous parties without the need for a central authority, legal system, or external enforcement mechanism.

