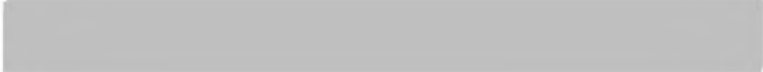




# **EU Digital Finance Package**

## **Cryptoassets & Markets: an Overview**

# Agenda

1. Introduction - 
2. About crypto-assets
3. About the crypto-assets market
4. About the crypto-assets use cases
5. Considerations for the policy framework

# About crypto-assets

A new assets class with tremendous potential

# Crypto-assets

A new asset class with specific characteristics

## Very diverse range of assets

What they have in common is that they are **all registered on a blockchain**, which allows, under some conditions:

- **permanence**;
- **direct appropriation**, with no intermediary;
- **uniqueness**; i.e. prohibition of duplication.

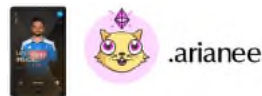
Protocol tokens



Synthetic assets



Digital objects (NFTs)



DAO tokens



Utility tokens



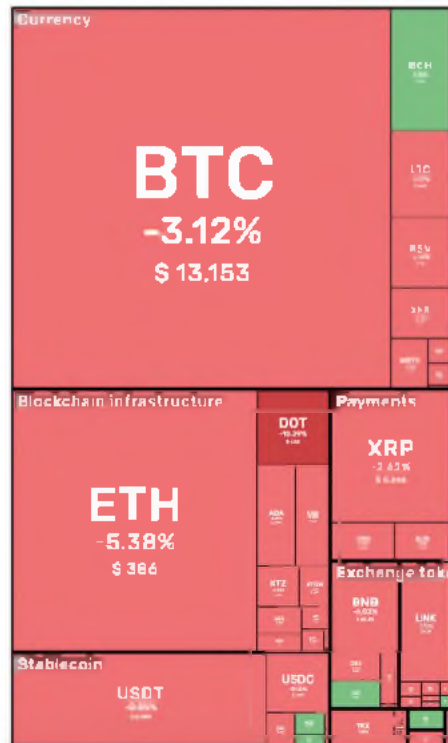
Stablecoin



Securities

Other

Market State Visualization



# Crypto-assets

## Proposed Taxonomy

### Native Crypto-Assets

Assets whose use and value derives entirely from their blockchain representation. They do not require to be linked with an asset or right that exists outside of the blockchain to function.

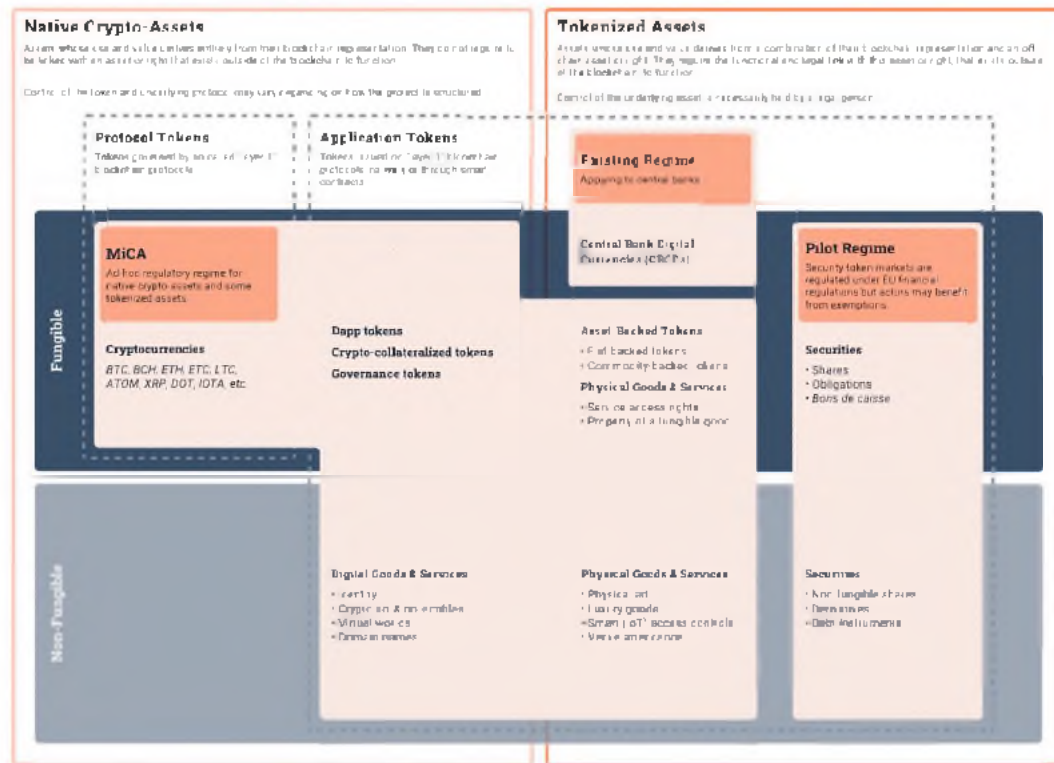


### Tokenized Assets

Assets whose use and value comes from a combination of their blockchain representation and an off-chain asset or right. They require the functional and legal link with this asset or right, that exists outside of the blockchain, to function.

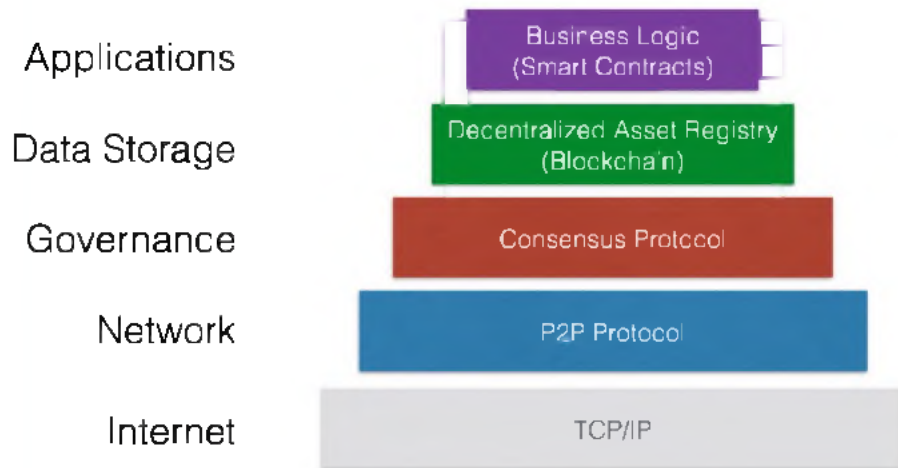
# MiCA and Pilot Regime

## Illustration of the scope - Assets



# Crypto-assets

## Key components



- A **virtual Machine** executes the business logic of transactions, referred to as Smart Contracts, the result of which are registered on the blockchain.
- **Blockchain** is the ledger where all the data is stored. This ledger is **distributed** to all the participants.
- **Consensus protocol** ensures that all the participants are behaving in good faith and the blockchain is consistent between all the participants.

# Crypto-assets

The game-changer: programmability & autonomous execution (“smart-contracts”)

## Simple transaction

- Mr. A creates and sends a simple transaction:  
*Transfer X crypto-assets to Ms. B*
- The Virtual Machine executes the transaction.
- The **result** of the transaction is registered on the blockchain.

## Smart-contracts

- Actor deploys a complex business logic / program on the blockchain that creates a new use case.



- The protocol adds the smart-contract to the blockchain.
- The smart-contract is part of the blockchain and **any authorized party can use the smart-contract later on. It will be executed by the Virtual Machine.**

=> “Decentralized” use cases



# About the crypto-assets market

Booming newcomers, looming incumbents

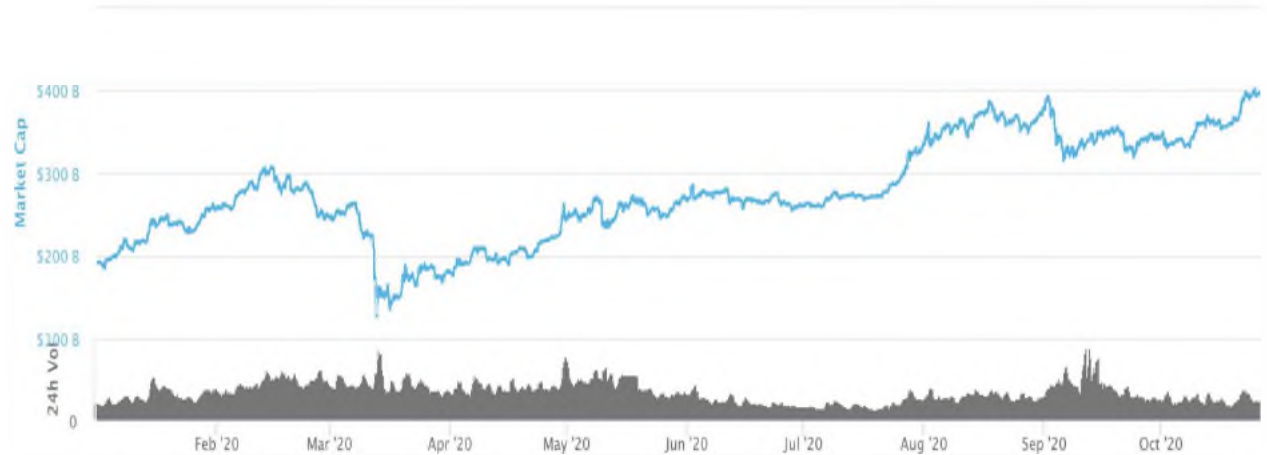
# Crypto-assets

Constant growth and opportunities

**7,500+ crypto-assets**

**\$400 billion  
marketcap**

**300+ exchanges**



*Numbers: October 2020*

*Source: Coinmarketcap*

# Crypto-assets

## Crypto-assets market vs. traditional markets

S&P 500



Bitcoin



Ethereum

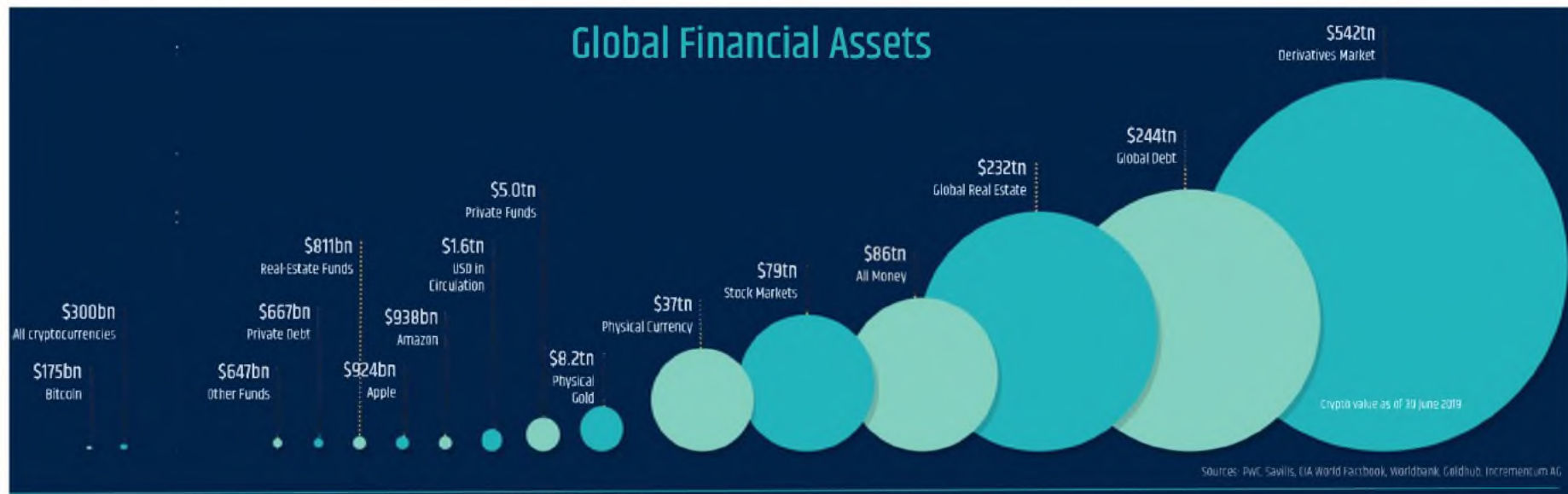


Total Crypto



# Crypto-assets

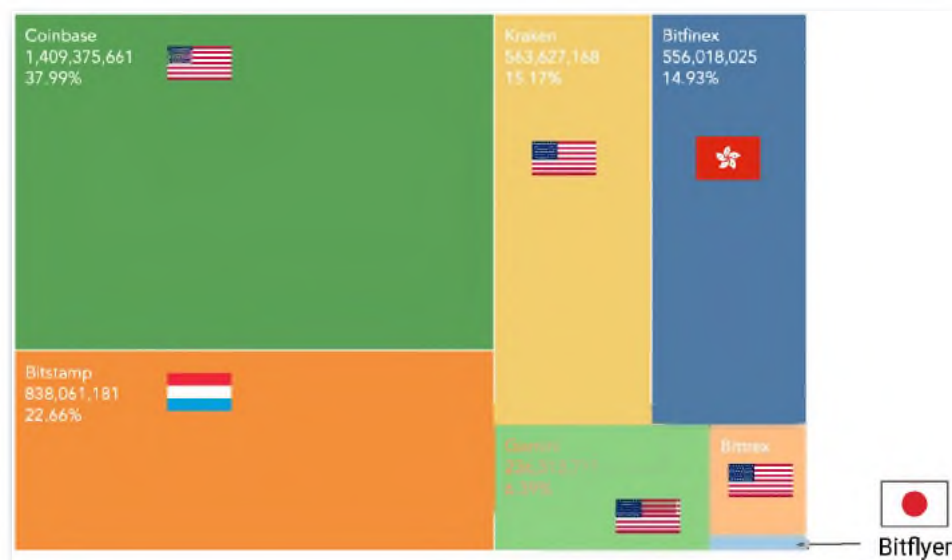
Crypto-assets remain marginal compared to other financial assets in terms of total cap



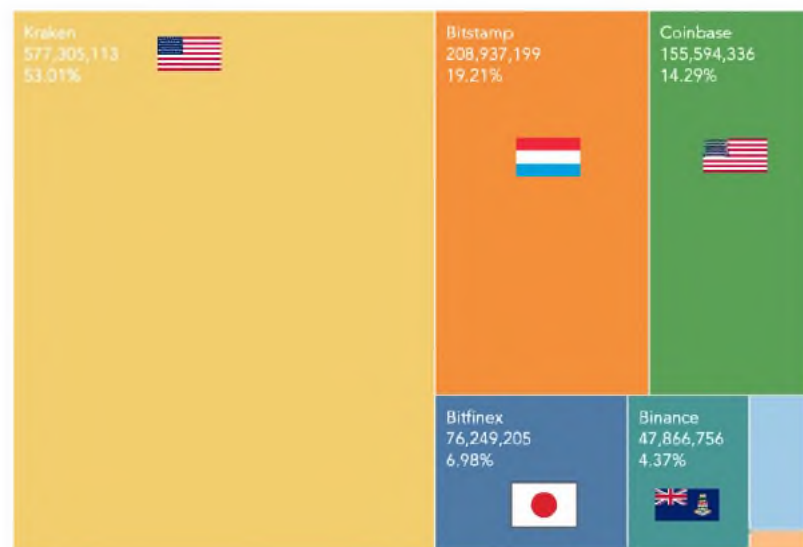
Source: SLIC

# Crypto-assets

The biggest crypto-exchanges are located out of the EU



*BTC/USD - Traded volume and market share  
(first 2 weeks of October 2020)*



*BTC/EUR - Traded volume and market share  
(first 2 weeks of October 2020)*

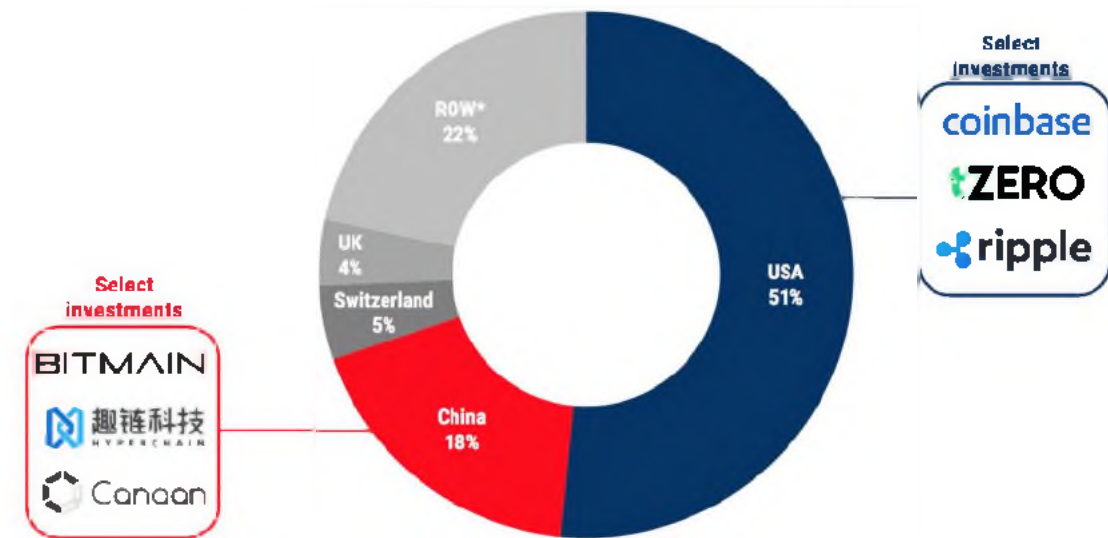
Source: Kaiko

# Crypto-assets

The absence of the EU on the funding stage of the crypto industry

## Companies in US and China dominate funding

Share of funding dollars by geography, 2015 – 2019



CB INSIGHTS

\*Rest of world (ROW) includes countries with less than 4% of total funding between 2015 and 2019

Source: CB Insights, The Blockchain Report 2020

# Crypto-assets

Incumbents' growing interest

Published on 2020/10/09

## SOCIETE GENERALE ISSUED THE FIRST COVERED BOND AS A SECURITY TOKEN ON A PUBLIC BLOCKCHAIN

Central banks and BIS publish first central bank digital currency (CBDC) report laying out key requirements



Press release | 09 October 2020



Office of the  
Comptroller of the Currency

ABOUT

NEWS & EVENTS

PUBLICATIONS & RESOURCES

TOI

Home > News & Events > Newsroom

News Release 2020-08 | July 22, 2020

## Federally Chartered Banks and Thrifts May Provide Custody Services For Crypto Assets

**Jack Dorsey says Bitcoin and blockchain will shape Twitter's future where 'content exists forever'**

## PayPal allows Bitcoin and crypto spending

4 days ago



NEWS & ANNOUNCEMENTS

**J.P. Morgan Creates  
Digital Coin  
for Payments**

# About the crypto-assets use cases

Centralized or decentralized?



# Crypto-assets

## Use cases: centralized or decentralized ?

*A significant distinction: centralized ("traditional") and decentralized projects*

### Centralized

- **Most significant actors**
- Operating through a **dedicated legal entity** which **keeps control on tokens / protocols**
- Activities :
  - Issuer of crypto-assets
  - Custodian
  - Multilateral trading facility
  - Broker
  - Portfolio manager
  - Adviser...

### Decentralized

- **Most innovative players**
- **Deploying smart-contracts on the blockchain**, that are ultimately **operated by the final clients who are in control of the protocol / tokens**
- Activities
  - Decentralized Finance (DeFi) - loans, exchanges...
  - Video games
  - Art
  - Coordination mechanisms
  - Insurance...

# Crypto-assets

Use cases: centralized or decentralized ?

*A significant distinction: centralized ("traditional") and decentralized projects*

## Centralized

Example:

Bitstamp

- **Exchange platform** / Multilateral trading facility
- **Operated and controlled by a company** (incorporated in Luxembourg)
- **IT:** A centralized database of trades connected to the blockchain for deposits / withdrawals

## Decentralized

Example:



Uniswap

- **Exchange** with radically innovative *liquidity pools* (no orderbooks)
- **Operated by smart-contracts** deployed by a company but **not under its control**
- **IT:** Deployed on the blockchain, transactions are sent directly by the user to the smart-contracts.

# Crypto-assets

Use cases: what are crypto-assets used for?

## Established

Protocols



Market-related services  
(primary and secondary  
market, custody, portfolio  
management, advice)



Security hardware and  
software



Data collection and treatment



Mining / Staking



## Emergent

Decentralized Finance



Creation, distribution, sale of  
NFTs (unique digital assets)



Collective organizations on  
blockchain (DAOs)



Stablecoin issuance



Payment in crypto-assets



Activities related to security  
tokens (custody, issuance,  
secondary markets, etc.)



## Primitives

Digital identity



RegTech



Central Digital Bank  
Currencies

Privacy preserving protocols



Decentralized data storage

Decentralized computing  
power



# Considerations for the policy framework

Crypto-assets regulation as a catalyst for safer innovation

# Encourage the benefits while addressing the risks: staying competitive

## *Benefits*

Growth and jobs

Citizen empowerment

Cost reduction

Trust and transparencies

Alternative fundings

# Encourage the benefits while addressing the risks: staying competitive

## *Risks*

### **Security**

Infrastructures have been subject to **numerous cyberattacks**

=> addressed with DORA proposal 

### **Money laundering & terrorism financing**

Limited identification / check requirements of participants, lack of clarity behind compliance, supervision of transactions

=> addressed with 5th AML Directive (extension currently discussed) and FATF recommendations 

### **Investor & consumer protection**

Investors/consumers may be exposed to **unprotected, speculative and opaque markets & fundraisings**

= > addressed by MICA 

### **Financial Stability**

The development of this new class of assets and potential alternative means of payments could represent a threat to financial stability

= > addressed by MICA 

# MiCA and Pilot Regime

## Content of the Draft EU regulation

*Two foundational texts to regulate crypto-assets in the EU...*

### MiCA Regulation ("Markets in crypto-assets")

#### Regime

**Mandatory bespoke regime**

#### Scope - Crypto-assets

**Utility tokens, cryptocurrencies  
and stablecoins**  
(asset-referenced tokens &  
e-money tokens)

#### Scope - Activities

Issuance, exchange, custody,  
and other "investment services"

#### Authorised actors

**All**  
except for e-money tokens - restricted to  
credit institutions

### Pilot regime for DLT market infrastructures

**Transitional regime towards  
definitive rules**, granting  
exemptions to financial  
regulations under conditions

**Security tokens** (= transferable  
securities on blockchain)

Trading on an  
MTF

Delivery-  
settlement

Investment  
firms

Central  
Security  
Depositories

# MiCA and Pilot Regime

## Illustration of the scope - Assets

### Native Crypto-Assets

Assets whose use and value derives entirely from their blockchain representation. They do not require to be linked with an asset or right that exists outside of the blockchain to function.

Fungible	<b>Protocol Tokens</b> Tokens governed by so-called "layer-1" blockchain protocols	<b>Application Tokens</b> Tokens issued on "layer-1" blockchain protocols, natively or through smart contracts		
	<b>Cryptocurrencies</b> BTC, BCH, ETH, ETC, LTC, ATOM, XRP, DOT, IOTA, etc	<b>Utility Tokens</b> <ul style="list-style-type: none"><li>• Dapp tokens</li><li>• Governance tokens</li><li>• Payment tokens</li></ul>	<b>Stablecoins</b> <ul style="list-style-type: none"><li>• Asset-backed stablecoins</li><li>• Central Bank Digital Currencies</li></ul>	<b>Securities</b> <ul style="list-style-type: none"><li>• Listed shares</li><li>• Obligations</li><li>• Bons de caisse</li></ul>
Non-Fungible		<b>Digital Goods &amp; Services</b> <ul style="list-style-type: none"><li>• Identity</li><li>• Crypto art &amp; collectibles</li><li>• Virtual worlds</li><li>• Domain names</li></ul>	<b>Physical Goods &amp; Services</b> <ul style="list-style-type: none"><li>• Physical art</li><li>• Luxury goods</li><li>• Smart access controls</li><li>• Venue attendance</li></ul>	<b>Securities</b> <ul style="list-style-type: none"><li>• Derivatives</li><li>• Debt instruments</li></ul>

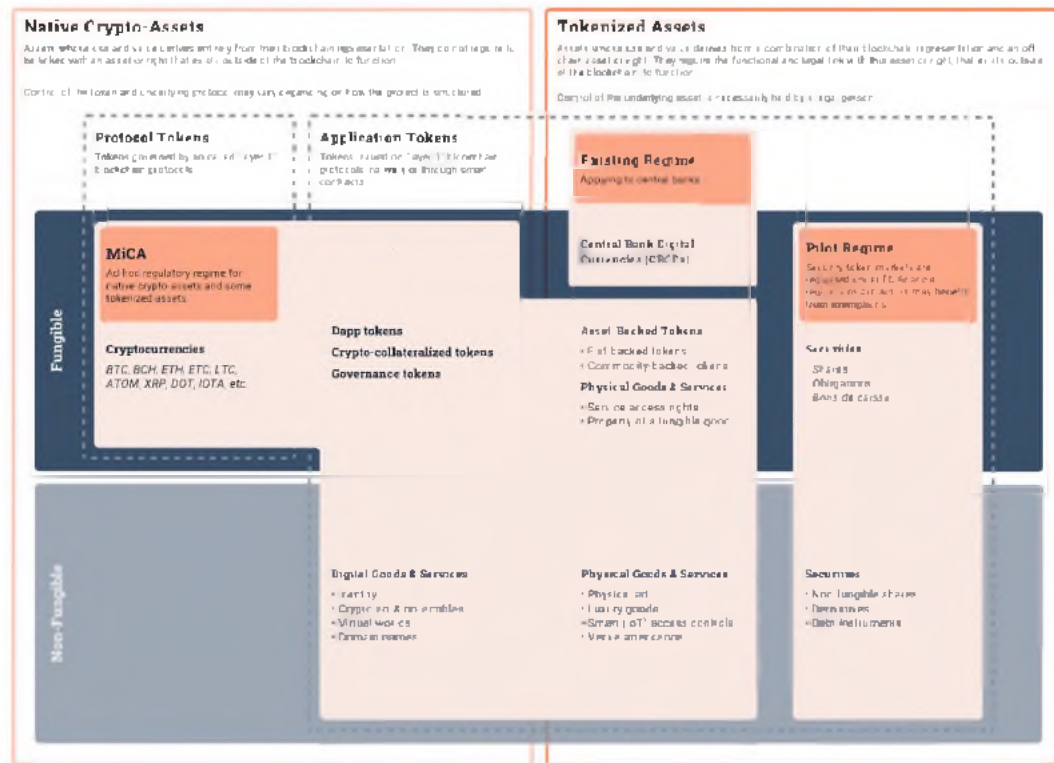
### Tokenized Assets

Assets whose use and value derives from a combination of their blockchain representation and an off-chain asset or right. They require the functional and legal link with this asset or right, that exists outside of the blockchain, to function.



# MiCA and Pilot Regime

## Illustration of the scope - Assets



# MiCA and Pilot Regime

## Illustration of the scope - Activities

### *The current scope*

#### Centralized

Bitstamp

- Covered by the regulation
- Can comply with no major issue
- Article 68: ban from listing assets that have been issued with no whitepaper

#### Decentralized

 Uniswap

- **Not excluded** => in the scope?
- Can not respect obligations that imply a **control over the assets** listed, the operations, etc.
- **Illegal in the EU?**

# MiCA and pilot regime

What's missing - entirely or in part - for a perfect EU regime?

## **Equal opportunities between incumbents and newcomers**

Barriers to entry high for newcomers, and low for incumbents.

## **Proportionality**

The proportionality is insufficient to cater for different business models in the sector

## **Allowance for DeFi and other decentralized use cases**

Innovation takes place through increasingly decentralised use cases (e.g. so-called decentralised finance, or "DeFi"). Current drafting does hinder or ban those use cases - probably as an unwanted side effect.

## **Adapted operational requirements**

Certain operational requirements are very costly and out of sync with market practice.

## **Authorization of public blockchains**

Public blockchains are not recognized as platform for most innovative use cases.

**THANK YOU**