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The deployment of new market infrastructure for the capital market of tomorrow has begun

Presentation for EFFAS Summer School
Porto, June 20, 2024

Digital progress is unstoppable and has always changed society and the economy – DLT as a new technological paradigm shift

Mobility | Music | Fotography | Markets

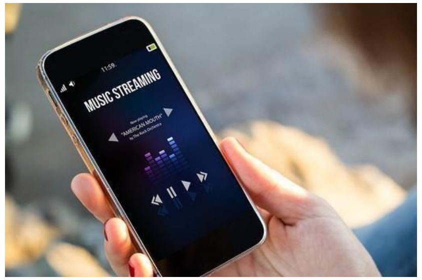
Manual

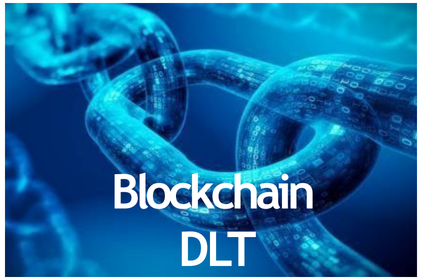



Electronic

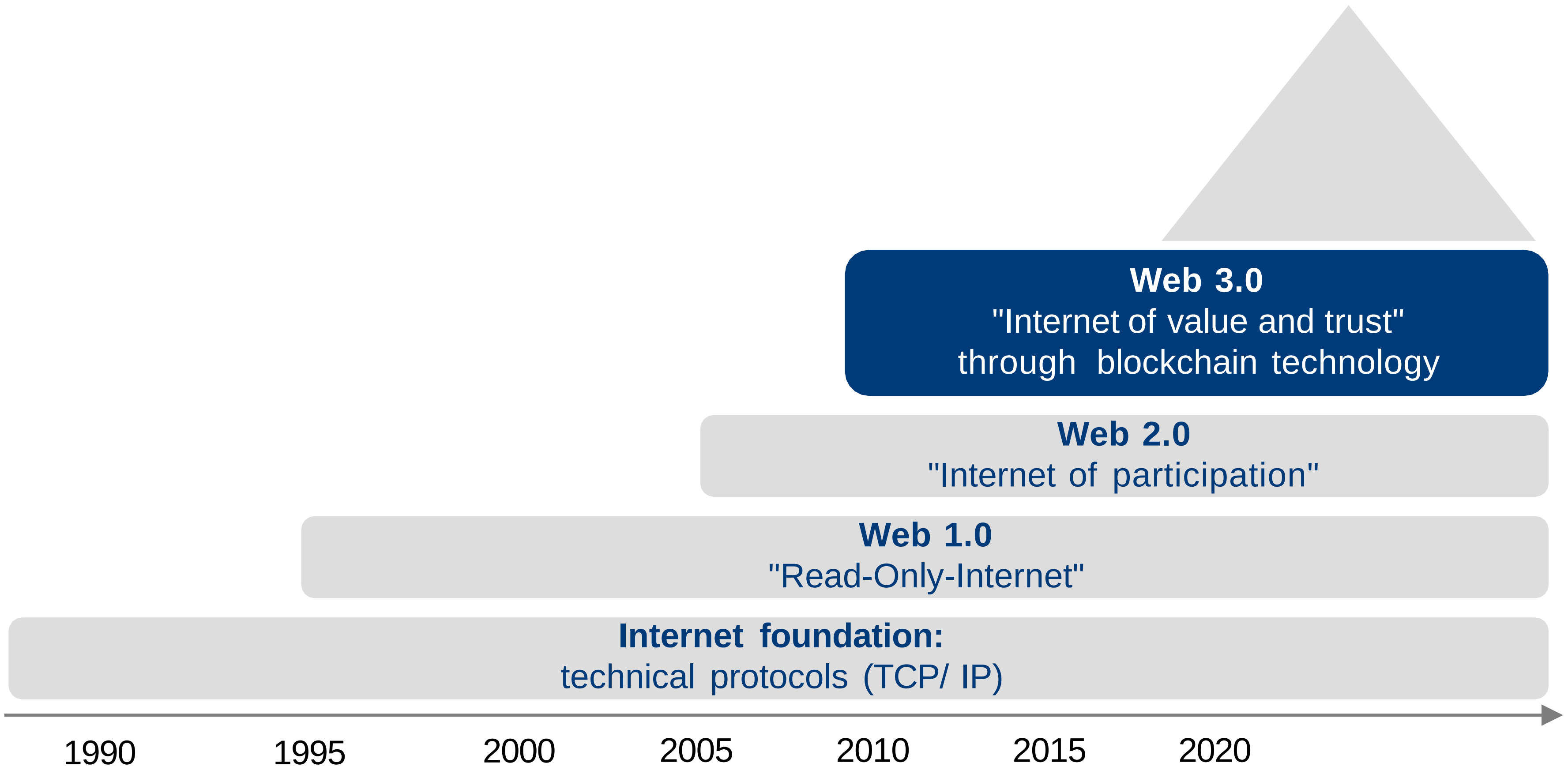



Digital

In our opinion, blockchain technology represents the next evolutionary stage of the internet



Source: Metzler

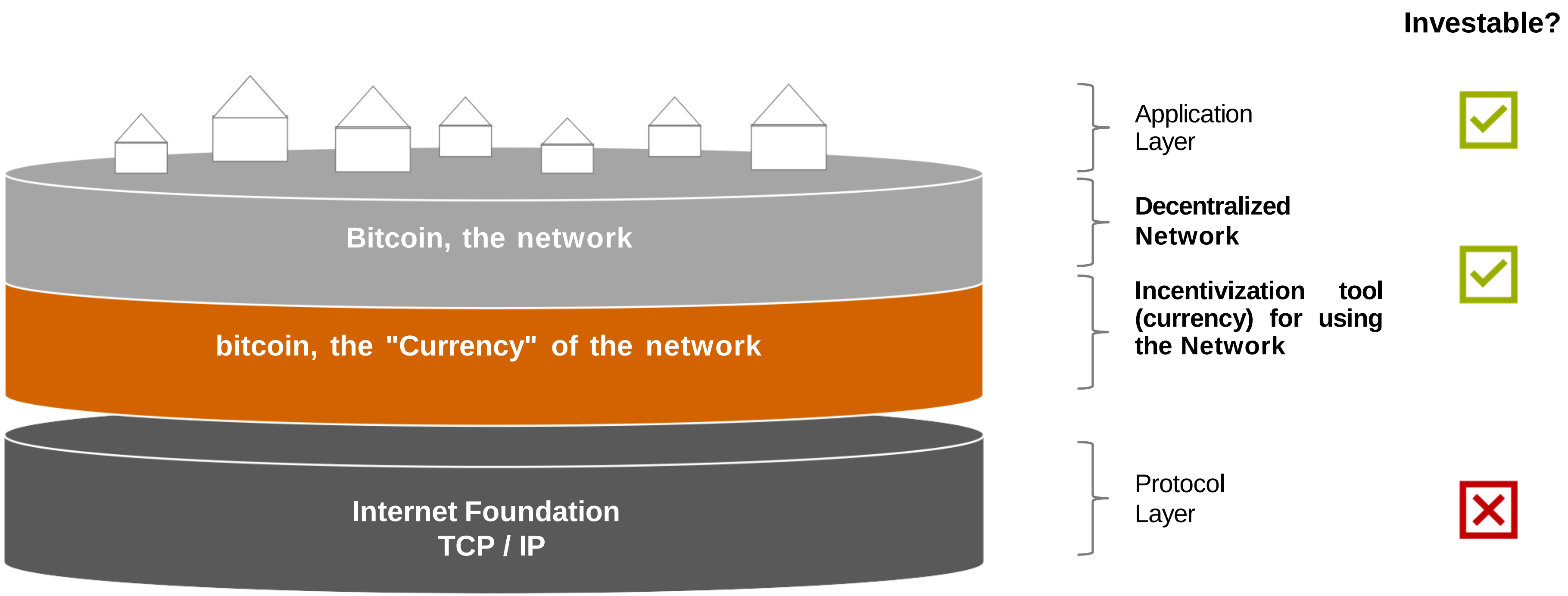
What does the current Internet landscape look like?

Internet Baselayer

Source: Metzler, @croesus_btc (Twitter)

What does the future Internet landscape look like?

Internet of value using the Bitcoin blockchain as an example



Source: Metzler, @croesus_btc (Twitter)

There is a very wide range of possibilities when plugging into the "open- source socket" (efficiency and new business opportunities)

This range is accessible to anyone with an Internet connection

Open-source Networks

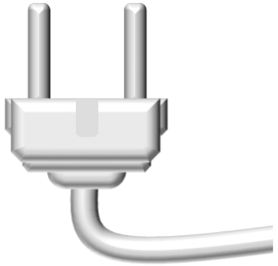
Blockchain technology has several characteristics:

- **Real-time settlement**
- **Use of programmable contracts (Smart Contracts)**
- **Global reach**

Examples

Bitcoin

Ethereum



Range of possibilities

I) Efficiency

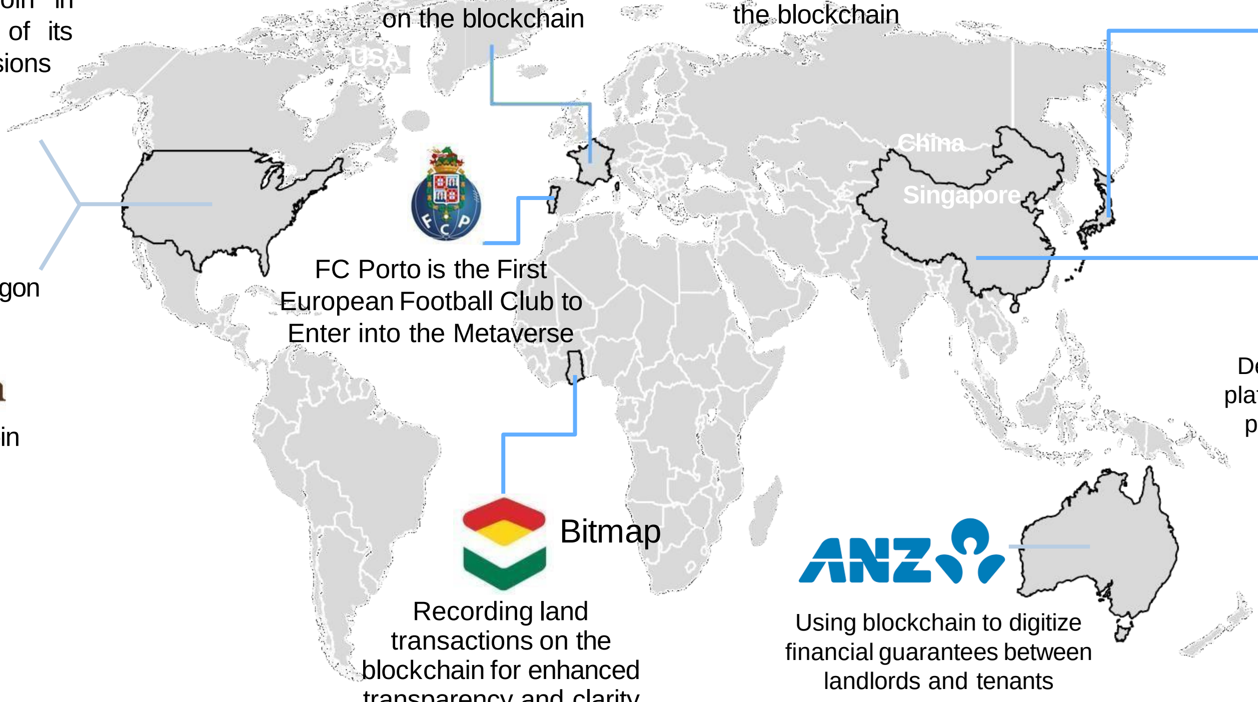
II) New business opportunities

Source: Metzler

New service/product opportunities on a new "tech stack"

I believe the next generation for markets, the next generation for securities, will be tokenization of securities.

Larry Fink, Mar 2023



ExxonMobil
Exxon is mining bitcoin in North Dakota as part of its plan to slash CO2-emissions

Nike launches NFT loyalty program on Polygon

J.P.Morgan
Launch Dollar Stablecoin (JPM Coin)

Development of a data marketplace on the blockchain

BOSCH
Development of autonomous agents on the blockchain

MUFG
Development of a stablecoin denominated in Yen

FC Porto is the First European Football Club to Enter into the Metaverse

ANT GROUP
Alibaba
Development of a blockchain platform used for Cross-border payments, tokenization, …

Bitmap
Recording land transactions on the blockchain for enhanced transparency and clarity

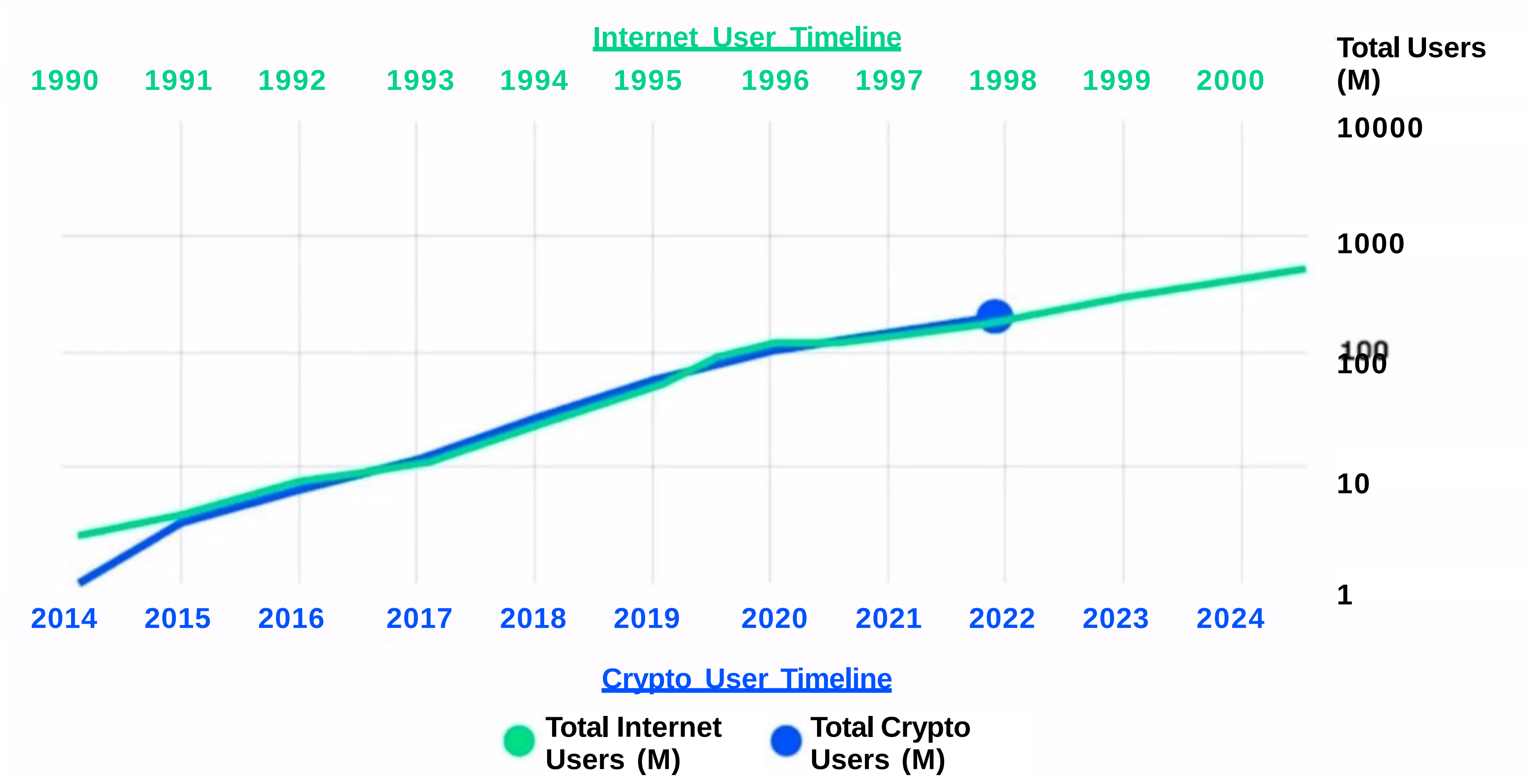
ANZ
Using blockchain to digitize financial guarantees between landlords and tenants

Sources: Metzler, Larry Fink

FOCUS FUTURE 350 YEARS METZLER

Adaptation to the technological paradigm shift: We are still at the very beginning

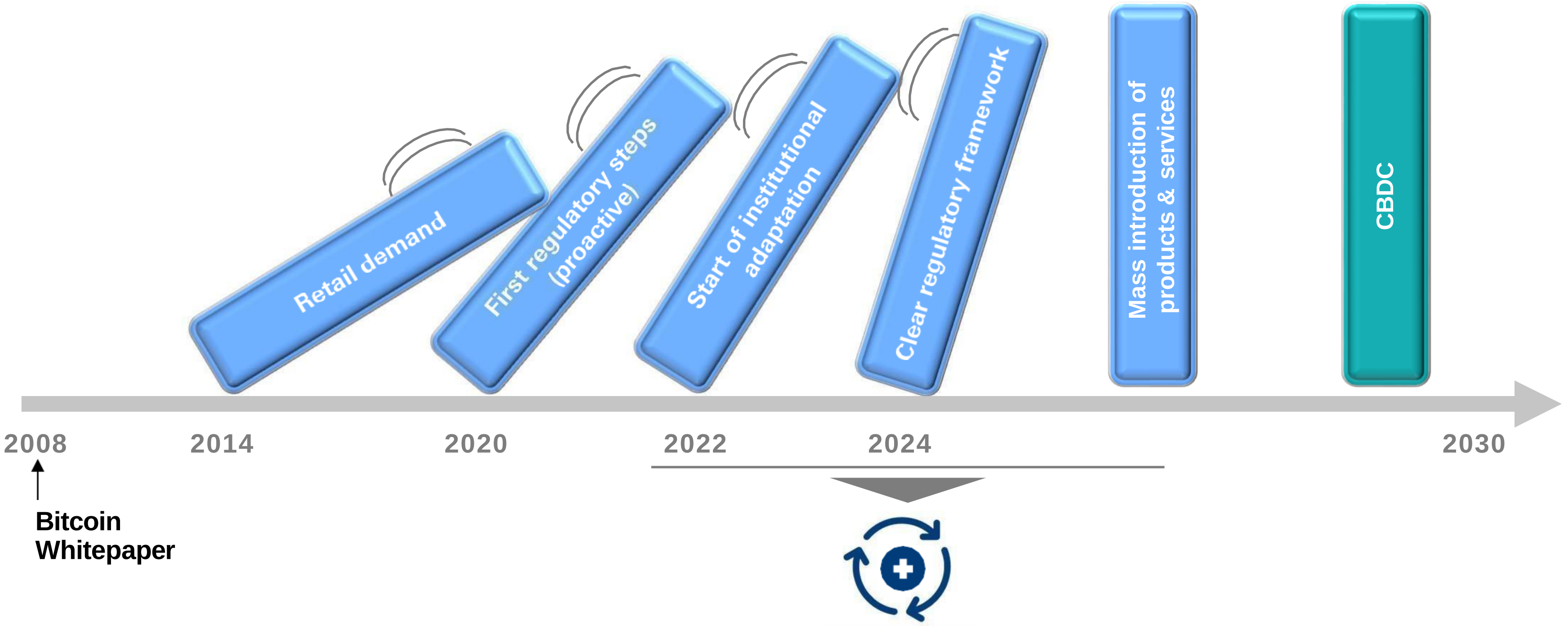
Comparison to the commercialization of the Internet



Source: Worldbank, crypto.com, GMI, Metzler

However, the way has been paved for a more digital future

All the relevant dominoes for a common path into the future are already in place and are being set in motion

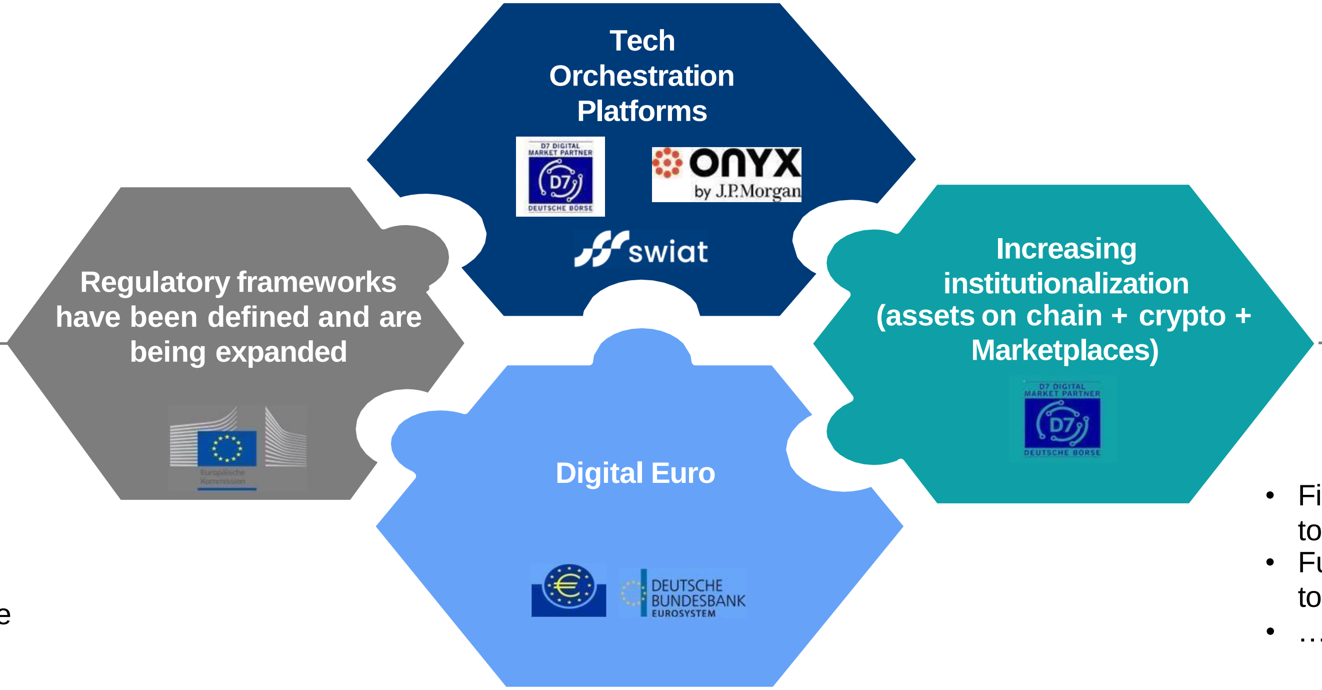


Past negative events (FTX, Celsius, ...) are forcing regulatory steps and will thus accelerate institutional adaptation - especially the establishment of trustworthy supervisory bodies. The approval of the spot Bitcoin ETFs in 2024 is another milestone.

Source: Metzler

Good starting point for the DE/EU market: Many pieces of the puzzle for the digital asset's ecosystem are already in place

Platforms which connect **old and new technology** in the financial sector



Regulation
- eWpG
- KryptoFAV
- MiCAR
- DLT Pilot Regime
- Future Act

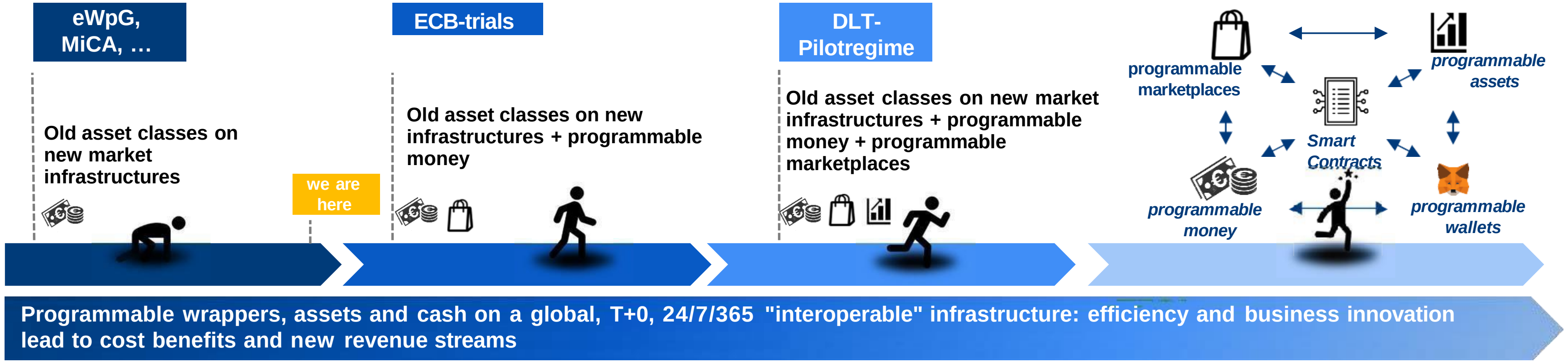
- First assets on-chain - tokenized bonds
- Fund shells can be tokenized
- …

Central banks **start tests** from 2024.

Source: Metzler

Summary

Vision



EU as a possible global Web 3.0 Hub

Web 2.0

Locations of the world's largest **technology companies** based of turnover and market value

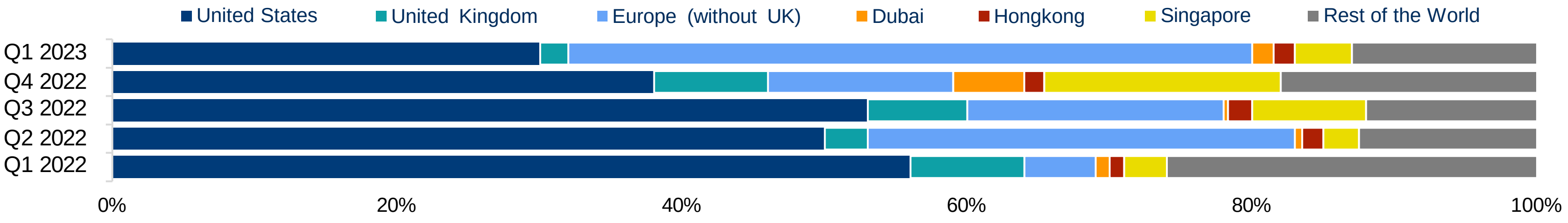
Web 3.0 Opportunity

- **Clear regulatory framework**
- **Fast development Digital Euro**
- **First Assets on-chain**

> 10%

First Successes

Global VC-Investments in Crypto Projects



Sources: Pitchbook, Metzler

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Overview of the regulatory framework outside Europe

Switzerland, has a regulatory framework that follows the criteria imposed by the FATF standards.
There are certain laws that apply to crypto-asset services, as well as their issuance, although there are no specific laws that particularly cover crypto-assets. Switzerland has also rules applying to DLT financial instruments and trading facilities of this.

They are included in its AML/CTF regulations and require a license from the FCA in order to provide exchange or custody services. The Travel Rule, implementation of which was mandatory from September 1, 2023 has transformed the crypto industry, blending strict compliance measures with technological innovation. The UK Government is working on develop new legislation for stablecoins as well as crypto staking, exchange and custody.

The approval of a Bitcoin ETF by the SEC has had significant impacts in the cryptocurrency market and in the regulatory landscape, since it will establish a precedent for how Bitcoin-related investment products are regulated.
The United States continues to work on federal laws that regulate cryptoassets and create a harmonized framework in the country, as MiCA does for Europe.

On May 31, 2023, the Securities and Futures Commissions (SFC) in a circular pivotal regulatory changes that centralized virtual asset trading platforms (VATPs) had to adhere to as of June 1, 2023. This initiative is governed by both the Securities and Futures Ordinance (SFO) and the Anti-Money Laundering and Counter-Terrorist Financing Ordinance (AMLO).
Also on May 31, 2023, the SFC issued a circular on transitional agreements of the new licensing regime for VATPs under the AMLO.

On July 3, 2023, The Monetary Authority of Singapore (MAS) released new requirements for digital payment token service providers (DPTSPs) to safeguard customer assets under a statutory trust before the end of the year. This aims to reduce potential losses or misuse of customer assets and supports the recovery of these assets if a DPTSP goes bankrupt.

On February 7, 2023, VARA issued its comprehensive Virtual Assets and Related Activities Regulations. Thanks to its favorable regulatory environment, marked by the creation of the Virtual Assets Regulatory Authority (VARA) in Dubai, numerous digital currency exchanges and trading platforms have established a presence in the country.

After more than two years since the initial draft of MiCA (the European regulation on crypto-assets) was first published, the final version of the text was published in June

Objectives

- To provide **legal certainty, support innovation and protect consumers from the issuance of crypto-assets and the provision of crypto-asset services.**
- Facilitating **financing** and **means of payment**
- Ensuring **financial stability**, in the face of emerging *stablecoins*

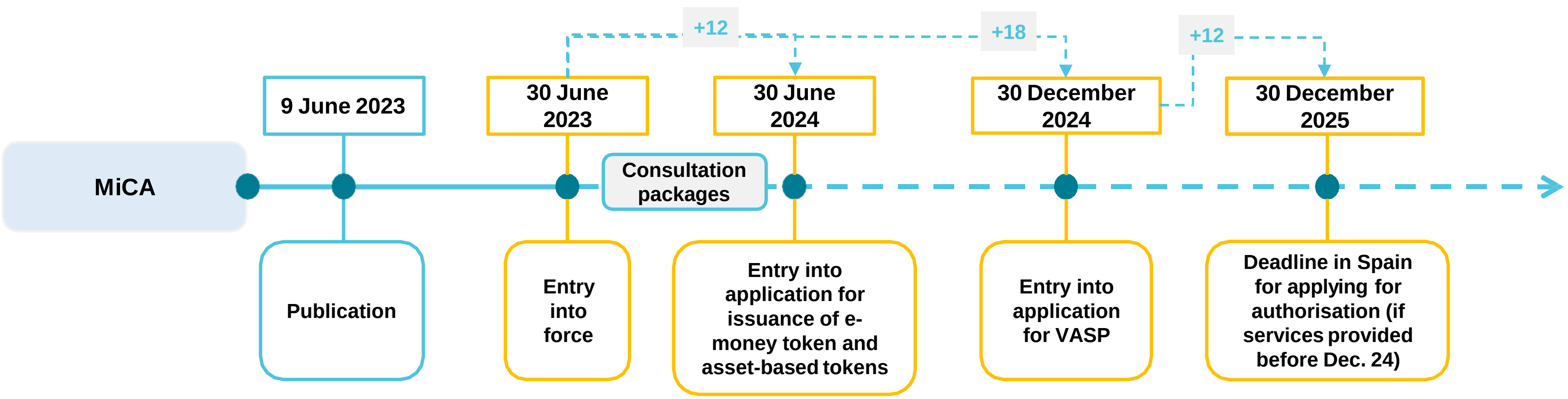
What does it regulate?

- The **issuance (with exceptions), offer and admission to trading** of crypto-assets
- **Authorisation and supervisory** regime for **crypto-asset service providers** and crypto-asset **issuers**
- **Operation, organisation and governance** of certain cryptoasset issuers and service providers
- **Consumer protection** rules for the issuance, placement and provision of crypto-asset services
- Measures to **prevent market abuse**

Key dates

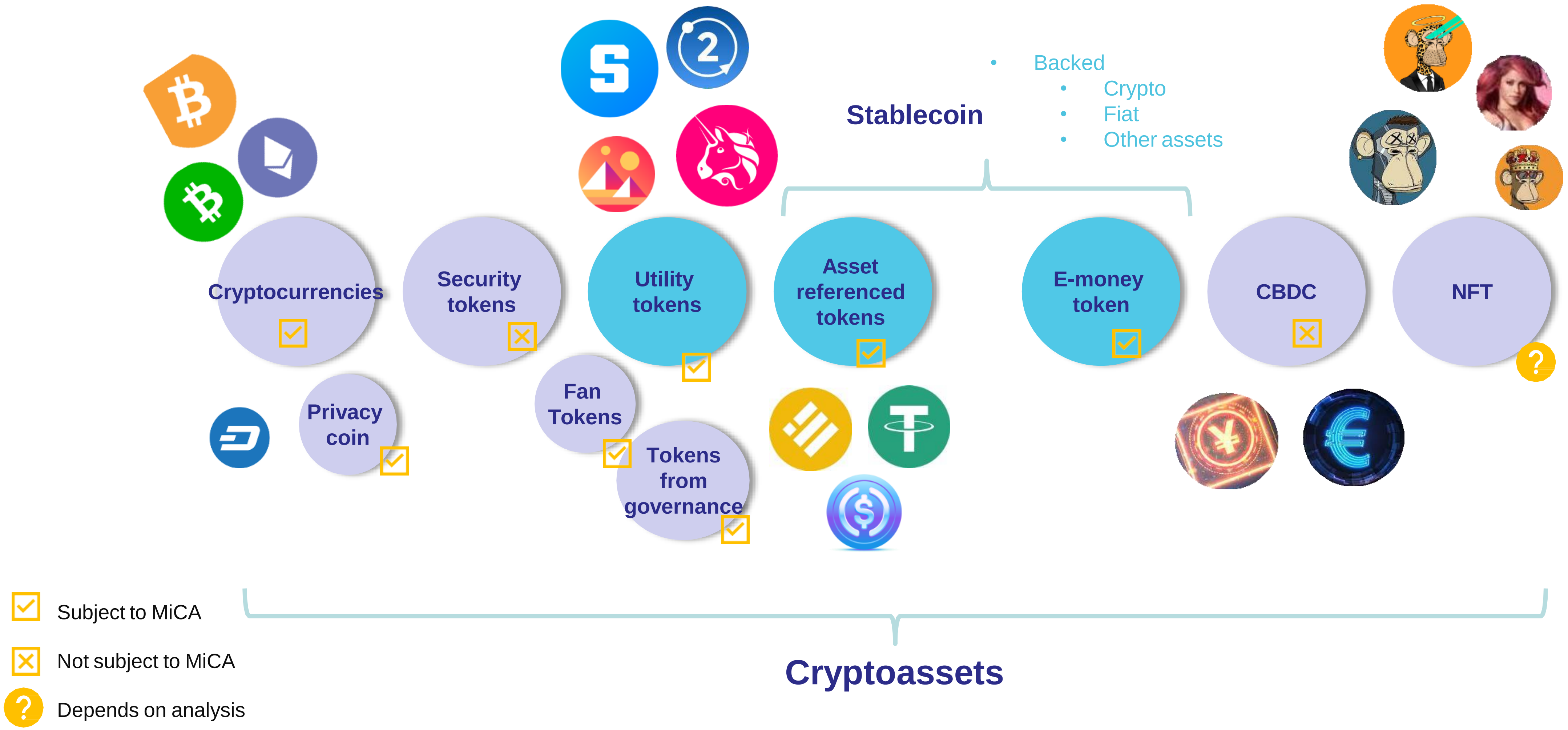
- **Entry into force**: 30 June 2023 (20 days after publication)
- **Partial entry into force**: 30 June 2024 (+12 months) for e-money tokens and asset-backed tokens
- **Entry into full implementation**: 30 December 2024 (+ 18 months)
- **Transitional period** for continuing rendering services: December 2025 (Spain) or June 2026
- **Consultation packages**: 3 ESMA and EBA consultation packages on MiCA implementing regulations (1st: 12-7-2023; 2nd: 5-9-2023; 3rd Q1 2024).

Calendar



The truth is that establishing the legal categories and their criteria is complex

Types of cryptoassets



In order to mention those cases in which the classification of cryptoassets and their regulation under MiCA is controversial, it is necessary to highlight what MiCA does and does not regulate.

What does it regulate?

- **e-money token ***
  shall comply with r. own
- **Asset-referenced tokens**
- **Other cryptoassets**
  - A. Excluded from issuance rules: Bitcoin, Ether, etc.
  - B. Subject to issuance rules: utility tokens, fan tokens, etc.

Issue, offer and admission to trading	Authorisation and supervision of crypto-asset service providers and issuers
Functioning, organisation and governance of certain issuers and service providers	Consumer protection rules and market abuse

What does it not regulate?

- ***Security tokens***
- **CBDC**
- **Deposits and deposits structured**
- **Securitisations**
- **NFT**
- **...**

+ exclusion criteria

DeFI

Staking, Farming, loans, etc.

DLT can be applied to securities markets to make post-trade processes more efficient or to reduce costs, among other things. However, it also has certain risks to address

More efficient post-negotiation processes

- The **clearing and settlement** process could become **almost instantaneous** with the DLT, as the confirmation, affirmation, allocation and settlement of trades could be combined in a **single step** and reconciliations would become virtually superfluous. In addition, this could facilitate **the safekeeping and recording of ownership of certain assets by providing a single record to** be shared among market participants.

Improved reporting and monitoring

- It could facilitate the **collection, consolidation and sharing of data for reporting and risk management**. With the DLT, multiple market participants could access a **single source of accurate and verifiable records in real time**. **KYC and AML/CFT** processes could also take advantage of this technology.

Increased resilience and availability

- The DLT could facilitate the **recovery of both data and processes** in the event of an attack. This could **reduce the need for costly recovery plans**. In addition, sophisticated encryption techniques could provide an **additional layer of protection to the information sets** stored in the DLT compared to existing systems.

Reduced counterparty risk and improved collateral management

- **Shorter** settlement cycles should **reduce counterparty credit risk** for spot transactions, as the risk exposure during the settlement period of the transaction is reduced. In turn, **the need to mitigate counterparty risk** through central clearing and collateral posting may be **reduced.**

Cost reduction

- The above benefits could lead to a **reduction in the costs of post-trade processes**, including clearing, settlement, custody, registry and notary services in the medium to long term, once the investment and transition costs have been amortised. Reporting, compliance and risk monitoring costs could also decrease.

Potential risks

Network effect, interoperability and standardisation	Technological risks
Governance and privacy risks	Cybersecurity risks
Operational risk	Market fragmentation
Market volatility, interconnectedness and liquidity risk	...

To address the risks of a technology that has the potential to change securities markets as we know them, the Pilot Regime was issued

What are its objectives?

Pilot Regime

- **Fostering innovation and digitisation** by creating a **testing environment** for **securities markets**
- **Remove** current **barriers to the** issuance, trading and settlement of DLT-based **securities**
- Create a **common European testing regime** for the use of DLT in secondary markets for financial instruments and crypto-assets that qualify as such.
- **Mitigate risks related to digital transformation** and identify the regulations that need to be in place for the creation of DLT market infrastructures.
- Enhancing more efficient **capital markets** in the EU - Initiative in close connection with the **Capital Markets Union**
- **Improving the resilience** of the financial sector

Calendar