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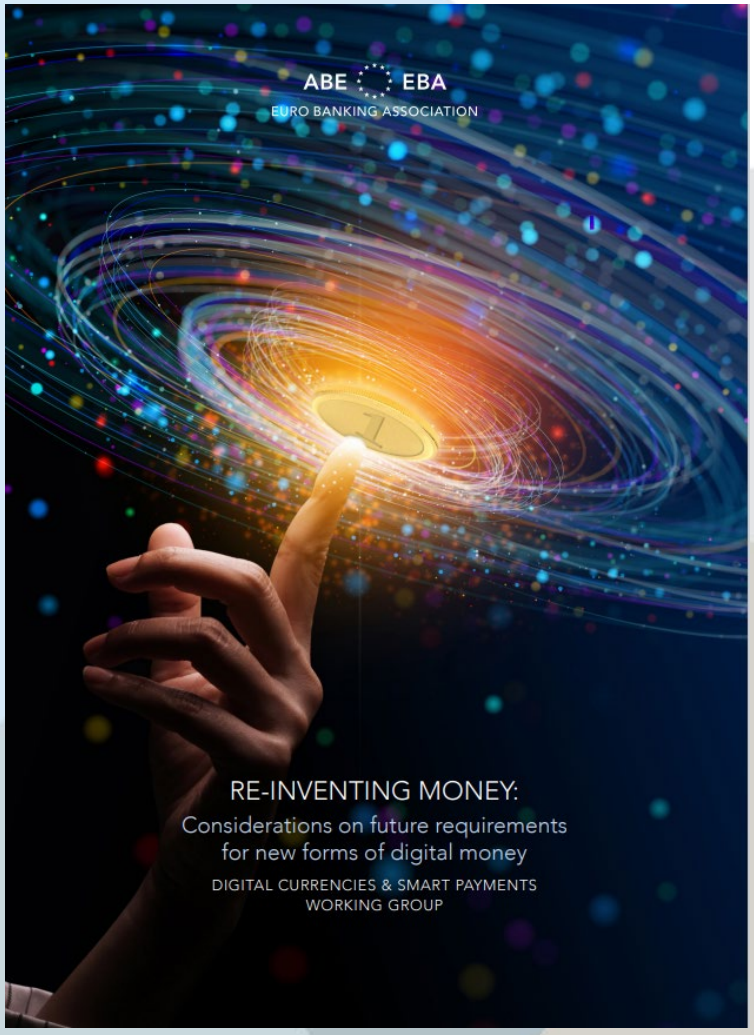


Re-inventing Money:

Considerations on future requirements for new forms of digital money

Digital Currencies and Smart Payments Working Group (DSWG)

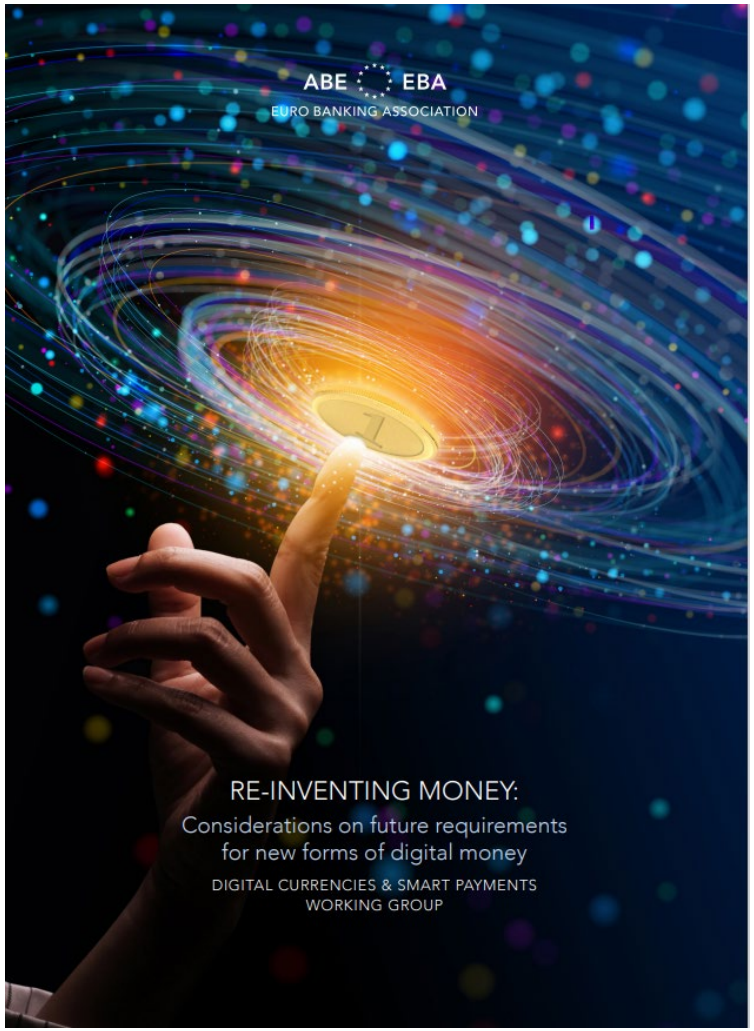
Thank you for joining
the webinar will start shortly

Presented by

Daniel Szmukler, EBA Director

Jani Ristimäki, Working Group Facilitator

Objectives of the research



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- To consider how emergence of novel business models and use cases applying DLT and other emerging technologies will impact on banking and monetary system.
- To introduce selected DLT use cases from different industries and investigate the emerging requirements and expectations of banks' corporate customers towards money as a financial instrument
- To consider challenges of the current monetary system to meet the demand and requirements set by the corporate customers.
- To compare new forms of digital money, consider their interoperability, wholesale settlement and central banks' role
- Highlight key recommendations for the banking community how to be prepared and stay relevant.

Background on the DCSWG - The journey so far

May 2015
Crypto-technologies, a major IT innovation and catalyst for change

March 2017
Crypto-technologies in international payments

October 2018
Crypto-technologies: improving regulatory compliance

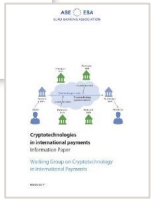
March 2021
Digital currencies: a first look at potential opportunities and challenges for banks

September 2024
Re-inventing Money - Considerations on future requirements for new forms of digital money

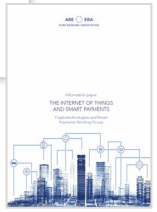
2015 | 2016 | 2017 | 2018 | 2019 | 2021 | 2022 | 2023 | 2024

May 2016
Applying crypto-technologies to Trade Finance

September 2017
Security and Identity challenges in crypto-technologies



September 2019
The Internet of Things and Smart Payments



March 2022
CBDC, stablecoins and beyond: a deep dive into new forms of digital money

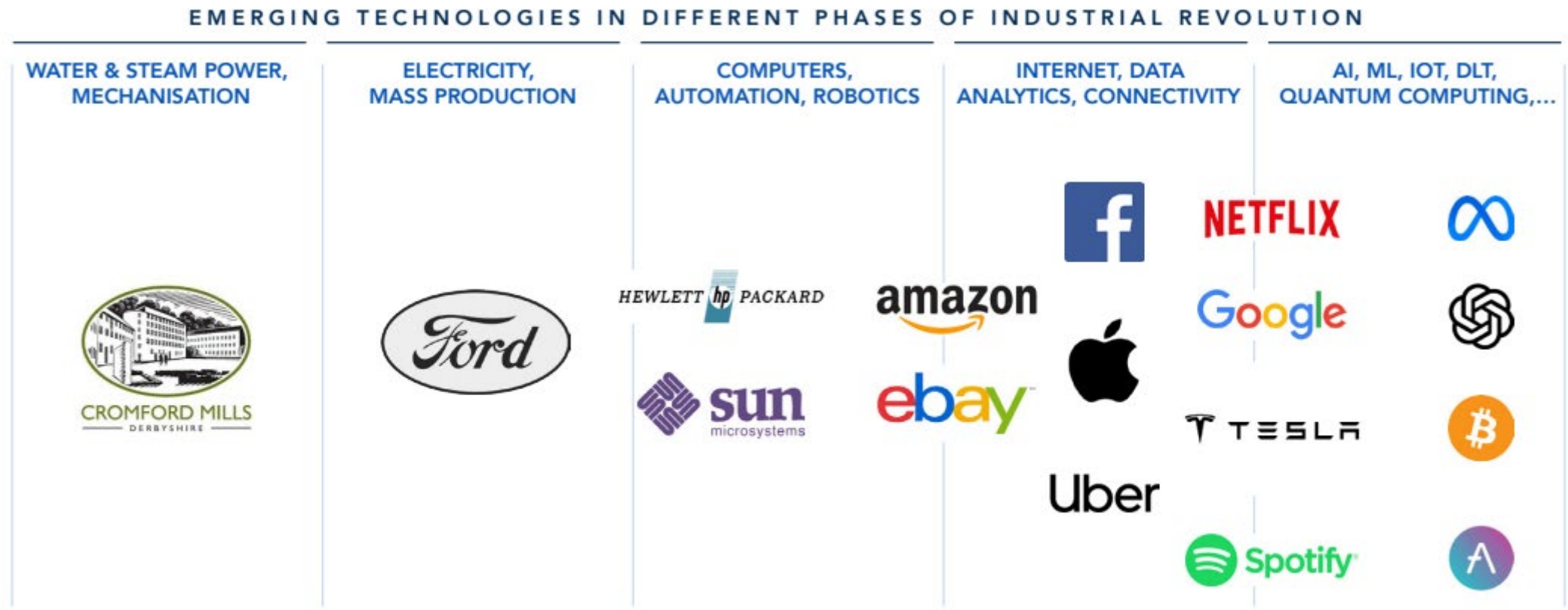
June 2023
The Digital Euro – A guide for banks: Preparing your organization for the introduction of the digital euro

What was started as Electronic Alternative Payments Working Group (e-APWG): Cryptotechnologies Sub-Group in 2015…

…is now called The Digital Currencies and Smart Payments Working Group today

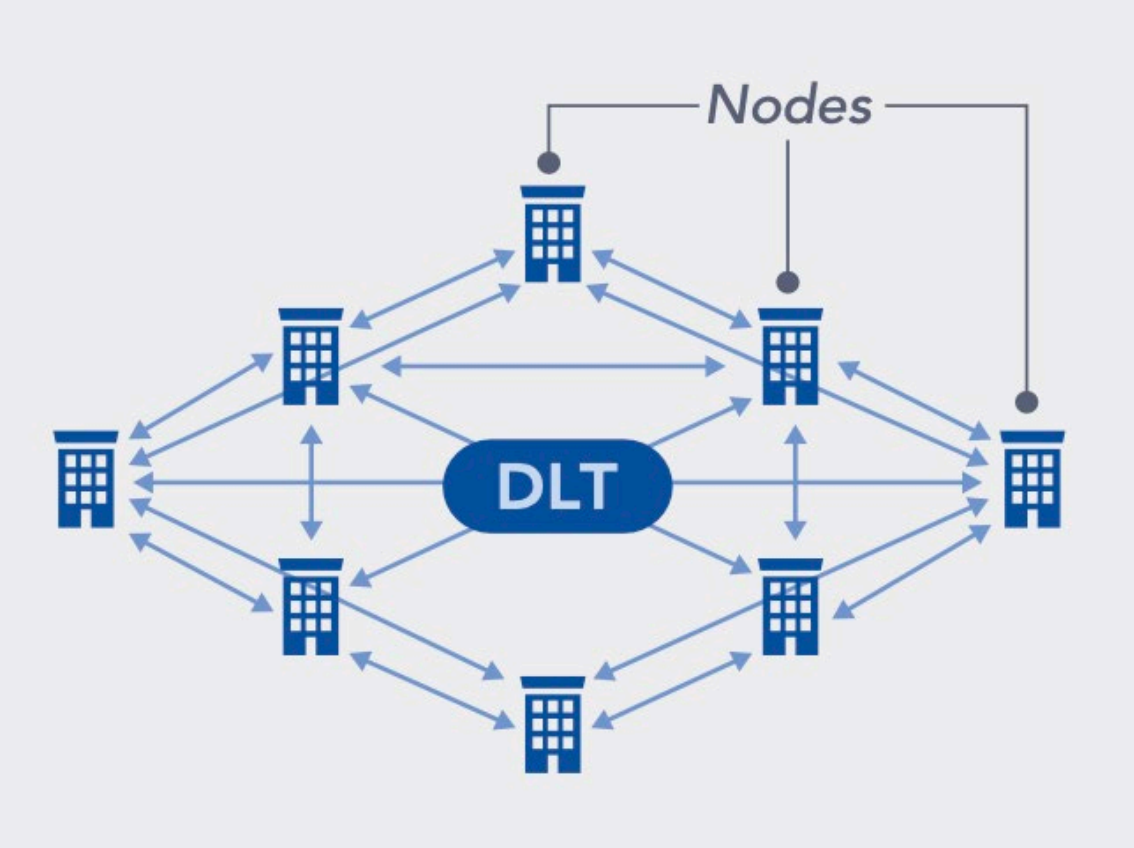
EBA DSWG: over 50 experts from 40 institutions across 15 different countries

Through the history, applying innovative technology has shaped the ways how companies do business, run operations and serve their customers



A distributed ledger is a database that is spread across various computers, nodes, institutions, or countries accessible by multiple people around the globe

- DLT allows multiple stakeholders to simultaneously access data with assured accuracy and trust
- It allows information to be stored securely using cryptography
- Users access data using cryptographic keys and signatures
- Once stored, the data becomes immutable
- DLT can be **permissioned** or **permissionless**
- Types of DLT: Blockchain, Directed Acyclic, Hashgraph, Holochain and Tempo / Radix
- In addition to DLT, similar results can also be achieved by applying hashing and cryptographic signatures in a centralized database



Various industries are exploring Distributed Ledger Technology as a potential next paradigm shift

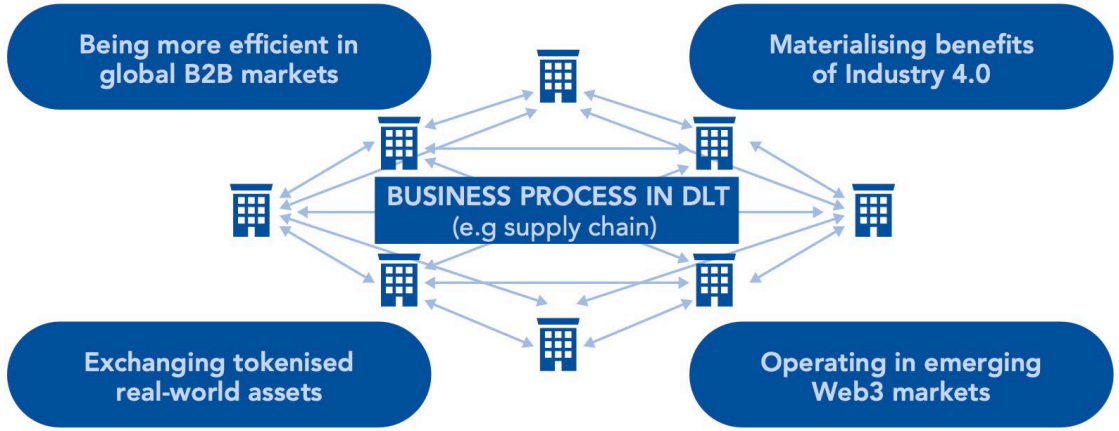
Industries ranging from manufacturing to food and agriculture, consumer goods, fashion, and many more

Use cases for example involve global trade and supply chain management

Typical **objectives:**

- To simplify and streamline business processes by removing unnecessary intermediaries and enabling more direct peer-to-peer connections
- To enable more automated business processes
- To enhance capabilities to track and ensure origin of goods and materials
- To enter emerging virtual markets

Examples of why different industries are exploring DLT



Source: BearingPoint

Case Example: DCX Rice

A digital platform on blockchain designed for buying and selling rice globally

Buyers, sellers, and service providers can find each other in a digital environment, conduct trades efficiently, and arrange insurance, shipping, inspection, and settlement

The platform simplifies documentation compliance, eliminating paperwork and expensive courier services, leading to lower transaction costs and more efficient back-end operations

The transparency provided by DCX Rice allows for better monitoring of sustainable practices, such as responsible land use, water conservation, and reduced carbon emissions

Challenge: Traditional monetary system and existing payment systems create friction in the novel business processes

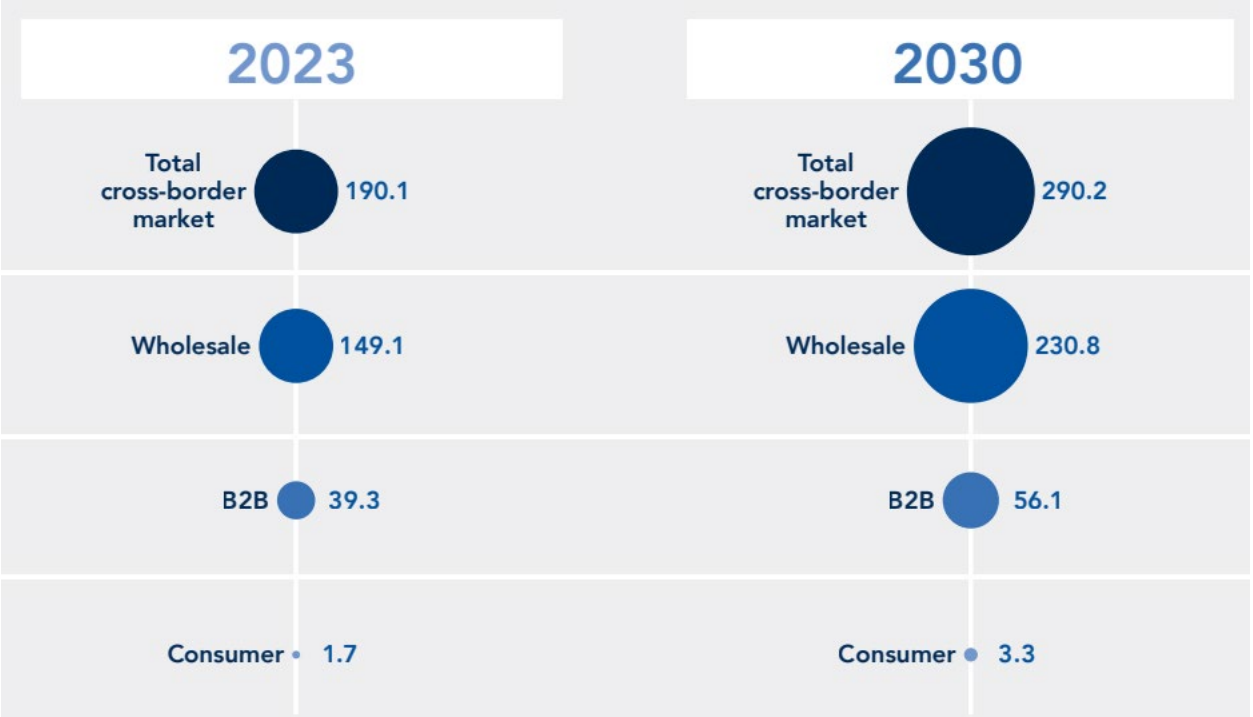
Cross-border payments are expensive and lack speed and transparency

- Complex wholesale transaction processing (ref. corresponding banking system)
- Delayed settlement due to unaligned processing schedules between jurisdictions and currencies
- Expensive FX conversions
- Trapped liquidity

Crypto-currencies and stablecoins are the only available options in the emerging new markets, but trust on both is low

Monetary system need to adapt to the changing needs!

Market size of global wholesale, B2B, B2C cross-border payments in 2023 and 2030



Source: FXC Intelligence

Banks have started to investigate new forms of private digital money to ensure availability of commercial bank money for their corporate customers on chain

Bank-issued stablecoins: Tokenised version of e-money, where banks as issuers expected to create trust and improve stability. Example: CoinVertibe

Tokenised deposits: Tokenised version of traditional commercial bank money: Example: Commercial Bank Money Token

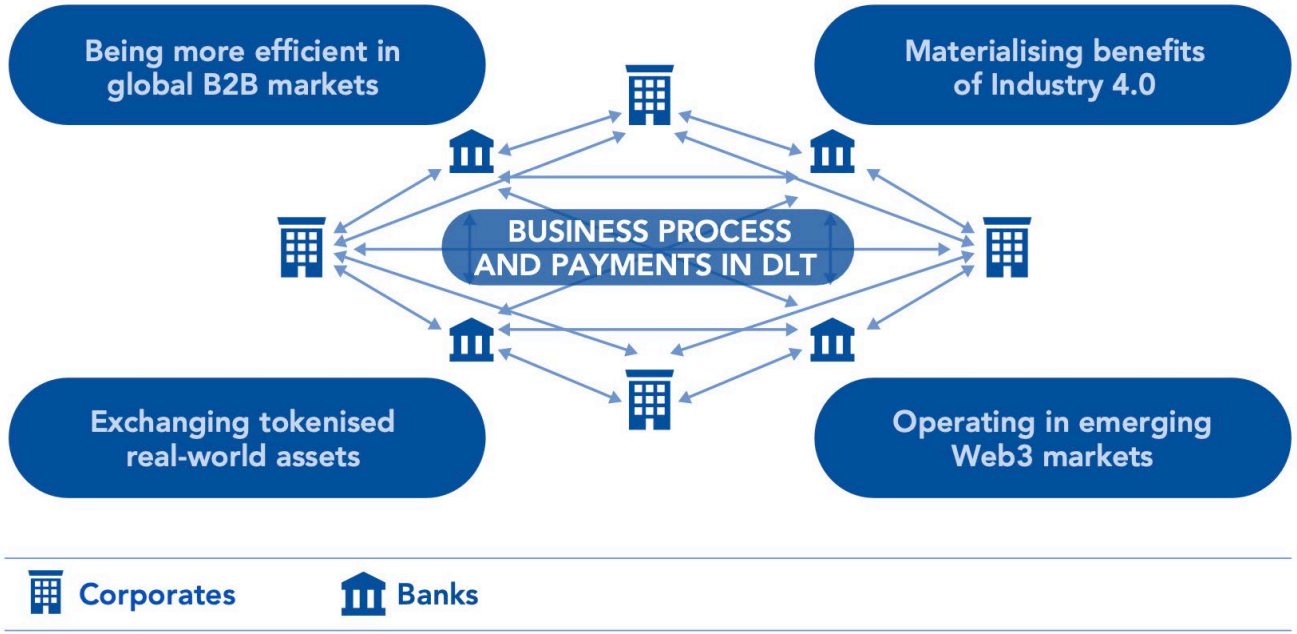
Bearer-based deposit tokens: Tokenised "cash" issued by commercial banks. Example: JPM Coin

Banks **primary objectives** are to retain…

- …control on customer relationships
- …deposits on banks' balance sheet
- …ability to create money through lending.

Banks focus on **use cases with problems worth to solve**, and therefore daily consumer payments are often out of scope

Banks are investigating how to integrate payments in novel business processes



Source: BearingPoint

Challenge: Proliferation of new forms of private digital money pose risks related to fragmentation and lack of interoperability

End-users; businesses and consumers **will not operate in isolation** and over 50 % growth is expected in global cross-border markets by 2030

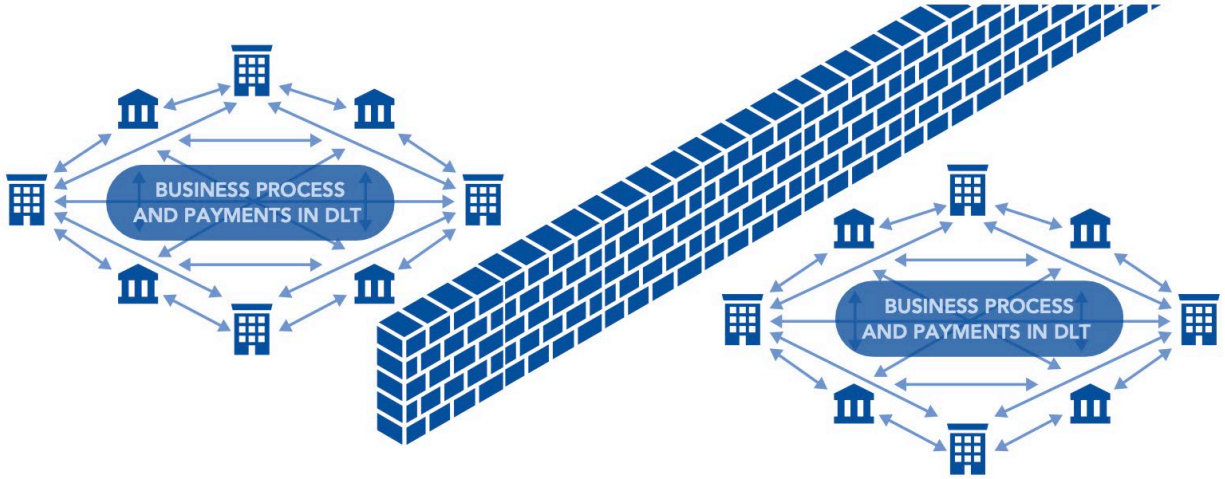
Fragmentation of monetary systems may create **unnecessary complexities for end-users**

Also, **cybersecurity and anti-financial crime measures** like KYC, and **legal liability** of the payment instrument need to be considered

On-us vs. off-us: Consortia mitigate the risk in some extend but not all can be included in one and same platform.

Learnings from history: **Private bank notes in mid 19th century** before establishment of central banks did not work.

Isolated digital money ecosystems would move existing challenges to new locations



Source: BearingPoint

Central banks around the globe are investigating how to ensure availability of central bank money as the settlement asset in the novel use cases

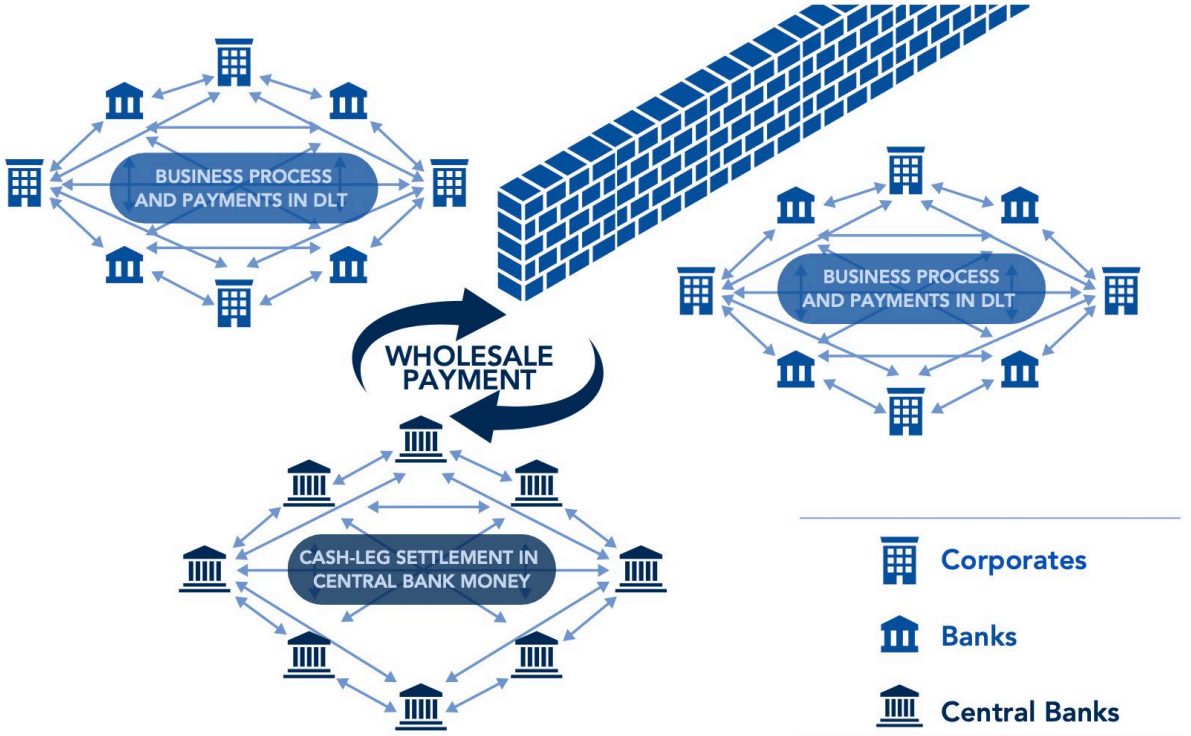
Central bank money is often considered as **the safest and most liquid settlement asset**

Wholesale CBDC: "*A currency issued by a central bank in digital form, to be used exclusively by central banks, commercial banks, or other financial institutions to settle transactions involving tokenized assets.*" (Banque de France)

Roughly 40 % of the global CBDC initiatives focus on wholesale CBDC.

Alternative way is to **bridge existing central bank insfrastructure** with private platforms to improve availability of existing digital central bank reserves as settlement asset.

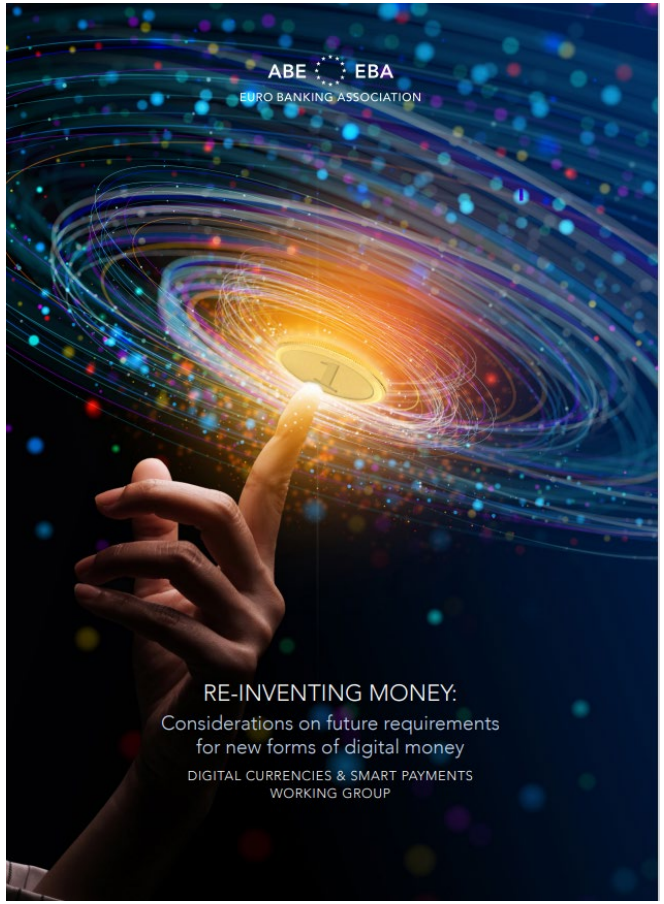
Ensuring interoperability by availability of central bank money as settlement asset



Source: BearingPoint

Conclusions and recommendations:

- Corporates still often face challenges in payments, especially in cross-border transactions and emerging digital markets, **creating demand for new forms of digital money**
- While existing cryptocurrencies and stablecoins have not been able to solve the challenges, **banks and central banks have started to explore and experiment** different forms of tokenised money and how to enhance existing monetary system to stay relevant.
- **DLT is a prevailing technology in these experiments** with clear benefits but remains still complex and challenging to scale – and is not the only technology solution available
- In addition to tech, also **legal, governance and operational aspects** need to be considered to ensure interoperability, trust and risk management between the parties
- **European banking community must be active** in exploration and go-to-market to stay relevant



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Any Questions

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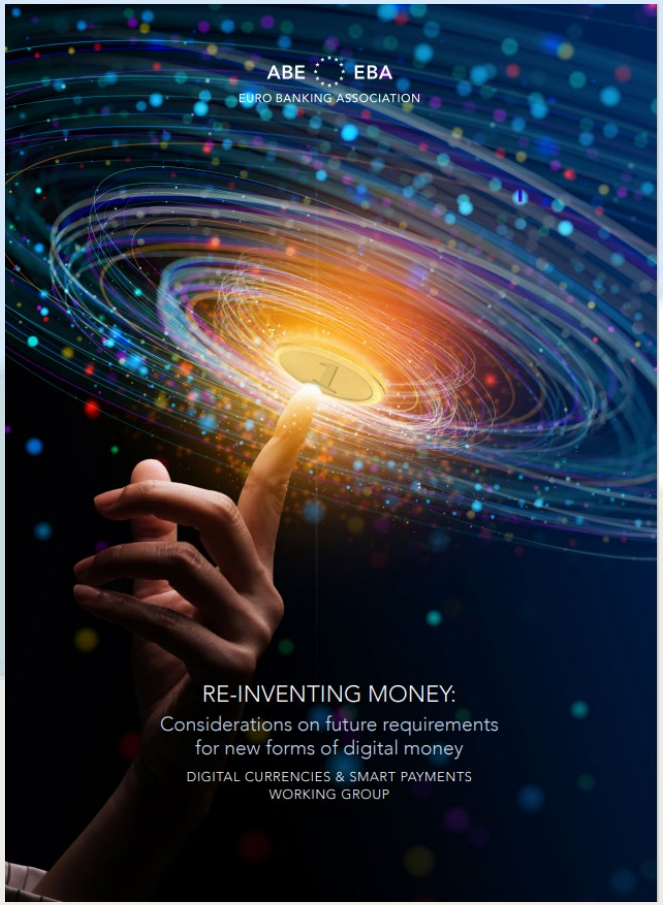
How to find the report?

The report is available for download for all EBA member organisations



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