

Participants in the forum are reminded of their responsibility to observe anti-trust laws

The EBA Anti-Trust Policy is available at the EBA website

https://www.abe-eba.eu/media/azure/production/1352/eba_antitrust_policy_20170602_final_clean.pdf

The forum is an open group, where interested stakeholders can discuss and exchange information on industry-wide topics.

The content of the slides presented and the views expressed in the context of the activities of the forum are those of the respective participants in the forum, and do not represent the views of the Euro Banking Association (EBA).

Open Forum on Digital Transformation

Before you leave for the beach, explore Payments and Treasury Management trends for 2023 and beyond!

27 June 2023
Digital meeting

Closed user group

Agenda (1/3)

Before you leave for the beach, explore payments and treasury management trends for 2023 and beyond!

Welcome and opening remarks

Thomas Egner, Euro Banking Association

Setting the scene and housekeeping

Kate Pohl

The future direction of payments, a view from my crystal ball!

Nicolas Kozakiewicz, Worldline

Digital Currencies: a focus on CBDCs; yesterday, today and importantly, tomorrow!

Manuel Klein, Deutsche Bank

Coffee break

Digital transformation in banking and treasury... how well are we doing?

Katja Lehr, J.P. Morgan Chase Bank

Agenda (2/3)

Before you leave for the beach, explore payments and treasury management trends for 2023 and beyond!

Realtime treasury – are we almost there? What does the road ahead look like?

Birgitte Hoff, Nordea

Floor Meeuwis, Société Générale

Steven Williams, ADTRAN Holdings

Lunch break

Open Banking, Embedded Finance and BaaS – how is this changing the way we work?

Erik van den Mars, Mastercard

Is data the new oil?

Lafir Thassim, UBS

Coffee Bbreak

Agenda (3/3)

Before you leave for the beach, explore payments and treasury management trends for 2023 and beyond!

Request to pay – where do we stand and how is this evolving?

Fredrik Tallqvist, EBA CLEARING

Francis De Roeck, BNP Paribas

Xavier Herrero, CaixaBank

Start-ups, fintechs, and banks – is collaboration the new normal?

Chris Jameson, Bank of America

Katja Lehr, J.P. Morgan Chase Bank

Vincent Marchand, BNP Paribas

Erik van der Mars, Mastercard

Ole Wulff, CXFacts

Wrap-up

Thomas Egner

**Secretary General
Euro Banking Association**

Kate Pohl

**Facilitator
Euro Banking Association**

Nicolas Kozakiewicz

**Chief Innovation Officer
Worldline**

The Future Direction of Payments, a view from my Crystal Ball!

Nicolas Kozakiewicz
WORLDLINE 



Biggest companies in the world by market capitalisation

Source: Bloomberg,
Google Finance



All Tech driven
Disruptors

Big Innovation Trends



BC is a Service...

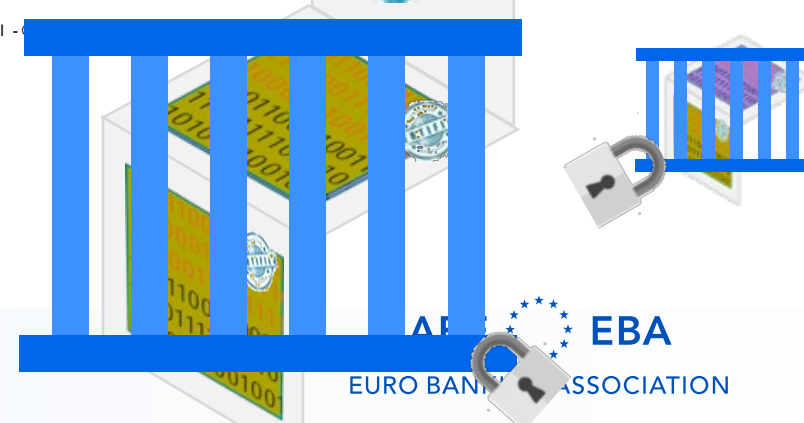
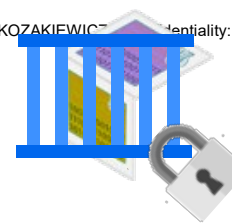
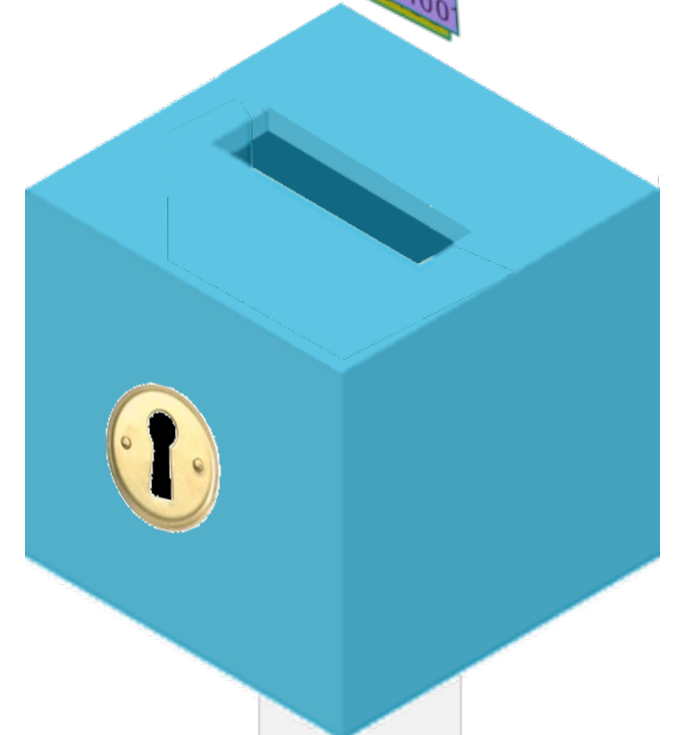
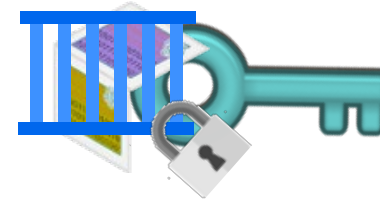
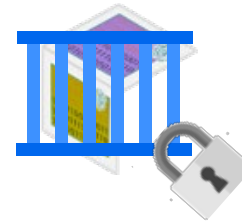
What is the main feature of Blockchain?

In a multi-party environment, where part of the common goal of parties is to store / trace information or event, a Blockchain can be seen as a box...

In a timely manner and chronological order, statements of parties are inserted in the box and “signed” with the personal key of the party providing the information.

That information is processed by the Blockchain, and added to the “log”/ledger as a signed and immutable piece of information.

That “log” is accessible to certain parties as defined originally in the Governance



Innovation Round Table. Nicolas KOZAKIEWICZ. Confidentiality: Confidential -

Notary System

permissioned /
permissionless

N/A / script /
smart contracts

user access

business logic

consensuses, proof of...

public(ly operated)

parallel /
distributed processing

private(ly
operated)

from “only timestamped” to
“fully automated program
execution via internal and/or
external events”

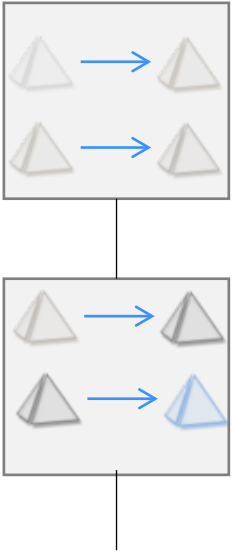
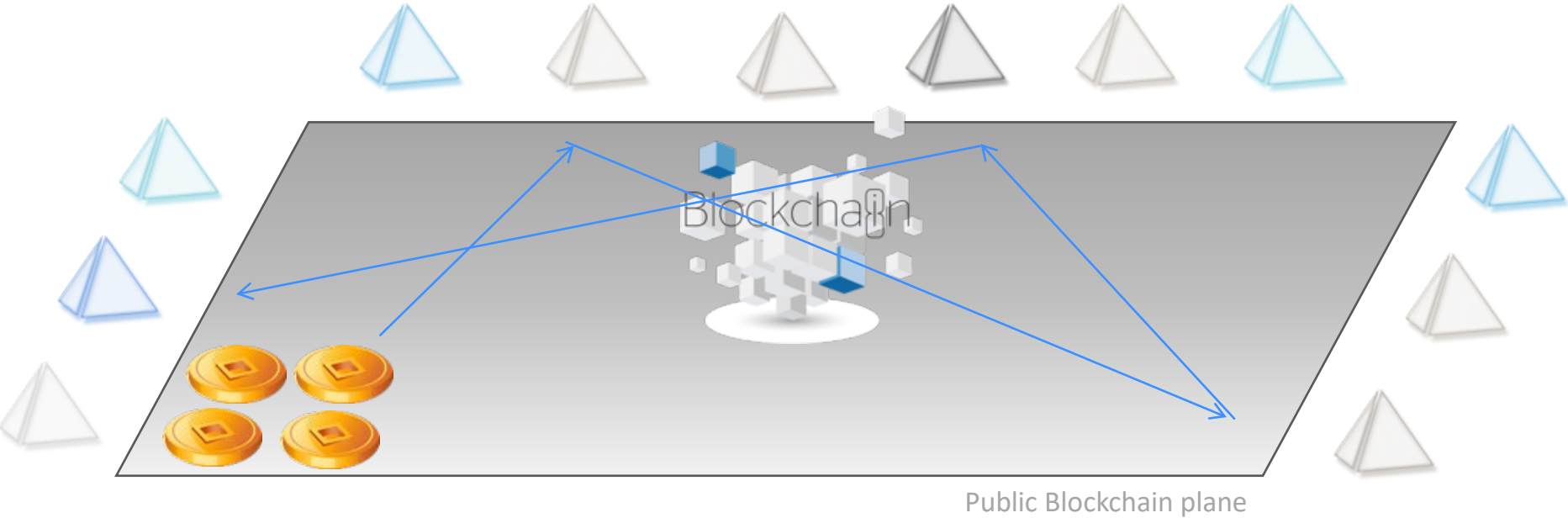
ledger

blocks

DAG

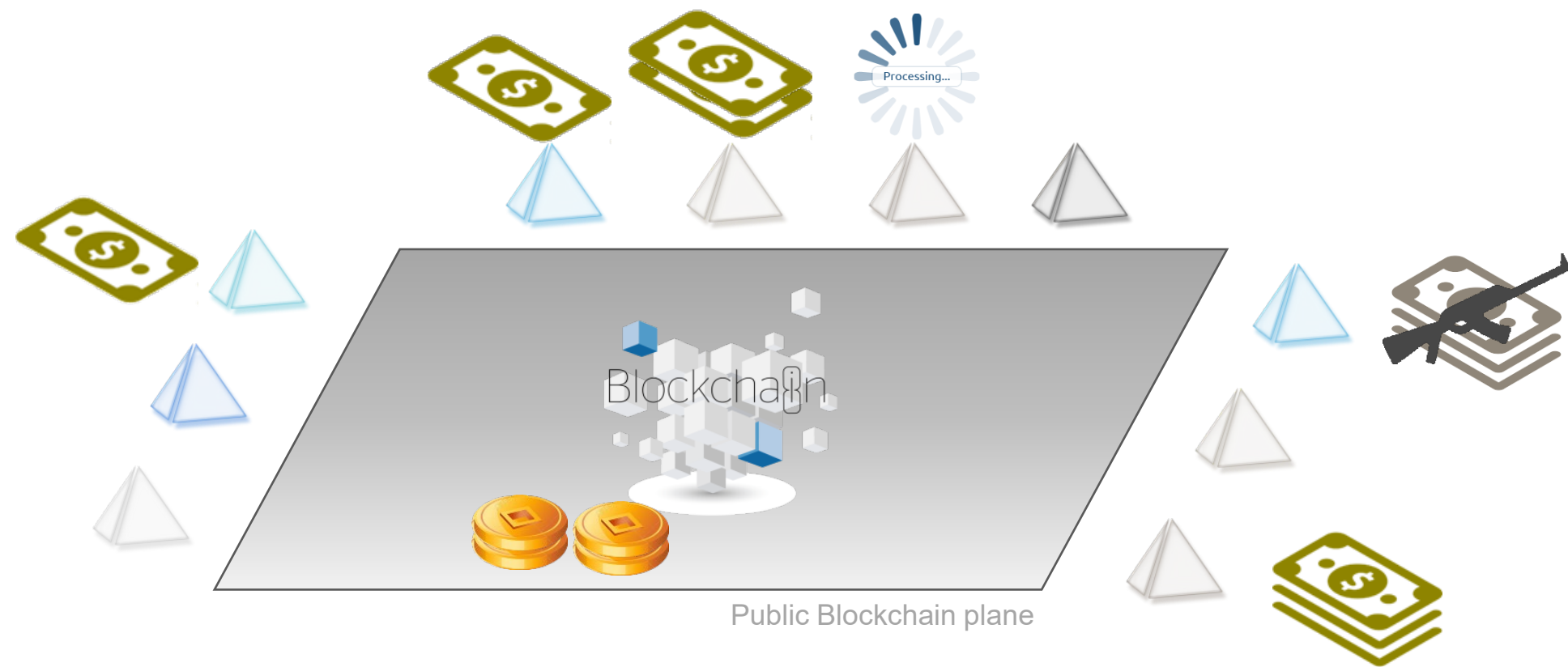
...

Example : bitcoin

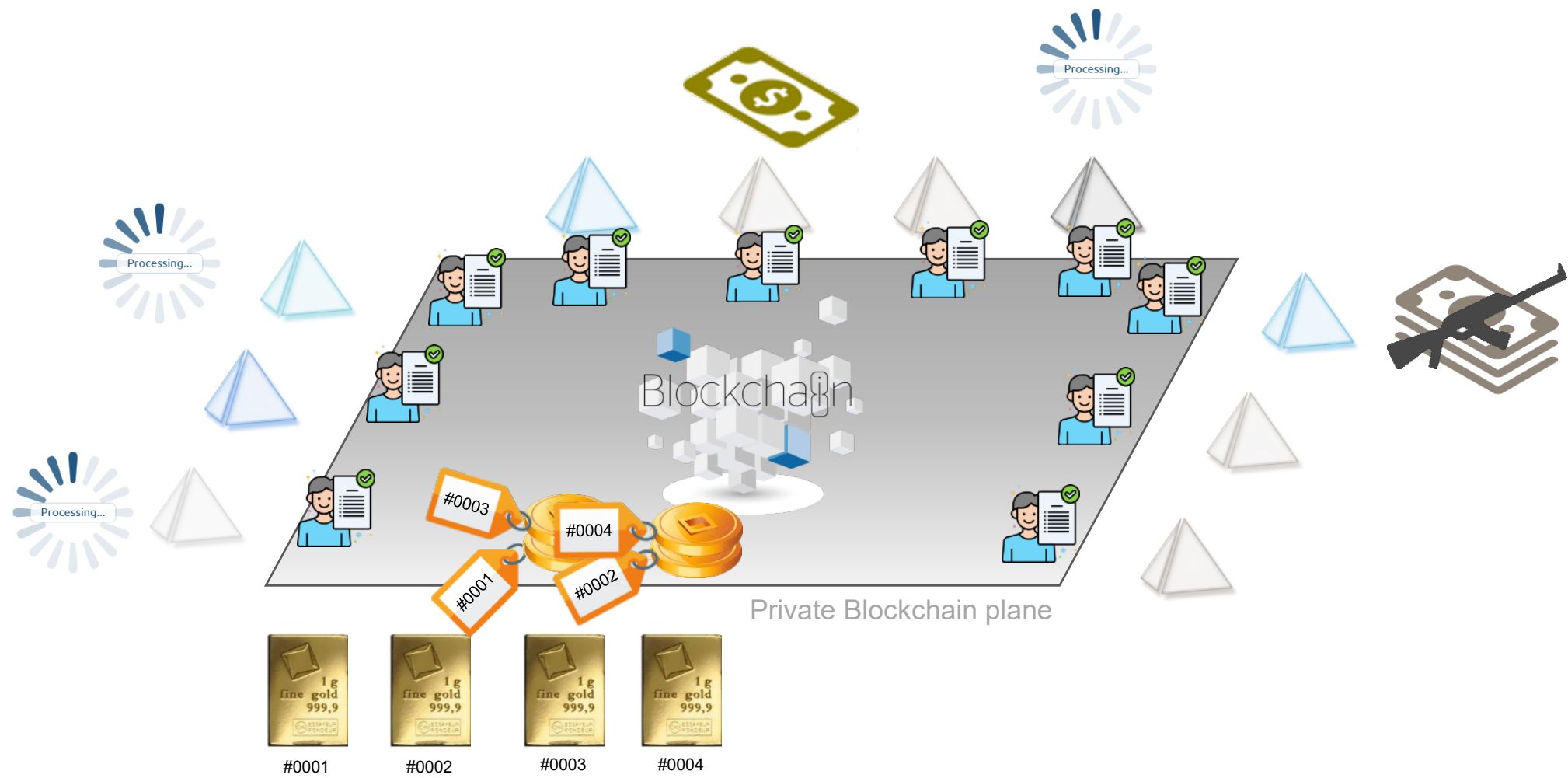


Authentication of all “
Trace of all →
Immutability of information

Un-stable Bitcoin



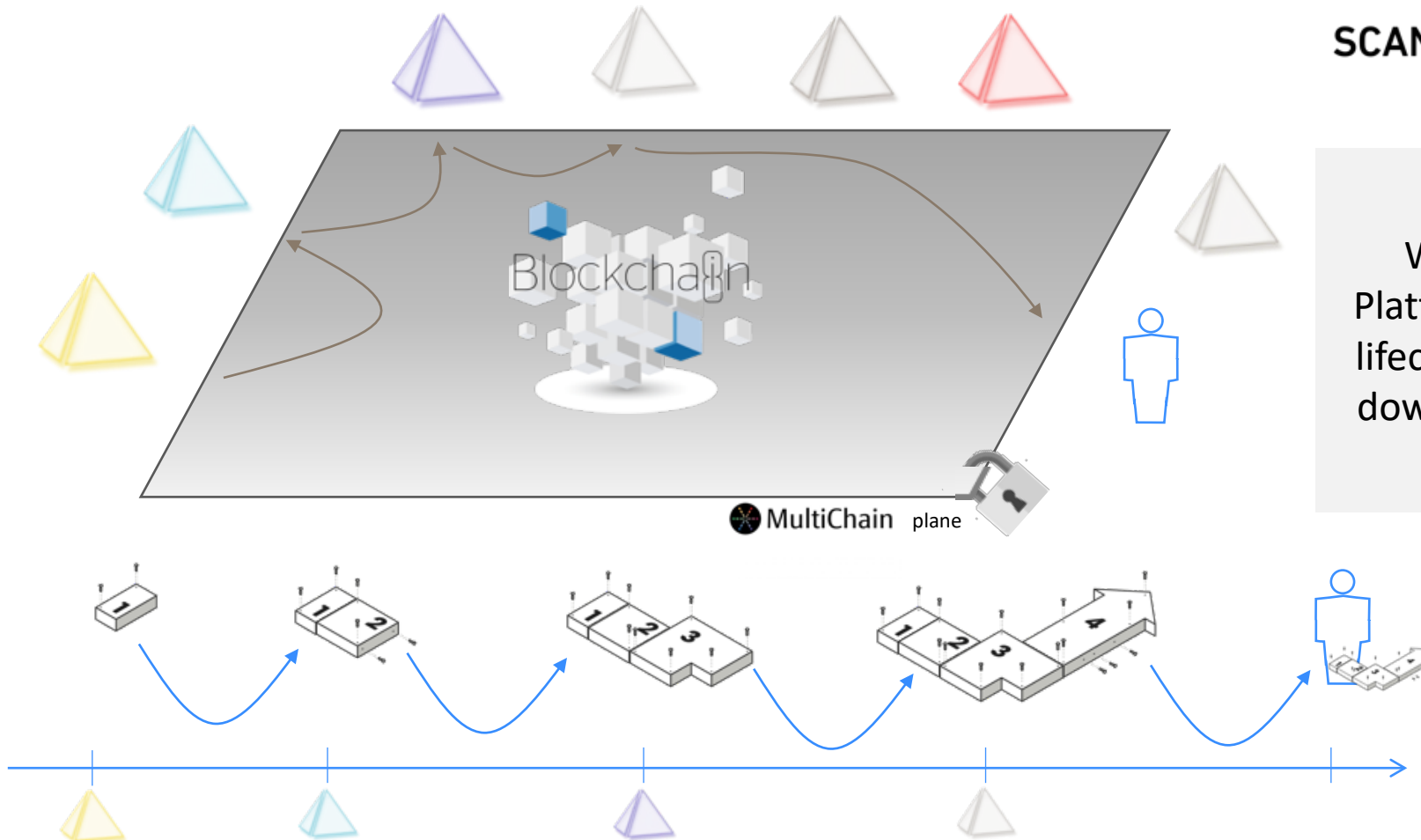
Stable Coin



1st BC product



SCAN ME TO KNOW MY STORY



In production since **March 2018**, Worldline's Blockchain Traceability Platform immutably traces products' full lifecycle from elements origin, assembly down to consumer and recycling for the 1st time.

Used for **perishables**, **boxed** and **custom products**, full end to end vision for 100% security

DAM Platform



Da Vinci
Tokens

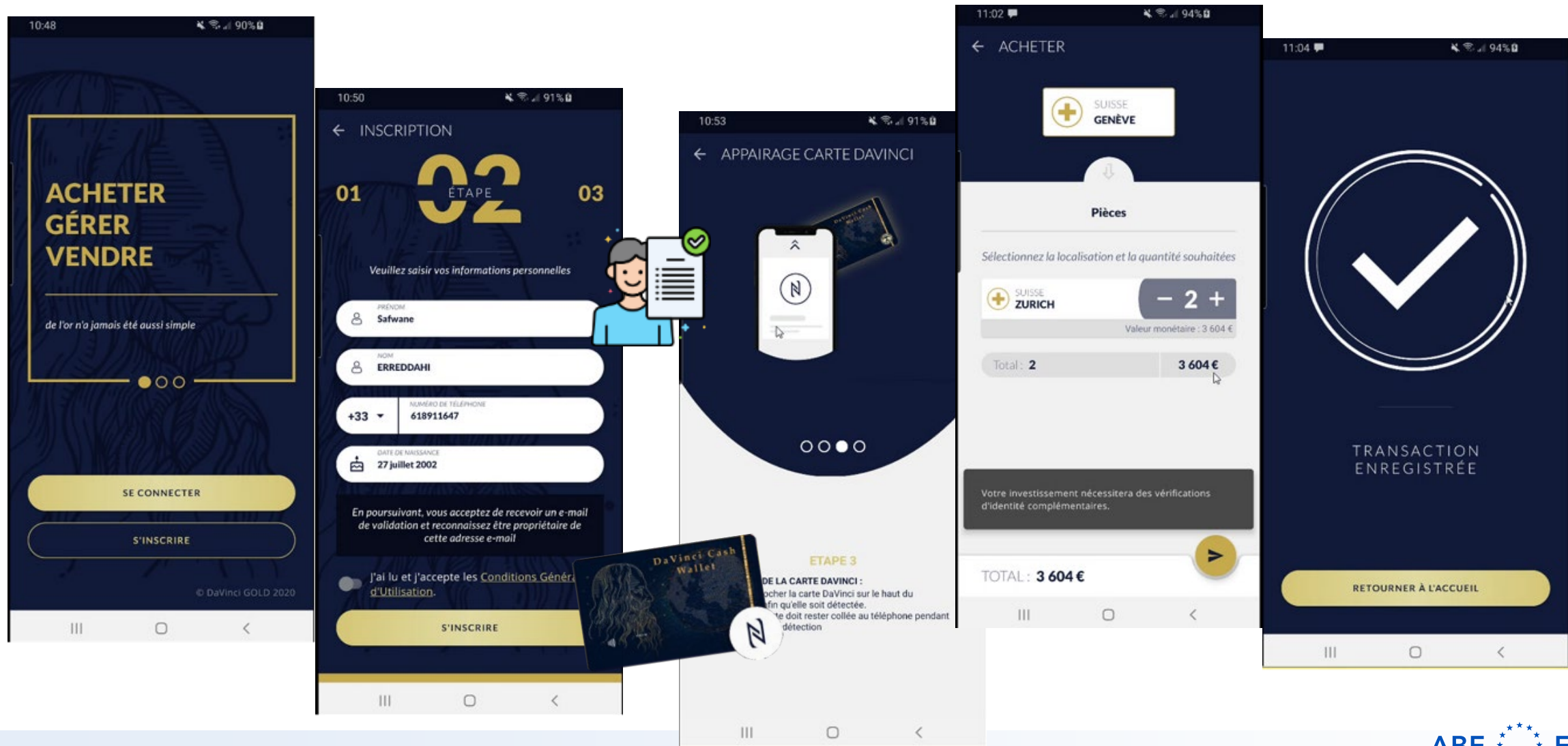


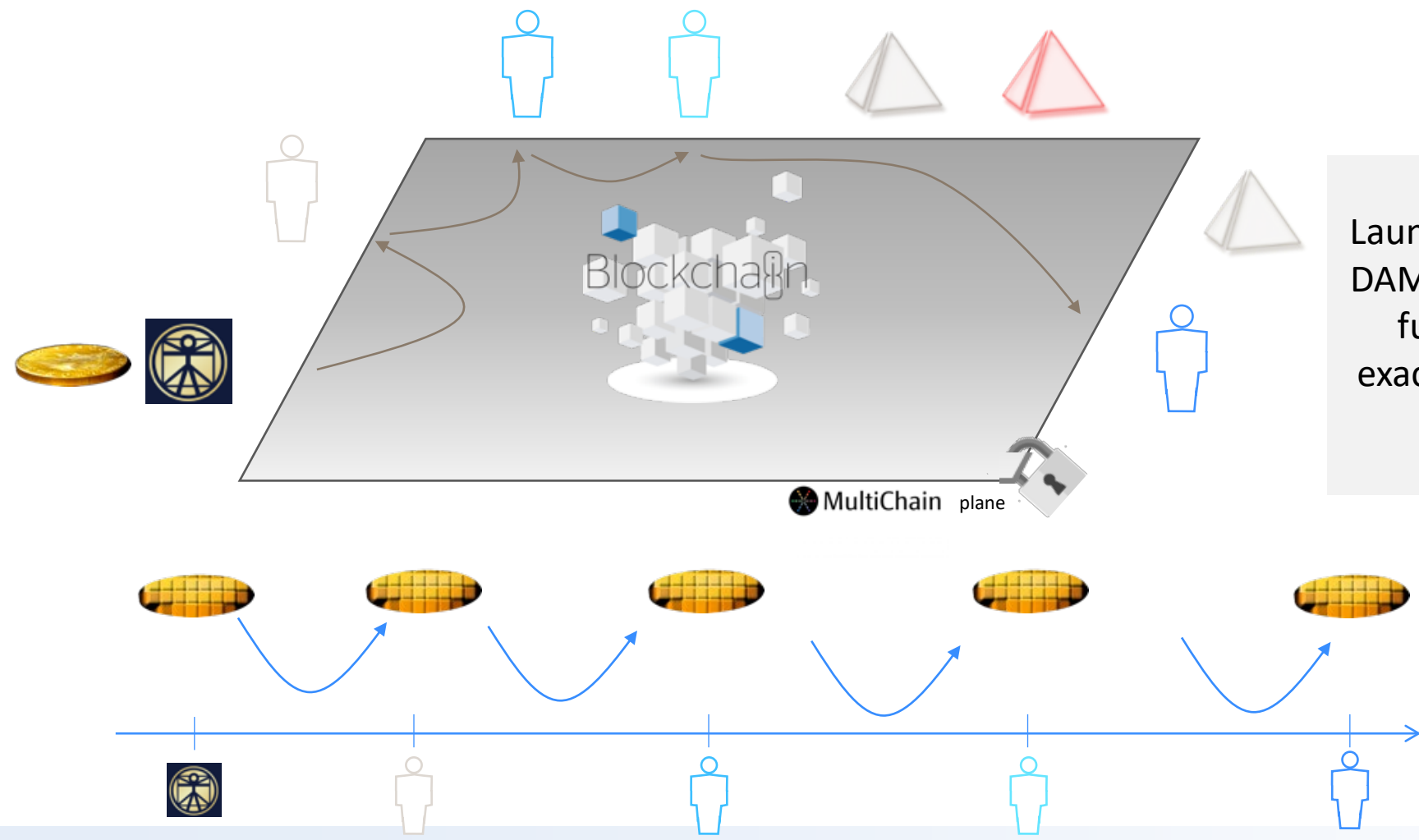
DaVinci TOKEN

Worldline is proud to present the official launch of
WORLDLINE'S DIGITAL BANKING ASSET MANAGEMENT "DAM"
PLATFORM

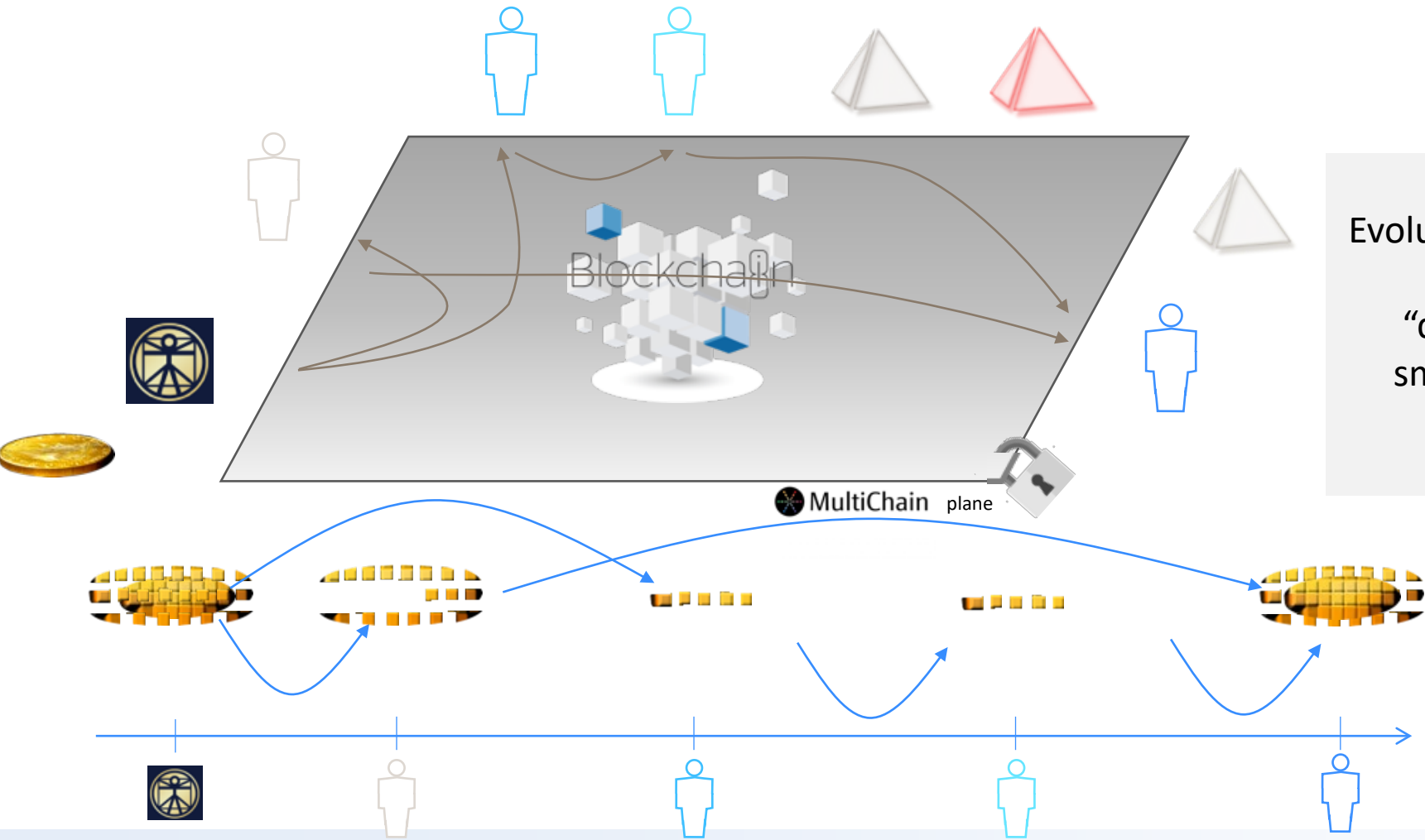
A gold-backed **Stable Coin**,
called **Da Vinci Tokens**,
will be open to first customer as of
January 19th 2021,
leveraging this platform.

Secure your Savings **online** with **stable-price genuine vault-stored gold-coins**,
and **pay** with them in a **tap of your smartphone** as you will.





Launched on [September 2020](#), Worldline's DAM Platform immutably manages assets' full lifecycle from elements creation, exchanges down to redeeming and burn of certificate.



Evolutions and new features are of course in the Works, including the “decimalization” of assets, allowing smaller fractional payments through bigger assets.



Why a Digital Euro ?



Usages evolution

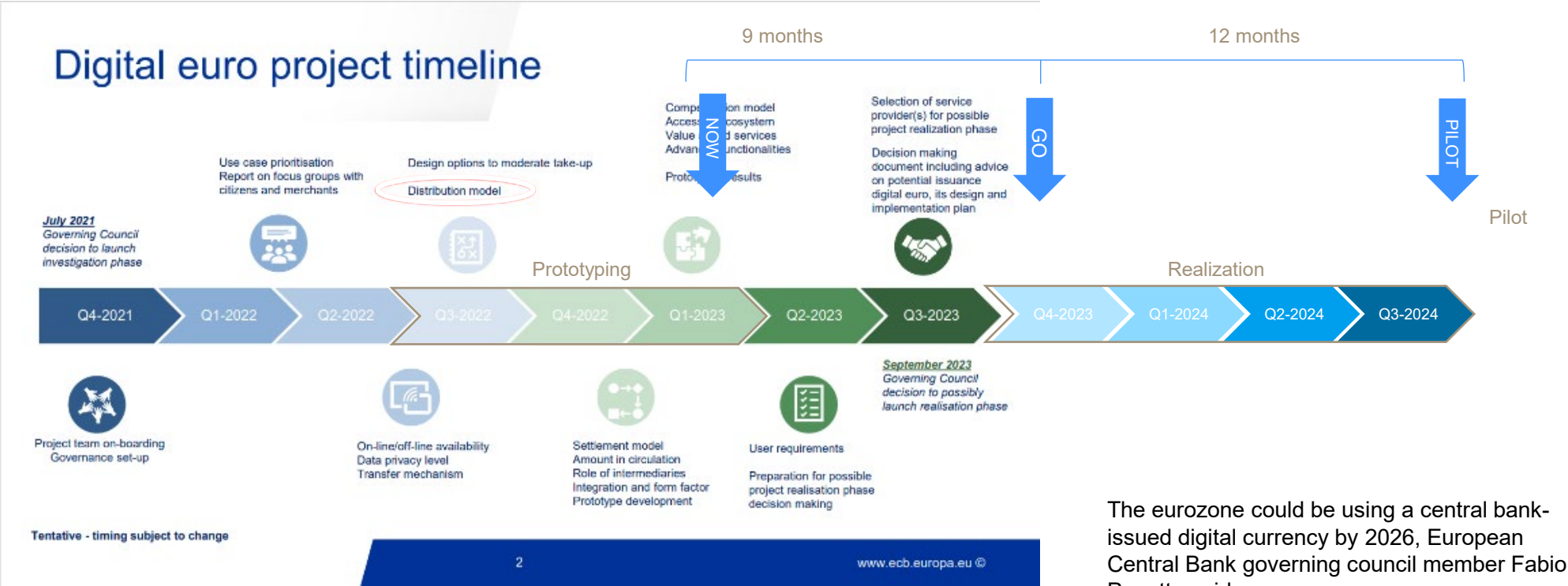
Broad digitization
Digital efficiency vs paper
Legal obligations

Payments market evolution

Crypto world
Fintechs
Digital Players

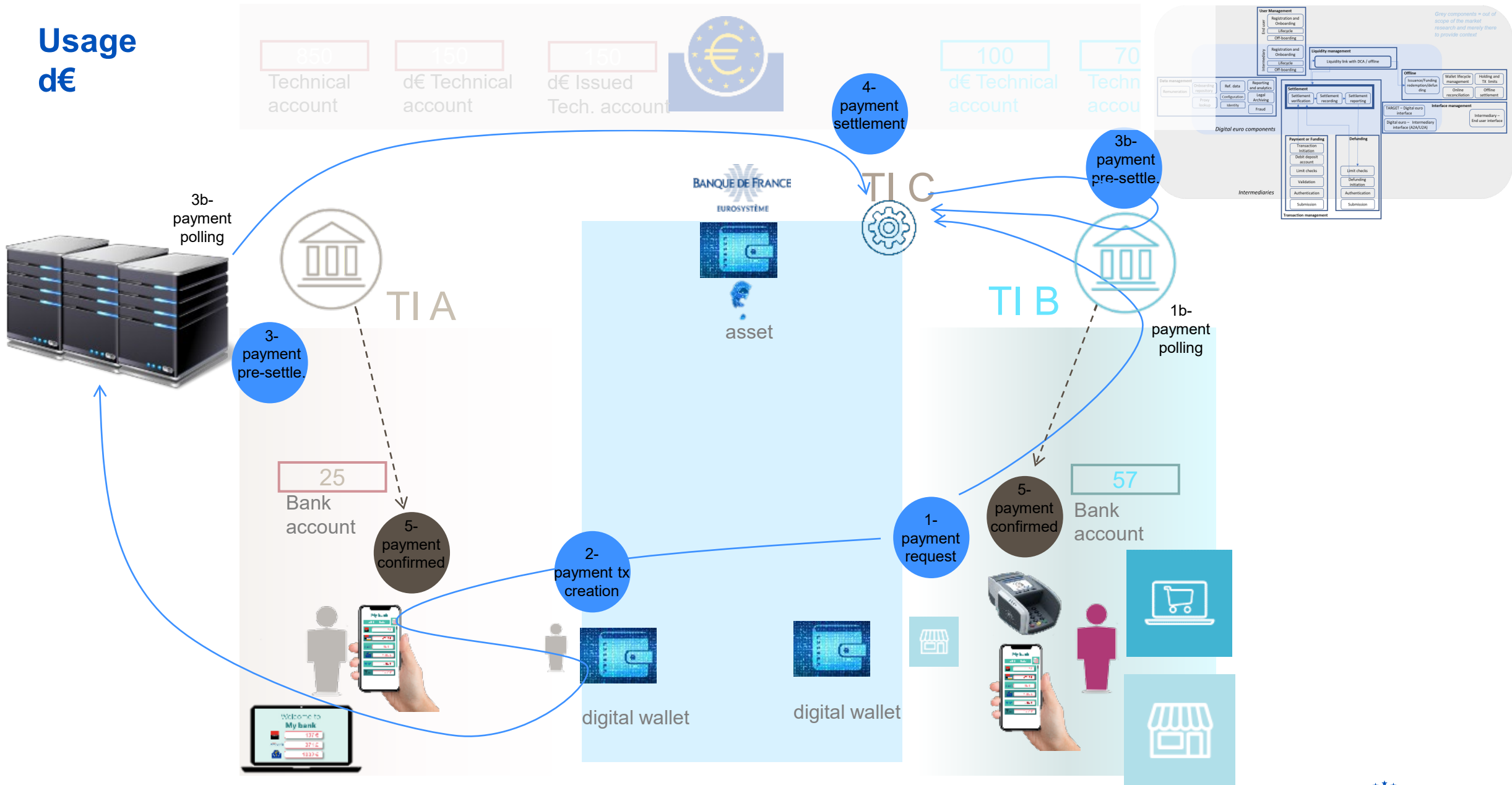


Project Status

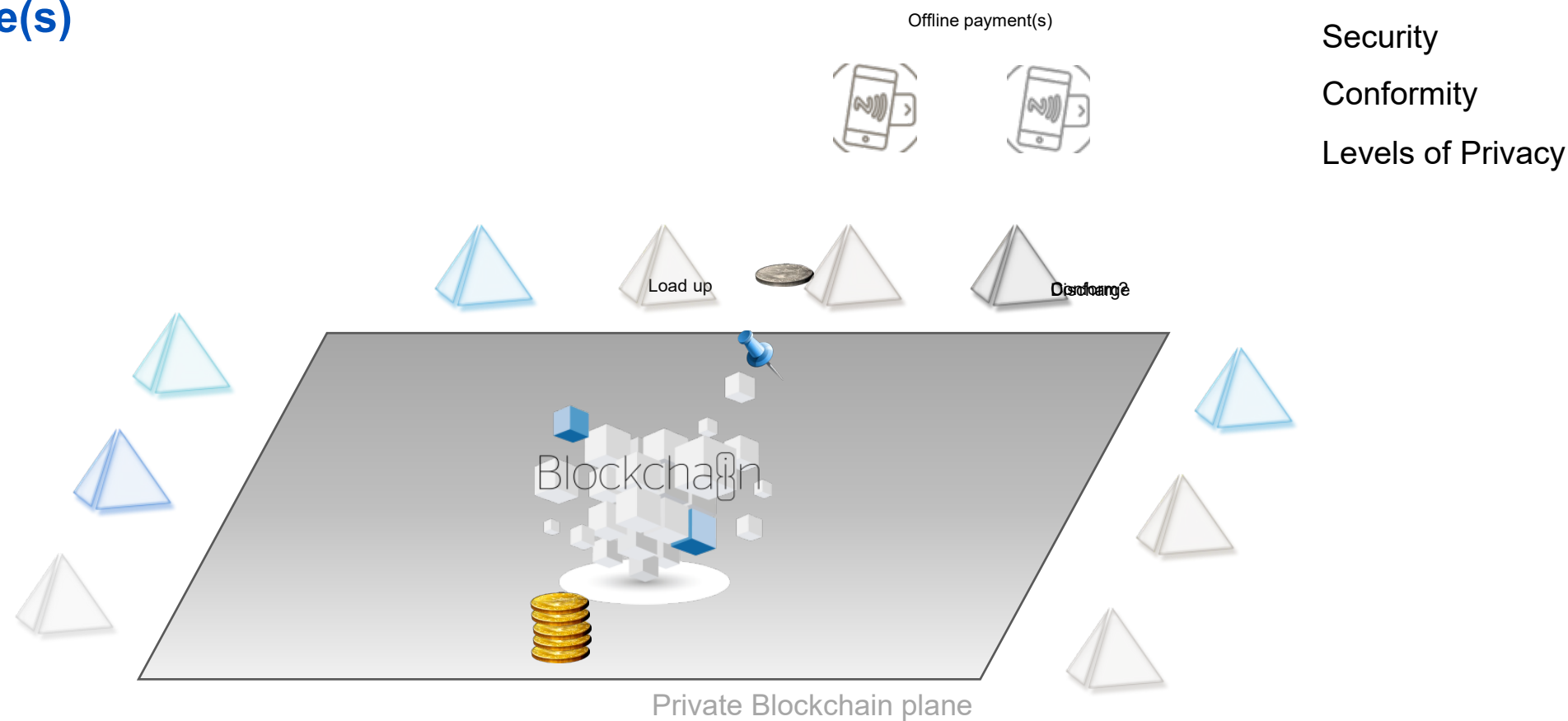


The eurozone could be using a central bank-issued digital currency by 2026, European Central Bank governing council member Fabio Panetta said

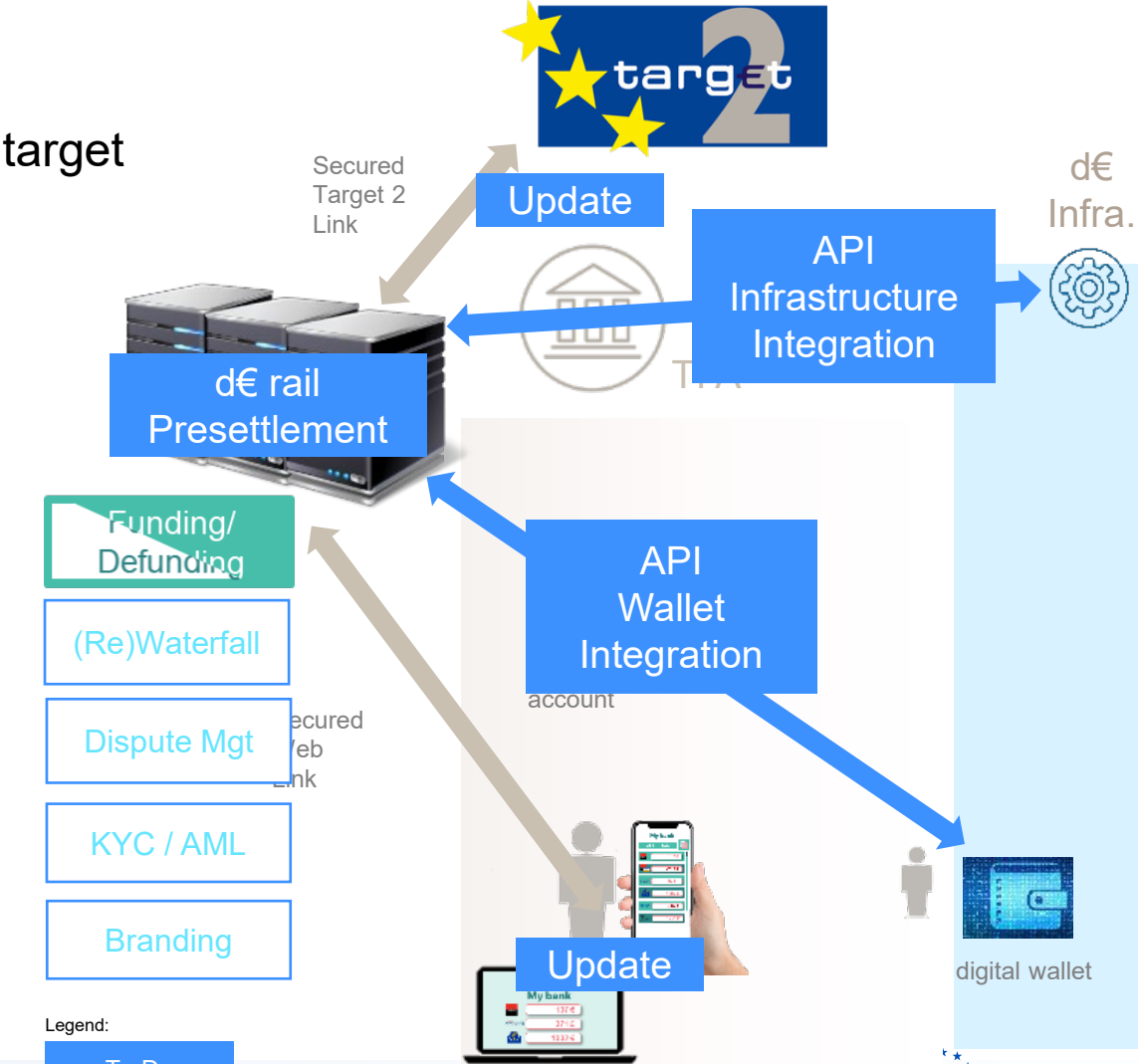
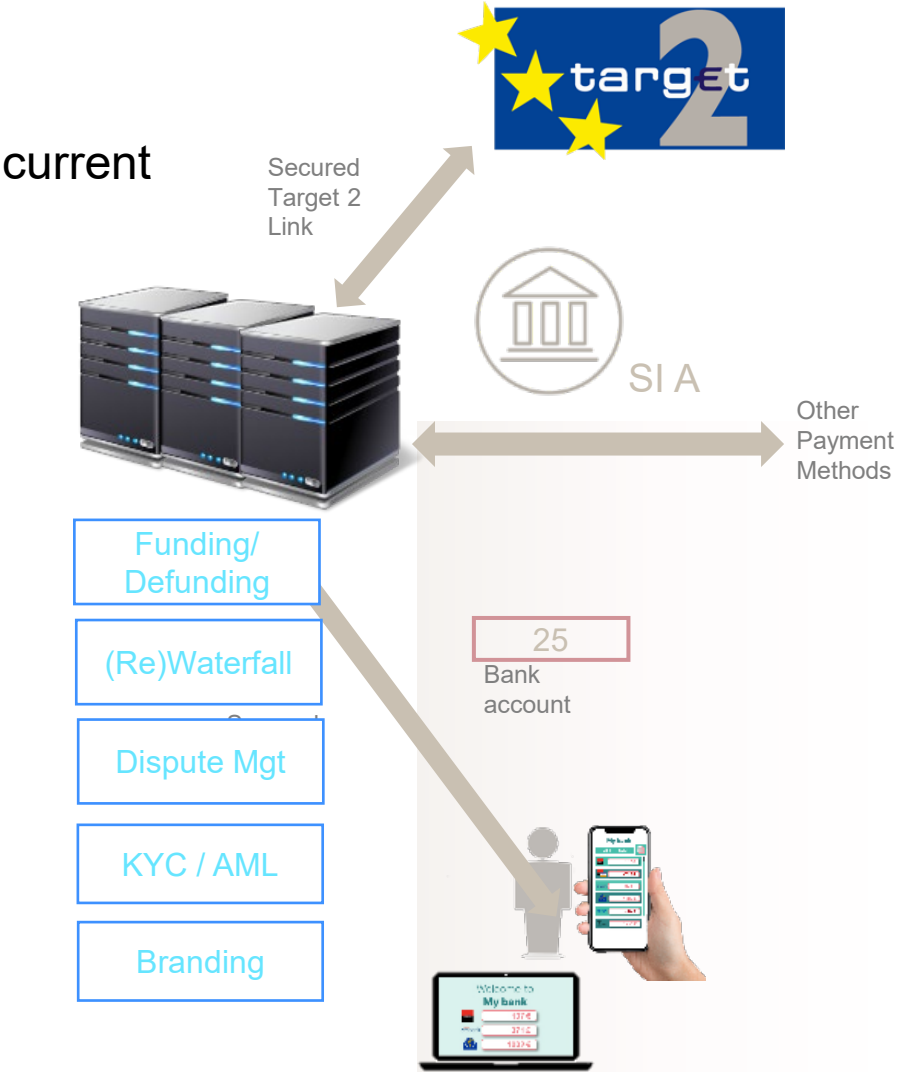
Usage
d€



Online vs offline(s)



Impact on Supervised Intermediaries



Legend:

To Do
Reuse

Impact on Payment Ecosystem

- Diminishing cash usage, partially replaced by digital euro
- Diminishing low amount card usage, partially replaced by digital euro
- Diminishing other amount card usage, partially replaced by new commercial payment means
- Opportunity to make digital central and digital commercial money converge onto a single means of payment

Impacting
Current
Revenue
Streams

**Worldline supports & embraces all the promising
and demanded new means of payments**

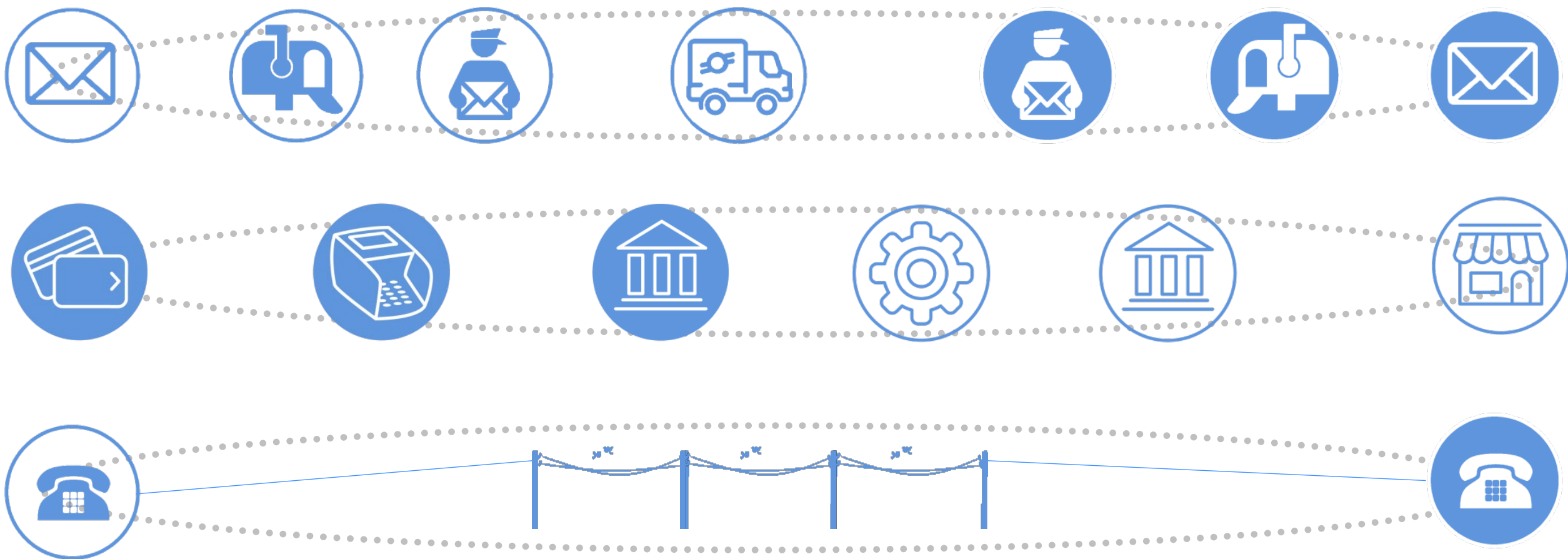




Latest movements on the chess board

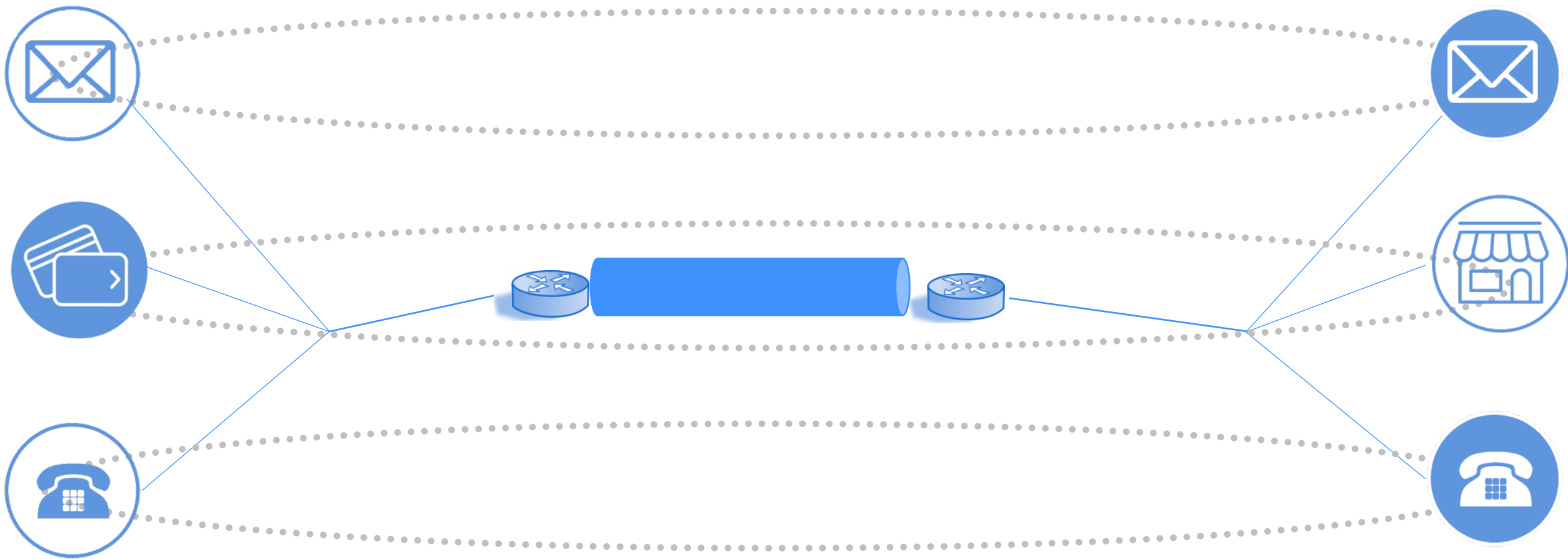
It's about infrastructures...

Most of the Services come with their own discrete « infrastructure » ...



Digital transformation

... and the digital world brings a common adaptable « infrastructure »



Recent evolution

While Internet arrival shook severely all the other industries :

Business model shift

- Telco : audio call commoditization
- Transports : uberization
- Retailer : fierce online competition
- Hospitality : hits like booking and AirBnB
- Media : all you can eat Spotify and Netflix

« Unfair » competition

That's because internet CAN NOT provide Trust, only broad, fast, immediate interconnection of services...

So Trust providing services were « untouched » by the Internet Digital Transformation



Uber



e.g.



The Missing Link Arrival

Bitcoin: A Peer-to-Peer Electronic Cash System

Satoshi Nakamoto
satoshiin@gmx.com

Now, all the « contradictory » usages (so far impossible with only internet) are now possible.

- Payment
- Traceability
- Ownership
- Identity

...

CRYPTOS

I.C.O

D.E.F.I

N.F.T

October 31th 2008.

The Bitcoin wave is disclosed via a whitepaper and a full fledged solution.

Besides its highly criticized usages, and Cypherpunk DNA, the technology proved totally functional.

This is a completing layer to internet that brings an « embedded Trust » capability.



How did banks and state react to Libra/Diem ?

« Unfair competition! It attacks our Business model »

That's when you are Uberized...

And the « **cornucopia** » is open...

New entrants are waiting at the corner :
Facebook, Paypal, Amazon, Apple, ...

What does it imply then, this
« Digital '**Currency**' Transformation » for our
ecosystem?



From the Pre



10/31/2022 - The real reason Elon Musk bought Twitter [link](#)

1/30/2023 - Twitter has begun applying for regulatory licences across the US [link](#)

4/2/2023 - Elon Musk's vision for Twitter: a \$250 billion payments company. [link](#)



05/04/2021 - PayPal completes the acquisition of Curv. [link](#)

09/17/2021 - PayPal Allows All U.K. Users to Buy and Sell Bitcoin, Ethereum, Litecoin and Bitcoin Cash [link](#)

01/07/2022 - PayPal Is Exploring Creating Its Own Stablecoin as Crypto Business Grows [link](#)

02/02/2022 - PayPal has 392 million verified users and merchants, including 29 million active merchant accounts (>1.6m are ecommerce). Paypal operates an average of 474 tps [link](#)

12/19/2022 - PayPal partners with Consensys & Metamask. [link](#)



06/18/2019 - Facebook announces Libra cryptocurrency: All you need to know [link](#)

10/20/2021 - NOVI: Facebook finally launches its digital wallet in US and Guatemala [link](#)

02/02/2022 - The end: Facebook-backed digital currency Diem sold to bank [link](#)

5/18/2022 - Meta's WhatsApp rolls out P2P payments for user contacts in India and Brazil [link](#)

9/6/2022 - WhatsApp is about to jump into the crypto game (USDP). [link](#)



03/10/2022 - Apple Pay has >500 million registered users and merchants in 2020, and is supported by 5 480 banks [link](#)

02/08/2022 - Apple empowers businesses to accept contactless payments through Tap to Pay on iPhone [link](#)

04/10/2022 - 'Breakout': Apple's Plan To Pump Up Apple Card And Apple Pay And Win The Payments War [link](#)

10/13/2022 - Apple Card will soon let users grow Daily Cash rewards while saving for the future [link](#)

11/15/2022 - Apple Pay is now available on Circle (USCD) [link](#)



05/14/2013 - Amazon launches its own virtual currency called Coins [link](#)

11/01/2021 - Amazon to Build Blockchain and Digital Currency Roadmap [link](#)

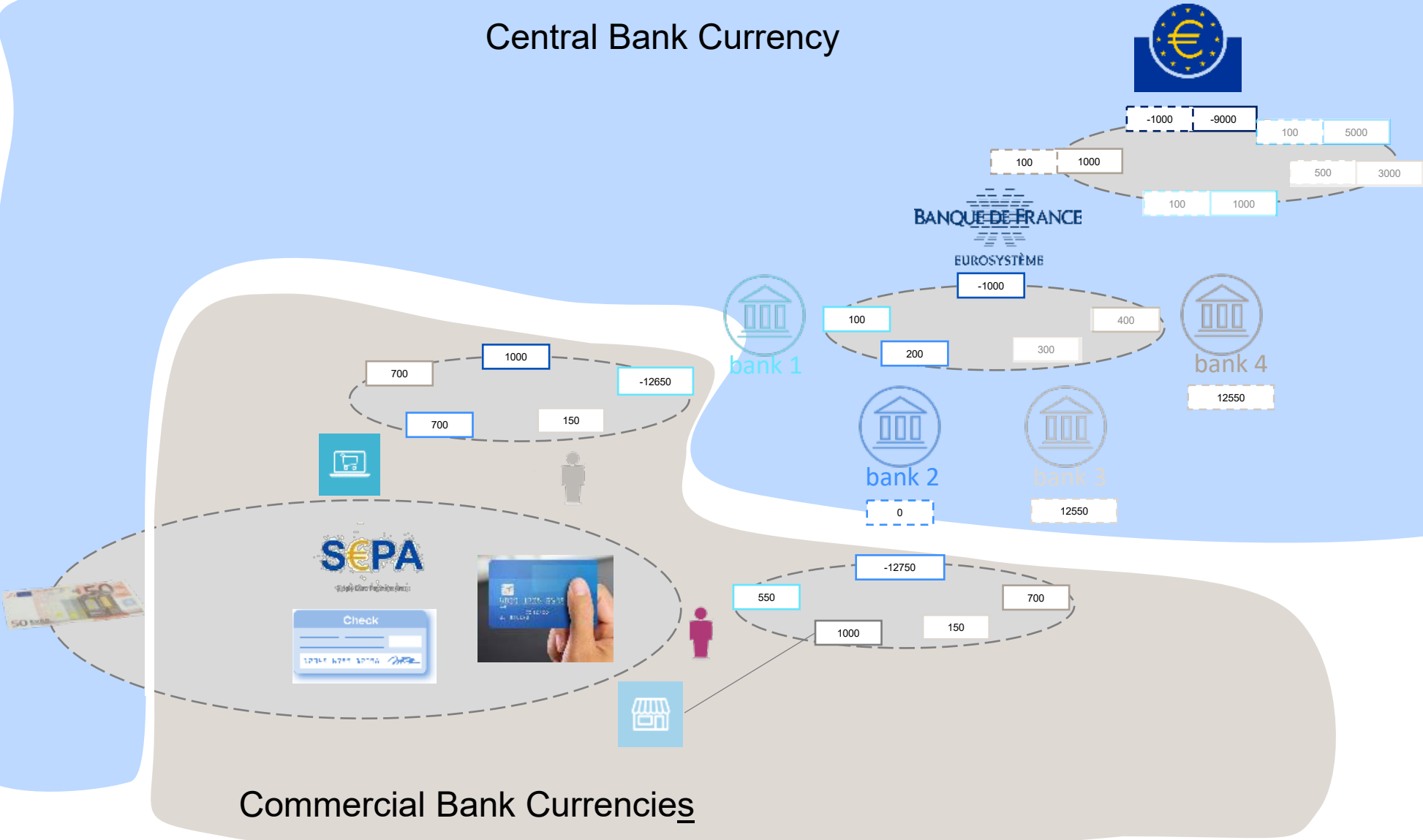
11/18/2021 - Why is Amazon stopping Visa payments in the UK and which cards will be accepted? [link](#)

11/03/2022 - Amazon Digital Currency Release Date: When Will Amazon Launch Its Own Digital Currency? [link](#)



12/08/2022 - Brazil central bank grants google pay payment institution status [link](#)

Central Bank Currency

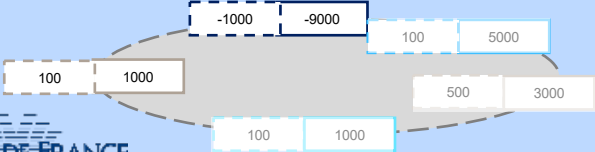


Central Bank Currency

Wholesale

1/1

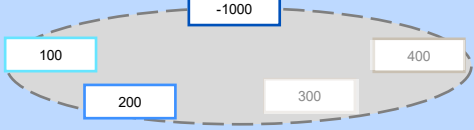
BANQUE DE FRANCE
EUROSISTÈME



Happy Few
‘Low volumes’
‘High Amounts’



bank 1



bank 4

12550



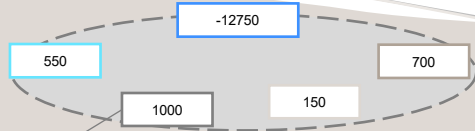
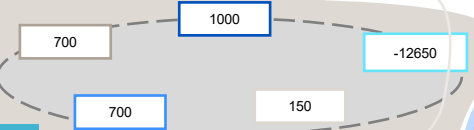
bank 2

0



bank 3

12550



Hundred M users
‘High volumes’
‘Low Amounts’

Commercial Bank Currencies

7/8

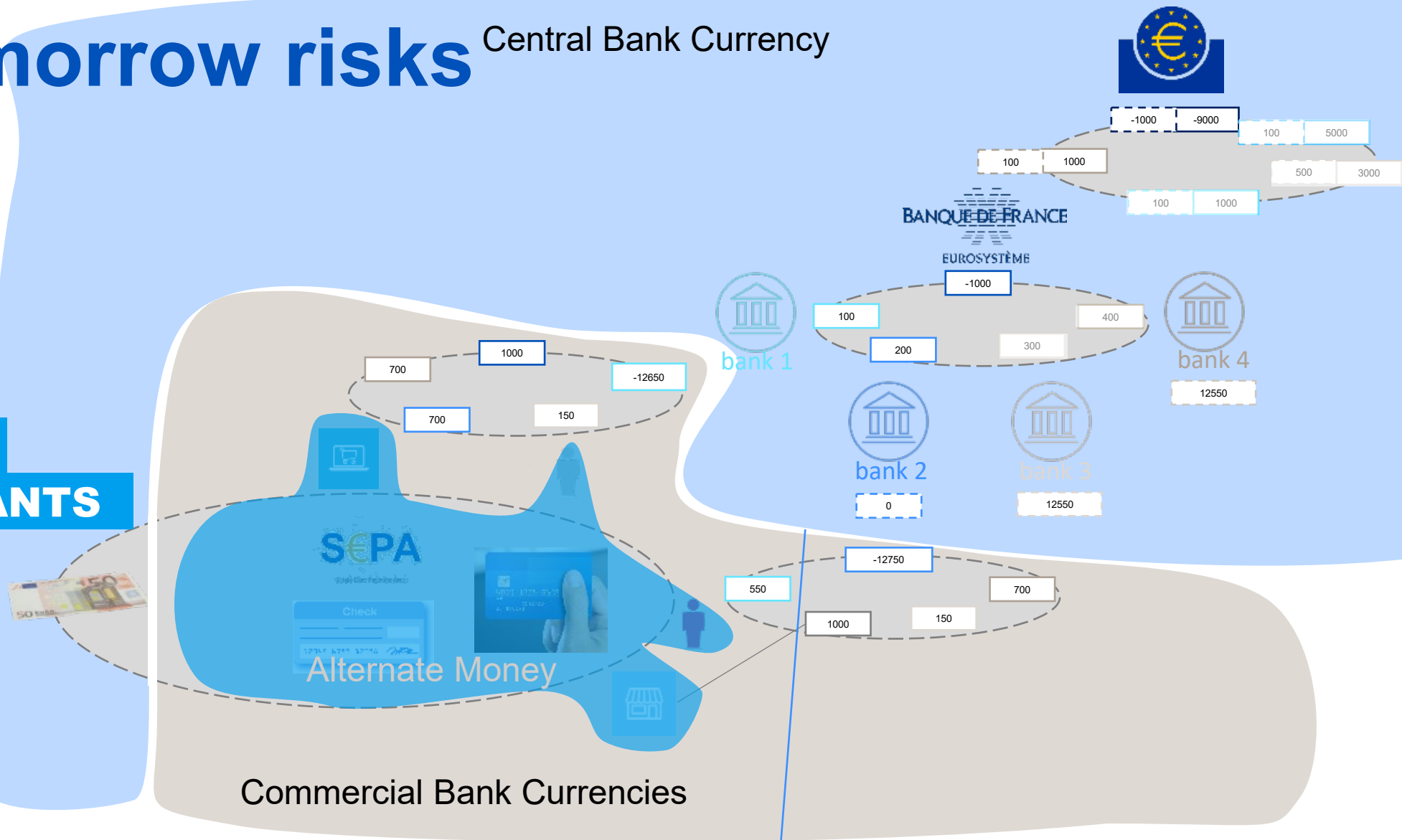
1/8

Retail

Tomorrow risks

Central Bank Currency

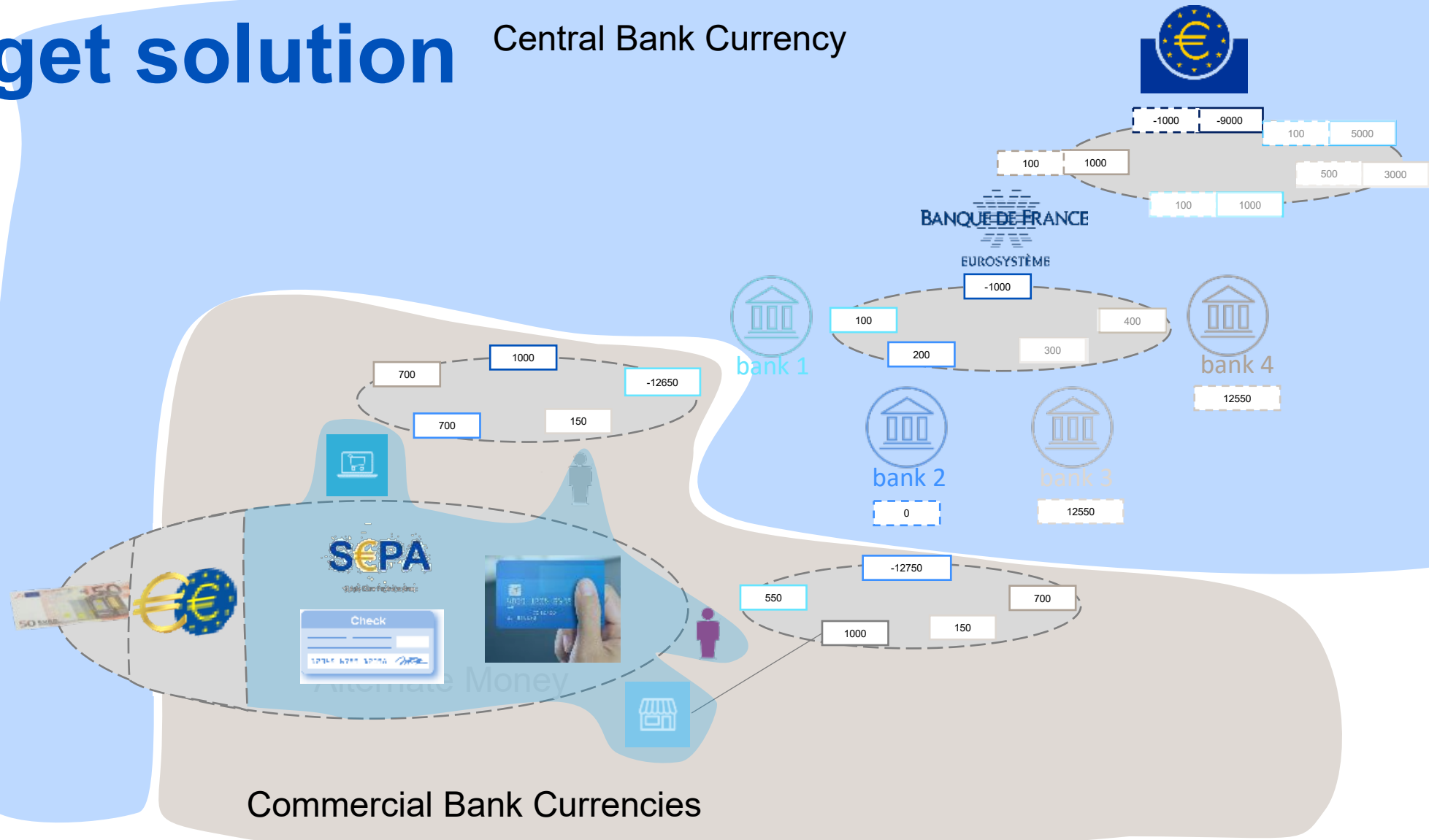
#1
NEW
ENTRANTS



Banking industry at risk if end users chose this method massively

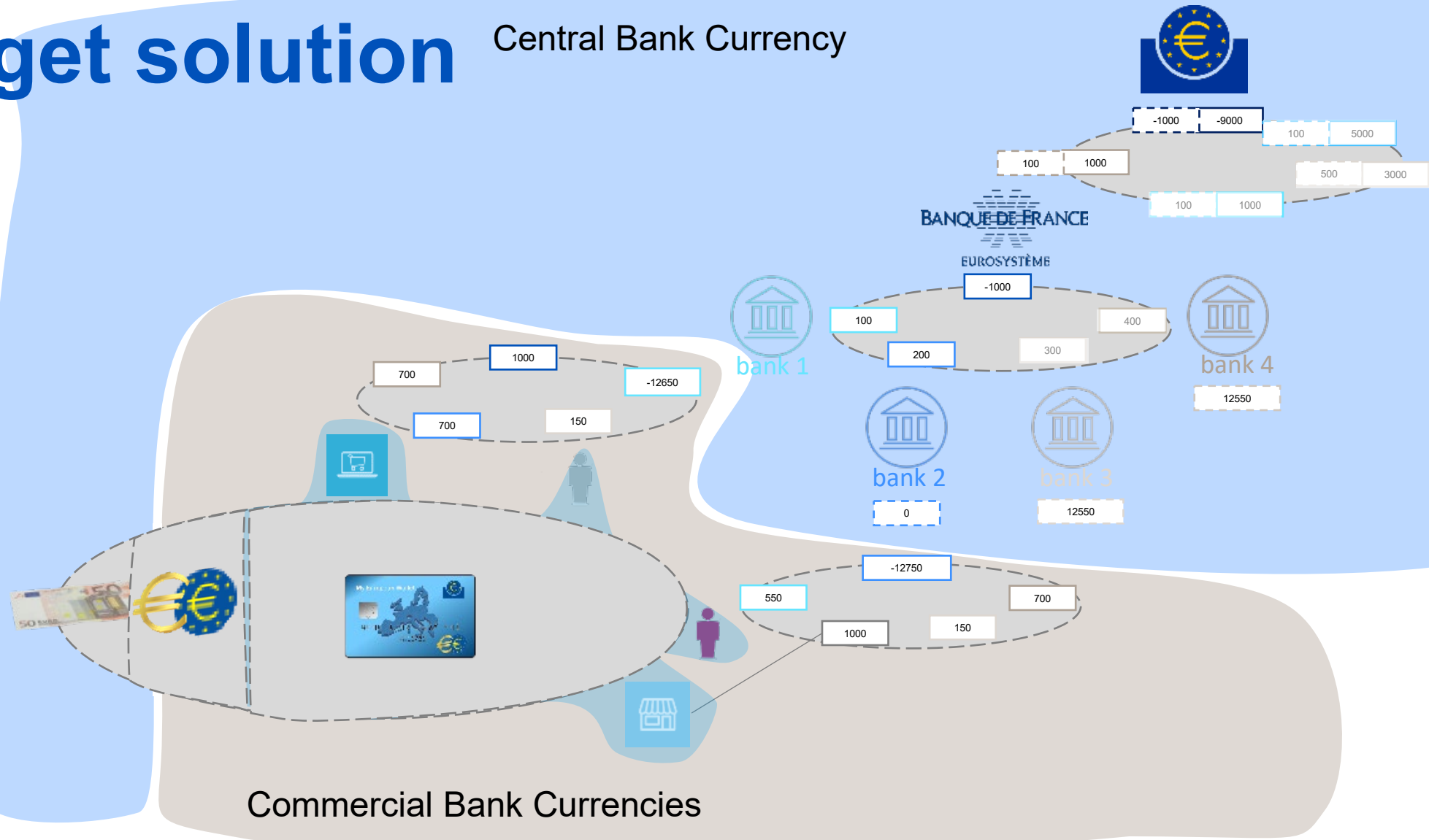
Target solution

Central Bank Currency

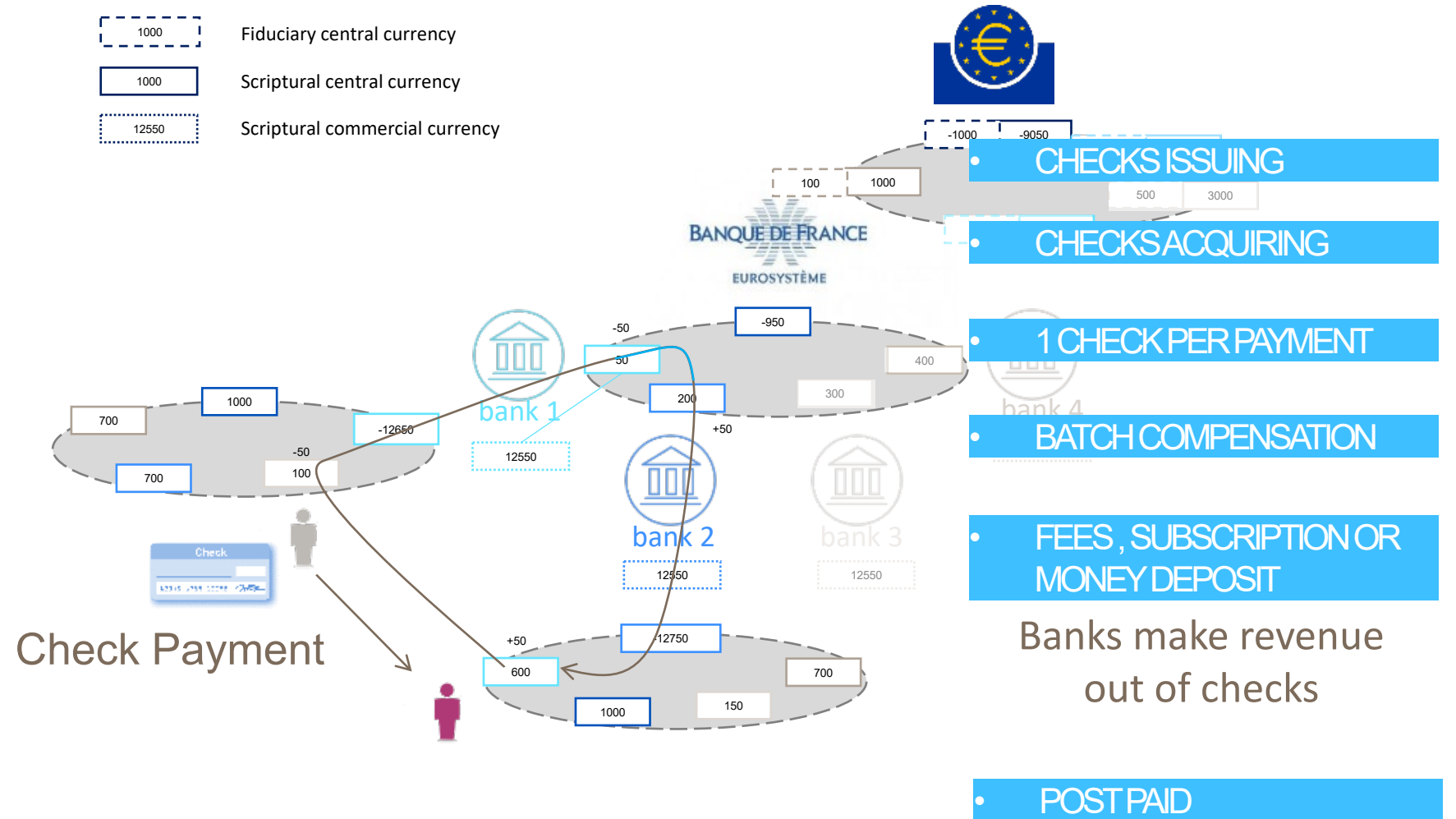


Target solution

Central Bank Currency

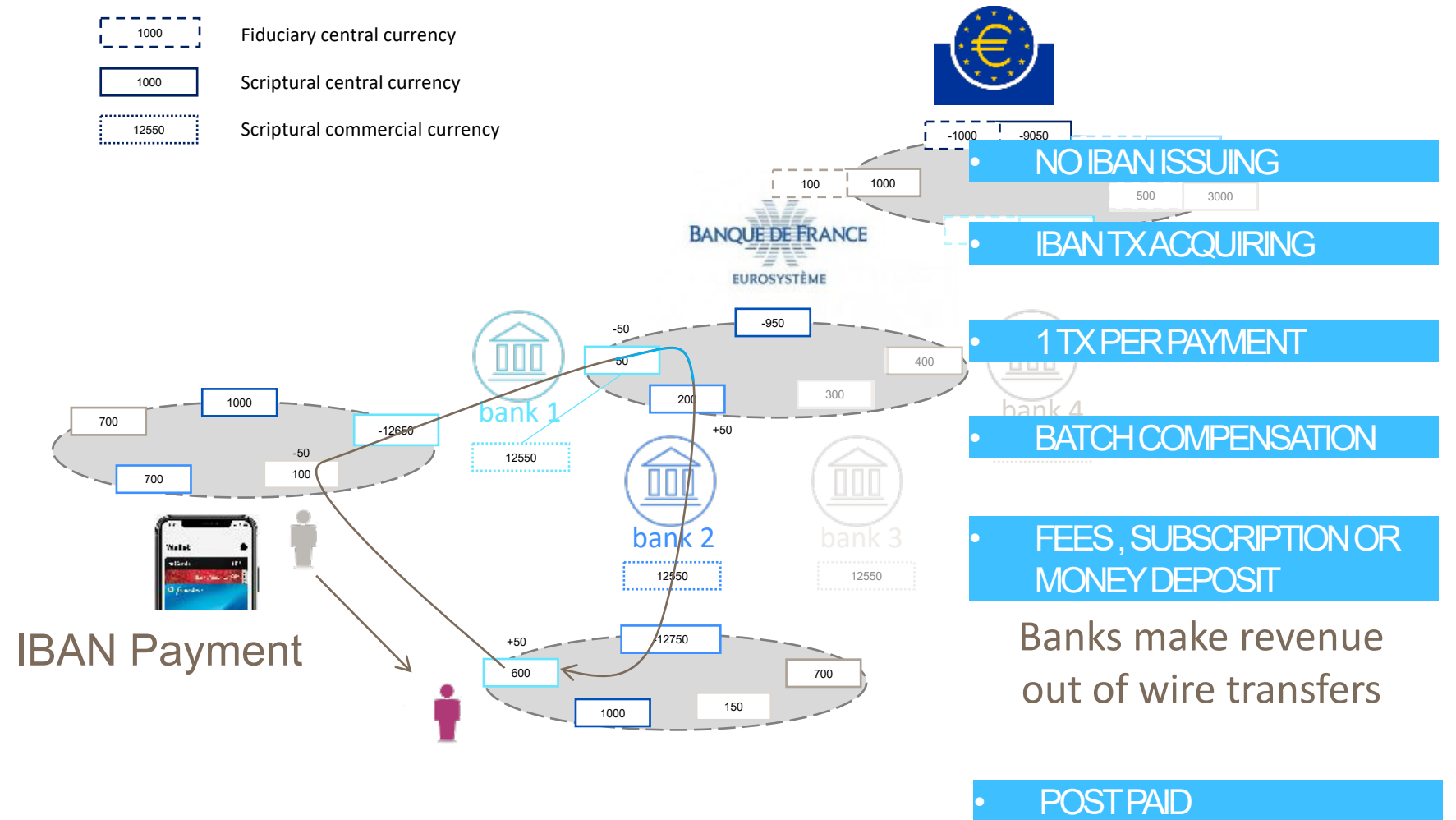


Retail check

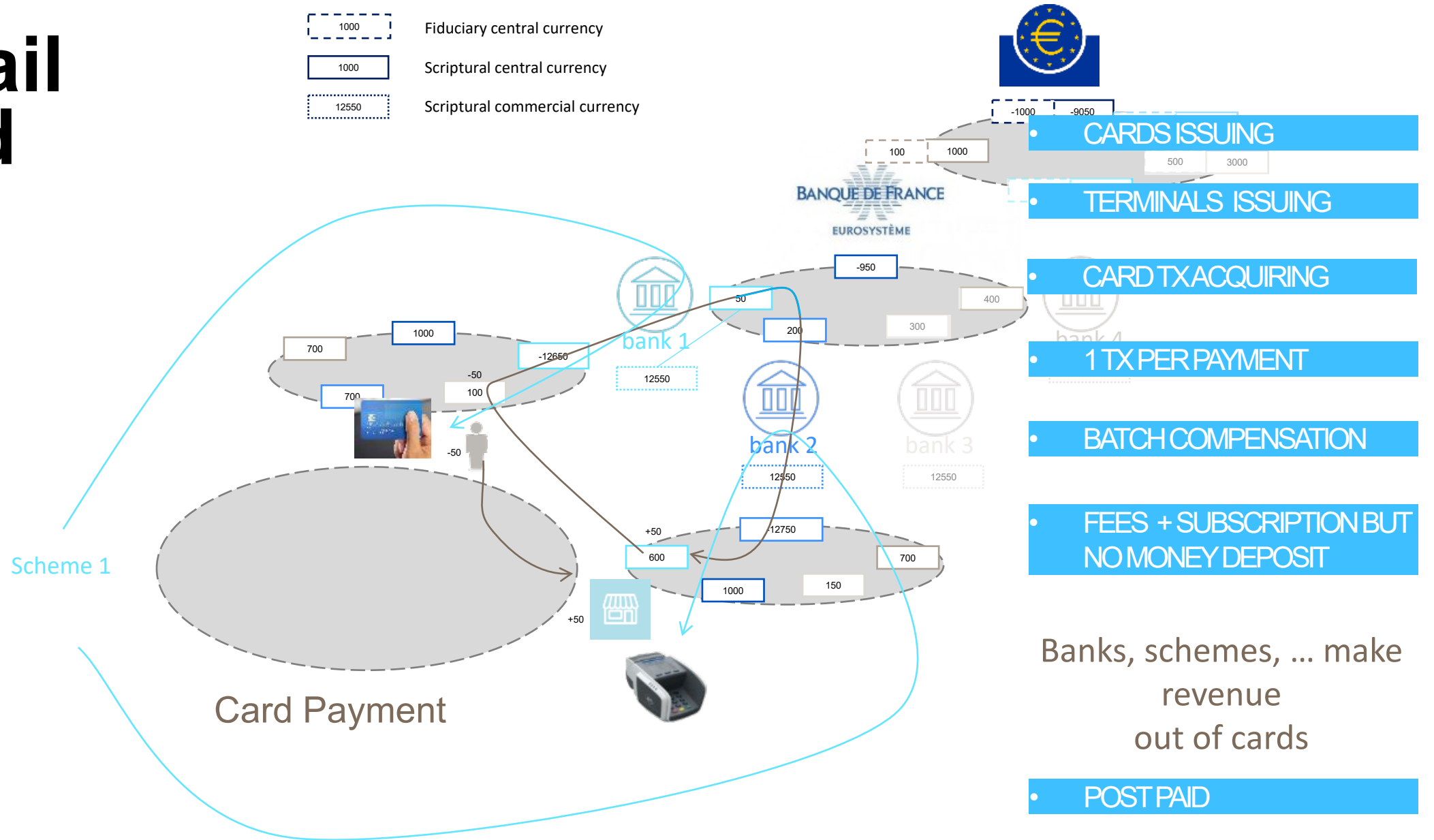


Retail IBAN

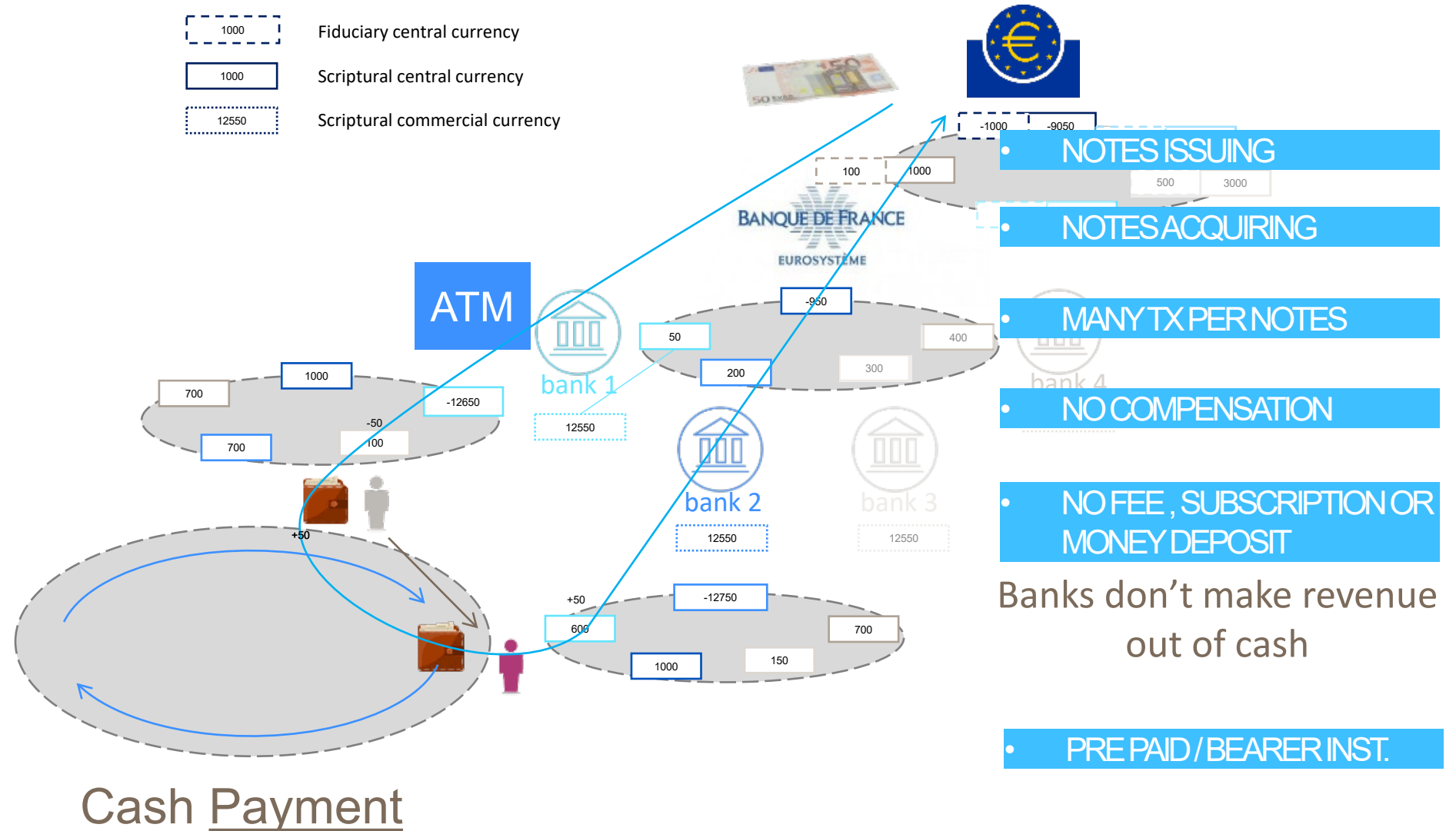
<div style="border: 1px dashed black; padding: 2px;">1000</div>	Fiduciary central currency
<div style="border: 1px solid black; padding: 2px;">1000</div>	Scriptural central currency
<div style="border: 1px dotted black; padding: 2px;">12550</div>	Scriptural commercial currency



Retail card

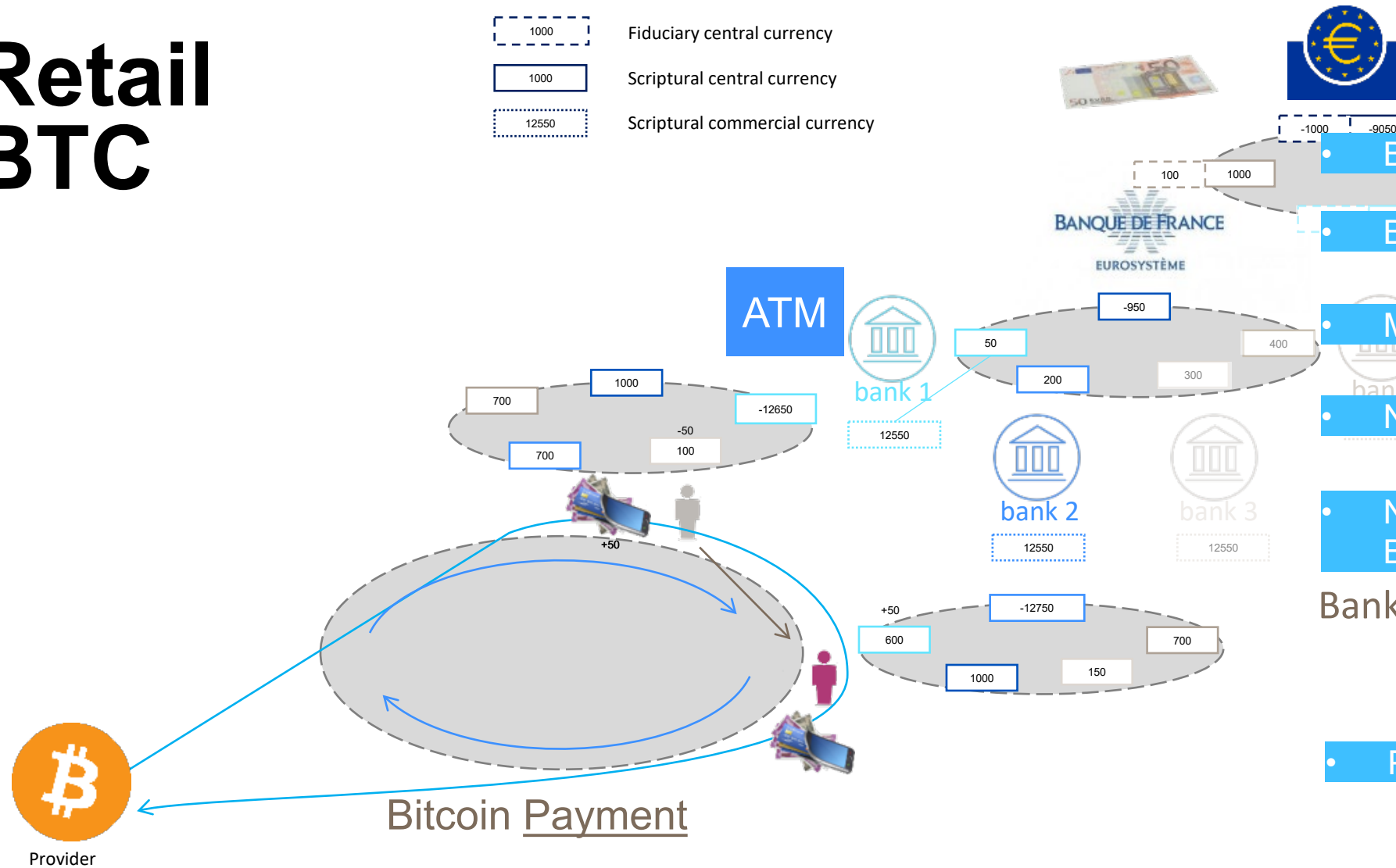


Retail cash



Retail BTC

1000	Fiduciary central currency
1000	Scriptural central currency
12550	Scriptural commercial currency



• BTC ISSUING

• BTC ACQUIRING

• MANY TX PER BTC

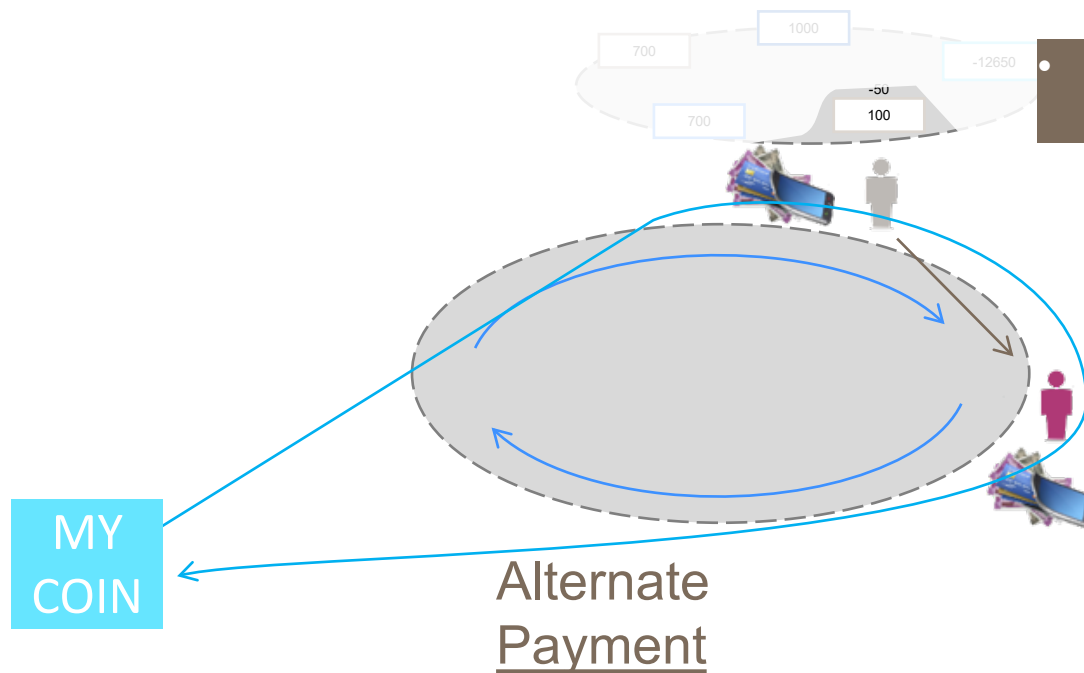
• NO COMPENSATION

• NO FEE, SUBSCRIPTION
BUT MONEY DEPOSIT

Banks don't make revenue
out of BTC

• PRE PAID / BEARER INST.

Retail close loop



• DROP OF ISSUING REVENUES

APP ISSUING

• DROP OF TERMINALS / ACCEPTANCE REVENUES

NO TX ACQUIRING – 3C

• 1 TX PER PAYMENT

• NO MORE COMPENSATION / IMMEDIATE

NO COMPENSATION

• MINIMAL / NO FEES OR SUBSCRIPTION

Banks don't make revenue out of close loop

• PRE PAID / BEARER INST.

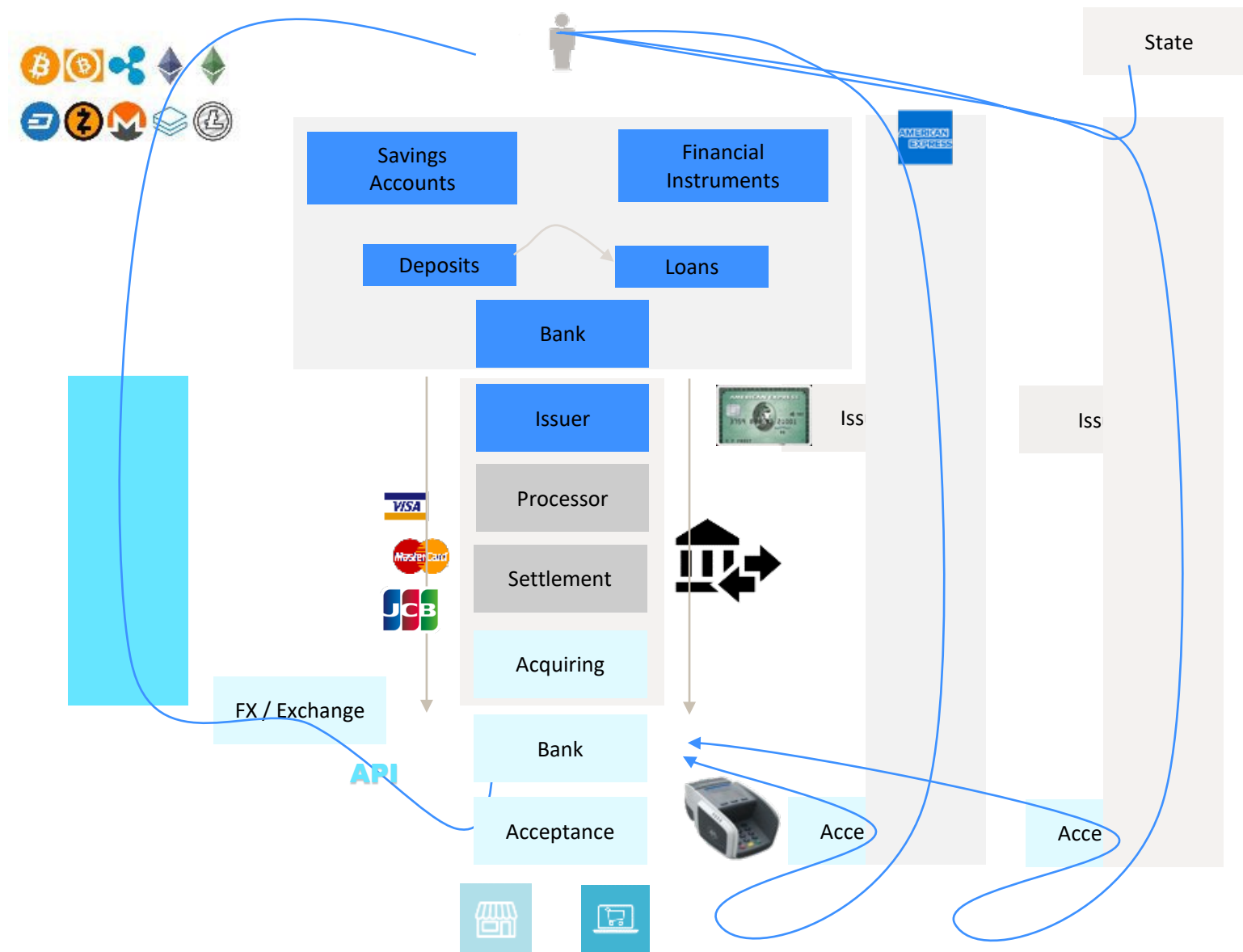
Current ecosystem

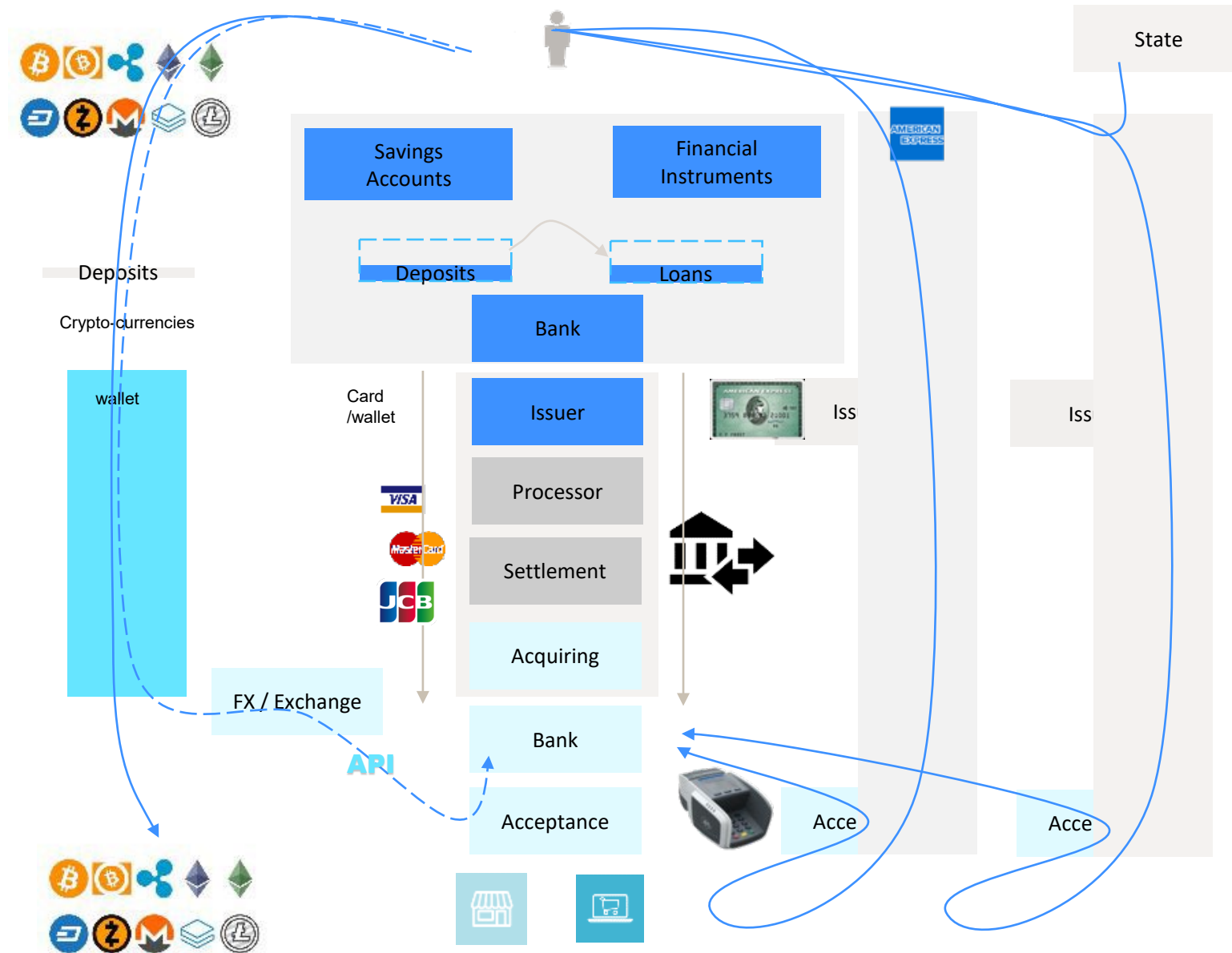


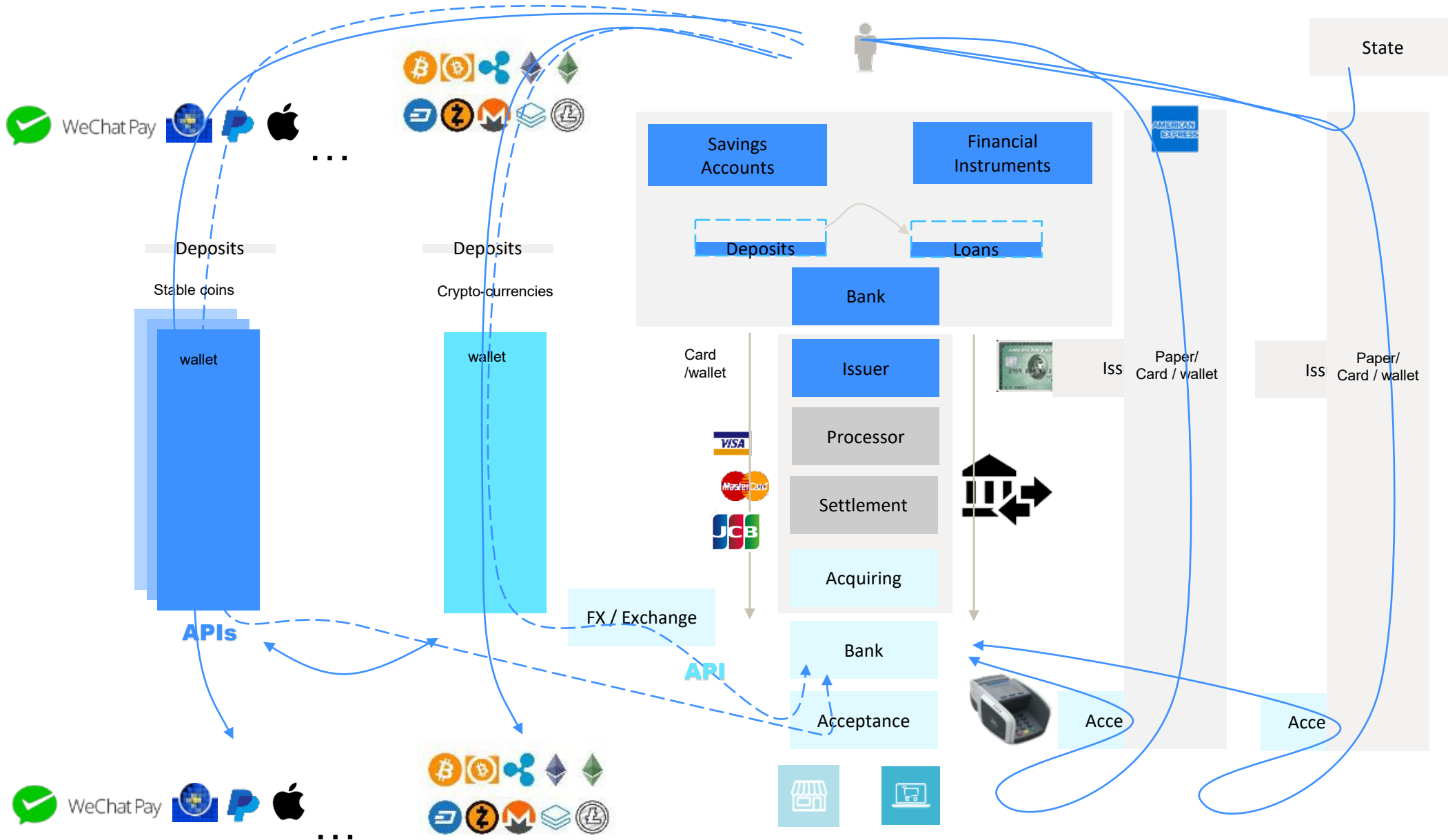
Immediate impacts

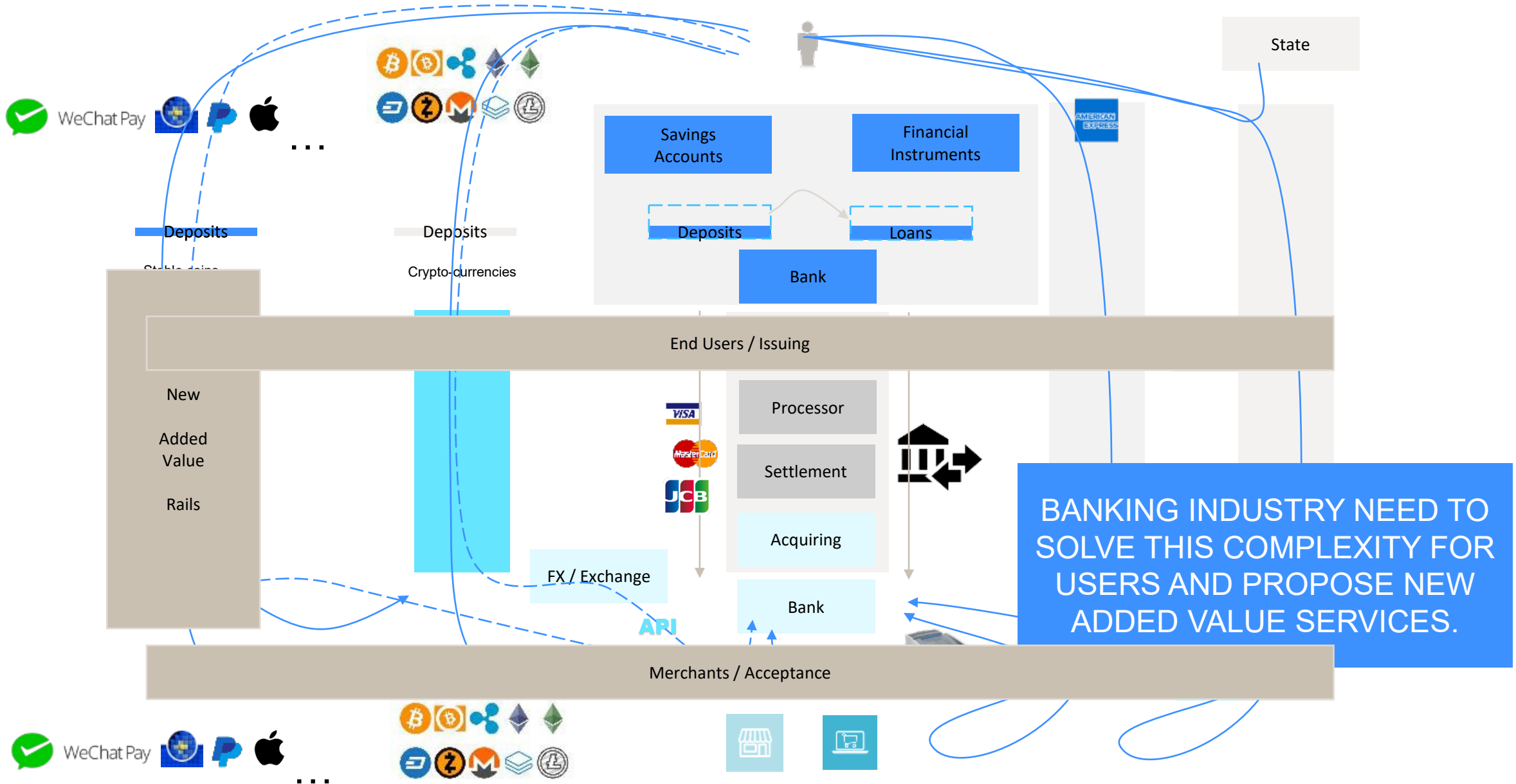
Alternate
payment rails
appear, proposed
by « public
groups » or
private
companies.

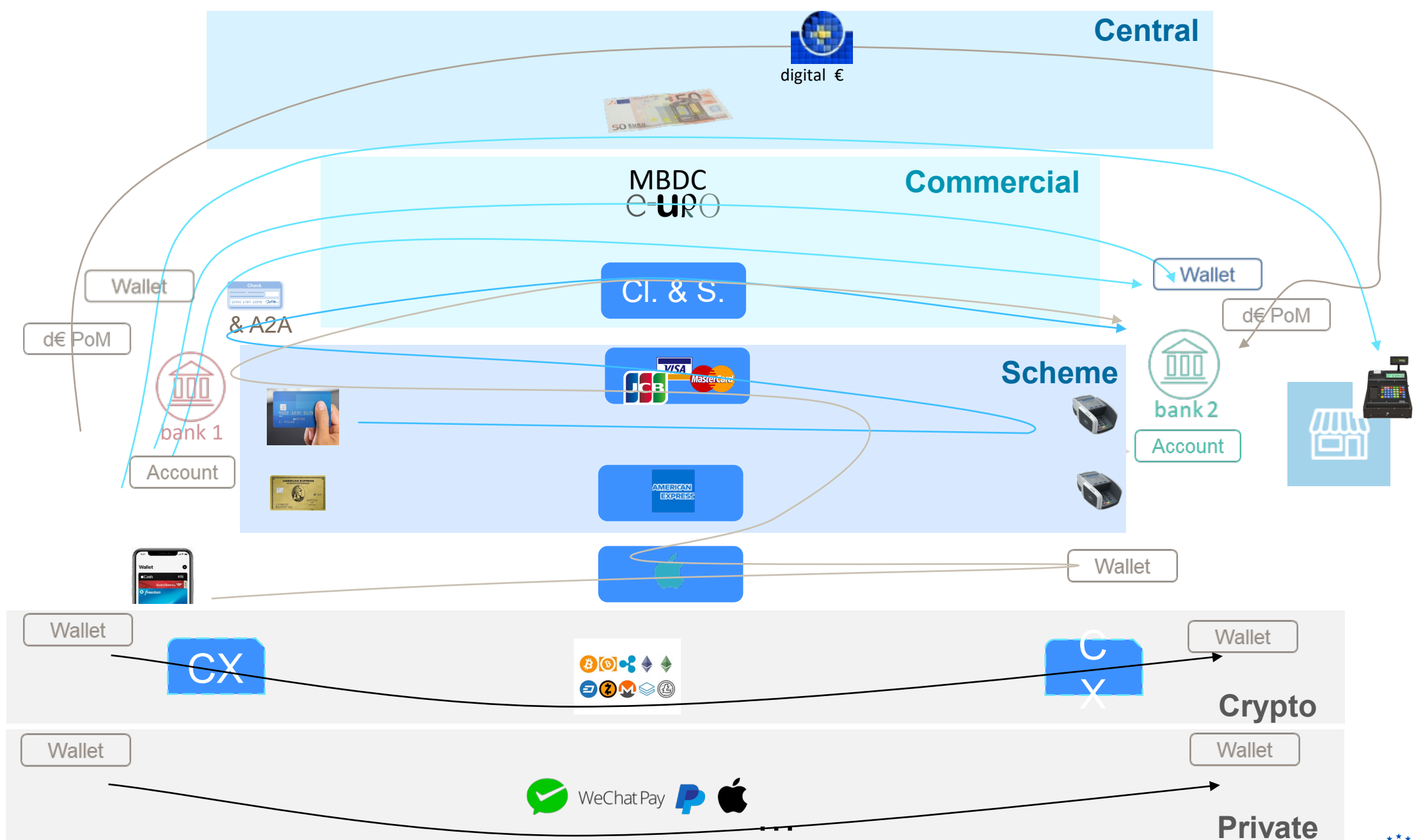
The payment ecosystem wall is down.











Central



Commercial

Cl. & S.

Check
& A2A



Account



Scheme



bank 2

Account



Wallet

Wallet

CX



CX

Wallet

Wallet

Crypto



bank 2

Private



WeChat Pay



...

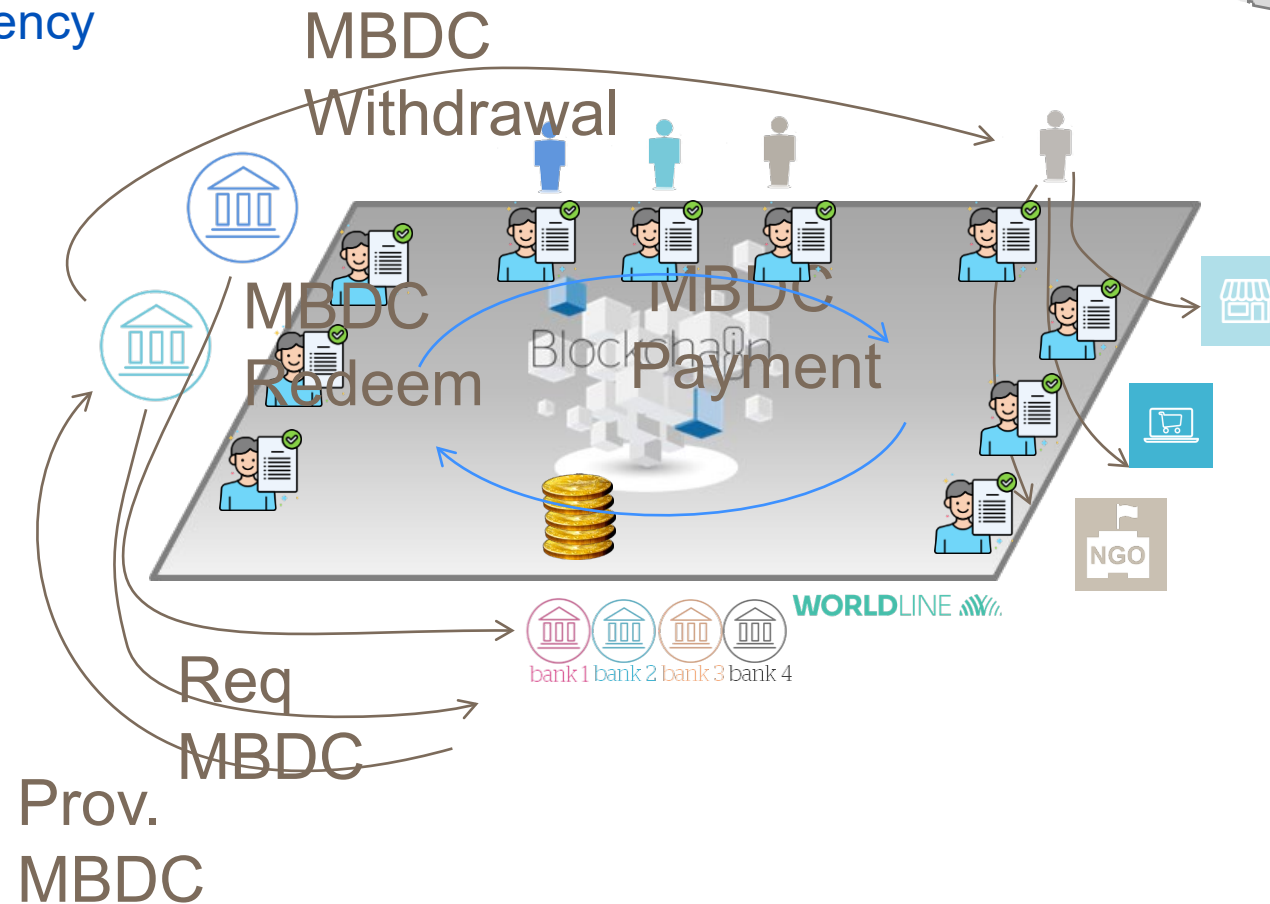


bank 1

Retail MBDC

Multi Banks Digital Currency

Flow

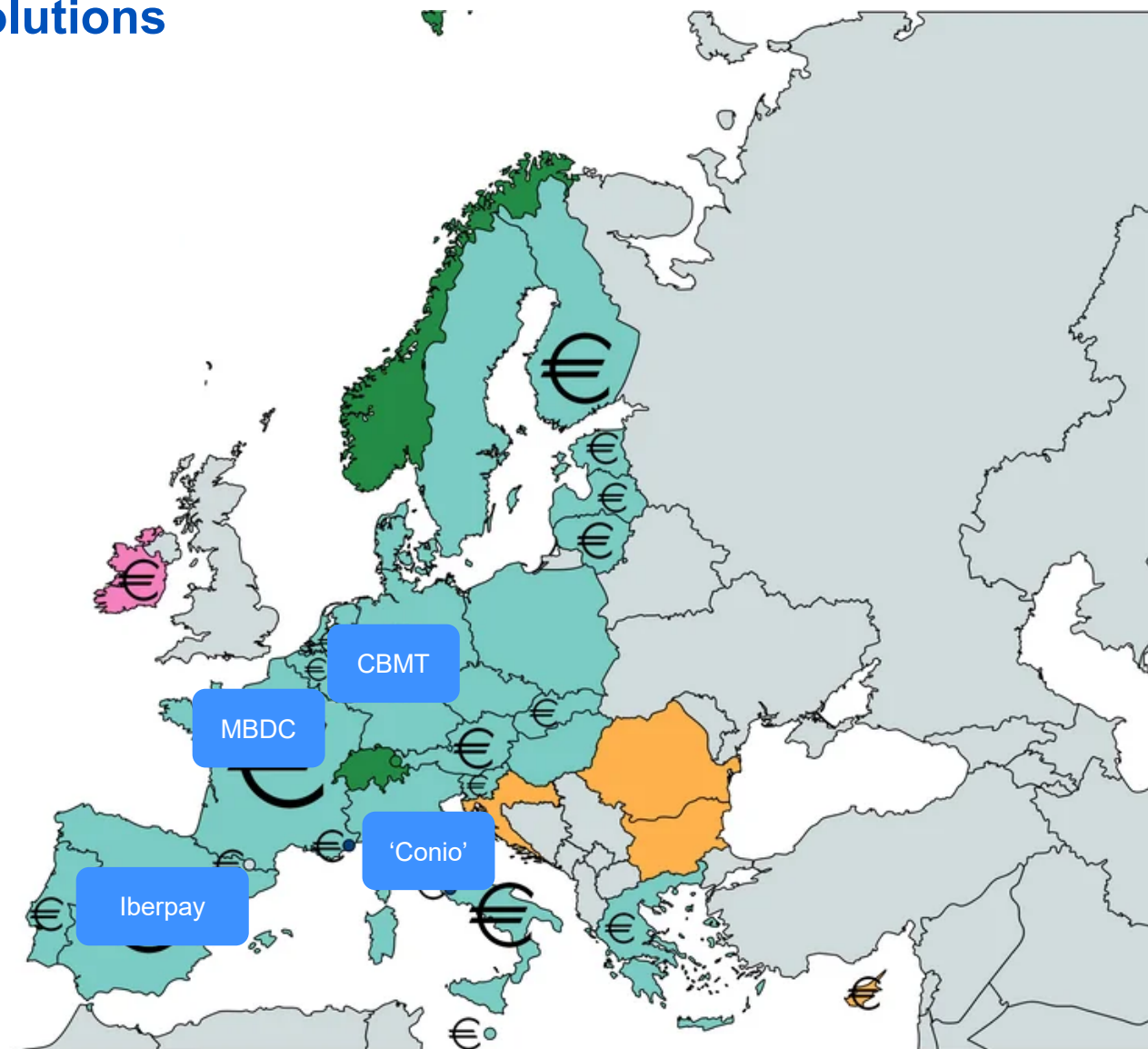


Commercial Banks money solutions

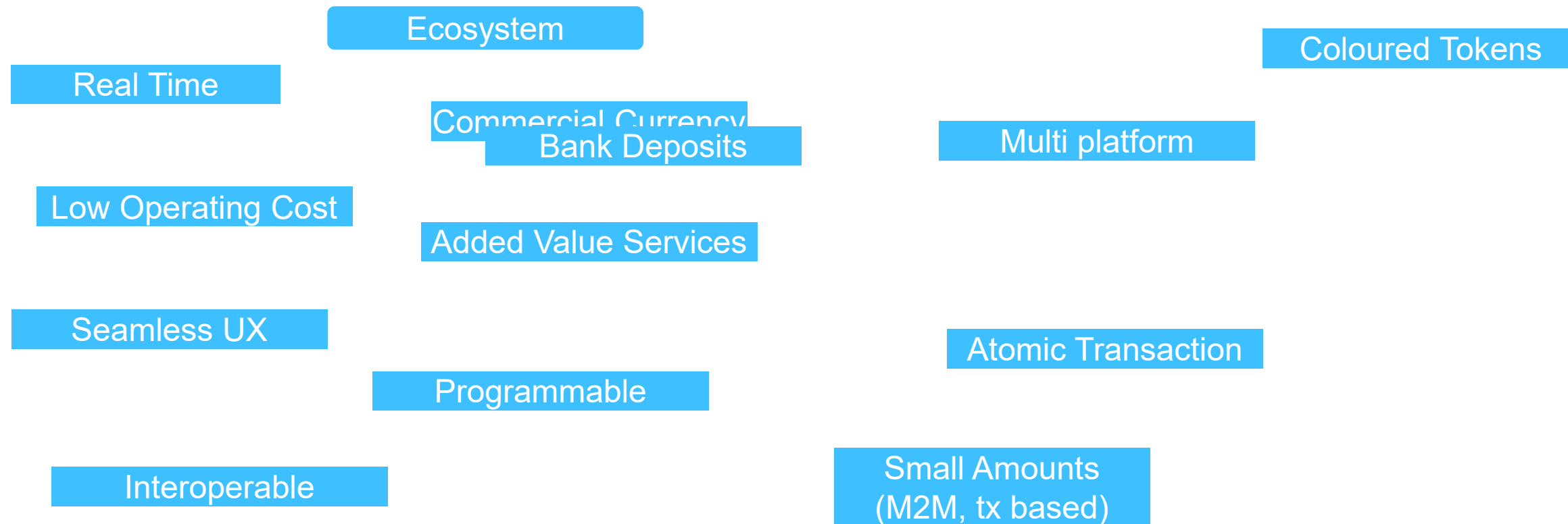
Evolution of payment rails
require new commercial
money means of payment that
frees from Card and SCT rails.

Several European solutions
are already known.

Various implementation,
different level of maturity,
different goals



What we want ideally

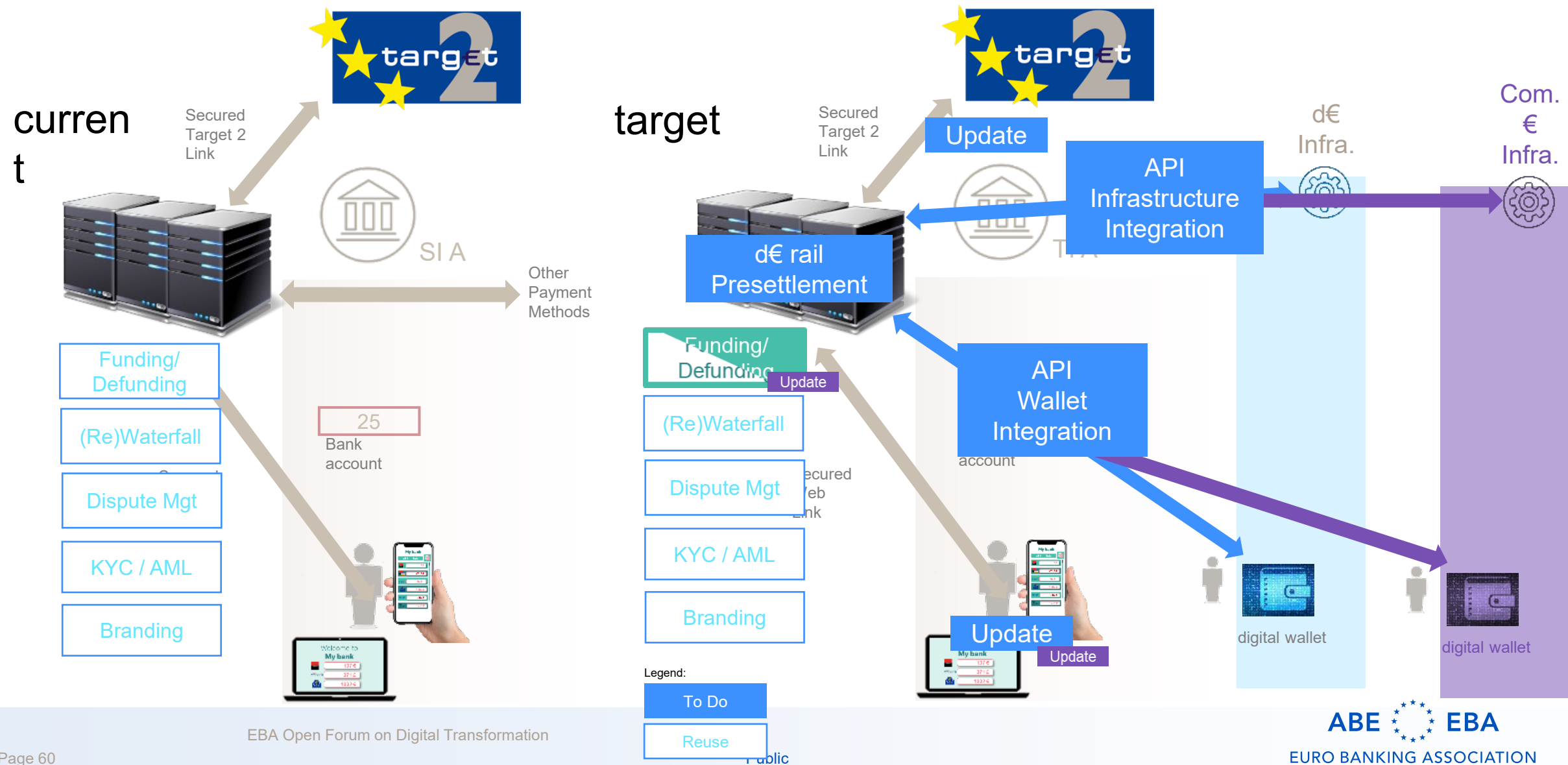


What we currently have



Real Time	✓	Instant tx settlement
Low Operating Cost	✓	In volumes, lowest running cost seen in the market
Commercial Currency	✓	Backed by Commercial bank assets
Seamless UX	✓	Scan or Tap + biometric or PIN consent
Programmable	✓	Split, grouped, deferred, triggered payments
Atomic Transaction	✓	Value carried in tx; not deferred settlement
Small Amounts (M2M, tx based)	✓	Operating costs make small amount BM possible
Interoperable	✓	Interoperable with any other digital mean of payment
Ecosystem	✓	Assets other than currencies can be traded as well atomically.
Multi platform	✓	Assets can be exported to / imported from
Coloured Tokens	✓	Multi-issuer compatible with automated FX.

2 birds with one stone



Take Away

- Commercial Banks need to keep their **customer's and their deposits**
- Customers will go to the 1st class payment **low cost** means providers
- New competition for customers (payment providers)
 - **Digital Currencies are happening**
 - Central version is the digital Euro
 - Commercial version will be GAFA or Banks
- Commercial Banks need to provide support and a good user experience
- Our community goal is to provide a secure payment system with **great user coverage** and **Trust** to keep the **customers and deposits** with banks



Manuel Klein

**Digitizing Money
Deutsche Bank**



EBA Open Forum on Digital Transformation

Frankfurt, June 27, 2023

Introduction



Email:
Manuel.Klein@db.com

- Product Manager for Blockchain Solutions and Digital Currencies in Cash Management of the Corporate Bank (VP)
- CBDC-developments (retail and wholesale) in key currency areas with a strong focus on digital Euro project
- Application of blockchain technology in corporate and institutional cash management, treasury and for capital market use cases

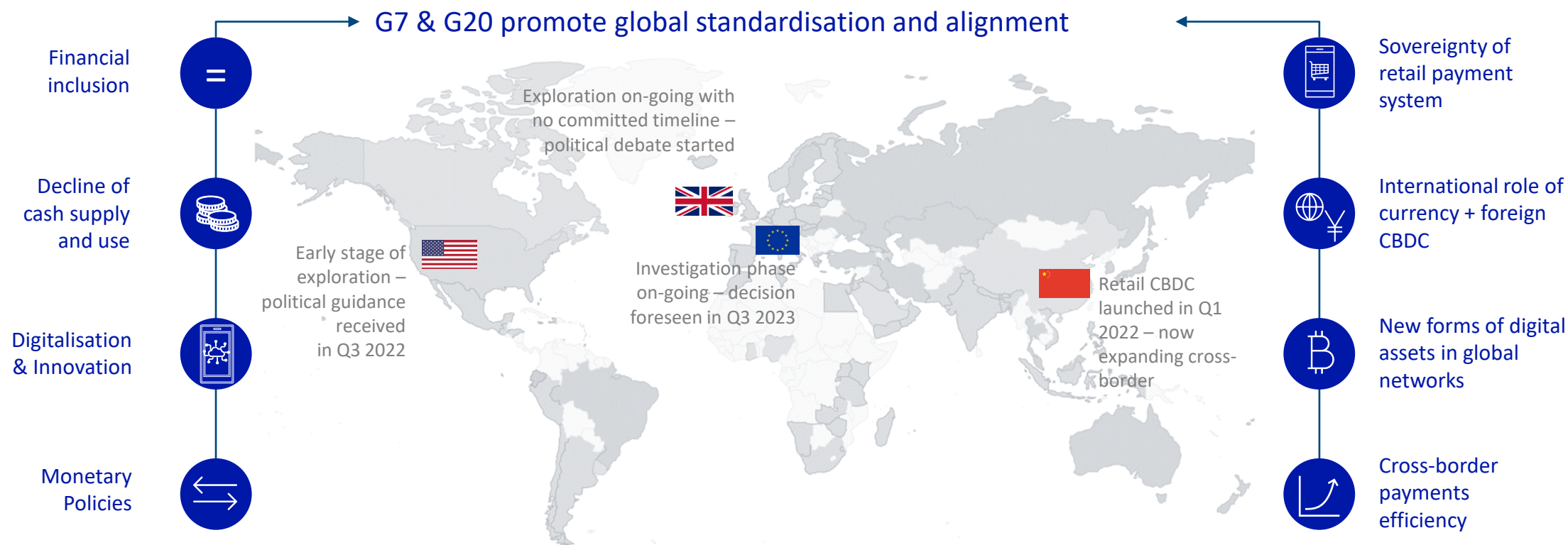




CBDC

Evolution of Monetary Systems - Global Perspective

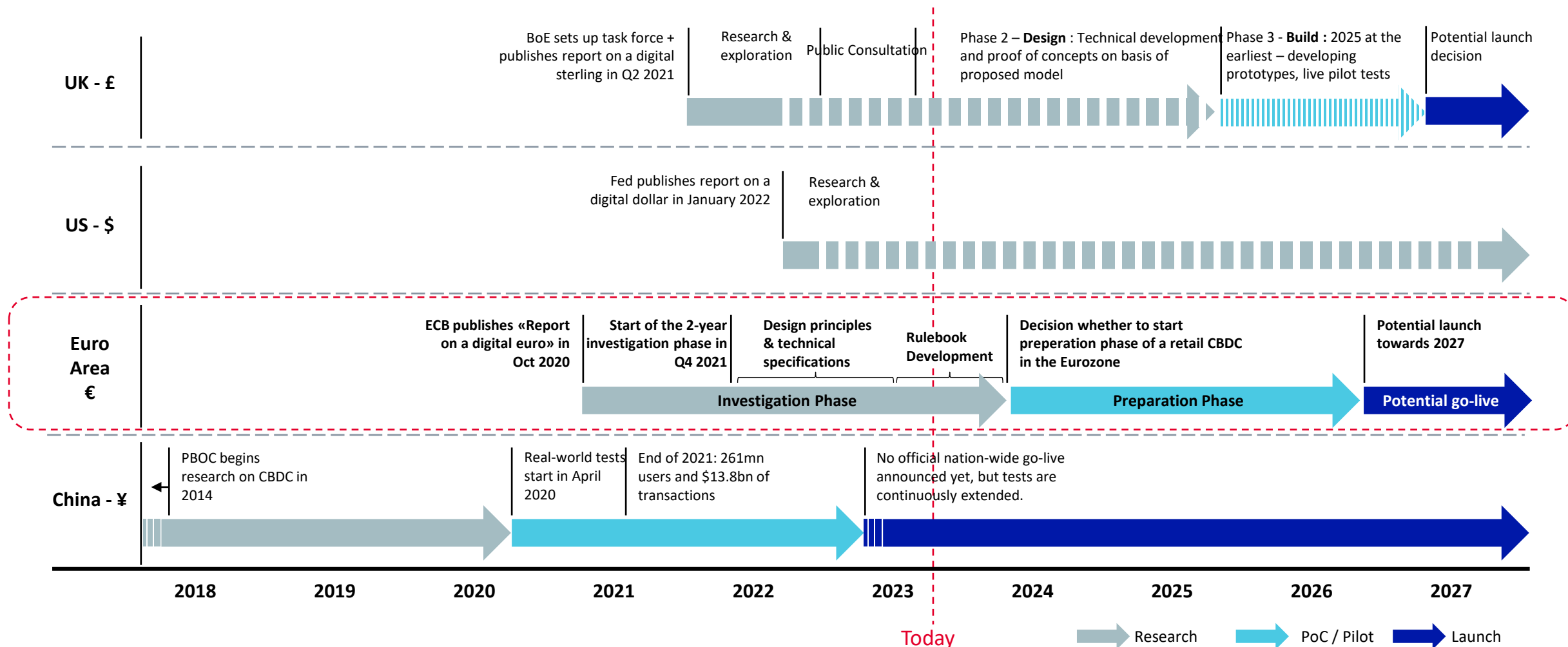
Digital transformation, changing societies & geopolitical developments



90% of central banks explore Central Bank Digital Currencies (CBDC) - for different reasons

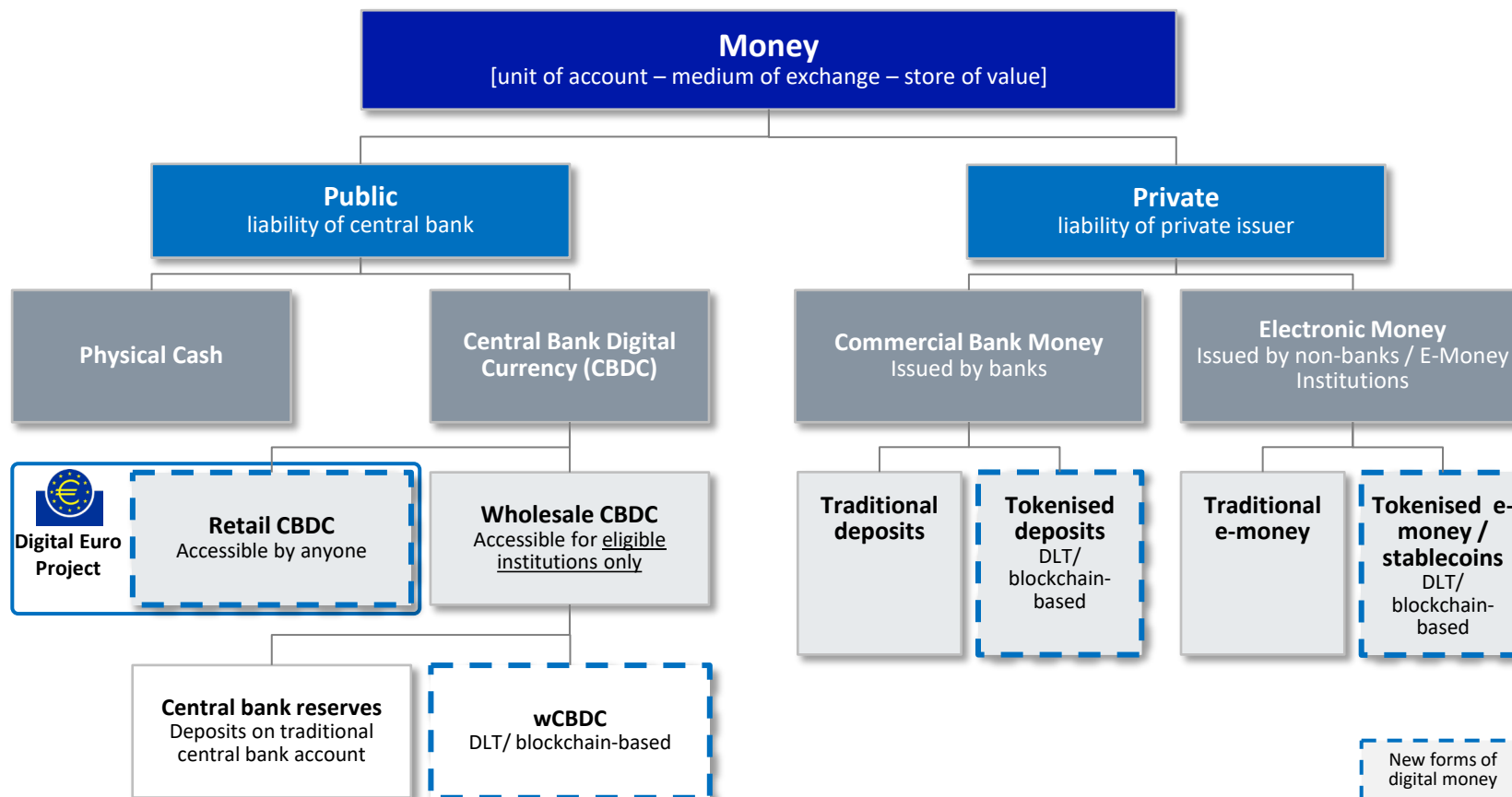
Global CBDC timeline

China is 3-4 years ahead of the euro area and at least 5 years ahead of the US



New forms of digital money

Central banks and private sector both expand the portfolio of digital money in the monetary system



Main Takeaways

Central Banks

- Retail CBDCs focus on retail payments in digital central bank money as a complement to physical cash
- Wholesale CBDCs focus on interbank payments using new technology for capital market use cases (distributed ledger technology / DLT)

Private Sector

- Tokenised e-money / stablecoins are based on DLT infrastructures and used for payments in crypto-asset ecosystems
- Bank deposits / commercial bank money on DLT emerge in parallel to provide innovative payment solutions
- Tokenised deposits are the banking industry response to the market demand currently only covered by stablecoins / e-money tokens

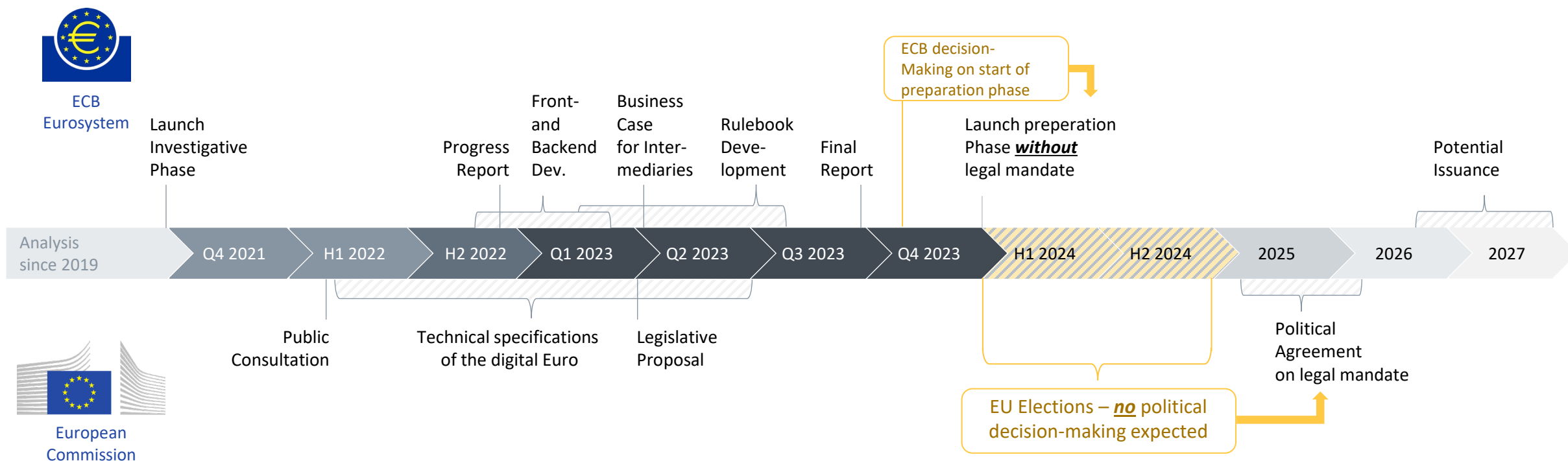


Deep Dive:

The digital Euro project of the ECB

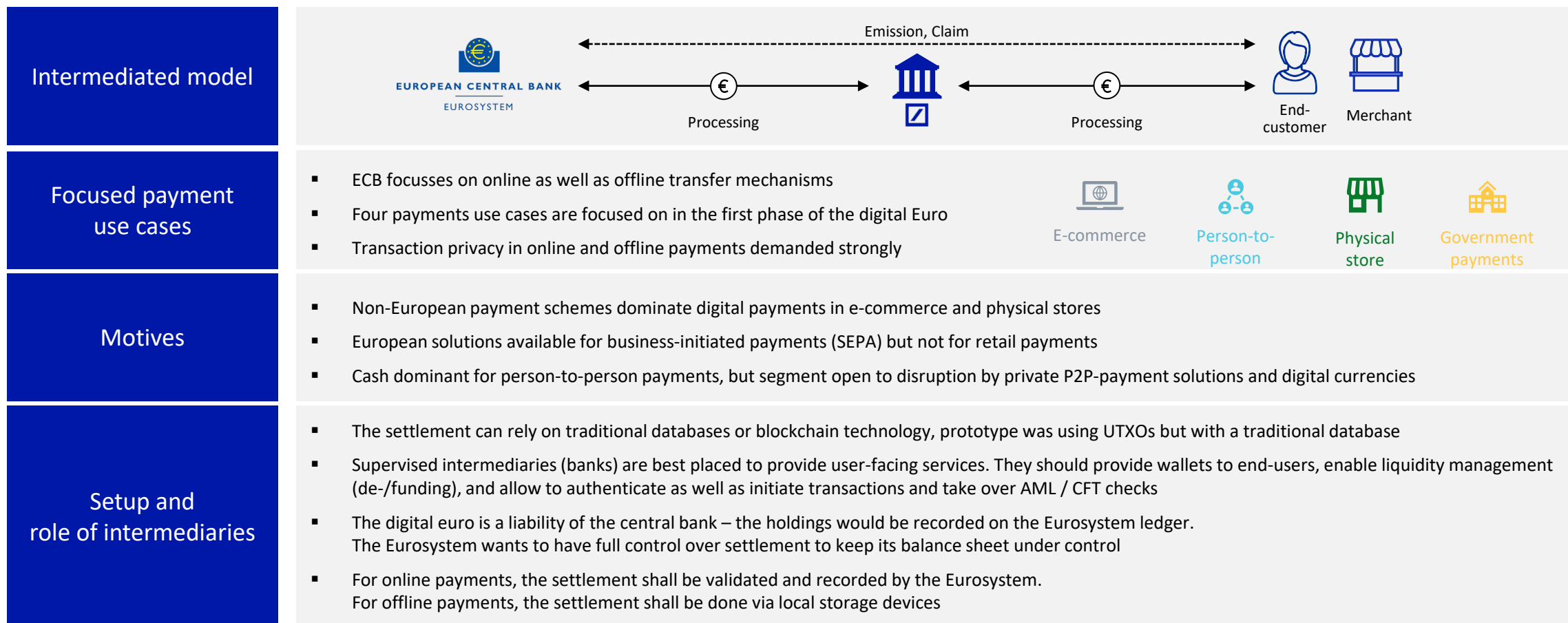
Digital Euro – Timeline and key Milestones

ECB and Commission timeframes not in-sync - ECB determined to go ahead in 2023 – legislative process delayed by 2024 EU elections – ECB decision likely to lack legal mandate



Use cases of the retail CBDC of the ECB

The digital Euro will focus on traditional payments



Source: [Presentation: use case analysis for the digital euro \(europa.eu\)](https://www.europa.eu/presentation-use-case-analysis-for-the-digital-euro)

ECB Decision on the Digital Euro – Status Quo

What we know – what still needs to be decided –

Focus of ECB und European Commission in the next 9-12 months



Functionalities
agreed on

Use Cases and front ends

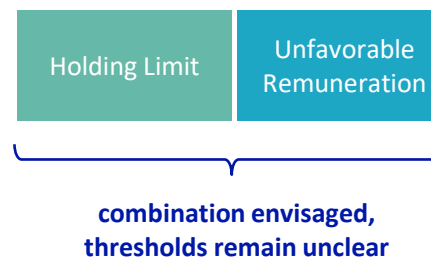


Physical Cash



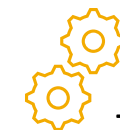
Digital Euro to complement cash as new form of central bank money – not replace it

Limits

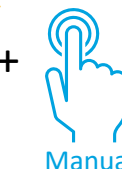


Funding / Defunding

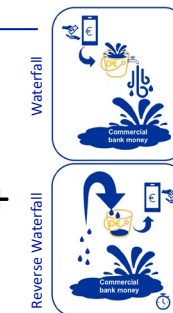
Automatic



+



+



Functionalities
to be
agreed on

Payment Scheme



ECB-led Scheme for d€ as direct competitor to private-sector payment solutions?

ECB vs. Private Sector

Who will be eligible intermediary?
How much room for innovation will be left? How to integrate the digital euro in existing payment solutions?



Privacy



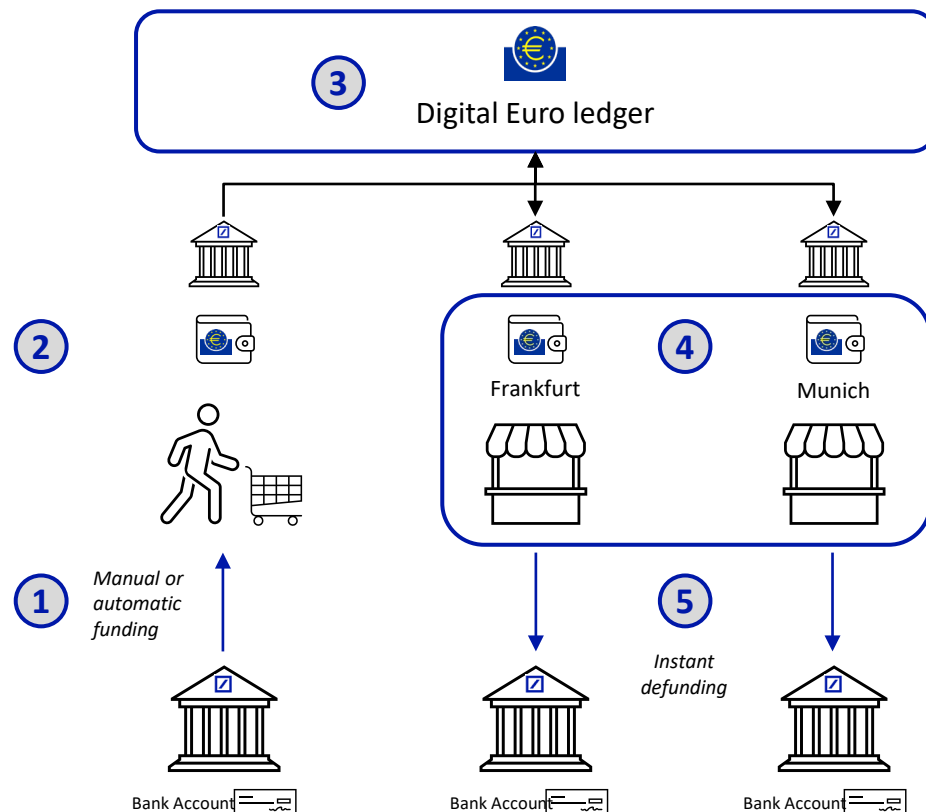
Legal Tender

Will legal tender status be applied to the digital euro similar to cash? Will there be a (new) EU-wide legal acceptance obligation – for cash and the digital euro?



Acceptance of digital Euros at Merchants

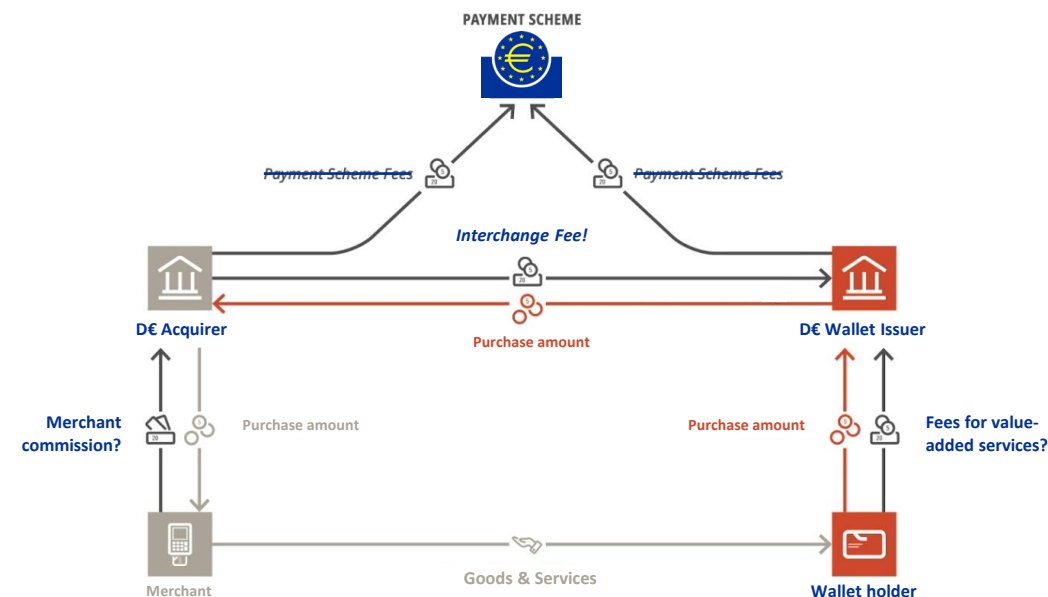
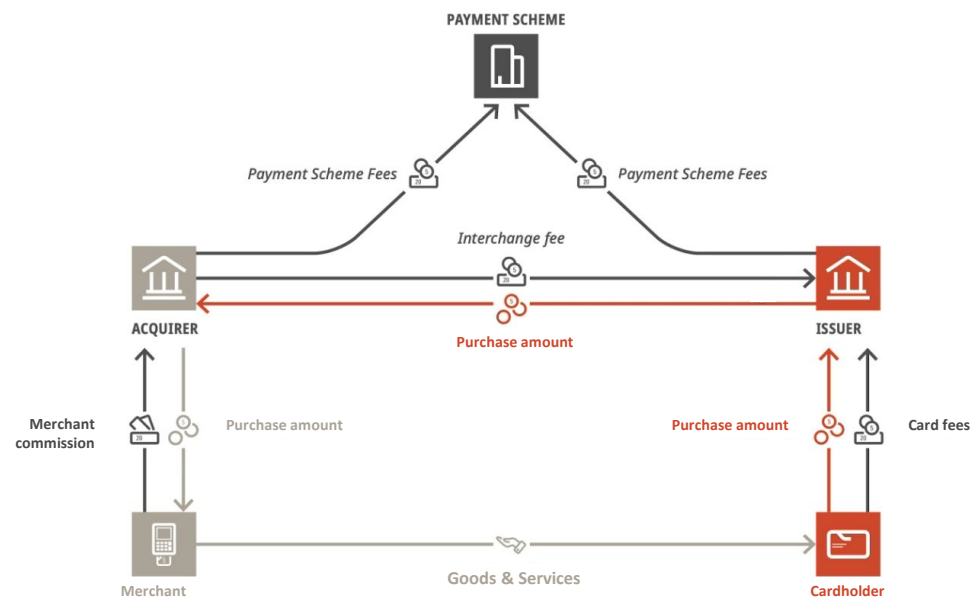
Multiple Wallets but zero digital Euro holding limit



- 1 • Digital Euro is a prefunded solution
• User can fund the wallet from his/her bank account manually or automatically and hold funds up to the maximum amount allowed
- 2 • Banks provide one wallet per end-user and do AML checks for each digital Euro transactions
• Due to ad-hoc funding (reverse waterfall), user can do transactions > maximum holding amount
- 3 • ECB provides ledger and settles each transaction that takes place between individuals (P2P) in e-commerce, at the PoS or for government payments
- 4 • Banks and PsPs provide “acceptance wallets” for online-merchants and solutions at the point of sale to accept digital Euro transactions that have a **zero-interday holding limit**
• Merchants can hold multiple digital Euro wallets
- 5 • Digital Euro transactions are automatically defunded into the Merchants’ bank accounts (waterfall)
• Waterfall is triggered instantly after each transaction onto the merchants’ or acquirers bank account

Will the d€ interchange-revenue cover costs?

Unclear if interchange fee will be enough to substitute revenue loss from deposits-outflow



Changes to the current participants

- ECB will provide the backend, i.e., the ledger for UTXO/ accounts settlement, the payment scheme, etc.
- Payment scheme fees are not applicable as ECB seems not to charge for transactions
- Intermediaries (Issuer and Acquirer) will issue retail and merchant wallets
- Issuers' will be able to charge end-user only for value-added services, basic functionality shall be cost-free
- Acquirers will pay interchange fee to issuer and be able to charge merchants for d€ acceptance services
- Issuers' processing costs are expected to decrease as the ECB takes over the processing
- Interchange fee is fixed, but will be lower, but since processing fees are lower, higher margin should remain

Impact on market dynamics

- ECB explains that there should be an attractive revenue opportunity – especially for acquirers. However, so far, details are missing.
- Banks with retail customers will presumably be forced to offer a d€ wallet as issuers to retail users
- Acquirers should still be able to generate revenue from the acceptance of d€ for merchants
- Merchant commission: So far unclear if it will be regulated or left to the market
- Interchange will be transaction-based revenue. Other revenue income, e.g., account fees or the interest income will be missing

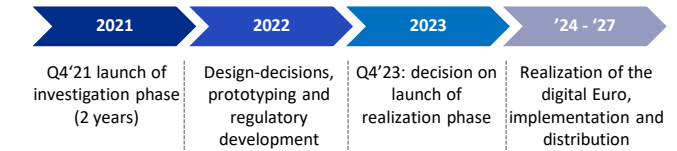


Appendix

Factsheet on the digital Euro project

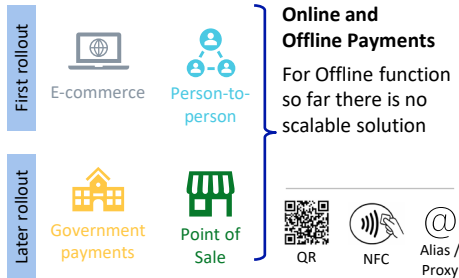
The digital Euro – the retail CBDC of the ECB

Timeline

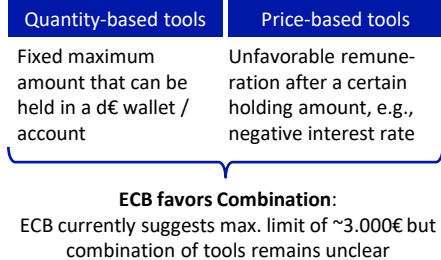


Functionalities agreed on

Use cases



Holding limits



Manual & Automated Funding

Two options should be possible:

1. End user **manually** starts conversion into D€: either a physical cash funding via ATM and or via a bank account
2. D€ holding is **automatically** funded from a linked bank account, e.g., at a certain date or if amount falls below a defined threshold

Funding and defunding tech

Enabled by (reverse) waterfall

- If D€ wallet exceeds holding limit (e.g., €3K), money is transferred automatically to the linked bank account
- If outgoing payments exceed D€ holdings, money shall be pulled from linked bank account for ad hoc funding of the wallet

→ **This enables payments that are larger than the holding cap via the digital Euro infrastr.**

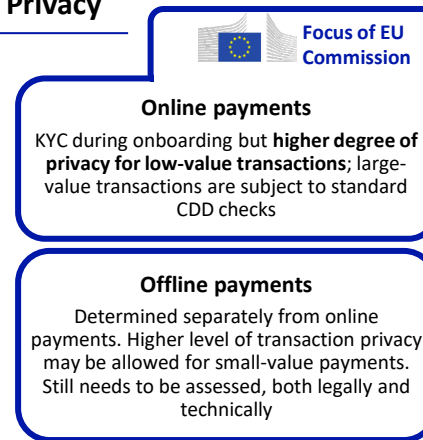
Functionalities to be agreed on

Scheme

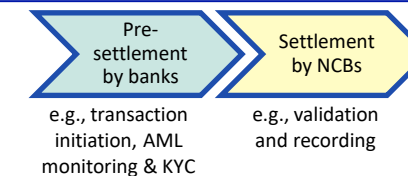
ECB plans to develop a digital Euro scheme. Private sector expertise is needed as ECB has limited experience. A scheme should provide:

- Requirements that supervised intermediaries would need to follow to provide digital Euro end user products
 - Dedicated governance framework
 - A pan-European reach
 - Balance between roles shared by the Eurosystem and the intermediaries
 - Rulebook development already started
- ECB looks for a scheme manager – EPI could be a good match given that both initiatives focus on a pan-European solution

Privacy



Role of banks and ECB



ECB's prototype model:

ECB provides the ledger where tokens of CBDC are settled. These "unspent transaction outputs" (UTXOs) are assigned to random addresses and are aggregated in the wallet provided by banks.

Banks do pre-settlement checks and then instruct settlement which is recorded in the ECBs ledger. However, ECB has no insight into d€-balances and payments of end-users.

Front end

5 companies selected to develop d€ interfaces. ECB says it has no plans to reuse prototypes in the potential realization phase ('24 – '26) but wants to learn from experience

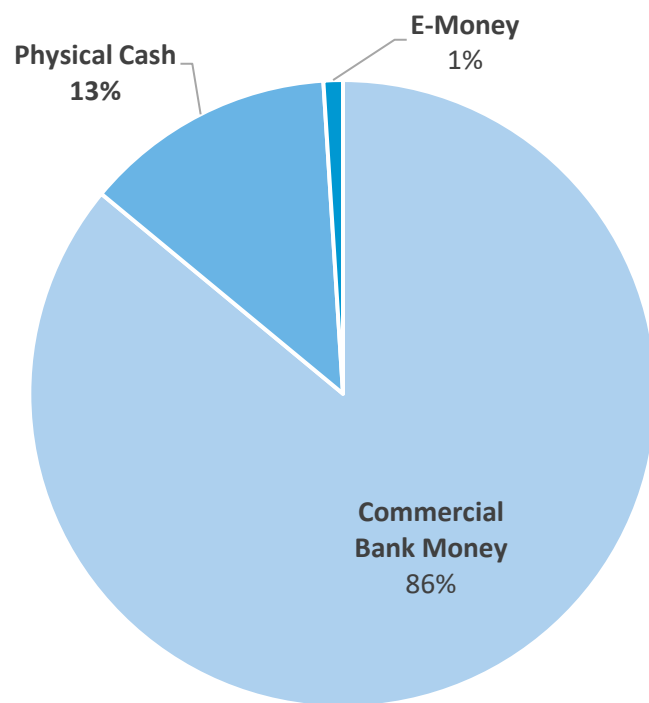


Money supply for non-banks now and going forward

The Monetary Systems will be re-calibrated through the availability of new forms of money and payment solutions

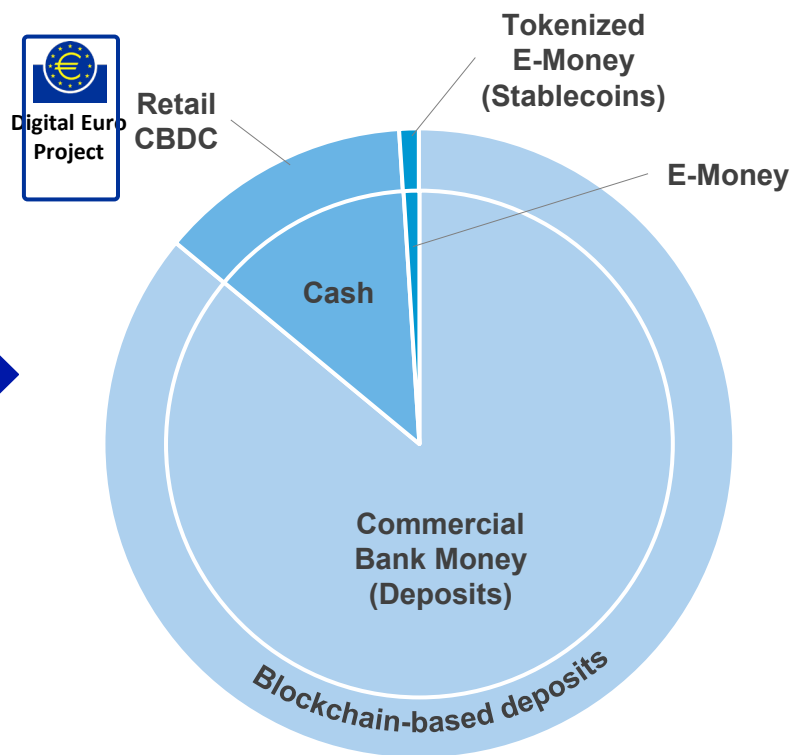


Present money forms



Percentages apply to the Eurozone

Future money forms?



Main Takeaways

Today:

- Public money only accessible in physical form (cash)
- Commercial bank money represents ~86% of money supply in Europe – basis for majority of payments
- E-Money used in e-commerce & closed networks (e.g., PayPal)

Future:

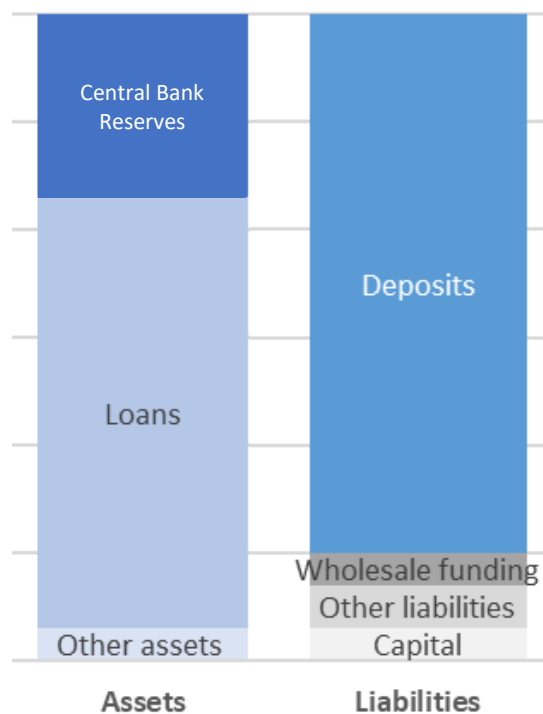
- Retail CBDCs used for typical cash use cases aiming to retain public trust in the currency in a digital age
- Key innovation is DLT/blockchain technology for public and private money
- Deutsche Bank works on tokenizing deposits to provide value-adding solutions of DLT to corporate clients

Impact on Banking System

ECB is aware of the potential implications of a retail CBDC on lending and credit growth – risk mitigating measures shall be implemented



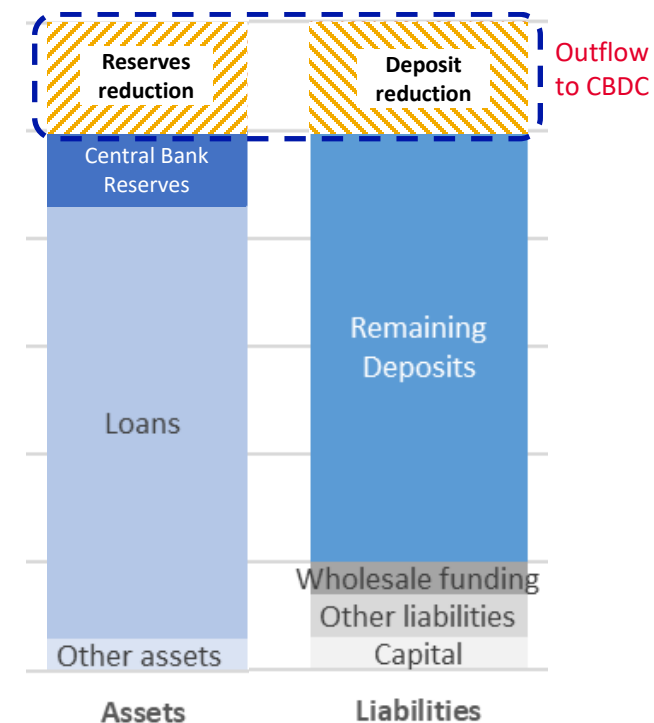
Pre rCBDC



Potential Impacts

- Decrease of the ability to meet regulatory liquidity requirements (LCR, NSFR, etc)
- Increased focus on wholesale funding at higher rates
- Increase of interest rates for lending and potentially overall reduction of lending facilities
- Remaining deposits deemed less stable, potentially reducing the offer of fixed-rate mortgage volumes
- Loss of interest income from reduced central bank deposits
- Decrease of deposit insurance scheme volume

With rCBDC



Graphics indicative only

Disclaimer



IMPORTANT NOTICE

These materials have been prepared by Deutsche Bank AG or one of its subsidiaries, affiliates or branches (“DB”), solely for the benefit of the recipient (the “Recipient”) and are being provided for information purposes only, to assist the Recipient to evaluate the matter to which these materials relate. By accepting these materials, the Recipient agrees to use them only for such purpose and to be bound by the following limitations. These materials speak only as of their date, and the views expressed are subject to change based upon a number of factors, including macroeconomic and equity market conditions, investor attitude and demand and the business prospects of the Recipient (or any other person). These materials and the conclusions contained herein are necessarily based on economic, market and other conditions, as in effect on, and the information made available to DB as of, their date. These materials do not purport to contain a complete description of the Recipient (or any other person) or the market(s) in which the Recipient (or such other person) operates, nor do they provide an audited valuation of the Recipient (or such other person). The analyses contained herein are not, and do not purport to be, appraisals of the assets, stock or business of the Recipient (or any other person). These materials are incomplete without reference to, and should be considered solely in conjunction with, the oral briefing provided in relation to these materials.

Neither DB nor any of its affiliates has acted or is acting (and does not purport to act in any way) in a fiduciary capacity. Nothing herein should be construed as financial, legal, regulatory, tax, accounting, actuarial or other specialist advice. These materials are not intended to provide, and must not be taken as, investment advice nor the basis of any investment decision or other valuation and should not be considered as a recommendation by DB (or any of its affiliates) that the Recipient enter into any transaction. The Recipient must make its own independent assessment and such investigation as it deems necessary to determine its interest in participating in any transaction. No reliance should be placed upon these materials in connection with any actual mandate or transaction. Any decision as to whether or not to enter into any transaction should be taken solely by the Recipient.

These materials have been provided on the basis that the Recipient and its representatives, directors, officers, employees and advisers keep these materials (and any other information that may be provided to the Recipient) confidential. These materials (and such other information) may not be disclosed, summarised or otherwise reproduced, distributed or referred to, in whole or in part, without the prior written consent of DB, provided, however, that the Recipient may disclose these materials on a confidential and non-reliance basis to (i) its legal advisers and (ii) as required by applicable law or regulation. The information used in preparing these materials was obtained from the Recipient or its representatives or from public sources (or has been used with the express or implied consent of the Recipient). DB and its affiliates assume no responsibility for the independent verification of any such information and have relied on it being complete and accurate in all material respects. Neither DB nor any of its affiliates makes any representation or warranty, express or implied, with respect to the fairness, correctness, accuracy, reasonableness or completeness of such information, these materials (including any opinion contained therein), any of their contents or any of the results that can be derived from them. Without limiting a person’s liability for fraud, no responsibility or liability (whether in contract, tort or otherwise) is or will be accepted by DB (or any of its affiliates or any of its or their respective representatives, directors, officers, employees or advisers) as to, or in relation to, these materials, their contents, the accuracy, reliability, adequacy or completeness of the information used in preparing these materials, any of the results that can be derived from these materials or any written or oral information provided in connection therewith (including (i) in relation to the distribution or possession of these materials in any jurisdiction or (ii) for any loss or damage of any kind whatsoever arising as a result of the use or misuse of these materials), (iii) for updating or revising these materials, or (iv) for correcting (or notifying the Recipient of) any inaccuracy in these materials or their contents (or any other written or oral information provided in connection therewith) which may become apparent, and any such responsibility, liability or obligation is expressly disclaimed, except to the extent that it cannot be excluded by law. Analyses and opinions contained herein may be based on assumptions that, if altered, can change the analyses or opinions expressed. No audit of these materials has been undertaken by an independent third party.

Any statement or opinion contained herein regarding the investment case, positioning and valuation of the Recipient or any other person is not, and should not be construed as, an indication that DB will provide favourable (or any) research coverage about the Recipient or such other person or publish research containing any particular rating or price target for the securities of the Recipient or such other person. DB has adopted policies and guidelines designed to preserve the independence of any research analyst employed by DB or any of its affiliates, which prohibit any such research analyst from being compensated for his or her involvement in investment banking transactions, and which prohibit its employees (and the employees of any of its affiliates) from offering, directly or indirectly, a favourable research rating or specific price target, or offering to change a research rating or price target, as consideration for or an inducement to obtain business or other compensation.

These materials shall not be construed as a prospectus or an offer to sell, or a solicitation of an offer to buy, any security or any business or assets, nor to enter into any agreement or contract with the Recipient, DB (or any of its affiliates) or any other person. Any transaction will be made pursuant to separate documentation and in such case the information contained herein will be superseded in its entirety by such documentation in final form.

Coffee break

10:45 – 11:05 CET

During coffee break, do not “leave the meeting”
(i.e., stay connected while muting your sound and turning off your camera)

Katja Lehr

**MD & Head of EMEA Market Management
J.P. Morgan Chase Bank**

Fireside chat

Lunch break

12:35 – 13:55 CET

During lunch break, do not “leave the meeting”
(i.e., stay connected while muting your sound and turning off your camera)

Kindly reconnect on time for the afternoon sessions

Erik van der Mars

**Director, Open Banking, and New Payment Platforms
Mastercard**

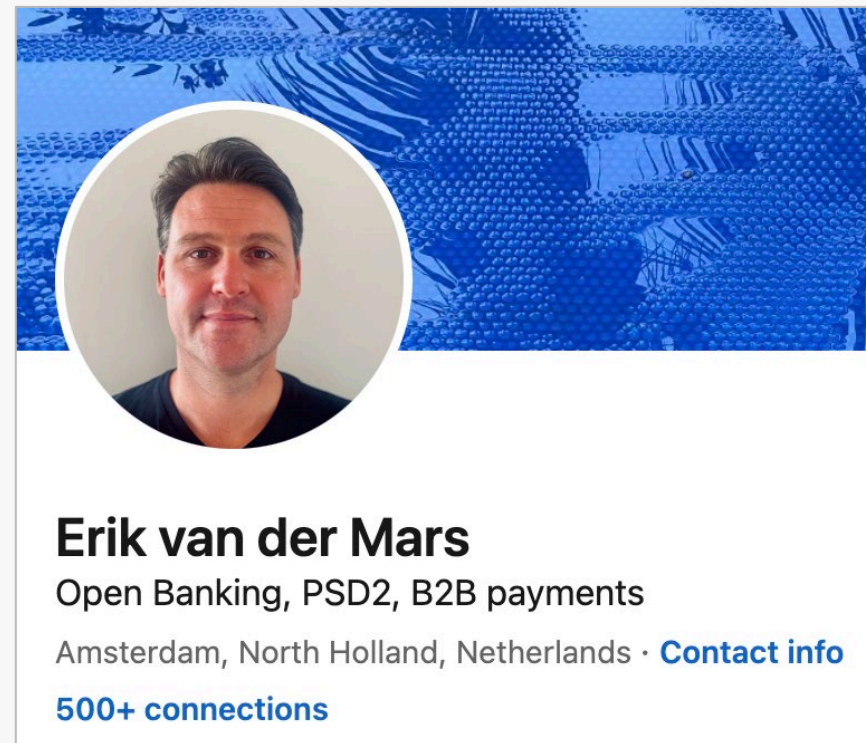


Open Banking, Embedded Finance & BaaS

How is this changing the way we operate?

Background

- AP automation
- E-Invoicing & Order2Cash optimization
- PSD2 payment initiation
- Digital Identity & EU Data governance act
- Treasury platforms
- Embedded finance for SMEs



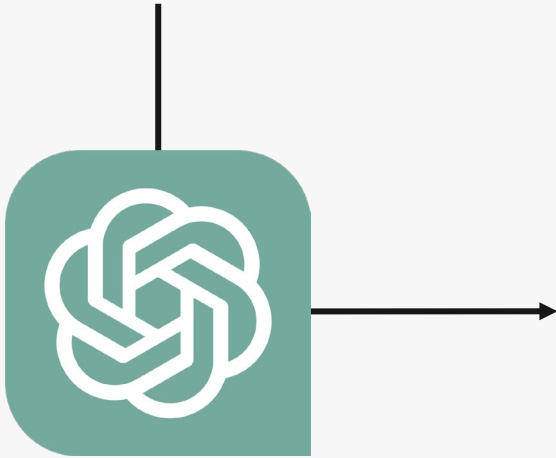
www.linkedin.com/in/erik-van-der-mars-3ab5801/





Let's ask Chatgpt

How is embedded finance eating away the revenue of traditional banks?



“Embedded finance is revolutionizing the financial industry by allowing non-financial companies to offer financial services to their customers. By integrating financial services into existing business models, companies can provide a more seamless customer experience and increase revenue. This has created new competition for traditional banks, as customers can now access financial services through various channels and providers, reducing the need for traditional banking services. As a result, traditional banks are facing increased pressure to innovate and adapt to this new landscape in order to remain competitive.”

Let's ask Chatgpt (again)

What is coming after open banking?

chatgptonline.ai/chat/



You what is coming after open banking?

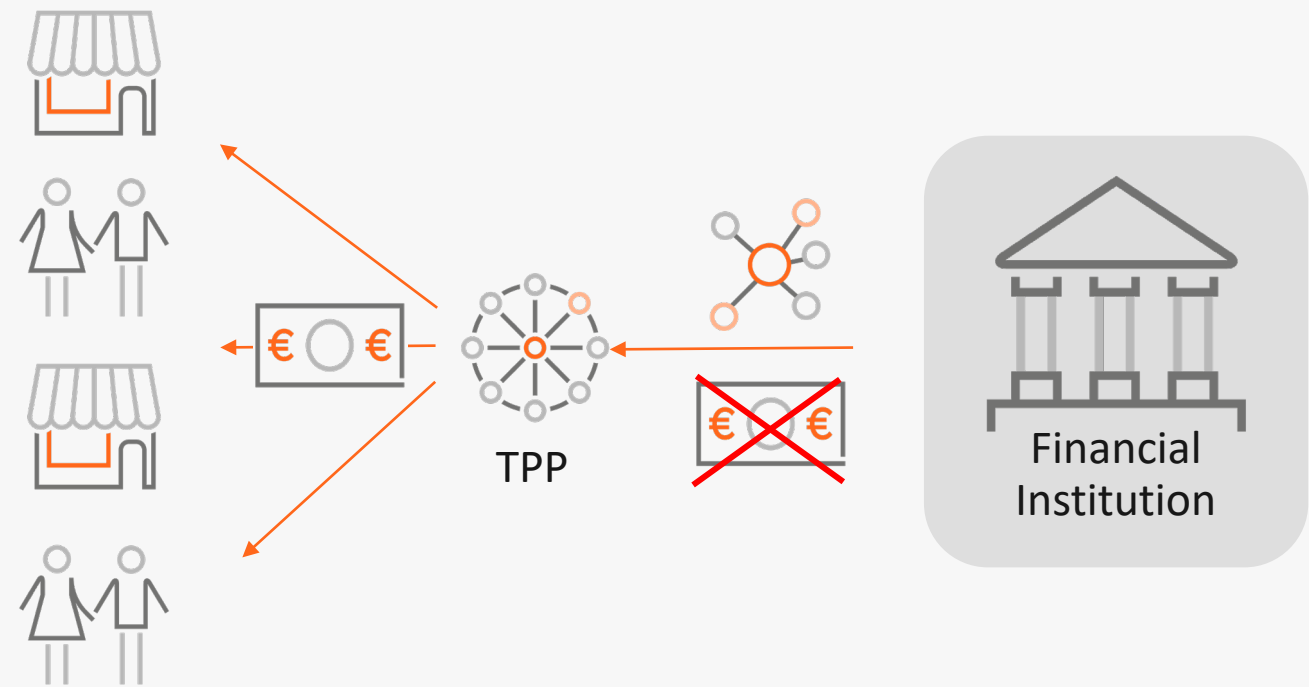
Error while calling OpenAI: Rate limit reached for default-gpt-3.5-turbo in organization org-2MVfTx8Pgtl3C8H3nS3EjVU2 on tokens per min. Limit: 90000 / min. Current: 89833 / min. Contact us through our help center at help.openai.com if you continue to have issues.

Type your message...

Clear



Forces at hand: Open Banking



DeNederlandscheBank

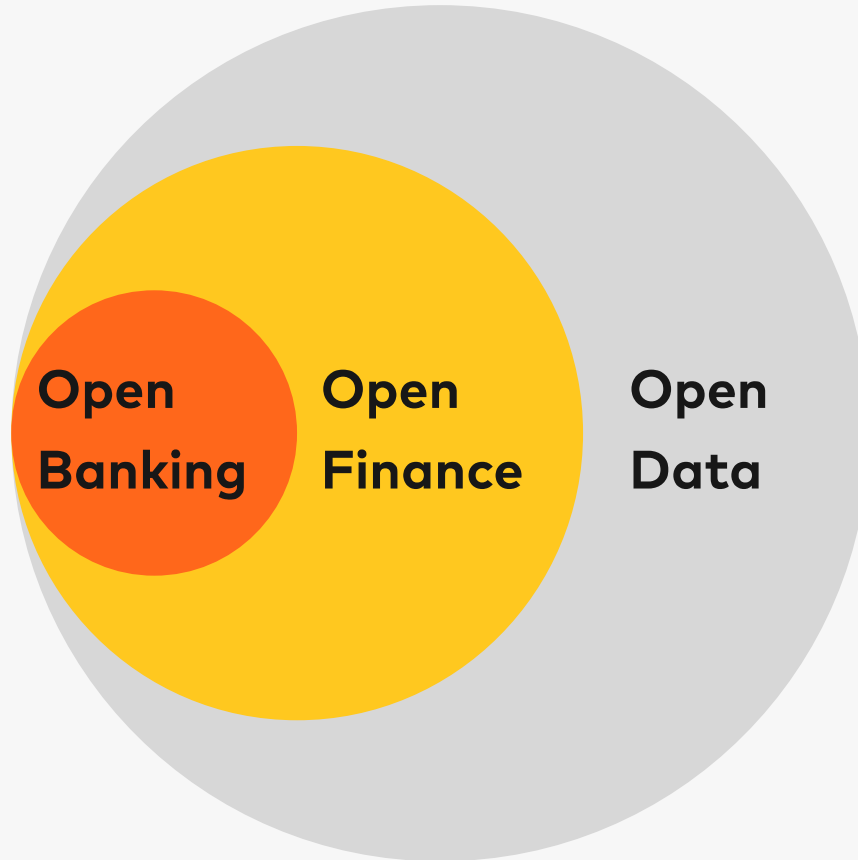
EUROSYSTEEM

TPP count
(license 7 & 8 combined)

1460



What are the next 'OPENs'?



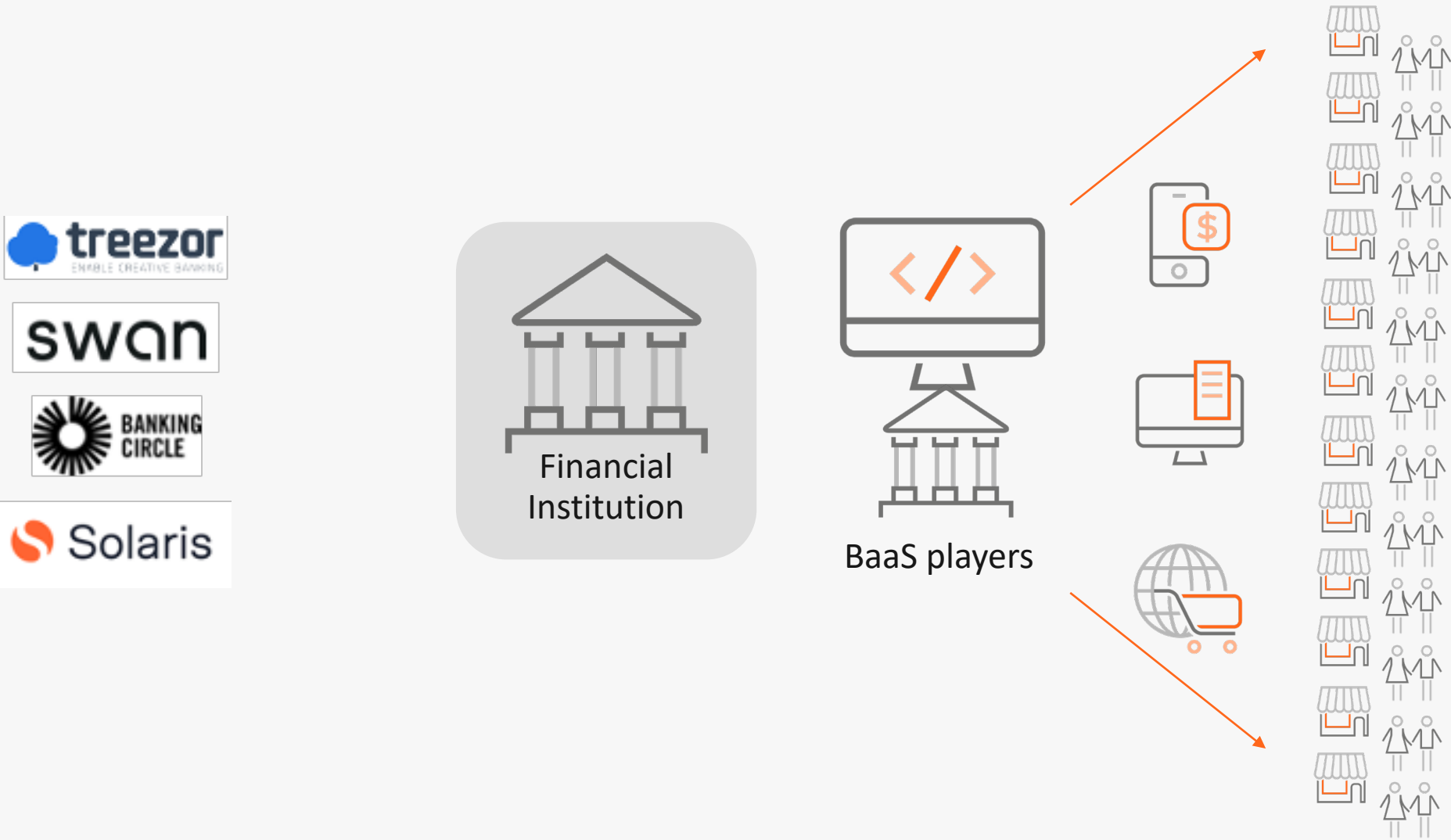
Open:

Banking is a new and recent approach to the banking ecosystem. TPPs to build on top of traditional banking services

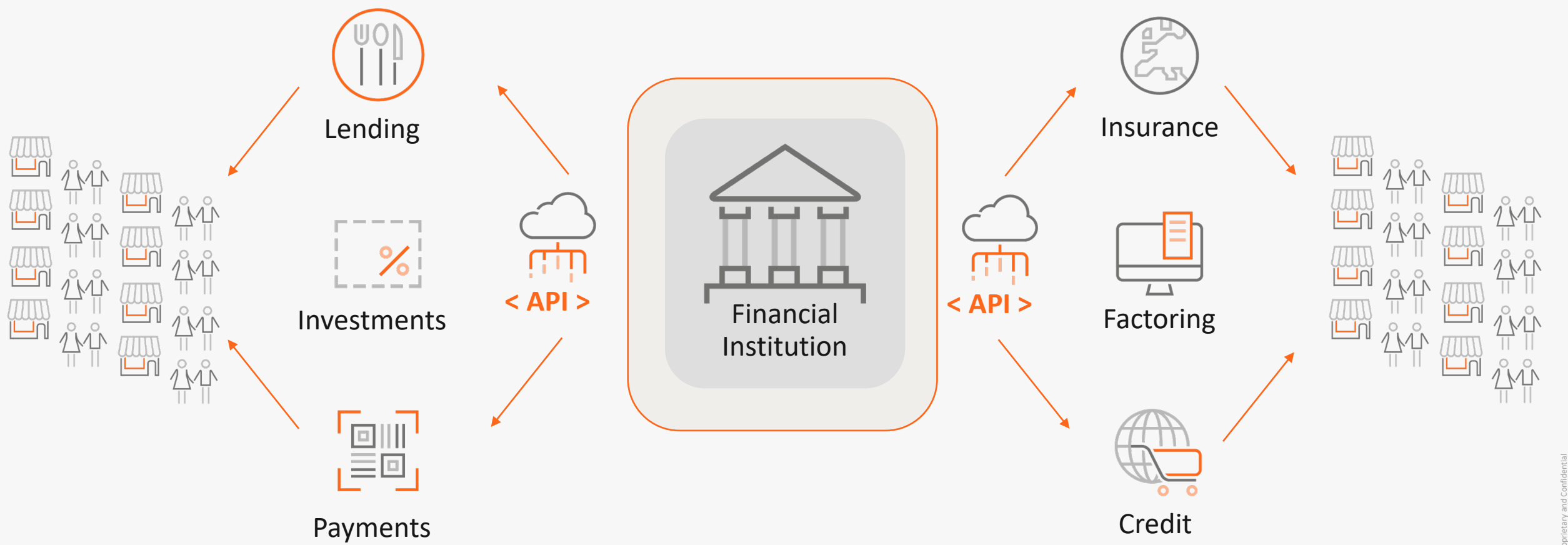
Finance is an enhancement of the open banking framework across a wider scope of financial services. Insurance, creditcard but also SPAA

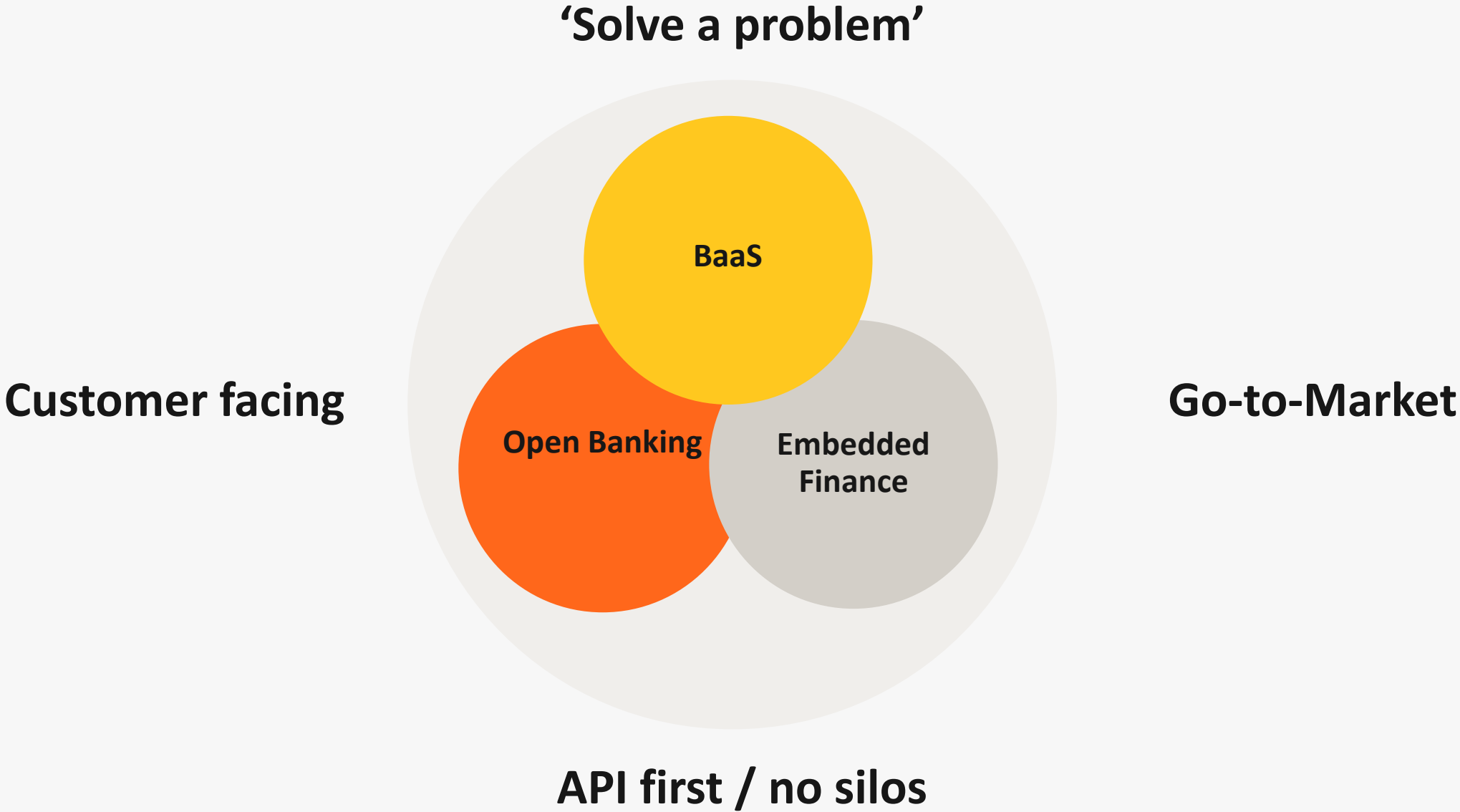
Data goes beyond the open finance framework, covering real estate, health tech, but also governmental bodies

Forces at hand: BaaS

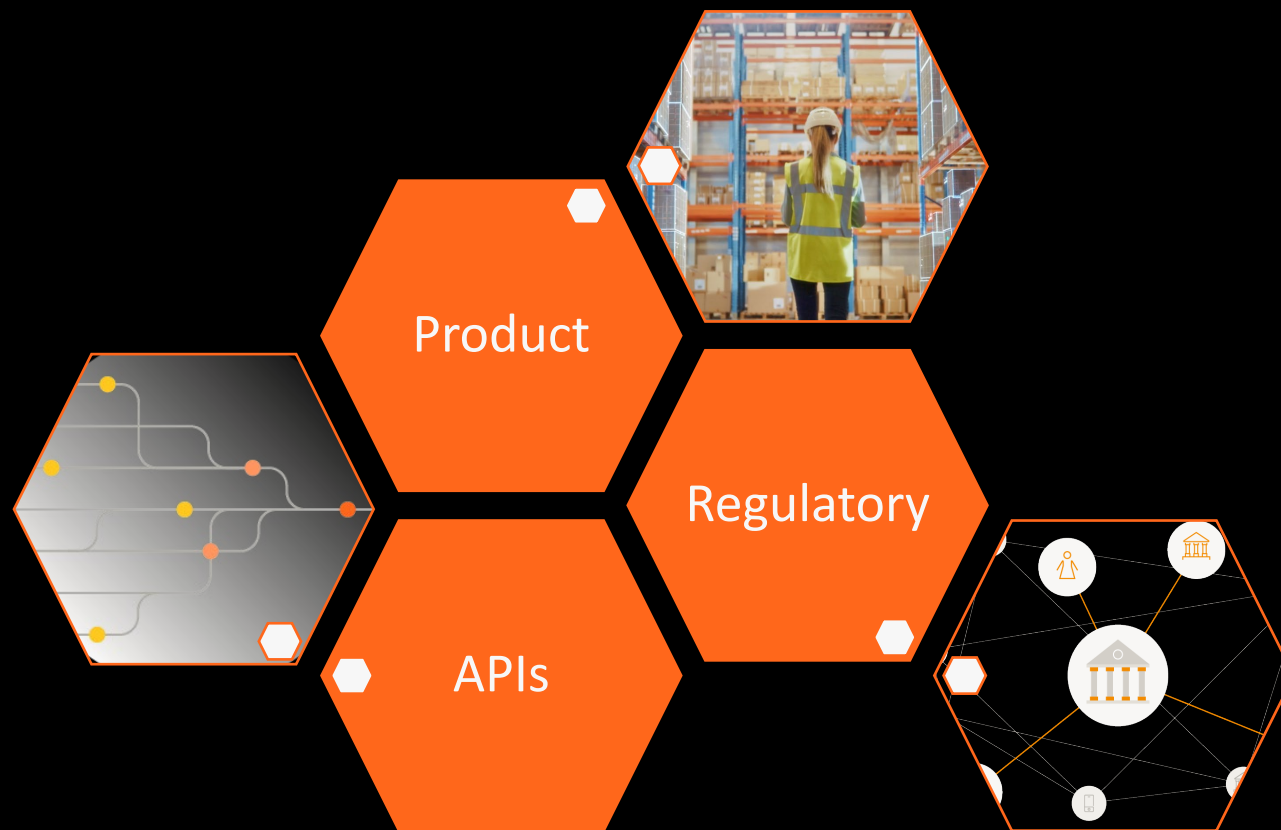


Forces at hand: Embedding





“The game to play”



Coffee break

15:15 – 15:25 CET

During coffee break, do not “leave the meeting”
(i.e., stay connected while muting your sound and turning off your camera)

Fireside chat

Panel discussion

Wrap-up

Thank you!

Participants in the forum are reminded of their responsibility to observe anti-trust laws.

The EBA Anti-Trust Policy is available at the EBA website.

https://www.abe-eba.eu/media/azure/production/1352/eba_antitrust_policy_20170602_final_clean.pdf

The forum is an open group, where interested stakeholders can discuss and exchange information on industry-wide topics.

The content of the slides presented and the views expressed in the context of the activities of the forum are those of the respective participants in the forum, and do not represent the views of the Euro Banking Association (EBA).