Brazilian CBDC

The Digital Real

CDPP/IEPE/CdG

Governor

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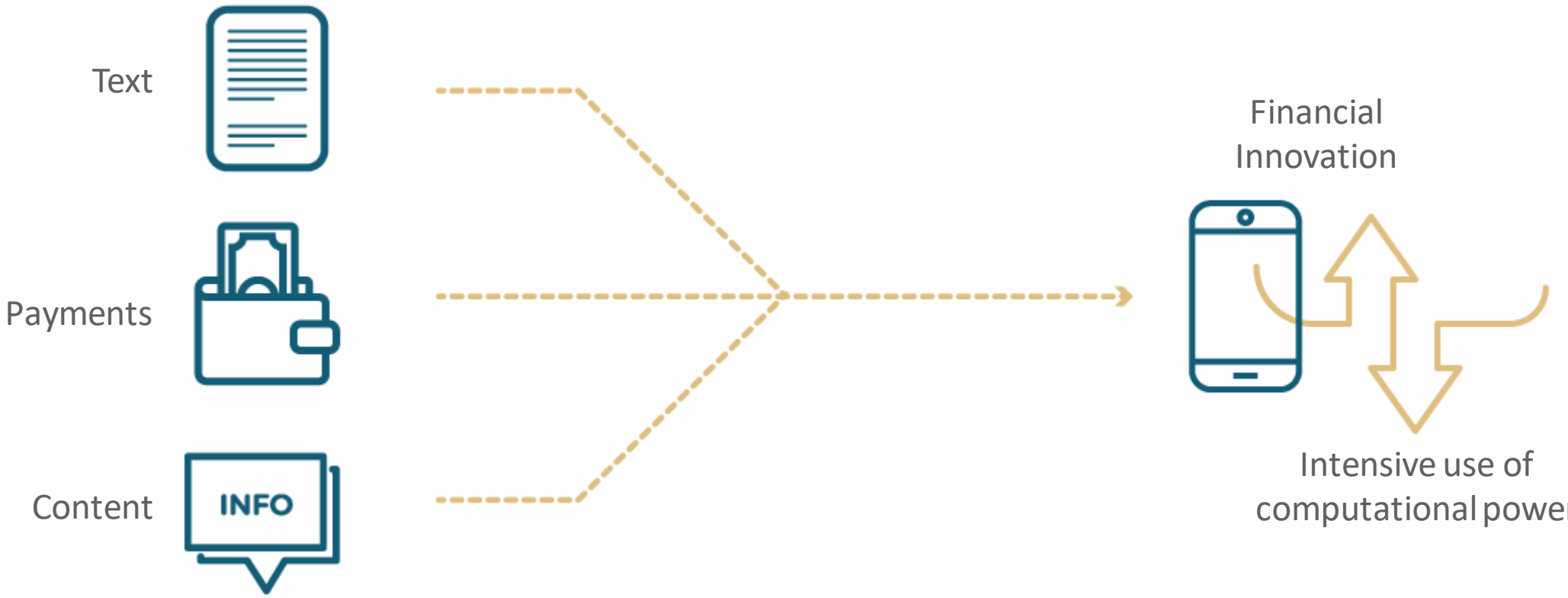
A CBDC for Brazil:

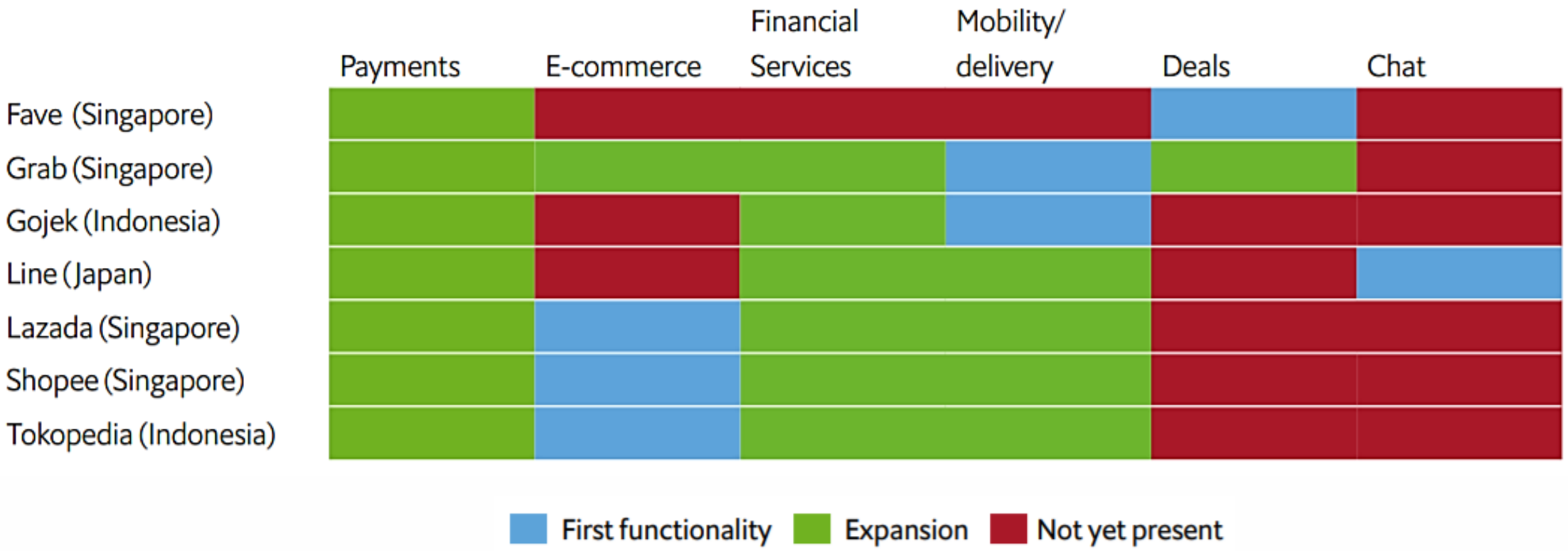
- Domestic & Global drivers

Digital Transformation: Convergence



Digital Transformation: Convergence

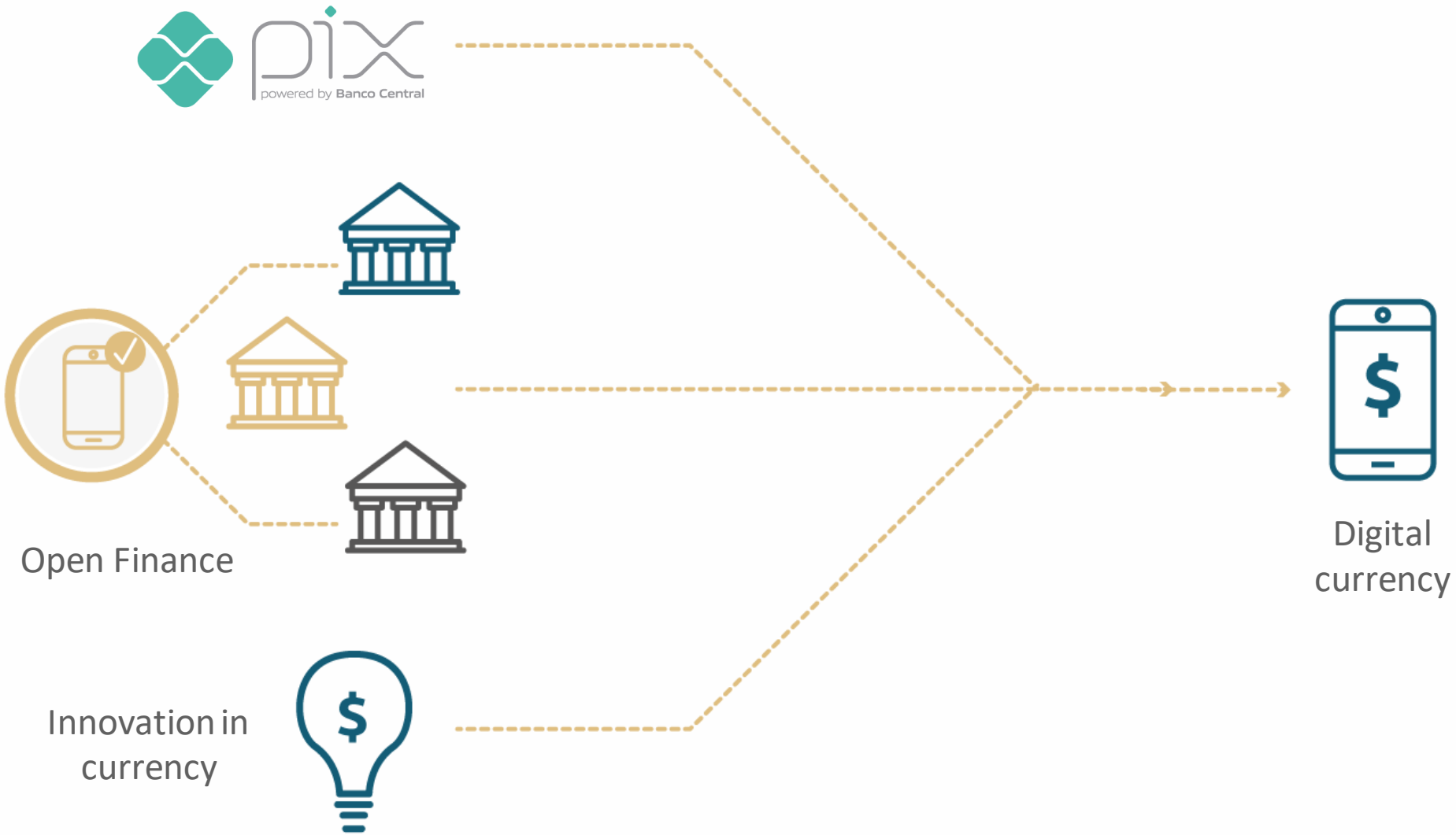
Payments are the core element of the super-app value proposition in Asia



Note. Mobility / delivery also includes food delivery, ride-hailing and logistics services. Financial services include banking, insurance and investment services. Deals include coupons or discounts on dining, staycation, travel, movies and other lifestyle products.

Sources: Tech in Asia; The Economist Intelligence Unit.

Innovation in the financial system



CBDC around the world

Three kinds of “practical” applications, internationally observed:

1. Wholesale payments (Europe, Singapore, Switzerland)
2. Instant payments (Bahamas, China, Sweden)
3. Fostering new business models (Brazil, Canada, Korea)

DeFi markets: a source of inspiration

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Opportunities

- Reduced transaction costs and friction for:
  - designing, distributing, negotiating and settling financial deals
- High degree of
  - standardization and functional interoperability, reuse and composability of financial services
  - auditability, traceability and transparency
  - accountability: software-based governance
- Financial inclusion
  - automatic tools available to everyone, with transparency and non-discriminatory execution

Challenges

- Scalability and settlement fees
  - blockchain platforms are limiting
- Limited interoperability
  - blockchains ⇔ traditional financial services
- Lack of maturity
  - Governance: potential for facilitating the crime of money laundering
  - Technology: Operational risks, poor implementation choices, failed software execution and interdependencies

DeFi: Architecture

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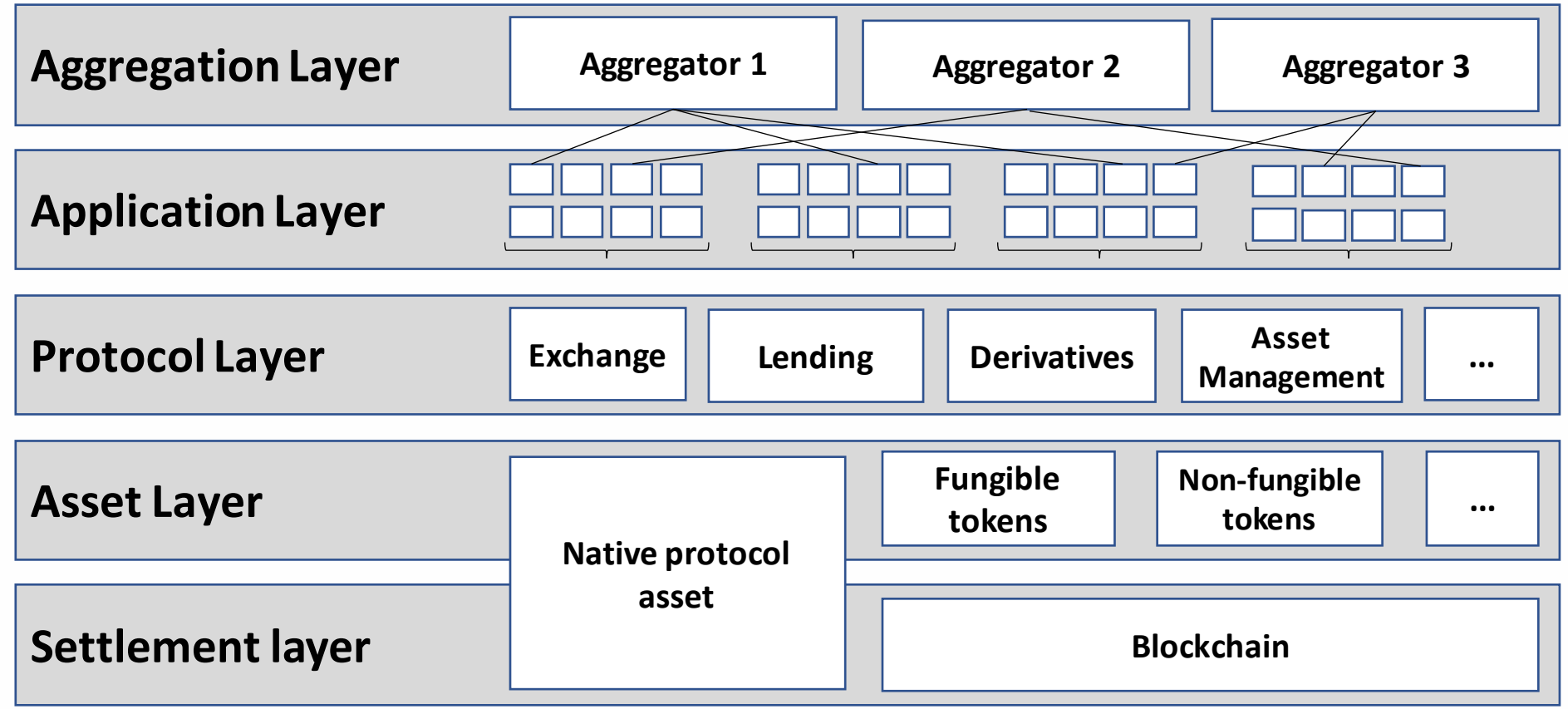
Platforms that aggregate several applications from the previous layer

Development of user-oriented applications

Standardizations for specific business models

Standards for issuing tokens representing financial instruments

Blockchain and its native token



A CBDC for Brazil:
The Digital Real

A CBDC for Brazil – The Digital Real

Policy objectives

- **Innovation and competition in a digital economy**
- Improved cross-border payments
- Reduction in the use of cash

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Challenges

- Must enable uses that go beyond the payment solutions we have available today.
  - It should take advantage of the business ecosystem we expect to emerge from the open banking.
  - Demand already exists – Lift and Regulatory Sandbox.
- Depends upon maturation

BC# Agenda | Internal markets | International discussion

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An instrument for the BCB to fulfill its mission in a digital economy

Guidelines:

- Extension of the Brazilian real
  - Emission by BCB
  - Custody and distribution by the payment system
- Retail payments
  - On-line and, eventually, off-line
- ***Innovative models development***
  - *programmable money, smart contracts, IoT*
- Non interest-bearing
- Guarantee of legal certainty
- Data privacy and security
  - Bank secrecy and Brazilian General Data Protection Act
- Preventing and combating money laundering
  - Compliance with court orders to track illicit transactions
- Interoperability and integration
  - Cross-border payments
- High cyber resilience

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Risk: disintermediation

CBDC Dilemma:

How to promote widespread use without pushing the system towards *narrow banking*?

Digital Real Dilemma:

How to provide liquidity to **foster innovation** without pushing the system towards *narrow banking*?

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Digital Real Dilemma

Possible solutions

CBDC Shadowing

Banks could be allowed to issue deposits based on the amount of their own deposits transformed in CBDC to access programable money and smart contracts functionalities.

Regulated liabilities network

Banks could be allowed to tokenize deposits to be used in a new platform of intermediation, together with a CBDC, with access to programable money and smart contracts functionalities.

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DLT vs Centralized

Guidelines	DLT	Centralized
New business models	✓	Is it flexible enough?
Retail payments	✗ Lack of scalability	✓
Two-tier system	✓	✓
Non interest-bearing	✓	✓
Bank secrecy and Privacy	✗ More players with data access	✓
AML	✓	✓
Cross-border payments	Dependent on technology coordination	Dependent on technology coordination
Cyber resilience	Lack of certified professionals Larger attack surface	Internal attacks

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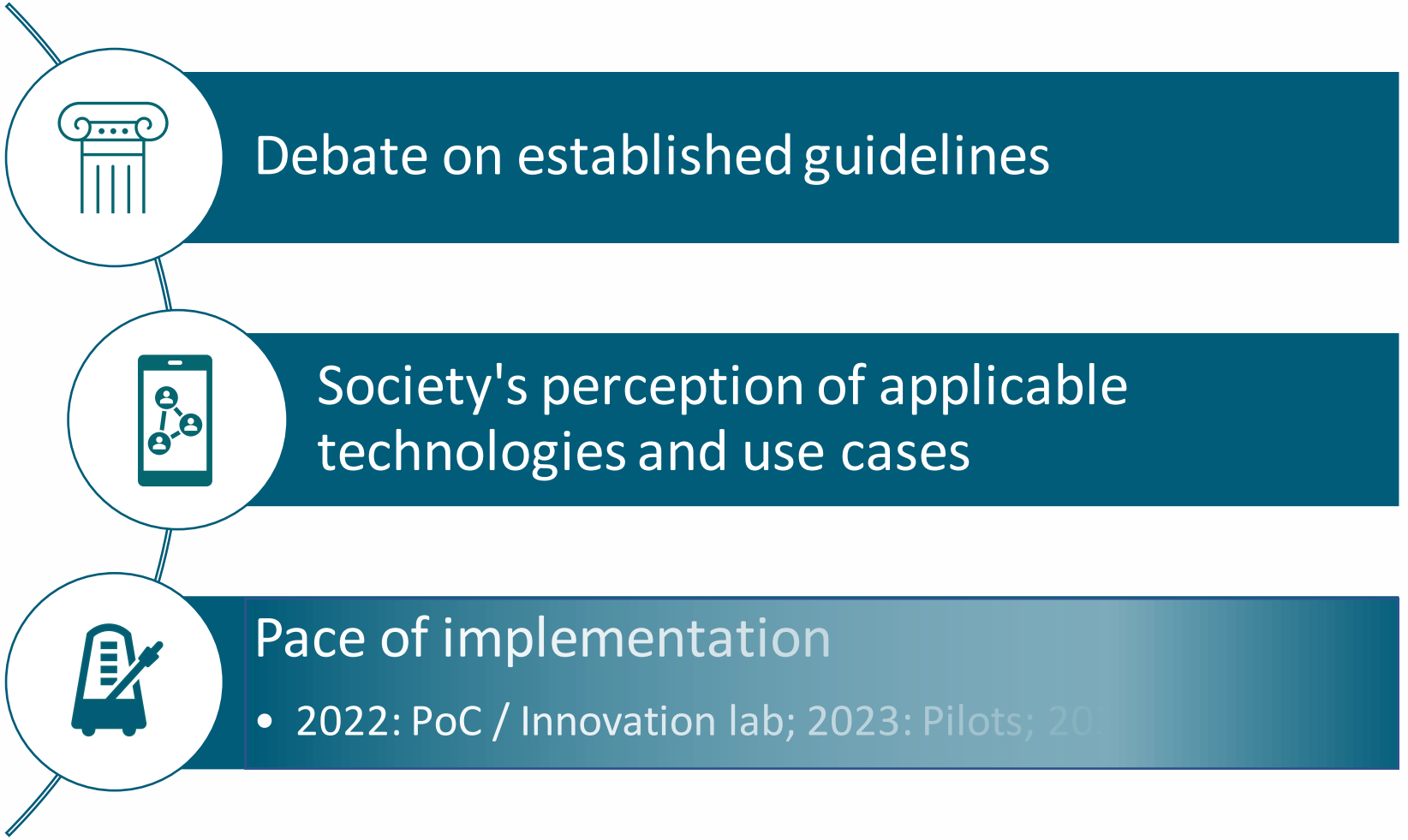
Next steps



Thanks

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