



*Brazilian CBDC*  
***The Digital Real***

CDPP/IEPE/CdG

Governor

**Roberto Campos Neto**

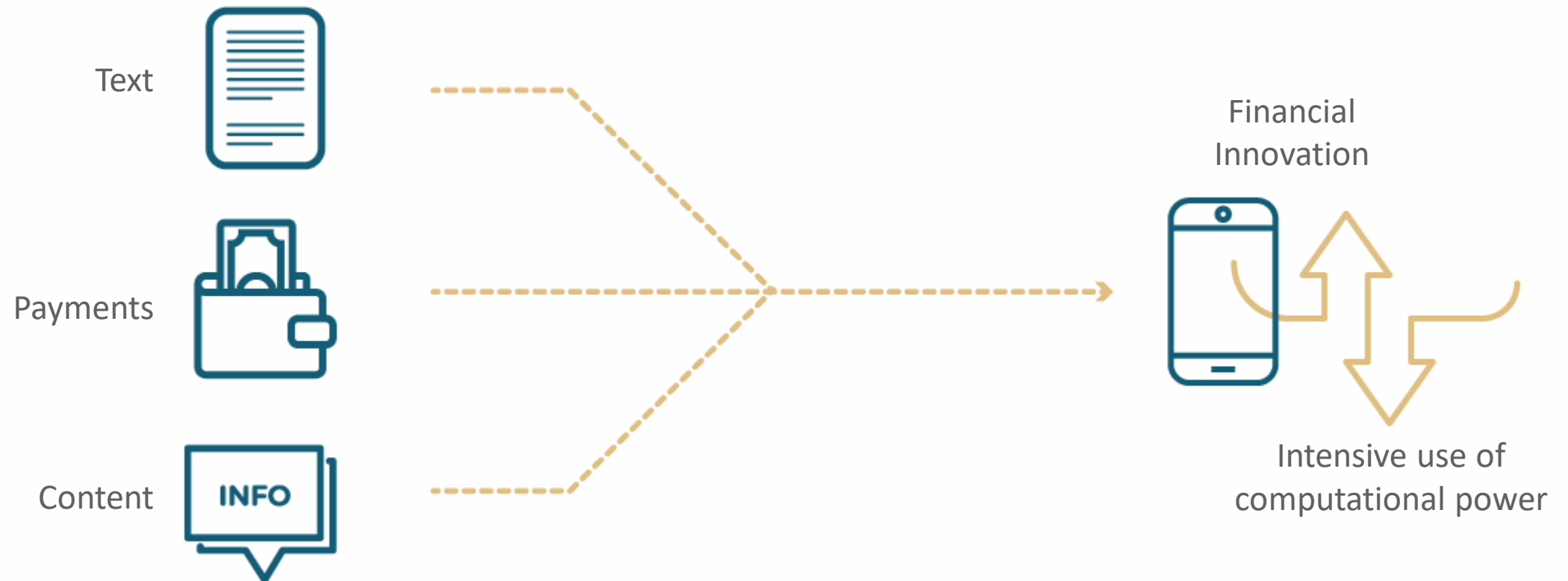
September 9, 2021

## A CBDC for Brazil:

- Domestic & Global drivers

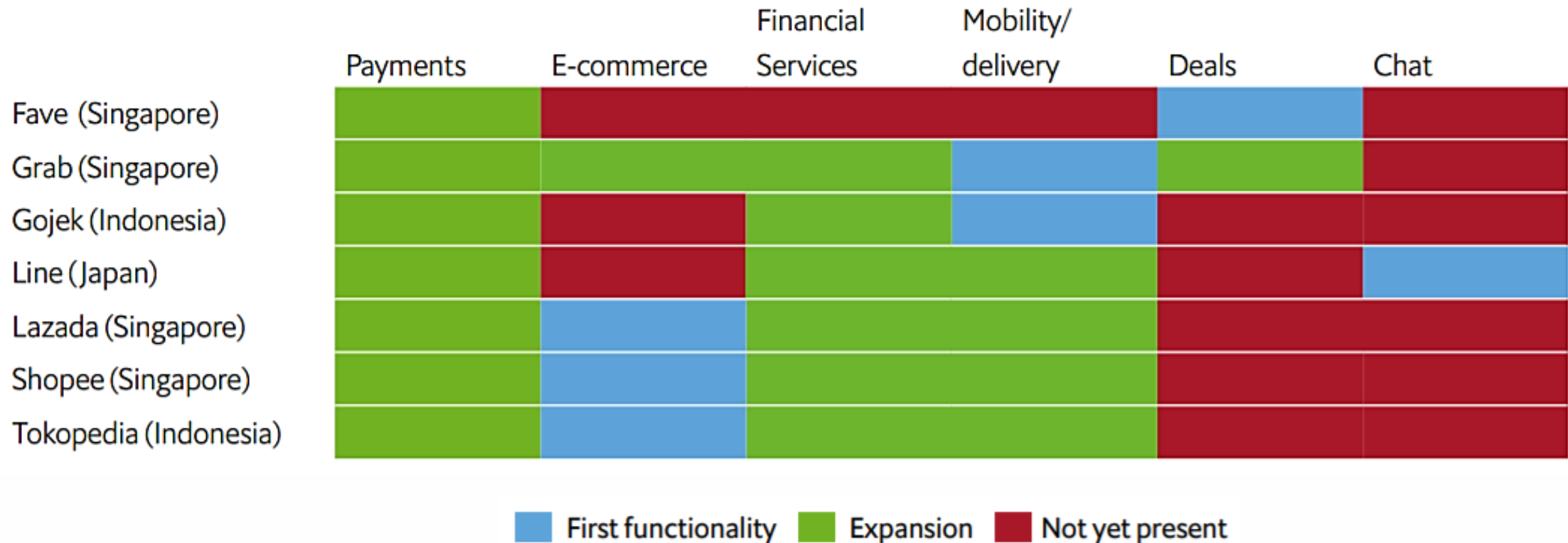


# Digital Transformation: Convergence



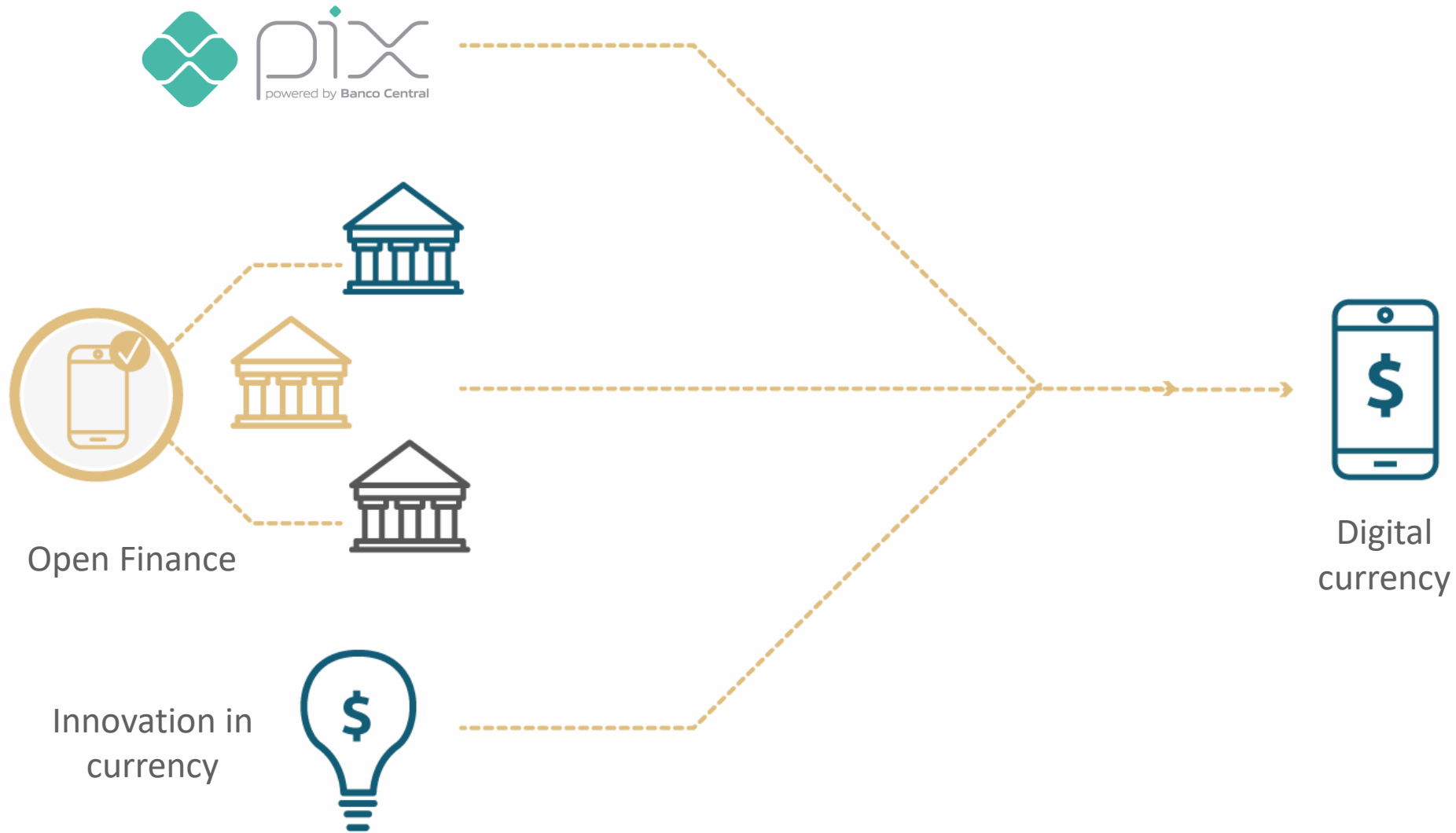
# Digital Transformation: Convergence

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.





## 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)



## 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  $\Leftrightarrow$  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

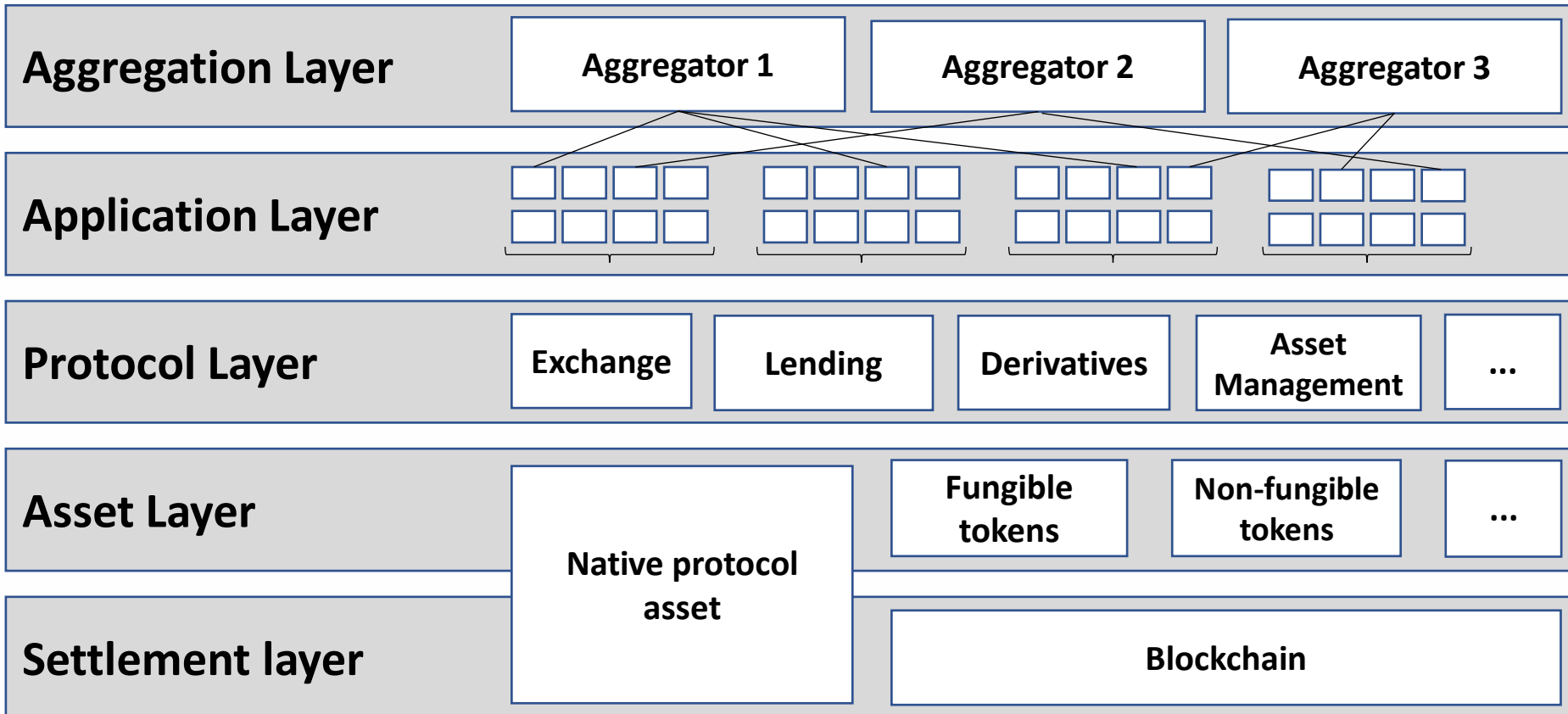
Platforms that aggregate several applications from the previous layer

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



## Policy objectives

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

## 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

## 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



## 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*?

## 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 programmable 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 programmable money and smart contracts functionalities.

## 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

## Next steps



Debate on established guidelines



Society's perception of applicable technologies and use cases



Pace of implementation

- 2022: PoC / Innovation lab; 2023: Pilots; 2024: Full implementation



# Thanks



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