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EUROSYSTEM

# Digital Euro: Challenges and Key Success Factors

A Digital Euro for the Digital Era

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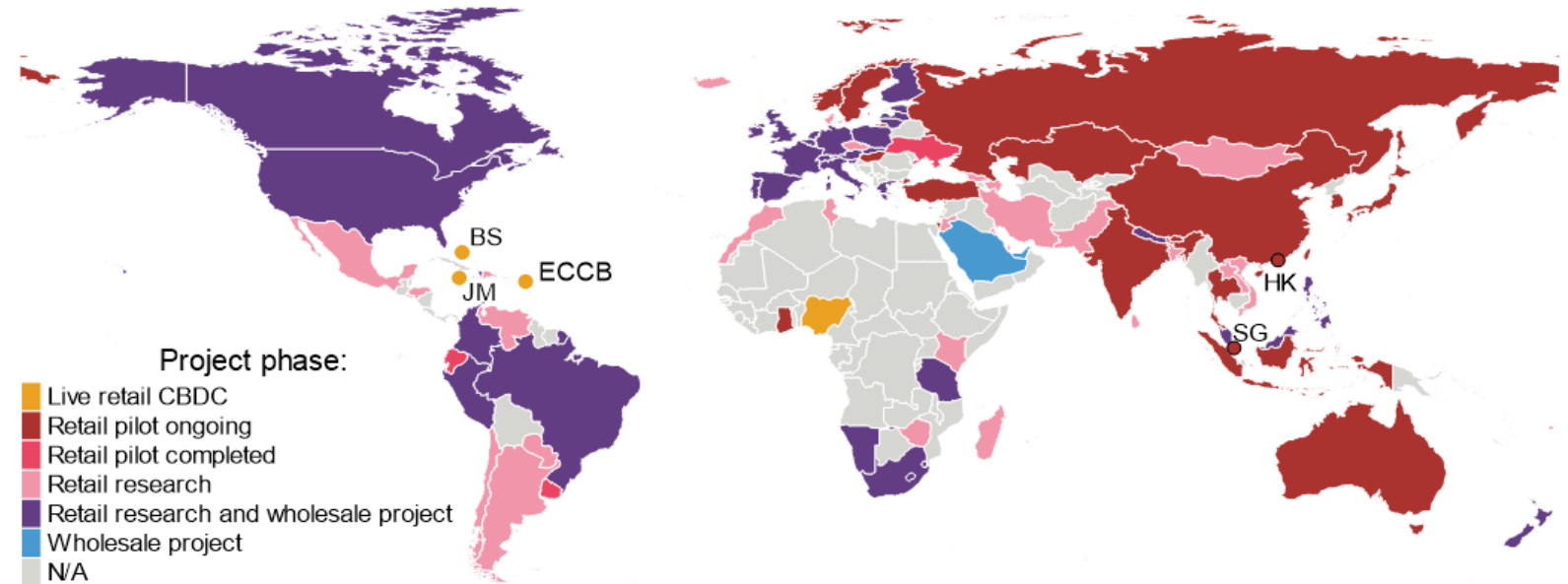


# Majority of central banks are working on CBDCs

*More than 90%* of central banks are exploring CBDCs

*More than half* of central banks are developing CBDCs or running concrete experiments

*More than two thirds* of central banks are considering it likely or might possibly issue a retail CBDC in the short or medium term



BS = The Bahamas; ECCB = Eastern Caribbean Central Bank; HK = Hong Kong SAR; JM = Jamaica; SG = Singapore. The use of this map does not constitute, and should not be construed as constituting, an expression of a position by the BIS regarding the legal status of, or sovereignty of any territory or its authorities, to the delimitation of international frontiers and boundaries and/or to the name and designation of any territory, city or area.

Source: ([Update – July 2023](#)) R Auer, G Cornelli and J Frost (2020), "Rise of the central bank digital currencies: drivers, approaches and technologies", *BIS working papers*, No 880, August.

## Reasons behind are resilience, innovation and inclusion



*Digital payments for everybody, anytime and anywhere:* enhancing resilience of the payments system and securing access to payments for all citizens no matter where and when



*Promoting innovation:* building public standards for interoperability and innovation through “smart” payments, accessible to all intermediaries and fully trusted by the citizens

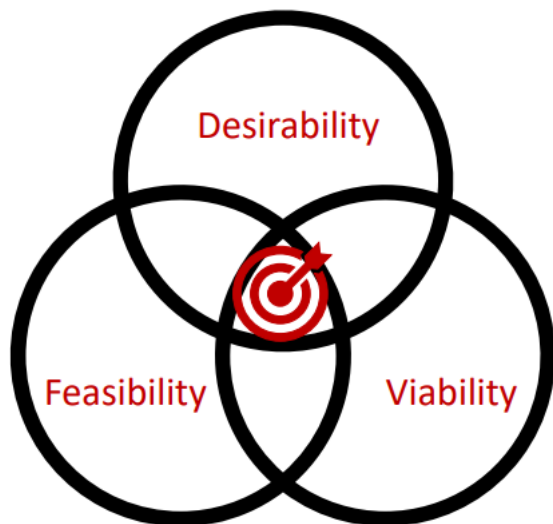


*Enabling secure and data protected payments:* creating an alternative and choice for citizens to the increasing number of e-money PSPs and safeguarding customers funds and data



Source: 2021 BIS survey on central bank digital currencies (2022) of 81 central banks.

## But adoption of rCBDCs will depend on design and ability to create incentives for citizens, businesses and intermediaries







Source: BIS Innovation Hub, Swiss Center

- *Desirability (incentives for citizens)*: Broad acceptance - legal tender - of rCBDC and cost free usage for citizens can create a choice and incentive to use it, in particularly in countries where the use of cash is rapidly declining
- *Feasibility (incentives for the financial sector)*: Form factor or payments initiation plays an important role for scalability and costs, yet only a clear compensation model can ensure that PSPs have sufficient revenues to cover costs
- *Viability\**: Implementing a design of the rCBDC has strong implications - concerns around privacy, legal and regulatory aspects, education of the public, solution vendor dependencies, robust and mature technology suitable for critical infrastructures and the use of open-source components prove to be significant.

\* Lessons learnt on CBDCs Report submitted to the G20 Finance Ministers and Central Bank Governors July 2023

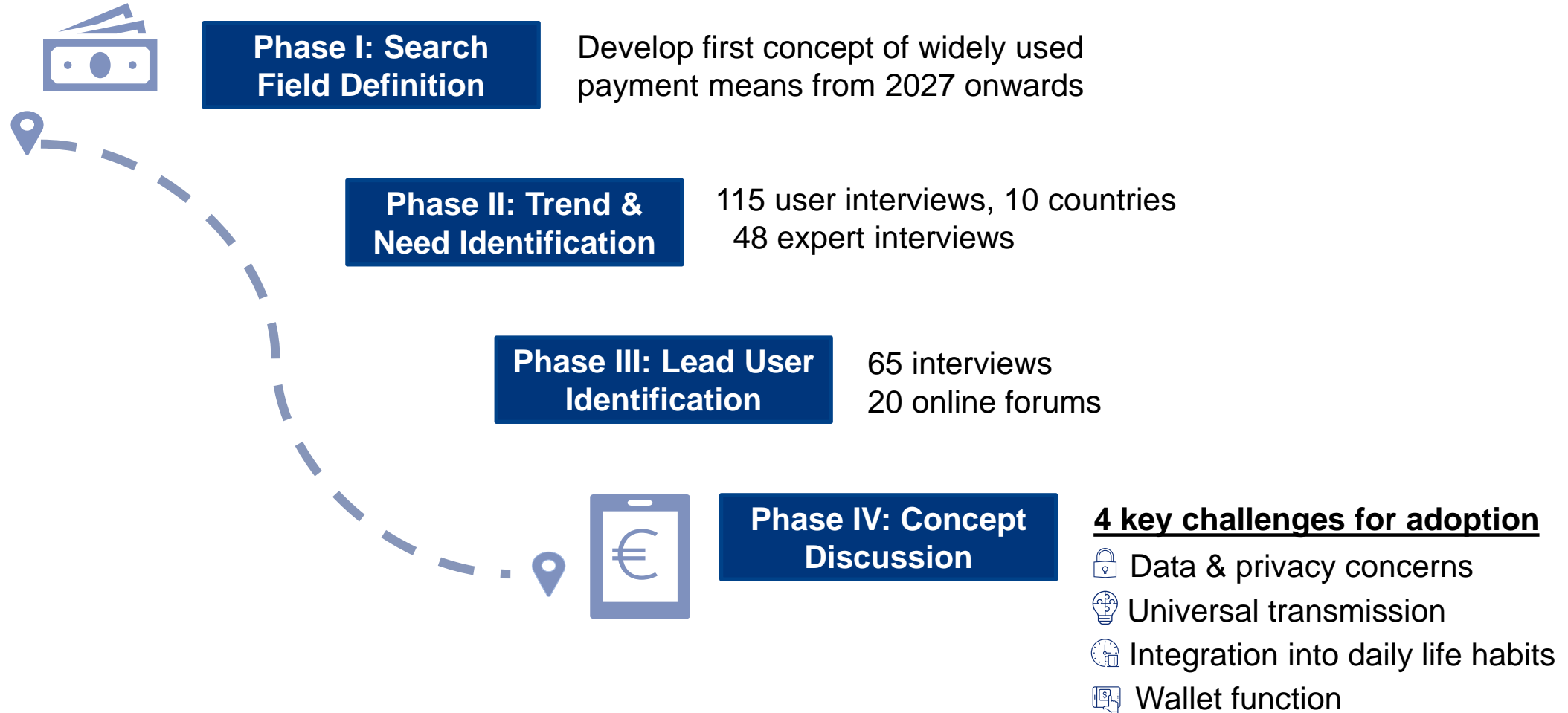
# ECB focus group study confirms the need for widespread adoption and cost-effectiveness, but also significant shift in young people's preferences

	 General population	 Tech savvy	 Merchants	 Underbanked
Standalone & integrated solution	✓	✓	✓	
Peer-to-peer (P2P) payments	✓	✓		✓
Purchases using a QR code	✓	✓	✓	
Offline mode	✓			✓
Transaction history with option for limited data	✓	✓		
Budget management	✓	✓		
Conditional payments		✓	✓	
Dashboard & pay-out management			✓	

- Younger people more likely to try new technology
- The uptake of the digital wallet depends on how it will be introduced and the role banks will play in the process
- The willingness of merchants to adopt to a new payment solution is firmly linked to customer demand and costs
- Underbanked people are the only target group that felt uncomfortable with the idea of adopting a new digital payment solution

Source: [EZB study](#), 2023

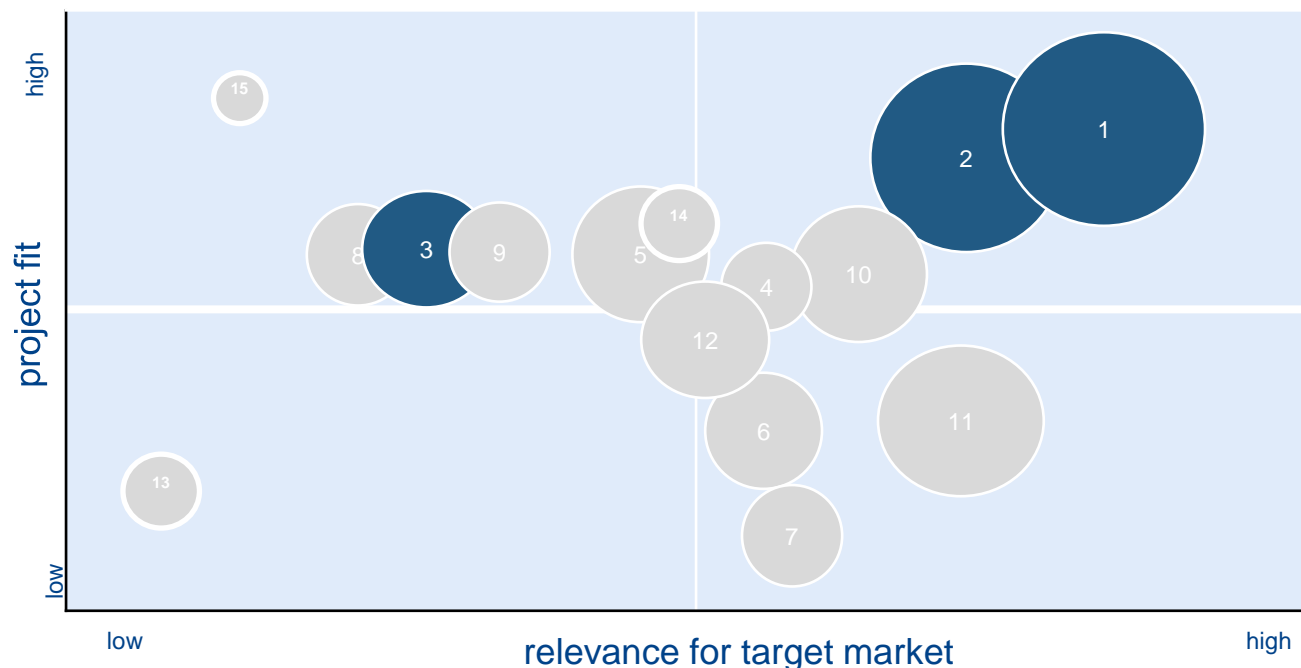
# OeNB conducted a lead users survey to identify the needs of lead users (mostly young citizens with stronger tech savviness)





# Besides of broad acceptance, desirability among lead users tends to depend on how well privacy and data concerns are addressed

1. Privacy & data concerns
2. Universal transmission
3. Integration into daily life habits
4. Instant payment
5. Financial inclusion
6. Transaction fee aversion
7. Daily life digitalization (IoT)
8. Capital preservation
9. Rising demand for digital wallets
10. Cross-border transactions
11. Lack of trust in institutions
12. P2P solutions
13. Financial literacy
14. Identity verification
15. Avoidance physical money issues



**Project fit:** relevance for the digital euro  
**Relevance for target market:** variety of mentions  
**Bubble size:** number of mentions

# Digital euro could create a standard for privacy and security of customer data for payment transactions

## Trend #1: Lowering Data & Privacy Concerns

### Description

Users are increasingly worried about how their payment data is being stored and used. Regardless of how the technical end-solution of the digital euro will be, these privacy concerns will persist and must somehow be addressed.

### Unmet needs

- Anonymous transactions without metadata
- Secure handling of sensitive data
- Full transparency of how data is handled

- *Gamification*: application of game elements and mechanics to non-game contexts to engage individuals to use digital euro and address data and privacy concerns (e.g. learn & earn)
- *Transparency*: Degree of openness and visibility regarding the operations, processes, and data associated with the digital euro (e.g. education campaigns with public participation, engagement programs with open society and provision of access to technical sand-boxes to conduct experiments)
- *Incentivization*: encourage individuals and businesses to adopt and actively use the digital euro by providing an incentive (e.g. “cashbacks” to ESG investment scheme)



## Major supply sided issues such as compensation model and coordination cost have to be addressed as well

*Lessons learned from the recent payments initiatives\** confirm that reach (legal tender), low cost and convenience are the most important success factors to launch a new payments product for the demand side.

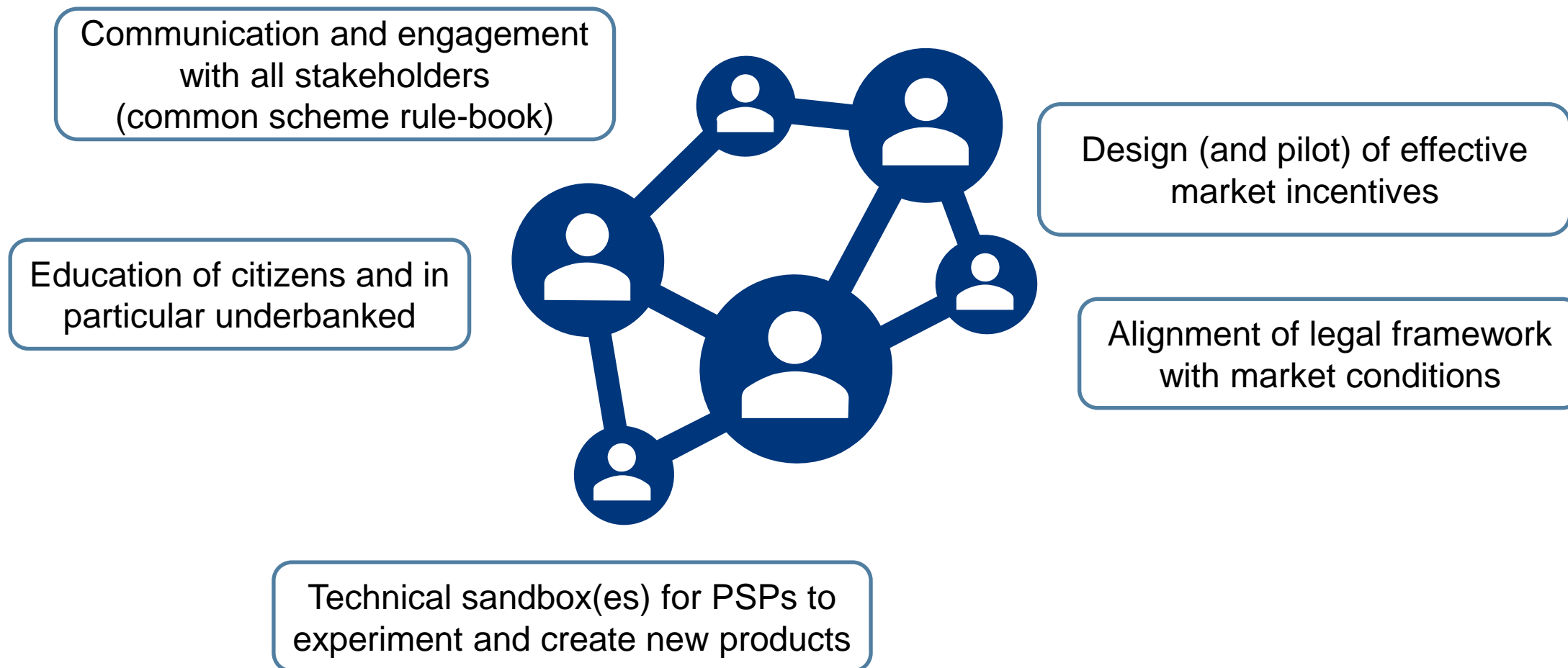
The analysis shows that low coordination costs and financial strength play an important role for the supply side. Coordination costs are (AT example of Quick):

- *Cost for access (form factor)* – tend to be lower if existing networks such as bank accounts, mobile phones, payment terminals and cards, can be used to leverage an existing user base.
- *Coordination costs between providers (scheme)* - decline further if common standards are set early.



\* Payment initiatives and lessons learned for the digital euro, HLTF – Joint Secretariat (internal), Beat Weber (OeNB), Heike Winter (BBk), Annett Pietrowiak (BBk), Marcus Härtel (BBk)

# Success factors for the adoption of the digital euro are alignment of public objectives, future expectations of the citizens and private sector incentives



**Danke für Ihre Aufmerksamkeit**

**Thank you for your attention**

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