



EUROPEAN CENTRAL BANK

EUROSYSTEM

# Advanced functionalities: Cross-currency

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Market Advisory Group



09 November 2022

Digital euro project team

# Where do we stand?

Tentative - timing subject to change

**July 2021**  
Governing Council  
decision to launch  
investigation phase

Use case prioritisation  
Report on focus groups with  
citizens and merchants



Design options to moderate take-up  
Distribution model



Compensation model  
Access to ecosystem  
Value added services  
**Advanced functionalities**

Prototyping results



Selection of service provider(s)  
for possible project realisation  
phase

Decision making document  
including advice on potential  
issuance digital euro, its design  
and implementation plan



Q4-2021

Q1-2022

Q2-2022

Q3-2022

Q4-2022

Q1-2023

Q2-2023

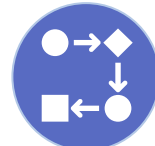
Q3-2023



Project team on-boarding  
Governance set-up



On-line/off-line availability  
Data privacy level  
Transfer mechanism



Settlement model  
Distribution of amount in circulation  
Role of intermediaries  
Integration and form factor  
Funding and defunding  
Prototype development



User requirements

Preparation for possible  
project realisation phase  
decision making

**autumn 2023**  
Governing Council  
decision to possibly launch  
realisation phase

# Objective of today's exchange



Present the investigation of **cross-currency payment functionalities** for the digital euro.



Invite your feedback on the analysis of **cross-currency digital euro payments functionalities** identified by Eurosystem (followed by written procedure until 5 December) as input for Eurosystem preparations of final decisions on these functionalities by Governing Council in Q1 2023

# What this dossier is about



Analysis of **design choices for cross-currency payments**, which are payments where the money sent by a payer and that received by a payee are denominated in two different currencies

→ debiting and crediting in **different currencies and FX conversion**

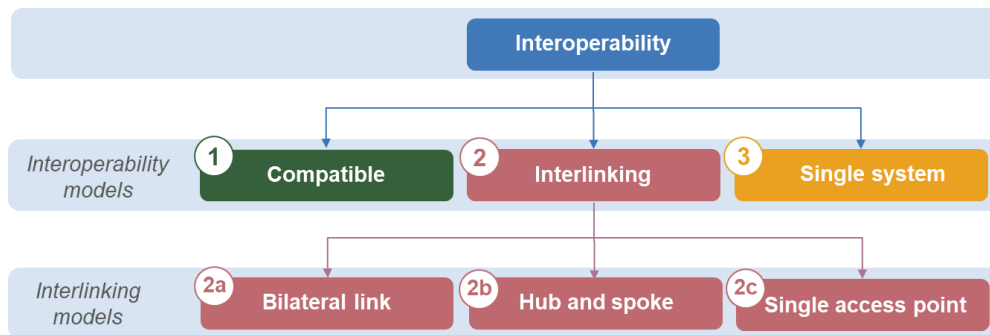
## **Context:**

- work conducted under the auspices of the G20, in which three possible **interoperability models** are considered
- discussion on **use cases** that CBDC cross-currency payments could serve



# **G20/BIS models for interoperability applied to the context of retail CBDC**

# G20/BIS interoperability models applied to retail CBDC context



- 1 **Individual CBDC systems using common standards**, such as message formats, cryptographic techniques, and data requirements
- 2 **Different CBDC systems are linked** (e.g., set of contractual agreements, technical links, operational components), allowing participants to **transact with one another without participating in each system**
  - **Most realistic; Advanced economies**
- 3 **Shared single system among the multiple currencies** involved in the cross-currency CBDC transaction
  - **Most ambitious; Regional (EEA) CBDCs; Impact on design of D€ back-end**

# Use cases and front-end considerations

# Possible use cases to explore with other jurisdictions

A digital euro shall be developed with a view to **domestic payments first**  
**Cross-currency use** can only be considered **for future releases** and **depending**  
on the possible **development of CBDCs by other central banks**

Start  
exploration  
here?

## Digital euro transactions



**Person-to-person (P2P):** a payment between two **people**



**Consumer-to-business (C2B):** a payment for goods or services purchased in a **physical store**



(point-of-sale payment) or online via **e-commerce**

**Payments to the government** (X2G, e.g., taxes) and **by the government** (G2X, e.g., allowances and subsidies)

## Cross-currency transactions

1<sup>st</sup> cross-currency **person to person payments in CBDC with FX conversion** (incl. remittances)

2<sup>nd</sup> digital euro users purchasing goods and services from an **online merchant outside of the EA** with currency conversion

digital euro users purchasing goods and services from a **merchant outside of the EA at a physical point of sale** with currency conversion

**Not in scope** for cross-currency



# Way forward and discussion

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# Conclusions

- Prioritise the timely delivery of a digital euro that meets the **needs of the domestic market**
- Explore the **interest of other jurisdictions** towards establishing cross-currency interoperability once both CBDC will possibly be in place
- Contribute actively to the discussion in the international fora, also working on **standardization and harmonization** as much as possible up front

# Way forward



**Further investigation** on cross currency functionalities



**Consultation of Eurosystem committees**



**Outreach to other Central Banks and international fora,  
as well as external stakeholders**



Eurosystem views to be **updated in Q1 2023** based on the outcome of Eurosystem committees' consultation, preliminary external discussions and further internal analysis, and to be **finalized towards the end of the investigation phase**



Review of combined design decisions (“Bringing it all together”) in Q2 2023 and feedback by stakeholders on overall design prior to Governing Council decision making thereafter

# For feedback

We invite **reflections on all aspects of the analysis**, including the following questions:

- Do you agree that the digital euro should prioritise first the **needs of the domestic market**?
- What is your view on the **feasibility** of facilitating remittances & e-commerce payments for cross-currency transactions?
- What **challenges** do you see in achieving cross-currency interoperability under the various use cases?
- What **obstacles** do you see to the provision of cross-currency payments in digital euro? Which ones would the Eurosystem need to address concerning the provision of cross-currency payments in digital euro?

**Thank you**

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