Q&A Session via Slido:

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Project update: Focusing on digital euro fundamentals

Evelien Witlox

The case for a digital euro in an increasingly digitalised world

ADAPT

- A digital euro would integrate **central bank money** and the latest **payment trends**

- It would be a form of digital cash **universally accepted** in the euro area, complementing current means of payment

FACILITATE

- **An additional payment choice** for euro area citizens, complementing cash

- **Legal tender status**, ensuring pan-European reach and acceptance

- **Always an available option** for euro area citizens in all payment scenarios

STRENGTHEN

- Preserving **Europe's strategic autonomy** and monetary sovereignty

- Reducing our **dependence on non-European payment service providers**

- Fostering **innovation** and **competition** in the European payments sector

Preparing our currency for the future

Investigation phase
Oct. 2021 – Oct. 2023

Concept definition, technical exploration and design proposal

Preparation phase
Nov. 2023 – Oct. 2025

Main expected next steps:
- Finalise the **scheme rulebook**
- Select **service providers**
- Learn through **experimentation**
- **Deeper dive** into technical aspects, including further research into offline functions and developing a testing and rollout plan for the future

Next phase
From Nov. 2025

Potentially developing and rolling out digital euro use cases

A decision to issue a digital euro will only be considered by the ECB once the European Union's legislative process has been completed

Our progress so far

Milestones on the first part of the preparation phase

Guaranteeing a high level of privacy for digital euro payments, coming close to cash

Selecting providers for technical components of a digital euro

Looking into payments **offline functionality and an Eurosystem app to pay with a digital euro, accessible** to everyone in the euro area

Working on a **methodology for setting the limits** to the amount of digital euro holdings per account limit

Producing a first draft of the **rulebook with the standards** to pay with a digital euro across the euro area

Providing support to the **legislative process with technical analysis on topics in debate**

Privacy and data protection: digital euro pillars

More private than current payment methods

The Eurosystem would **not be able to directly identify people** based on their digital euro transactions

As with other digital payments, intermediaries would have access to certain data to be **compliant with EU regulations**

All personal data would be **bound by EU data protection law**, including the General Data Protection Regulation

Offline function with higher privacy

Paying **offline** would be almost like using cash. Transactions would only be known to the payer and the payee

Offline digital euro: close to paying with cash

Paying with a digital euro would be possible **via devices such as their mobile or a payment card without internet connexion**

Users would have to **prefund offline payments** in their devices (e.g. via internet or an ATM)

To pay offline, users would **need to be close to each other or physically at a store.**

Our work has focus on investigating further the devices that could be used to pay offline and how prefunding would work

Leaving no one behind: an inclusive and accessible digital euro

Digital euro payments could also be made via a **physical card**, with funding and defunding options available via cash

Users would always have access to **face-to-face technical support** and the option to easily **switch intermediaries**

Offline functionality would enable transactions in locations with limited connectivity

As well as PSPs, selected **public entities** would also operate as intermediaries as an option for underbanked users
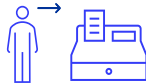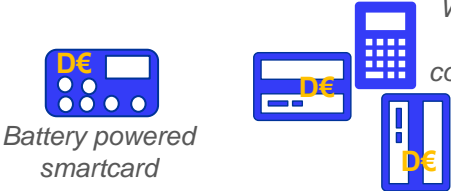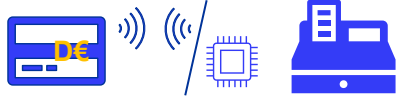
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Our technical work since November

Alessandro Giovannini

Using a digital euro offline

	Use cases	
Form factors	Person-to-person (P2P)	Point-of-sale (POS)
Mobile device	*Offline D€ wallet* on the mobile phone*	*Contactless at POS terminal*
Smart card	*Battery powered smartcard* / *Offline D€ wallet on smartcard* (With a bridge device for communication)	*Contactless or contact at POS terminal*

*Wallet could be integrated into **the PSPs banking app** or the **digital euro app***

Terminology: *Digital euro glossary*

A scheme to ensure usability across the euro area

Rulebook Development Group (RDG)

A **digital euro rulebook** would establish **common standards** to:

- Ensure **pan-European reach** and a **harmonised payment** experience

- Give **market participants** the **freedom** to develop innovative solutions

- Enable domestic instant payments solutions to also achieve **euro area reach**

A digital euro scheme is being defined with **broad market involvement** in order to represent society at large:

- **Intermediaries**

- **Retailers**

- **Consumers**

Ensuring seamless payment experience

The draft legislation envisages that users could pay with digital euro with:
- **existing payment apps** from banks or payment service provider
- a **digital euro app provided by the Eurosystem**

<div style="border: 2px solid blue; text-align: center;">

THE DIGITAL EURO APP

</div>

A uniform point of entry allowing users to interact with their PSP via a smartphone and ensuring payments inclusive and accessible to all

- **Baseline user experience for everyone** paying with a digital euro (like with banknotes)

- **Financial inclusion as key principle:** features supporting accessibility for people with limited digital skills or financial resources, disabilities and the elderly.

- **Reducing development costs:** by reusing existing application programming interfaces (APIs) and a software development kit (SDK)

- **not impinge on the relationship between PSPs and their customers**

A user-friendly digital euro for everyday payments while preserving financial stability

Holding limits: maximum amount of digital euro that users could hold in their accounts to maintain a **resilient financial environment.**

No limit for your payments: linking digital euro wallet with a bank account allows to receive payments exceeding the holding limit

Methodology for setting the holding limit

Our approach…

Dedicated workstream identifying factors influencing calibration

Data collection exercise started

Reflecting economic conditions holding limits set only closer to possible launch date

… in line with objectives set in the draft legislation

Enable natural and legal persons to **access and use** digital euro

Define and implement **monetary policy**

Contribute to the stability of the **financial system**

A fair compensation model for a digital euro

Challenges the European payments market faces:

Lack of pan-European solutions	High dependence on global payment providers	High cost for merchants

Digital euro compensation model principles

Elements of the legislative proposal

- Wide **usability** across the euro area
- **Free** basic use by individuals
- **Safeguards for merchants**
- Eurosystem bears its **own costs**
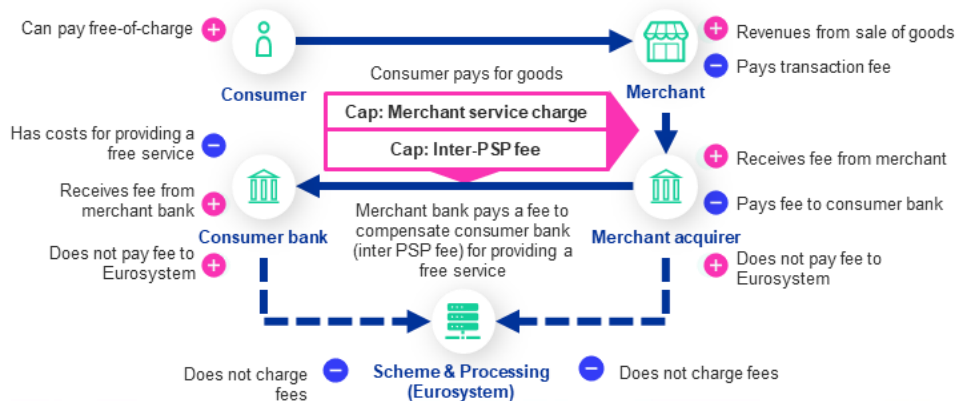
Next steps: towards further testing and development

Tentative – timeline subject to change

Q4 - 2023
- Setting up the preparation phase
- Publication of **ECB legal opinion**

Q2 - 2024
- Start engagement with market on **calibration of holding limits**

Q4 - 2024
- **Evaluation** and **negotiation** of procurement offers
- Stable **draft of rulebook**
- Detail out piloting and rollout approach

Q2 - 2025
- Finalise **Architecture**
- **Data Protection Impact Assessment**
- **Positioning and Outreach plan**

October 2025
Governing Council decision to potentially launch next phase

Q1 - 2024
- RDG review of **Rulebook**
- Publication of **Call for Applications** (CfA)
- Draft **requirements** related to sourcing

Q3 - 2024
- Publishing of **procurement documentation**
- Initiate **user research**

Q1 - 2025
- **Selection of providers**
- 2nd round of **procurement** procedures
- **Initiate** planning for next phase
- **Draft rulebook consultation**

Q3 - 2025
- **Rulebook finalisation**
- Preparation of **Governing Council** decision

At the core of the project: constant collaboration with all stakeholders…

…which was crucial during the digital euro project's investigation phase (2021-2023) and will now be strengthened further.

European policymakers:
a joint European effort

+ **European Parliament**
+ **Council** & **Eurogroup**
+ **European Commission**
+ Other **EU bodies**

Market participants:
broad support from consumers and merchants

+ **Financial institutions**
+ **Consumers**, **merchants** and **acquirers**
+ **Infrastructure** and **technology providers**

General public:
engaging with end users

+ **Civil Society Organisations**
+ EU citizens

Central banks:
setting global standards

+ **Non-euro area ESCB members**
+ **Bank for International Settlements**
+ **Central banks with CBDC projects**

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Thank you for joining

You can reach us at
CivilSociety@ecb.europa.eu

Additional supporting materials:

- Progress on the preparation phase of a digital euro

- Updated digital euro FAQ

- Webpage: Digital euro and privacy

- ECB opinion on the EU Commission's digital euro legislative proposal

- Digital euro one-pager

- Digital euro LinkedIn page

- Additional information, including the report, can be accessed via the ECB website : www.ecb.europa.eu/euro/digital_euro

EUROPEAN CENTRAL BANK
EUROSYSTEM

ANNEX

with additional slides for experts on:

- State of play
- Compensation model
- Rulebook
- Project timeline

Detailed overview of digital euro services within the rulebook

Access management

Onboarding digital euro end-users

Offboarding digital euro end-users

Payment instrument management (provision and maintenance)

Linking digital euro holdings to commercial bank money account

User lifecycle management processes (identification, data update, information display on balance and transactions, account portability and end user support)

Account information service

Liquidity management

Funding (manual and automated)

Reverse waterfall

Defunding (manual and automated)

Waterfall

Transaction management

Transaction initiation (one-off transactions)

Authentication

Payment confirmation/ rejection notification

Refunds

Dispute/exception management

Recurring payments

Pay-per-use enabled via pre-authorisation service

Payment initiation service

Core services

Optional services