



DeNederlandscheBank

EUROSYSTEEM

DIGITAL EURO

The future of money

EPSM meeting
Amsterdam

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DIGITAL EURO FOUNDATIONS

Current state of play

After 25 years, the euro prepares for the digital age

Digital payments: on the rise*

From 2019 to 2022:



Cash payments fell from 72% to 59%**



Card payments rose from 25% to 34%**, of which most were contactless



Online purchases rose from 6% to 34%**



A digital euro: bridging the gap

Complementing physical central bank money



Integrating central bank money and modern payment trends



Ensuring the euro remains fit for purpose in the digital age



* [Study on the payment attitudes of consumers in the euro area \(SPACE\)](#), ECB, December 2022.

** As a proportion of total payments

Providing more consumer choice and strengthening our resilience



An additional **payment choice** for euro area citizens, complementing cash and private means



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



Strengthening resilience by complementing cash and reducing our **dependence on non-EU parties**



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

Your euro, your choice: diverse use cases, devices and technology

Use cases



Person-to-person
payment



Point-of-sale
payment



E-commerce

Connectivity



Online



Offline

Consumer devices



Smartphone



Physical card



Web interface

Consumer interfaces



Digital Euro App



PSP app

Technologies



Internet



NFC



QR codes

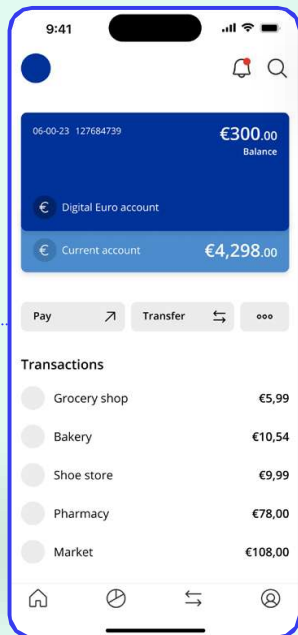
An easy, user-friendly digital euro for everyday payments

HOW THE DIGITAL EURO WOULD WORK

DIGITAL EURO ACCOUNT

With a bank or deposit-taking institution or through an app/card issued by the ECB

Issued directly by the ECB



DIGITAL EURO TRANSACTIONS

1 HOLDING LIMIT

(To be determined)

2 AUTOMATIC OVERFLOW

Assume a holding limit of €1,000.

If you receive a payment that pushes your balance above the holding limit, the surplus would be transferred automatically to your linked account.

If there is no account linked, the transaction will be declined.



ONLINE PURCHASES



OFFLINE PAYMENTS



IN-STORE PURCHASES



PERSON-TO-PERSON PAYMENTS



ATM CASH CONVERSION

FUNDING SOURCES

**PUBLIC SERVICES
(E.G. POST OFFICES)**

ATM

FROM CURRENT ACCOUNT

2

Private providers at the frontline of distribution

Balancing central bank and
commercial money

Intermediaries would play a key role in digital euro distribution

Distribution via supervised payment service providers (PSP)



Digital euro distribution would be carried out **exclusively by PSPs**



PSPs would exclusively maintain **customer relations**



PSPs would benefit from **digital euro open standards**

Healthy equilibrium between central bank money and commercial money



Holding limits for end users (none for corporates)

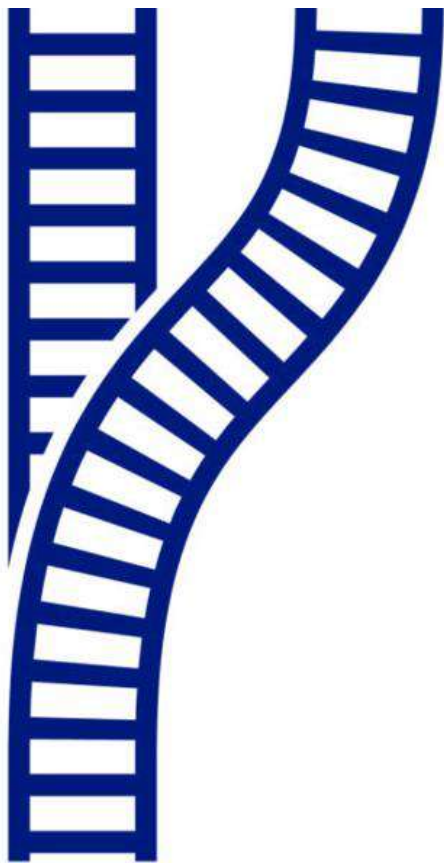


(Reverse) **waterfall functionality**



No remuneration for digital euro users

A digital euro would provide pan-European rails for private solutions...



...offering a **platform for innovation**, based on which private providers can build value added services



...enabling private retail payment solutions to **leverage digital euro infrastructure** for pan-European reach



...reducing our **dependence** on other non-European players

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



The progress made: from foundations to specifics

Digital euro rulebook [1st draft]

- **Document information**
- **Digital euro scheme scope and interplay**
- **Functional and operational model**
 - High-level E2E flows
 - Identification and authentication
 - Dispute management principles
- **Adherence model**
- **Technical scheme requirements**
- **Defined terms and conditions**
- **Annexes**
 - User journeys
 - Detailed end-to-end flows
 - FAQ

Digital euro rulebook [2nd draft]

- **Document information**
- **Digital euro scheme scope and interplay**
- **Functional and operational model**
 - Minimum UX standards
 - Dispute management
- **Adherence model**
- **Technical scheme requirements**
 - Interface standards and specifications
- **Risk management**
- **Scheme management**
- **Defined terms and conditions**
- **Annexes**
 - Branding standards
 - Detailed technical specifications, implementation guidelines, certification-related documentation

3

Legislative process and project timeline

The way forward

The ECB welcomes the European Commission's digital euro legislative proposal



Always accepted

People would always be able to pay in digital euro with any euro area merchants accepting digital payments



Free for basic use

A digital euro would always be free for basic use to euro area citizens



Right to obtain digital euro

People would be able to obtain digital euro at the banks with which they already hold accounts



Fair economic incentives

Intermediaries would be compensated for distributing the digital euro, making it accessible across the euro area



Digital financial inclusion

People from vulnerable social groups would receive support to access basic digital payment services



High privacy standards

The ECB would ensure a high level of privacy, in line with European regulations

The digital euro: evolving in parallel with the legislative process



The project will evolve in parallel with the legislative process to ensure **readiness** in the event a digital euro is needed in the future

The ECB stands ready to:

- Provide **technical support** as required
- Make the **appropriate design adjustments** in line with legislative deliberations



A decision on whether to issue a digital euro will only be considered by the ECB's Governing Council **once the legislation has been adopted**

Staying ahead of the curve: 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 foreseen activities:

- Finalising the **scheme rulebook**
- Selecting **service providers**
- Learning 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

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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Conclusion

A digital euro: the next step in the advancement of our currency



A futureproof currency

A digital euro would bring valued features of euro cash, like pan-European reach and inclusion, to the digital world



Always a reliable option

A digital euro would provide something unprecedented: a single European digital means of payment accepted throughout the euro area



Our money in our hands

A digital euro would strengthen Europe's resilience and reduce our dependency on private non-European providers

Thank you

Additional supporting materials:

- Updated digital euro [FAQ](#)
- [Report](#): A stocktake on the digital euro
- [ECB opinion](#) on the EU Commission's digital euro legislative proposal
- Digital euro [one-pager](#)
- Digital euro [booklet](#)
- Digital euro [LinkedIn page](#)

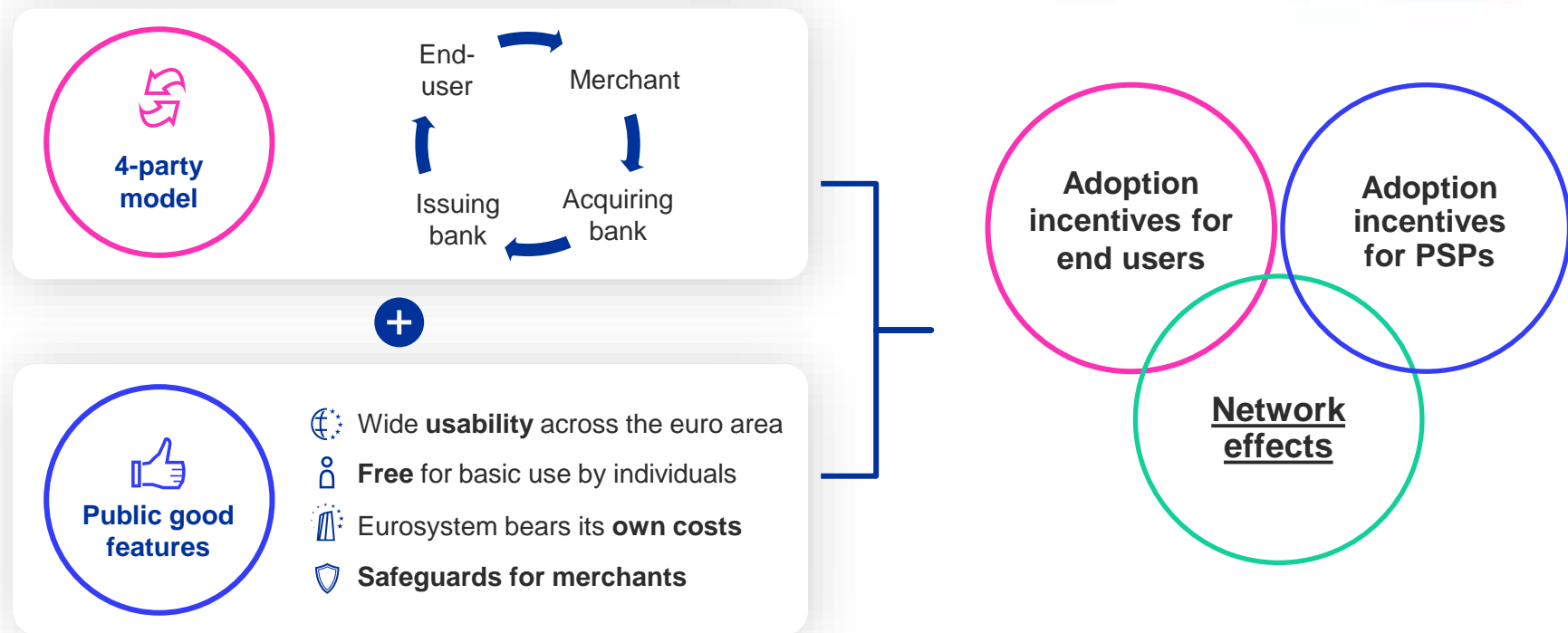


ANNEX

with additional slides for experts on:

- Compensation model
- Rulebook

A fair and balanced compensation model* for digital euro



* Subject to digital euro legislation.

Compensation model provisions according to the draft legal act

Core compensation model principles

 Wide **usability** across the euro area

 **Free** basic use by individuals

 Eurosystem bears its **own costs**

 **Safeguards for merchants**

Reported cost for digital euro provision
+
Reasonable profit margin



Fees for comparable means of payment



Adequate safeguards for **merchants** & reliable compensation for **PSPs**

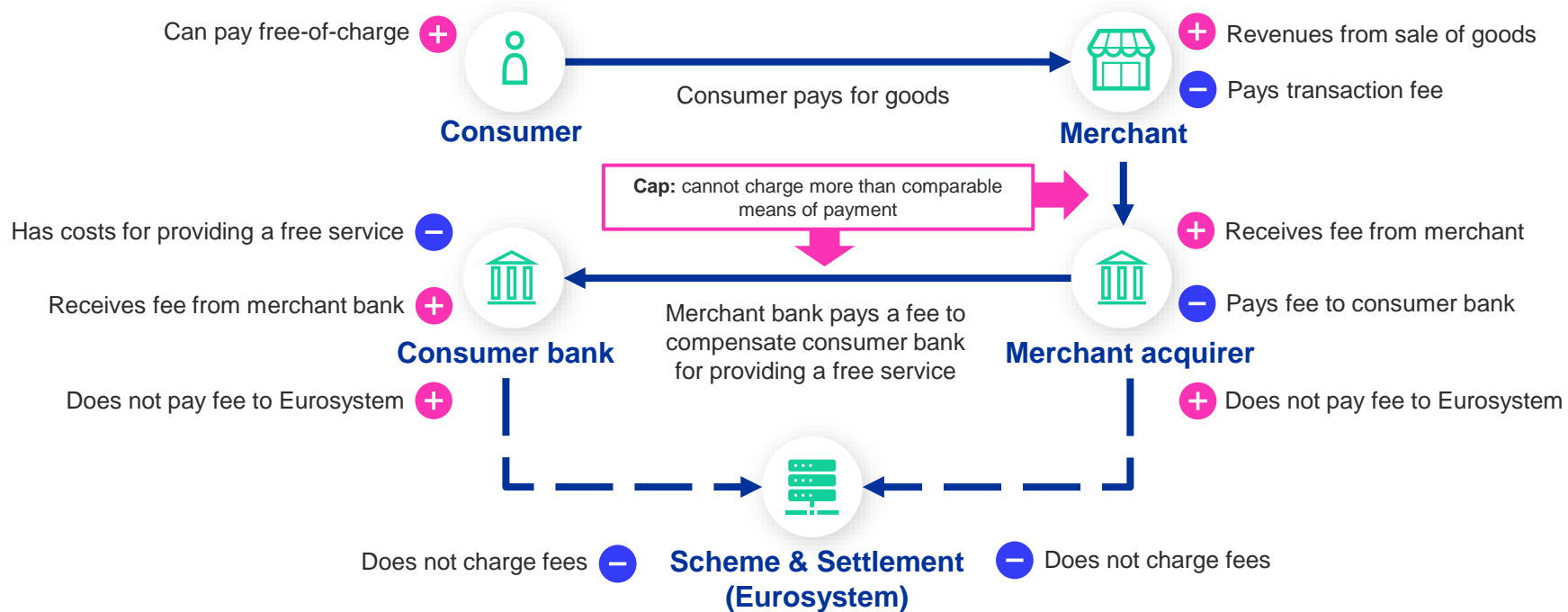
Range of costs for digital euro provision



According to the legislative proposal:

Fees shall be based on costs incurred for providing digital euro payment services by **the most cost-efficient payment service providers** representing collectively **one-quarter** of digital euro distributed in a given year

Step by step overview of the digital euro compensation model



Detailed overview of digital euro services within the rulebook

