



EUROPEAN CENTRAL BANK

EUROSYSTEM

Status of the digital euro scheme's rulebook

ERP
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01/10/2024



Digital euro project

Preparing the digital euro scheme's rulebook to ensure standardisation



Draft rulebook

- **Single set of rules, standards and procedures:**
 - user / access management
 - liquidity management
 - transaction management
- It will outline **how to implement the regulatory provisions and design choices** with technical standards and procedures.



Key guiding principles

- Attractive to all actors in European retail payment market, most importantly to **end-users**;
- Leverage and progress on **existing standards** and scheme solutions to the degree possible;
- Enable **market innovation** on top of digital euro basic means of payment.

Draft rulebook will be sufficiently flexible to accommodate any future adjustments deriving from **digital euro legislative process**.

Collaboration with stakeholders at the core of rulebook development

Digital euro scheme's **Rulebook Development Group (RDG)** based on **broad market involvement** to represent society at large:

- Consumers, retailers and payment service providers;
- Central banks and observers.

Market stakeholders

Consumers, retailers, intermediaries



Institutional stakeholders

ECB and NCBs



Observers





State of play of the rulebook

Regular updates to maintain high transparency

7 June 2023

Update on the work of the digital euro scheme's Rulebook Development Group
7 June 2023

The digital euro scheme's Rulebook Development Group (RDG) has made progress with drafting a rulebook based on the design choices outlined by the Governing Council of the European Central Bank (ECB). The ultimate goal of the Group's work is to outline the rules and contributions of the different actors to final the overall digital euro functionalities and user experience can be effectively created by those different actors, while allowing for innovation and competition. The work of the RDG is subject to the final design decisions of the ECB's Governing Council and the pending legislative proposal from the European Commission.

This document summarises the progress made by the RDG and outlines the next steps, while providing additional background information on the Group's mandate.

Update on progress

Since the [second final meeting](#) on 18 February 2023, six key building blocks have been identified in order to structure the sections of the digital euro rulebook: (i) a functional and operational model (end-to-end flows, core requirements for supervised intermediaries, minimum user experience standards, etc.); (ii) an advance model (scheme eligibility criteria, obligations of participants, etc.); (iii) technical scheme requirements (IT architecture, application programming interface implementation, technical standards, etc.); (iv) risk management; (v) scheme management (scheme governance, change management procedures, etc.); and (vi) scheme services (linked terms, charge history, sender of the digital euro scheme, etc.). The proposed blocks cover all sections of the digital euro rulebook and will be aligned with the design decisions approved by the ECB's Governing Council.

The digital euro rulebook will be developed in two separate phases. The first phase of that work, which started in January 2023, is due to conclude in fourth quarter of the year. Subject to endorsement by the European Council, the first draft is currently due to be sent out for public consultation in the first quarter of 2024.

The RDG's work started with an initial focus on the demand side of the market (business associations, merchant associations and issuers), with a view to ensuring that the proposed digital euro use cases and user journeys are attractive to

1. Available in the form of a public readable progress report published in [November 2023](#) ([ECB document](#) 2023-09-00000001).

https://www.ecb.europa.eu/euro/digital_euro/ti/meline/prufuse/shared/pdf/ecb.degov230607_Digital_euro_RDG_status_update.en.pdf

3 January 2024

Update on the work of the digital euro scheme's Rulebook Development Group
3 January 2024

1 Executive summary

A digital euro would be the first public European digital means of payment providing pan-European reach. To ensure a harmonised implementation, the European Council is designing a digital euro payment scheme, consisting of a single set of rules, standards and procedures for the centralisation of digital euro payments across the euro area.

The scheme is being developed by the Rulebook Development Group (RDG), which was established in January 2023 and whose members are professional representatives of consumers, issuers and intermediaries associations. The purpose of the RDG is to define the rules of actors involved in a digital euro ecosystem, including end users, vendors and issuers, in order to ensure a satisfactory payment experience while fostering further innovation and competition. To this end, RDG members have been invited into dedicated workstreams focusing on specific digital euro-related topics.

Since the first [public](#) published by the RDG in June 2023, the Group has drafted the first draft chapters of the rulebook in line with digital euro design decisions approved by the Governing Council of the European Central Bank (ECB) and with the legislative proposal.¹

The first draft of the rulebook is an intermediate version that covers: (i) the functional and operational model, which include the end-to-end flows describing the functioning of all use cases and services in scope of a digital euro; (ii) the technical scheme requirements, which meet the high-level architecture of a digital euro and cover initial and proposed central market standards to be potentially also used for a digital euro; and (iii) the advance model of the digital euro scheme, which sets out the rights and obligations of advance recipients in accordance with the legislative proposal. The document refers on topic from the dedicated RDG workstreams with respect to the legal and regulatory aspects (i) authentication and identification; (ii) technical scheme and (iii) scheme compatibility.

The draft rulebook will be completed with additional chapters and a first complete draft will be prepared over the course of the digital euro preparation phase.

1. Available in the form of a public readable progress report published in [November 2023](#) ([ECB document](#) 2023-09-00000001) and in the [Executive summary](#).

https://www.ecb.europa.eu/euro/digital_euro/ti/meline/prufuse/shared/pdf/ecb.degov240103_RDG_digital_euro_schemes_update.en.pdf

5 September 2024

Update on the work of the digital euro scheme's Rulebook Development Group
5 September 2024

1 Executive summary

On 18 October 2023 the Governing Council of the European Central Bank (ECB) approved the launch of a two-year preparation phase, laying the foundations for the potential issuance of a digital euro.¹ One of the key deliverables of the preparatory phase is a draft digital euro scheme rulebook, which is developed together with the digital euro scheme's Rulebook Development Group (RDG). The ECB frequently provides updates on the work of the RDG and by doing so ensures a high level of transparency.² In this context, the report provides information about the activities of the RDG since the last update on its work, which was published in January 2024.³

A digital euro would be central bank money in digital form, issued by the European Central Bank as a means of payment for use by consumers and businesses in retail transactions across the entire euro area. A digital euro would be free for bank use, available both online and offline and designed to offer the highest level of privacy.

The rulebook will provide a single set of rules, standards and procedures to standardise digital euro payments and ensure that users' experience and perception of a digital euro would be the same across the entire euro area. The rulebook is being prepared with the RDG, which was established in 2023 and comprises senior representatives of associations of consumers, vendors and payment service providers (PSPs), as well as representatives of national central banks. All members and experts use the preparatory ecosystem. Representatives from the European Commission, the Presidency of the Council of the European Union and the European Parliament are invited to RDG meetings.

In 2024 the work of the RDG followed two main streams of activity: (i) one stream, the RDG reviewed the first draft of the intermediate version of the rulebook as it stood at the beginning of the year; the other, the RDG continued drafting additional sections of the rulebook and developed existing ones further.

1. Approved decision by the ECB's Governing Council to issue a digital euro would only be taken once the digital euro regulation has been adopted.
2. The members of the RDG, under the ["Digital euro scheme development"](#) section of the ECB's website.
3. For a update on the work of the digital euro scheme's RDG, see the [RDG](#) [Report](#) from 27 January 2024 ([ECB document](#) 2024-01-00000001) and the [Executive summary](#).
4. For more information, see the ["Digital euro"](#) section of the ECB's website.

https://www.ecb.europa.eu/euro/digital_euro/ti/meline/prufuse/shared/pdf/ecb.derdgp240905_RDG_progress_report_September.en.pdf

Next reporting

The rulebook's envisaged list of content to provide requirements and specifications

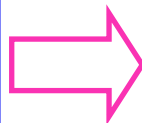
Envisaged table of content of draft rulebook



Draft digital euro rulebook

[1st intermediate 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



Draft digital euro rulebook

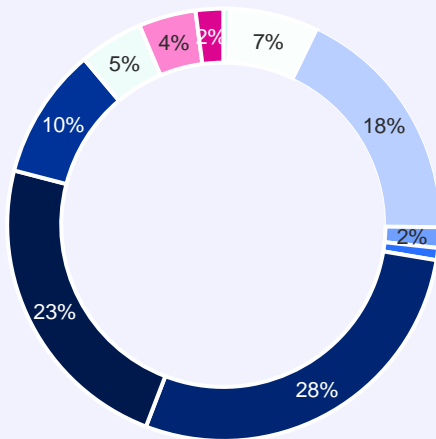
[2nd draft]

- **Document information**
- **Digital euro scheme scope and interplay**
- **Functional and operational model**
 - High-level E2E flows
 - Identification and authentication
 - Dispute management principles
 - Minimum UX standards
- **Adherence model**
- **Technical scheme requirements**
 - Interface standards and specifications
- **Risk management**
- **Scheme management**
- **Defined terms and conditions**
- **Annexes**
 - Illustrative User journeys, detailed E2E flows, Branding standards, scheme compatibility and interoperability
 - Detailed technical specifications, implementation guidelines, certification-related documentation
 - FAQ

See second and third progress report on RDG.

In Q1 2024 the RDG reviewed intermediate draft of rulebook in its entirety, all comments were assessed and will be addressed

% of comments received on the relevant materials

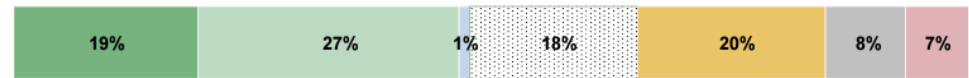


Rulebook section

of comments
















1. Document information	10
2. Scope and interplay	140
3. Functional and operational model	
Business rules	375
Identification and authentication	32
Dispute management	19
Annex A1 user journeys	588
Annex A2 E2E flows	484
Business rules x flows mapping	205
4. Adherence model	100
5. Technical scheme requirements	89
8. Defined terms and abbreviations	43
Total	2295

Summary of comments received and corresponding responses



- Adjusted in rulebook
- Comment answered without specific request for edit in the rulebook
- Answered in other documents
- Duplicate comments
- Comments requiring further internal/workstream reflection
- Comments unclear sent back to RDG for clarification
- Comments outside of RDG mandate

Dedicated workstreams to collaborate with market representatives in developing rulebook sections

Workstream		Status	
A1	Identification & Authentication		3 rd sprint concluded.
A2	Minimum User Experience Standards	 	1 st sprint concluded; 2 nd sprint running.
A3	Branding		In planning.
B1	Certification and Approval Framework	 	1 st sprint concluded; 2 nd sprint running.
C1	Technical Scheme Requirements		4 th sprint concluded.
D1	Risk Management	 	1 st sprint concluded; 2 nd sprint in planning.
F1	Scheme Compatibility		2 nd sprint concluded.
G1	Front-End Implementation Specifications for End-User Interactions	 	1 st sprint concluded; 2 nd sprint to kicked off in September.
G2	Front-End Implementation Specifications for Individual User to PSP Interactions		1 st sprint in planning.
G3	Front-End Implementation Specifications for Business User to PSP Interactions		1 st sprint in planning.
G4	Back-End Implementation Specifications for PSP to DESP Interactions		1 st sprint running.

 Reviewed  Active  Planned

Functional and operational model

Illustrative User Journey

Transfer mechanism	User device/hardware				User interface			Data exchange technology				Authentication					
Online	Offline	Mobile device	Card	Wearable	Computer	Physical card	Mobile app	DE	PGP	App	Online interface	Chip	NFC	QR-code	Internet (incl. alias & pay-by-link)	PIN	Biometrics
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

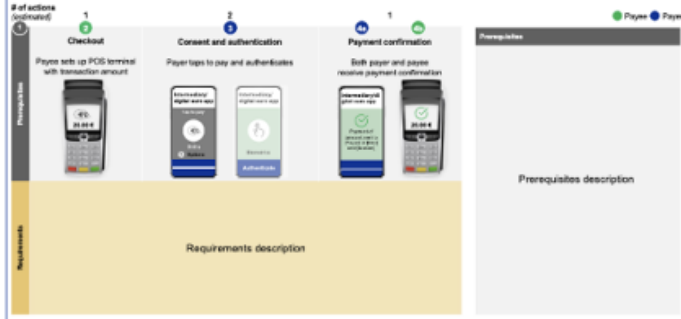
User Journey Description

NFC-based online payment with mobile device at POS

An individual goes grocery shopping and arrives at the checkout. Since the cashier already entered the payment amount into the terminal, the shopper can confirm and authenticate the payment by tapping the activated mobile device on the terminal. A payment confirmation is shown on the terminal and the mobile device.

TM 1.2 - POS payment with NFC (mobile)

Use Case - Payer completes payment by using NFC technology using mobile device

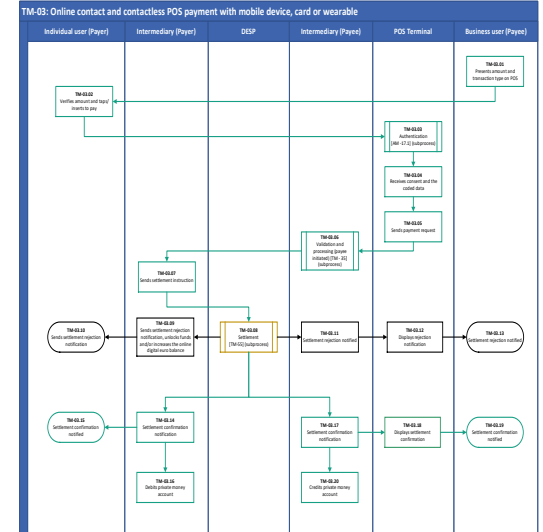


- **Table** highlighting the transfer mechanism, user devices/hardware, user interfaces, data exchange, technologies and authentication methods affected.
- **User journey** description from the end-user product description (EUPD) research.
- **“Old” visualisation** of each user journey, which includes steps, requirements and prerequisites.

Illustrative User Journey describes a use case from **user's perspective** and sequence of steps in a digital euro process (e.g. POS payment).

End-to-End flow

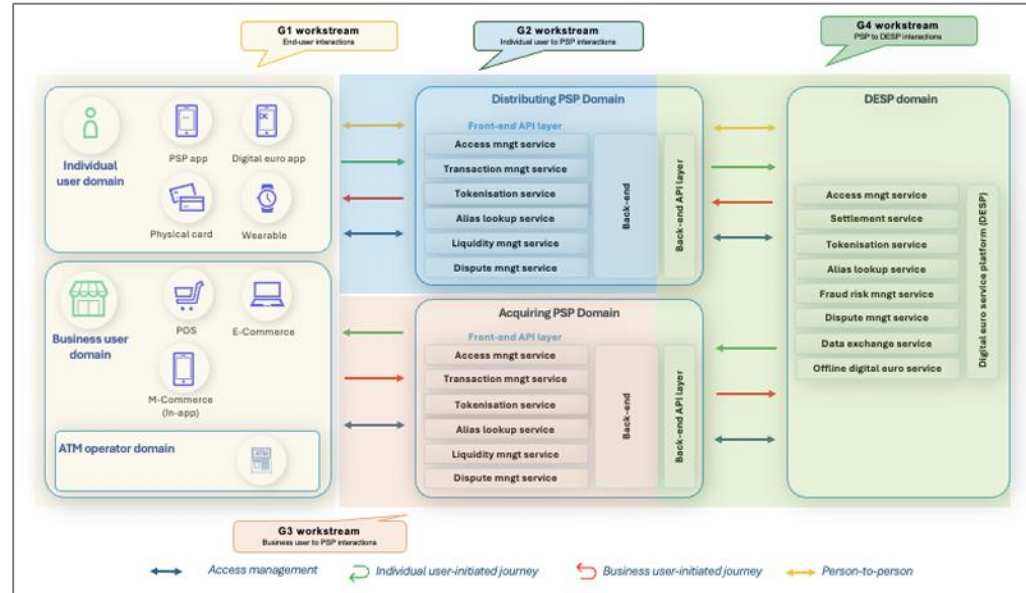
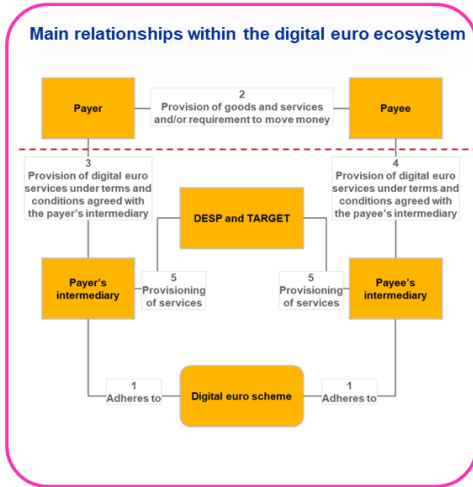
End-to-End flow describes a digital euro process from **initiation to completion** with all **steps and entities** involved.



Technical scheme requirements

High-level architecture and standards

- Foreseen digital euro high-level IT infrastructure.
- Digital euro interfaces should use existing standards and solutions to the extent possible.



Way forward

- Preparation of the draft rulebook with the RDG and **finalise over the course of the preparation phase**:
 - Inclusion of RDG review comments;
 - Complete with additional sections and RDG workstreams.
- The final rulebook will be **updated in line with the outcome of the legislative process**.
- A **next progress report** on the RDG work is planned for Q1 2025.



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Thank you.

