



EUROPEAN CENTRAL BANK

EUROSYSTEM

# Update on the Eurosystem exploratory work on new technologies for central bank money settlement of wholesale financial transactions

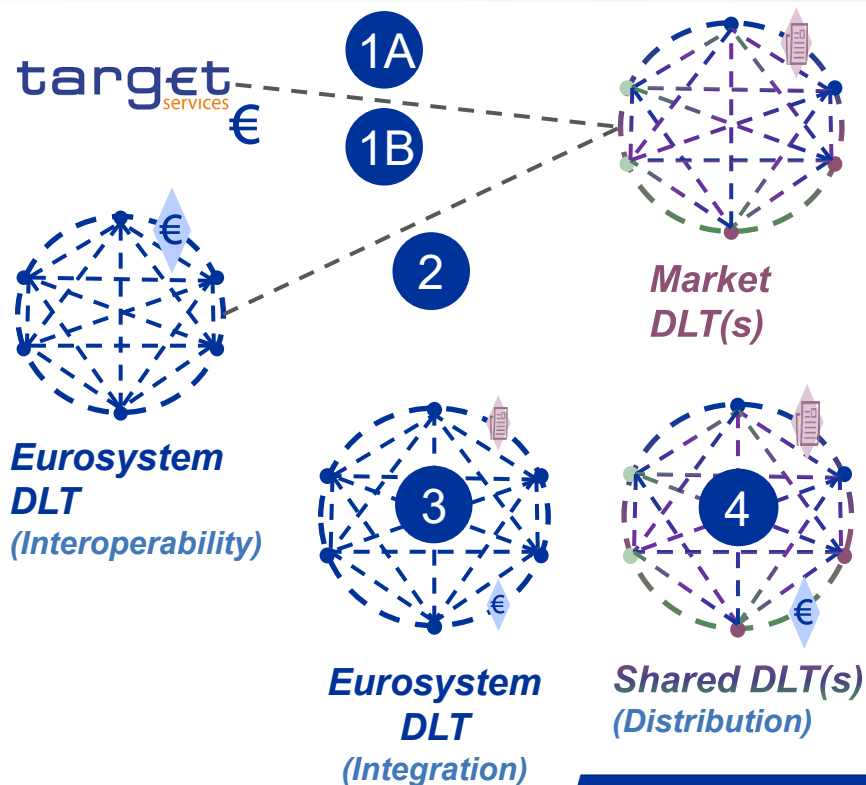
AMI-SeCo

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# Recap: Options for settling in central bank money



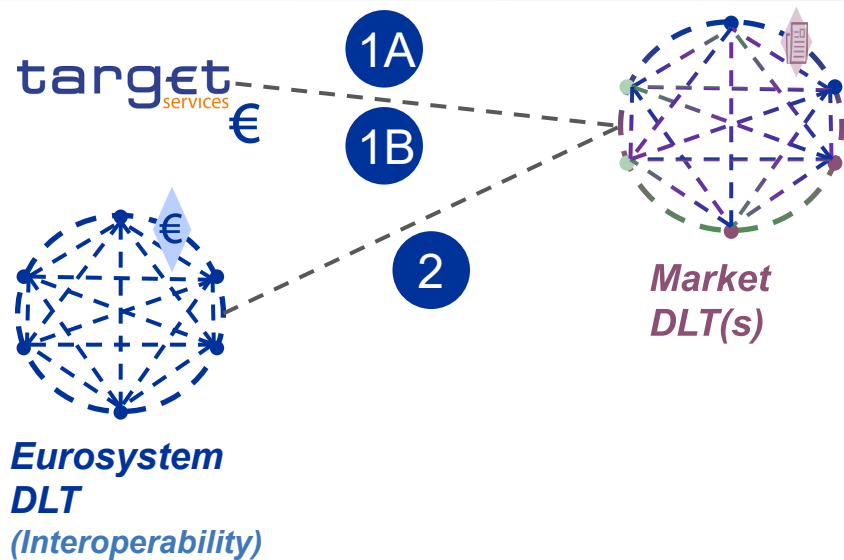
1. CeBM settlement in current TARGET Services through adding a (A) *Trigger component to T2* or (B) *Bridge component to TIPS-like platform*

2. CeBM settlement on Eurosysteem DLT interoperable with market DLTs (*Interoperability*)

3. CeBM and **securities** settlement on own Eurosysteem DLT (T2S DLT) (*Integration*)

4. CeBM and **securities** settlement on DLTs shared between Eurosysteem and other stakeholders (*Distribution*)

# Recap: Options used in exploratory work



1. CeBM settlement in current TARGET Services through adding a (A) *Trigger component to T2* or (B) *Bridge component to TIPS-like platform*

2. CeBM settlement on Eurosystem DLT interoperable with market DLTs (*Interoperability*)

# Recap: Solutions in scope for exploratory work

- **Three solutions for CeBM settlement of DLT-based transactions** provided by the Solution Provider Central Banks (SPCBs) for 6 months:
  - **Trigger Solution** by Deutsche Bundesbank ([link](#))
  - **TIPS Hash Link** by Banca d'Italia ([link](#))
  - **Full-DLT Interoperability** by Banque de France ([link](#))
- **Focus on a common conceptual “Interoperability approach”** where CeBM and assets reside on distinct interconnected infrastructures while the **analysis of further approaches** (Integration/Distribution) **progresses in parallel**.

N.B. Exploratory work does not constitute a commitment by the Eurosystem to provide any steady-state solution(s) in the future or to make any changes to its current infrastructure.

# Recap: Eurosystem exploratory work with interoperability-type solutions

Eurosystem **practical work between 13 May to 29 November 2024:**

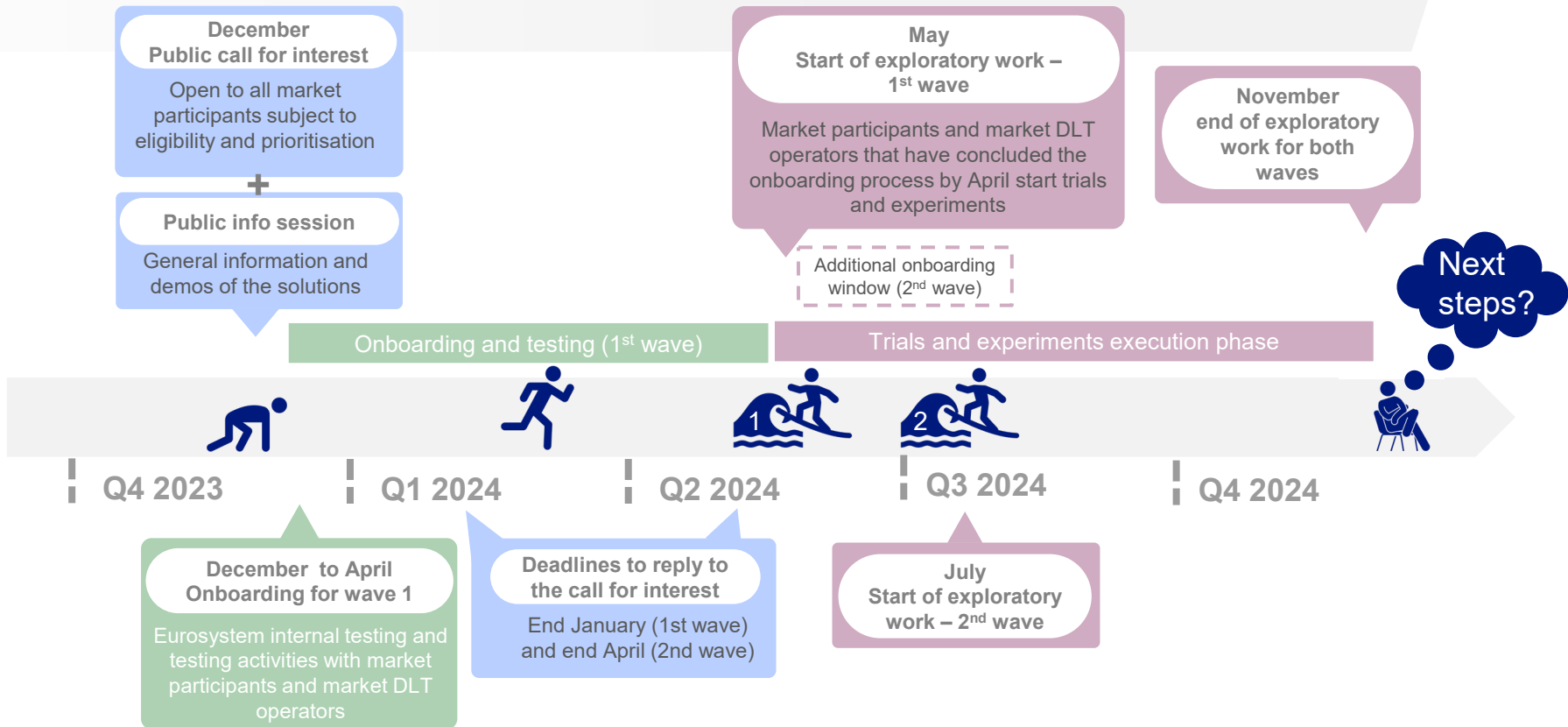


- **Experiments:** mock settlement of the cash and asset legs in test environments (specific dates and times)
- **Trials:** actual settlement of transactions in central bank money in limited setting for a limited period of time

The formal call for **expressions of interest** was published on [ECB's webpage](#) and **closed on 30 April:**

- Ten market participants (entities with access to TARGET) and six market DLT operators chosen for the start in May (wave 1 – [list available here](#)) and central banks also applied
- Even higher interest expressed for starting trials and experiments in July (wave 2 – list in progress)

# Eurosystem's exploratory work – timeline



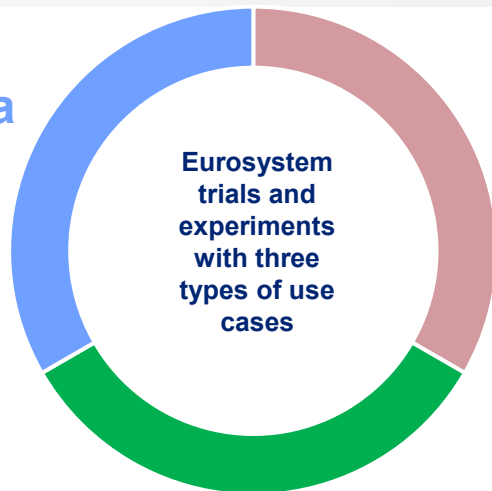
# Proposed trials and experiments at a glance

## Domestic payments use cases within the euro area

(experiments = mock settlement)

- ✓ E.g. automation of margin calls
- ✓ E.g. tokenised deposits / deposit tokens transfers
- ✓ E.g. automation of interbank settlement and reconciliation

**Who:** commercial banks, CCPs



## Securities related use cases

(trials = real settlement  
+ experiments = mock settlement)

- ✓ Issuance and distribution of securities natively on DLT (e.g. Commercial paper, bonds, tokenised funds)
- ✓ Secondary market transactions (1<sup>st</sup> exp already completed !)
- ✓ Securities lifecycle management: coupon payment, asset servicing, redemption
- ✓ Repo

**Who:** commercial banks, CSDs, CCPs, investors, issuers, trading venues

## International use cases with other central banks

(experiments = mock settlement)

- ✓ PvP FX settlement
- ✓ Cooperation with BIS IH in project Meridian FX using the three solutions of the Eurosystem

# .. And in parallel with trials and experiments

## Continued research into DLT and new technologies

- ✓ Impact of DLT, analysis of other solutions for CeBM settlement (DLT-Integration and DLT-Distribution)



## Monitoring of ongoing initiatives and stakeholder engagement

- ✓ Dedicated Eurosystem Market Contact Group for new technologies and wholesale settlement: 60+ European and international market stakeholders
- ✓ Monitoring of other central bank / BIS initiatives: e.g. Singapore, Switzerland

## Eurosystem participation in other BIS-IH initiatives

- ✓ Agorá
- ✓ Meridian FX with the Eurosystem and London Centres of the BIS Innovation Hub and the Bank of England
- ✓ Rialto (via Eurosystem centre)

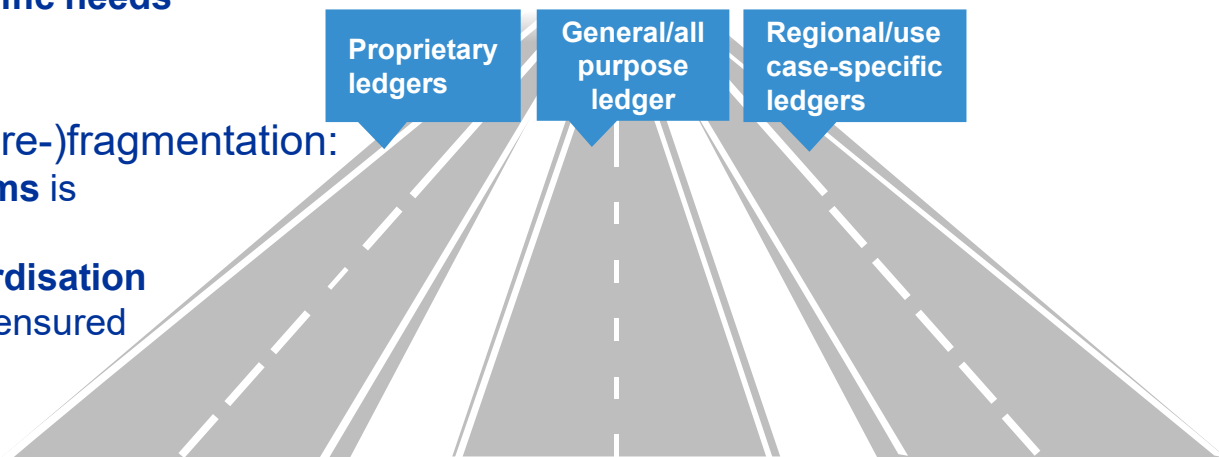


# Looking ahead: a single- or multi-ledger future?

- **Uncertainty about future landscape** for wholesale payments and securities settlement
- **Single DLT platform** could be **useful** to leverage **advantages of new technologies** and **avoid fragmentation**
- Challenge compared to multiple ledgers:
  - more **difficult to realise** and **keep up to date**
  - less likely to address **specific needs**
  - **time to market**

In any scenario, need to avoid (re-)fragmentation:

- **Interoperability of DLT platforms** is key requirement
- **Common protocol and standardisation of concepts and data** must be ensured



# Further information

For more information, please visit the ECB's NTW contact group [webpage](#)

## Latest publications of the ECB:

[Economic Bulletin article](#): Central bank money settlement of wholesale transactions in the face of technological innovation

[Payments news](#): First DLT-related experiment for settlement in central bank money successfully completed

## Contact points:

➤ Eurosystem Team: [ntwCeBM@ecb.europa.eu](mailto:ntwCeBM@ecb.europa.eu)

Solution provider central banks:

➤ Deutsche Bundesbank for the Trigger Solution: [triggersolution@bundesbank.de](mailto:triggersolution@bundesbank.de)

➤ Banca d'Italia for the TIPS Hash-Link: [target.services@bancaditalia.it](mailto:target.services@bancaditalia.it)

➤ Banque de France for the Full-DLT Interoperability: [monnaie-innovation@banque-france.fr](mailto:monnaie-innovation@banque-france.fr)