



EUROPEAN CENTRAL BANK  
EUROSYSTEM

# New technologies for wholesale central bank money settlement

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ICMA FinTech and Digitalisation  
Forum

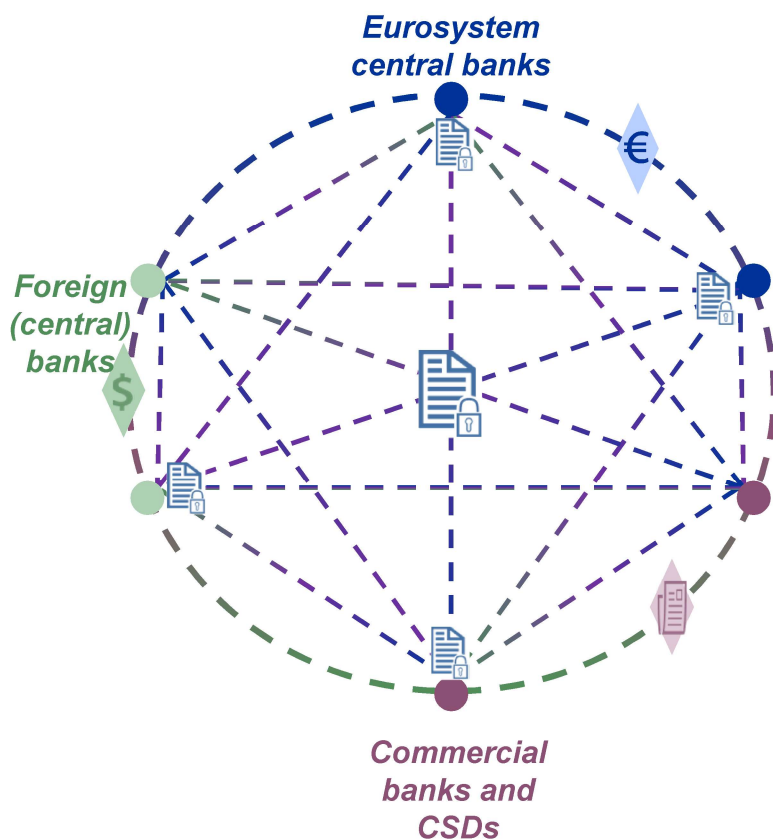
**5 December 2023**

ECB-UNRESTRICTED



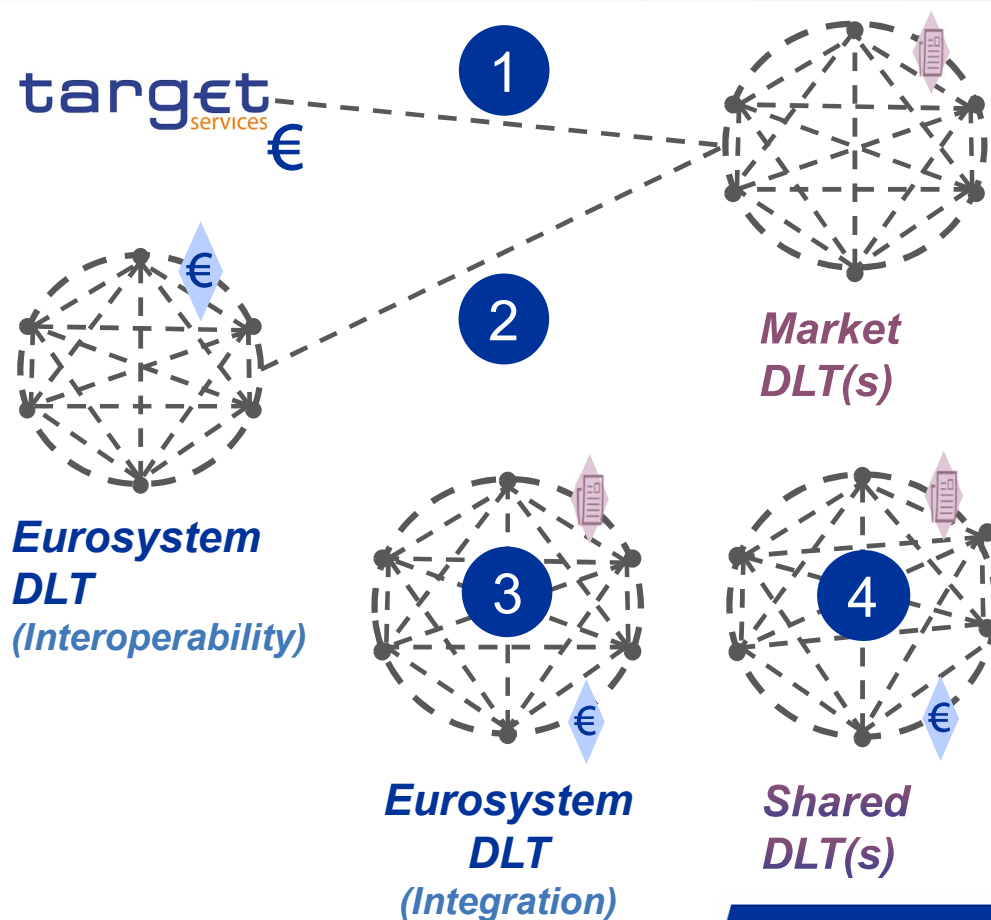
**Holger Neuhaus**

# DLT: impact on wholesale financial ecosystem?



- 1 Money, securities or any other digital asset recorded as tokens on a shared network
- 2 Benefits expected by market stakeholders: atomicity, decentralised programmability, ease of reconciliation
- 3 Absent full migration to DLT by all, coexistence with other technologies
- 4 Central bank money settlement needed as enabler

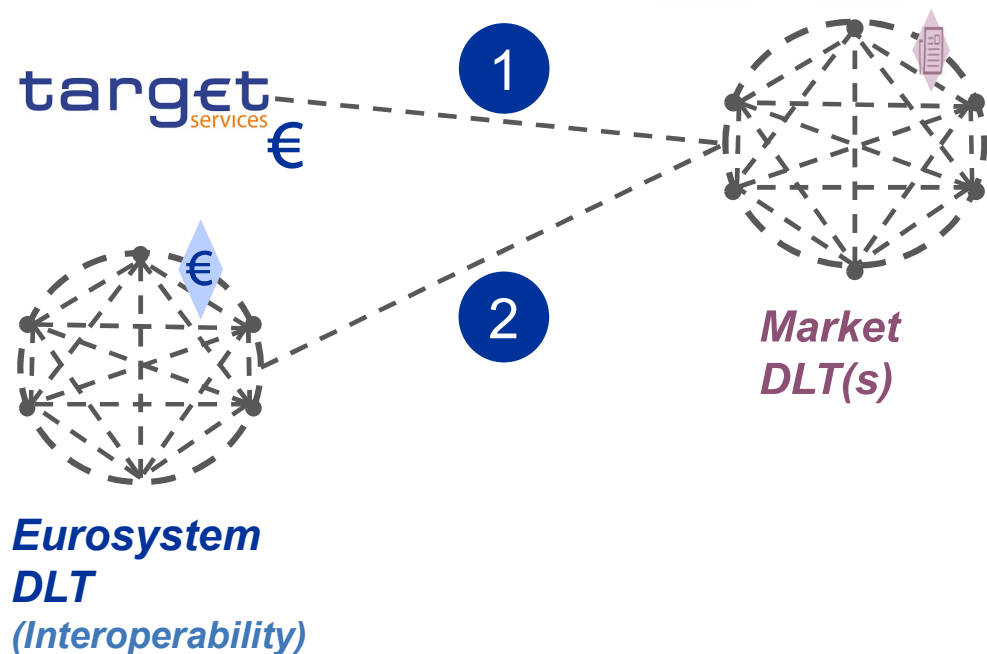
# Central bank money settlement remains important and demanded by market participants



## Conceptual CeBM settlement solutions on:

- 1 Interoperable infrastructures using current technology
- 2 Eurosystem DLT, interoperable with market DLTs (*Interoperability*)
- 3 Eurosystem DLT for integrated EUR CeBM and securities settlement (*Integration*)
- 4 DLTs shared between Eurosystem and other stakeholders for EUR CeBM and securities (*Distribution*)

# Furthering analysis: beyond PoC



New market contact group fosters dialogue with industry

Further exploring conceptual solutions, also through ad hoc limited *trials* and *experiments* in 2024

Real CeBM settlement

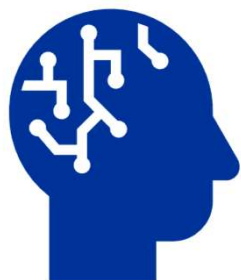
Mock CeBM settlement

- Interoperability-type solutions only
- Also facilitates market gaining experience and demonstrate DLT merits for concrete use cases

# And beyond?

Eurosysteem effort to ensure that **central bank money** remains a monetary anchor supporting stability, integration and efficiency

Challenges:



- will DLT be *the* future?
- to scale, broad access, control, sufficient privacy for selected information
- single network or network of networks?
- prolonged coexistence of technologies across and within countries and market segments?
- applying outdated but popular standards to new DLT technology (e.g. ISO 15022 with restricted length of fields, missing fields, inflexible structure of data elements)

Avoid fragmentation through interoperability, harmonisation, **up to date standardisation**, ... with **important role for the market**: e.g. ICMA's Bond Data Taxonomy