



PYTHAGORE

Modernization of NEU CP market

EMMEC Meeting

18 March 2026





AGENDA

Content

- Pythagore in a nutshell
- A collaborative approach: the Pythagore Market Group
- An example of Pythagore's value added for the market
- How to join the initiative?
- Q&A



Pythagore in a nutshell

Modernization of the NEU CP market through tokenization

- ❑ **Joint project by Banque de France and Euroclear** to modernize the NEU CP (and MTN) market using tokenization, **with a medium-term perspective**;
- ❑ **Euroclear provides the market DLT** (“securities leg”);
- ❑ **Alignment of Pythagore project with the Eurosystem’s Pontes project** [i.e., provision of a wholesale CBDC (“cash leg”)].



Pythagore in a nutshell

NEU CP: a leading CP market in the EU



PYTHAGORE

- **The NEU CP market is the first Euro short term debt market in the EU.** It has celebrated its 40 years anniversary!
- **The Market is overseen by the Banque de France**, which provides documentation, statistics, and checks compliance with issuing conditions.
- **NEU CP are issued via Euroclear France, standardized** issuance process, **T+0 possible, settlement in Central Bank Money**, eligible as **collateral** in ECB monetary policy operations.



Key characteristics of the NEU CP market

1

NEU CP (or TCN) are **short-term debt instruments** (maturity < 1 year) tradable on the secondary market, but limited volumes in practice (mostly buybacks).

2

The Total Outstanding Amount is around €300bn. Largest euro short-term debt markets in the EU.

3

The market is **dominated by financial issuers** (banks, securitization vehicles), but non-financial corporates and public issuers also participate (around 240 active issuers total).

4

Around €20 billion in outstanding ESG programs to date, aligned with environmental, social, and governance criteria

5

Multi-currency market: the vast majority of NEU CP issuances are in euros (>90%). Other possible currencies: USD, GBP, and more rarely CHF, JPY, CAD, AUD, etc.

6

Attractiveness: NEU CP enables flexible short-term financing for issuers and liquid and standardized instruments with substantial outstanding volumes for investors.



Pythagore in a nutshell

Demonstrate the benefits of tokenization at a market scale

Functioning of the NEU CP market

- **Pre-trade:** low automation/digitalization;
- **Post-trade:** efficient infrastructure but numerous confirmation/verification operations;
- **BdF Controls still reveal many manual errors** (rejected submissions by IPAs; discrepancies with CSD);
- **Some opacity regarding securities** holdings and secondary transactions;
- **ECB eligibility** as a guarantee of “liquidity”.

Opportunities offered by DLT

- **NEU CP as a good use case:** simple securities, short maturities, high issuance frequency;
- **Simplification of flow schemes,** automation: transaction speed;
- **Standardization;**
- **Reduction of operational risk;**
- **Transparency** (market data; extra-financial data).

Challenges

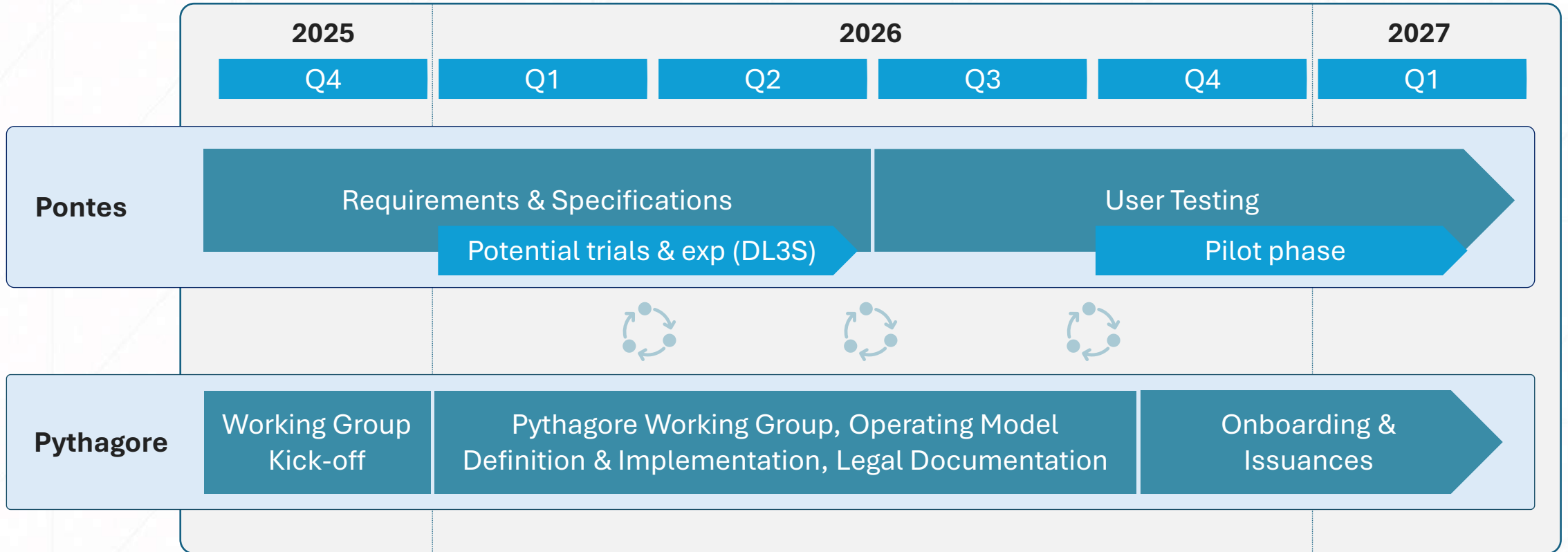
- ❑ **Comprehensive use cases: onboarding, primary issuance, secondary transactions, coupon payment & Redemption**
- ❑ **Fostering attractiveness/competitiveness of the NEU CP market**
- ❑ **Pythagore as a strategic segment** to deploy the Eurosystem’s WCBDC starting in 2026

Pythagore in a nutshell

Pilot phase in 2026, alignment with Pontes



PYTHAGORE

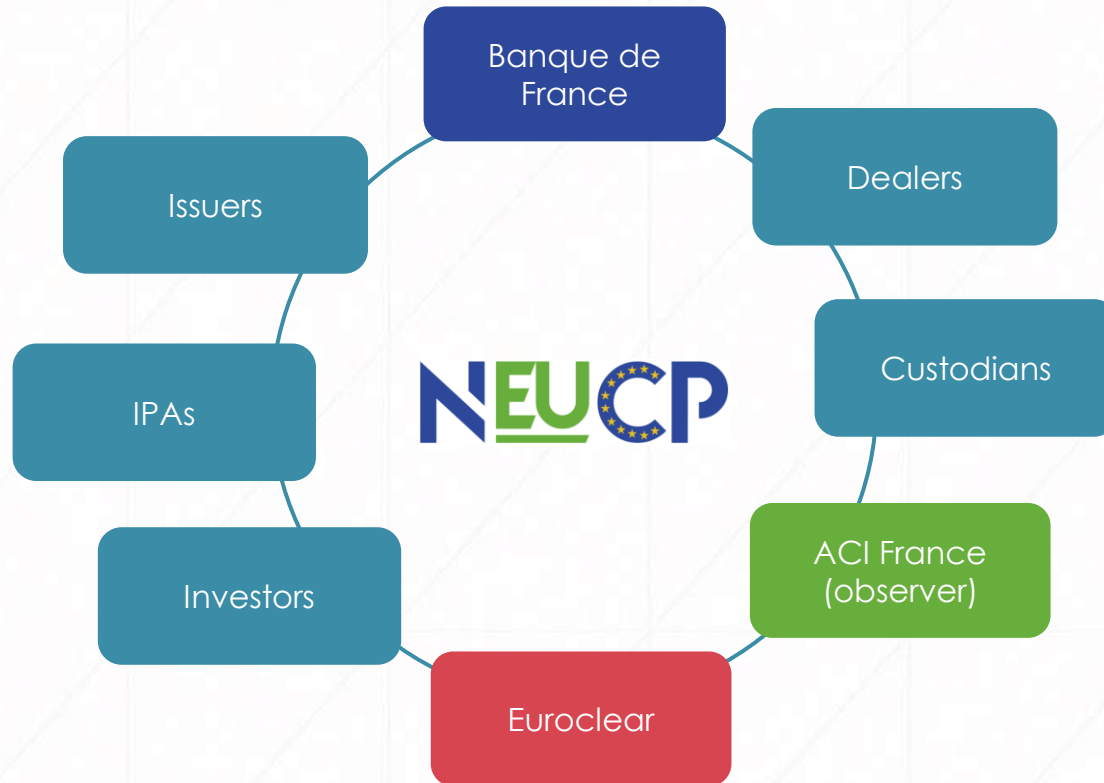




A collaborative approach: the Pythagore market group

The entire ecosystem is onboarded

A market built by the market



Critical mass

Onboarded issuers represent ~ 50% of the NEU CP market to date

↑	↑	↑	↑	↑
17	8	9	6	4
Issuers	Dealers	Investors	IPA's	Custodians



A collaborative approach

Participants' expectations



OPERATIONAL EFFICIENCY

- Settlement cycle reduction
- **Operational cost reduction**
- **Fewer failures/claims**
- Program and outstanding aggregation
- **Facilitate market access (24/7)**
- Smooth integration of roles (IPAs, dealers, etc)
- Token ↔ Classic reversibility
- System interoperability



LIQUIDITY

- **ECB eligibility / LCR ratios**
- **International access**
- Fungibility
- **Extend Pool of Investors**
- Develop secondary market
- **Extend to other paper**
- Valuation on platforms
- Availability in Bloomberg



TRANSPARENCY

- Transparency of CP market
- Traceability of operations
- **Simplified access to information**
- **Transparency on the ownership**
- Clear or anonymized view of transactions
- Rating
- **ESG data available**



ACCESSIBILITY

- **Easy access to clients**
- **Easy access to issuers**
- **Easy access for Investors**



INNOVATION

- **24/7 / cross-border trading**
- Interoperability with digital/fiat currencies
- **New use cases**
- **Intensify International expansion**
- Establish market standards



REGULATORY AND COMPLIANCE

- ESG structured documentation
- **Program aggregation**
- Eurosystem and CSDs cooperation
- **Regulatory compliance**



INTEROPERABILITY & SECURITY

- Open systems
- Operational security
- **Reduce settlement risk**
- **Technical resilience**
- Risk publication about blockchain resilience



GOVERNANCE

- Understand roles of stakeholders
- Prepare for further tokenisation initiative



A collaborative approach

From Pilot Operating Model to Target Operating Model

From Pilot Operating model to Target Operating Model

- ❑ Start with a Pilot Operating Model (POM) to build shared foundations and create momentum in the market
- ❑ From there, move together towards a Target Operating Model (TOM), shaped with the market group feedback
- ❑ Co-create the roadmap to industrialization and unlock value for the entire market

What does it mean for participants?

- ❑ Active engagement in the Pythagore market group
- ❑ Precious input to shape the model and deliver concrete gains even at POM level
- ❑ Participation (role based) in inaugural issuances starting in Q4 2026 leveraging the POM
- ❑ Value driven in operational processing: simplified flows, reduced operational risk, T+0 euro settlement via CBDC...
- ❑ Increase value proposition leveraging the promises of DLT: Data transparency, 24/7 availability, automation services for Issuer's and Investors, bring your own wallet....



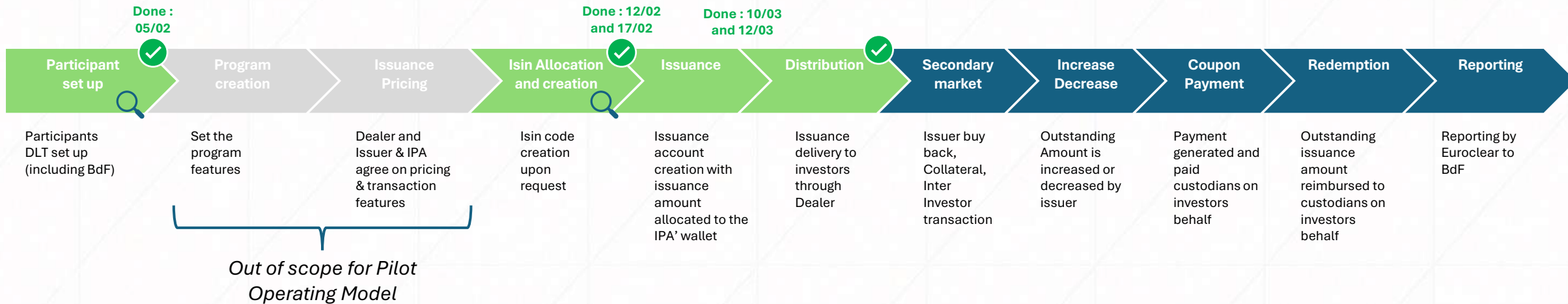
A collaborative approach

Scope of initiative

From participants and program creation to Neu CP issuance and distribution, including secondary market, coupon & redemption

BdF Supervision : program management and provision of market statistics

PONTES



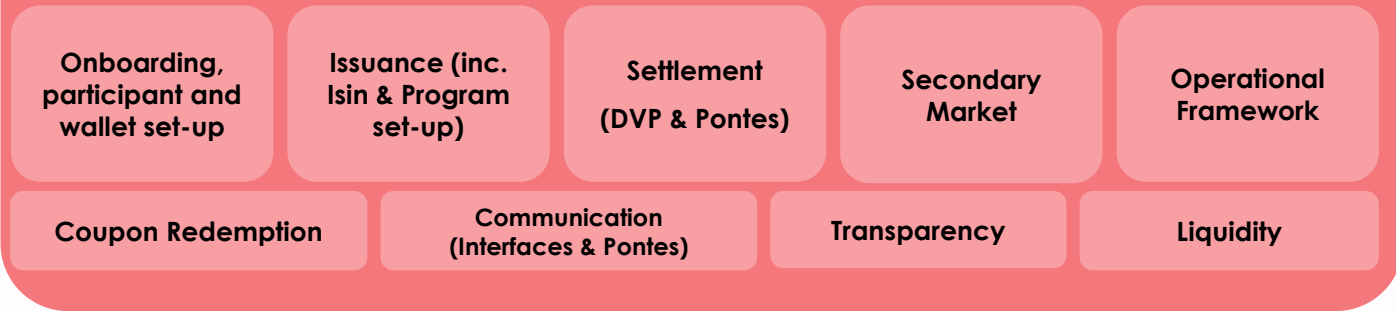
Each major NEU CP issuance milestone will be set as use case & subject to operating model description



Pythagore Market Group (Plenary)

Client Partnership Track : Dedicated channel for commercial teams to engage in direct, confidential dialogue with clients, ensuring market needs and opportunities are continuously integrated into project development.

Pilot Operating Model (POM)



Target Operating Model (TOM) & Business Model ecosystem integration, automation, value creation

Pilot Issuances (POM)

- Legal
- IT
- Ops

Present possible set ups
Bilateral discussions

Go through business Scenarios that will be executed and document them
Identify benefits

Run books, What if Scenarios, Dress Rehearsal, Issuance execution

Tackle dedicated topics, prepare report, video etc

Jan to May

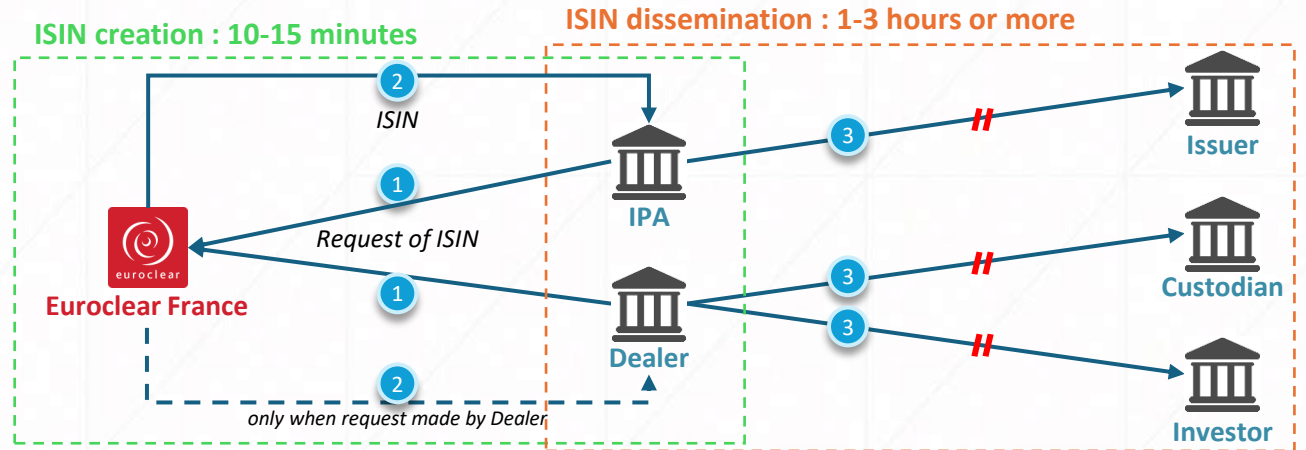
May to Dec



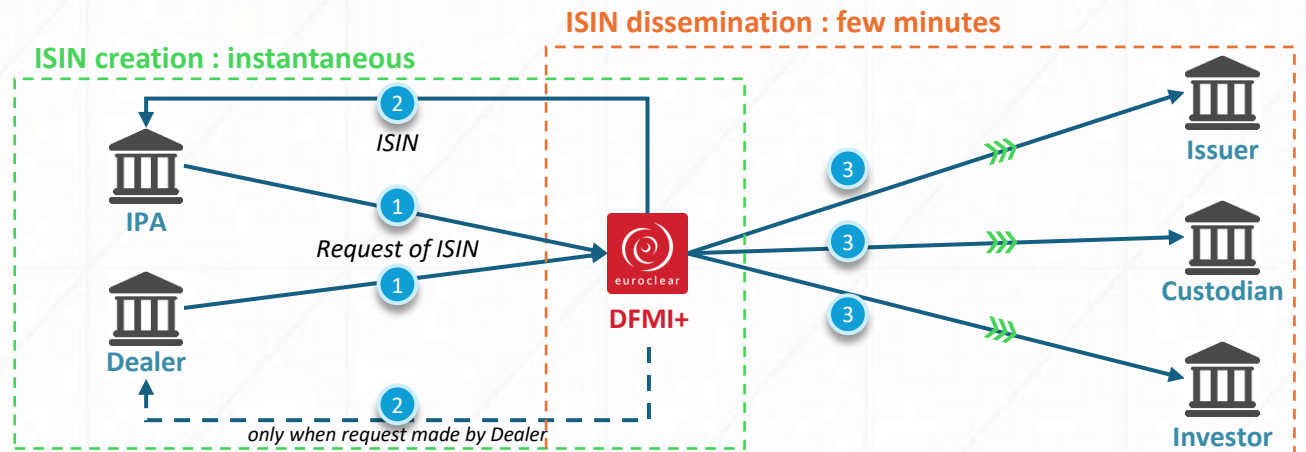
An example of Pythagore's value added for the market

ISIN creation & dissemination : existing vs. POM process

- 1 Message to Euroclear France (MT/MX), mostly STP
- 2 ISIN code created [might take a few minutes] by Euroclear and sent to the requestor
- 3 ISIN code shared **by the IPA or Dealer** to the related parties to update their security details in their databases



- 1 The IPA or Dealer submits a **security creation request in DFMI+**
- 2 ISIN code created immediately from a list of pre attributed codes and sent to the requestor
- 3 ISIN code shared **by DFMI+** to the related parties to update their security details in their databases



➤ Instantaneous ISIN creation to the IPA or Dealer

➤ Lighten the load of ISIN dissemination on the IPA and Dealer

➤ Faster ISIN dissemination to all concerned parties



How to join the initiative?

Pythagore market group is fully open to new comers

- Please contact: Pythagore@euroclear.com
- Dedicated application form: motivations + relevant contacts for both the institution (e.g. front office, back office, legal...) and its partners (e.g. custodian);
- « Participation agreement » between the institution and Euroclear;
- Next plenary meeting on 26 March 2026**



NEUCP



BANQUE DE FRANCE
EUROSISTÈME