DIGITAL INNOVATION IN POST-TRADING

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DLT in EU post-trading: balancing innovation, interoperability and stability

DLT and tokenisation offer the potential to create transformative innovation for financial markets and the infrastructures that support them. Atomic settlement and the use of smart contracts are among the most innovative features facilitated by DLT and tokenisation. Such innovation would be especially welcome to increase the integration and efficiency of the unique European post-trading landscape, which is, to a significant degree, still shaped by historically grown national infrastructures. However, the EU post-trading system is complex and thoroughly regulated as it plays a crucial role for European financial stability and the implementation of monetary policy by the Eurosystem.

This means that even though innovation is of utmost importance, other key aspects have to be considered as well. For instance, there is a certain risk that only a part of the market adopts a specific DLT solution, thus creating a "walled garden", which is not desirable from an industry and a regulatory perspective. Moreover, the safety and stability of financial markets in the EU, including the vital post-trading segment, have to be guaranteed at all times. That is why there is public oversight and supervision of crucial financial market infrastructures.

In general, the introduction of potentially transformative technologies in financial markets is characterised by a tension between three objectives: innovation, interoperability and stability. This also holds for DLT and tokenisation. First, too much or rather too rapid innovation combined with interoperability, but without stability, could lead to financial instabilities. Second, innovation and stability – ensured by supervision and oversight – but without interoperability, could create a new kind of fragmentation in EU post-trading. And finally, interoperability and stability without innovation would cause technological stagnation, an outcome desired neither by market participants nor by regulators. In short: introducing DLT into EU post-trading requires balancing innovation, interoperability and stability.

In 2023, the EU introduced the DLT Pilot Regime to provide a regulatory sandbox for experimentation with DLT-based financial market infrastructures. Market interest in DLT and tokenisation has increased significantly since then. To enable the further development of DLT in European trading and post-trading, the European Commission has proposed significant changes to the DLT Pilot Regime in the context of the Market Integration and Supervision Package (MISP). As part of this package, the scope of eligible financial instruments is expanded substantially. The maximum aggregate market value of tokenised securities allowed on a single DLT platform is increased up to €100 billion. Asset-specific caps are removed as well. The time limit on licenses is removed, shifting the DLT trading and settlement framework from a temporary experiment into a permanent regulatory environment. New participant categories, such as crypto-asset service providers (CASPs), are allowed too. Moreover, the MISP seeks changes to the CSDR that would allow incumbent providers to use DLT in their market infrastructures.

All these measures are sensible and should be implemented as soon as possible – without compromising safety. In addition, the Eurosystem will work on the full eligibility of tokenised securities for use as collateral. Europe needs to act quickly to keep up with developments in other parts of the world. These reforms will facilitate profound innovation in EU post-trading. At the same time, the MISP explicitly calls on entities active in the EU post-trading value chain to form an industry group and develop industry standards that support interoperability between DLT market infrastructures. This shows that innovation and interoperability have to go hand in hand.

> **Introducing DLT into EU post-trading requires balancing innovation, interoperability and stability.**

Finally, the third crucial objective is stability. To safeguard the long-term stability of a future EU post-trading ecosystem that operates on DLT, it is necessary for the Eurosystem to enable the settlement of transactions in central bank money. The MISP allows transactions to be settled using commercial bank money and regulated e-money tokens, which makes sense for certain use cases. However, only settlement in central bank money is always highly secure and liquid. That is why the Eurosystem is pursuing a dual-track strategy to allow wholesale financial transactions on DLT platforms to be settled in central bank money. Pontes will create a short-term interoperability solution that acts as a bridge between private market DLT platforms and the Eurosystem's existing TARGET Services. Under the more long-term Appia initiative, the public and private sector will cooperate to build an innovative and integrated tokenised wholesale financial ecosystem. Such a public-private partnership is the best way to balance innovation, interoperability and stability in order to unlock the potentially transformative benefits of DLT and tokenisation for EU post-trading.

KLAUS LÖBER

Chair, Central Counterparties Supervisory Committee – European Securities and Markets Authority (ESMA)

MISP, tokenisation and the future of European post-trade integration

Europe's post-trade landscape is at a decisive moment. The Market Integration and Supervision Package (MISP) could result in significant progress in post-trade integration. At the same time, distributed ledger technology, tokenisation and artificial intelligence are moving from experimentation to practical use. The challenge is to ensure that these developments reinforce one another, creating a more integrated, efficient and competitive European post-trade ecosystem without introducing new fragmentation, complexity or risk.

For MISP to succeed, it must focus on removing real barriers to cross-border activity. It should simplify market access, improve transparency and strengthen the connectivity of European infrastructures. Its success will be judged by whether market participants face less operational friction, manage clearing, settlement and collateral more efficiently, and operate more seamlessly across borders.

Technology can help deliver this. Tokenisation may reshape how ownership is recorded, collateral is mobilised, transactions are settled and post-trade processes are automated. Shared ledgers could reduce reconciliation, accelerate transfers and support more efficient collateral management. AI can add value by improving data processing, risk monitoring, reconciliation and operational workflows.

But innovation also changes the supervisory challenges. Tokenisation does not remove risk; it changes how risk arises and spreads. The key question is not whether an activity uses DLT or another technology, but whether it performs functions equivalent to financial market infrastructures. Where tokenised arrangements perform infrastructure-like functions, they should meet infrastructure-like supervisory expectations.

Central counterparties, central securities depositories and other infrastructures depend on legal certainty, settlement finality, sound risk management and operational resilience. These foundations are even more important when critical processes are automated or distributed across multiple technology providers.

Tokenised collateral is a prime example for this. Collateral underpins margining, settlement, liquidity management and default procedures. Before tokenised assets can be used at scale, market participants and supervisors must be confident that transfers are legally enforceable, ownership rights are clear, segregation is robust, and collateral can be mobilised or quickly liquidated under stress. Custody, key management, insolvency treatment and legal finality are not technical details; they are conditions for trust.

MISP and tokenisation can advance integration if innovation is resilient and well-supervised.

Operational resilience is equally essential. Smart contracts and automated workflows may reduce manual errors, but they can also amplify failures if weaknesses are embedded in code or governance is poor. Processes that move collateral, liquidity or settlement assets need strong governance, independent review, testing and disciplined change management. Institutions must also be able to intervene when necessary, especially during disruption or market stress.

The regulatory framework is moving in the right direction. The DLT Pilot Regime has provided useful experience, but experimentation alone will not support tokenisation at scale. MISP is an opportunity to bring tokenisation into mainstream European market infrastructure regulation. Scalable tokenised markets will also require reliable settlement in tokenised forms of cash and effective interoperability between infrastructures.

Important obstacles remain. Technology alone cannot solve legal fragmentation. Ownership, settlement finality, conflict of laws, insolvency treatment and interoperability remain significant barriers. The transition will also be complex, as tokenised and conventional infrastructures are likely to coexist for years. Supervisors must therefore focus not only on new technologies, but also on migration risks and the interfaces between traditional and new systems.

The goal should not be innovation for its own sake, nor the reproduction of today's fragmentation in digital form. Innovation should serve the long-standing objectives of European post-trade integration: safer markets, greater efficiency and deeper cross-border capital flows. This requires a technology-neutral but risk-sensitive approach. Innovation should scale where it is legally certain, operationally resilient, well governed and subject to appropriate risk-sensitive supervision.

If these conditions are met, MISP, together with tokenisation, DLT and AI, can support the next phase of European post-trade integration and help build a more efficient, resilient and competitive Capital Markets Union.

SIMON MORLEY
Director, Financial Markets Infrastructure Directorate – Bank of England

Building the next generation of digital market infrastructure

The UK is home to some of the world's most important capital markets and trusted institutions; this presents an opportunity not simply to harness innovative technologies, such as distributed ledger technology (DLT), but to help shape their use globally.

This is not just a choice between the old and the new. As money and assets become increasingly tokenised through technologies like DLT, we can build on and transform globally connected infrastructures, allowing digitally enabled and conventional markets to coexist and interoperate.

The rapid advancement in tokenisation presents an opportunity to reduce reconciliation, automate asset servicing, improve data gathering capabilities and move collateral and liquidity more efficiently. In these areas, the market is moving beyond experimentation and proof of concept towards implementation. Through the joint Bank of England and Financial Conduct Authority Digital Securities Sandbox (DSS), firms are exploring tokenisation under a modified regulatory regime and in a live environment.

The UK government is also helping drive this transition. Recognising the deep interconnections between government debt and the wider financial system, the Government's Digital Gilt Instrument (DIGIT) pilot is intended to be the first tokenised sovereign issuance by a G7 country. As a natively issued digital asset, DIGIT will allow us to explore the use of DLT across the lifecycle of government debt, while helping to galvanise investment and broader market adoption. Issued through the DSS, it could provide a trusted benchmark for issuance, trading, and settlement, with potential future applications as collateral. Over time, secondary market activity and connections to other infrastructures may support a wider digital market ecosystem.

Our work with the FCA is also seeking to provide greater clarity. Our joint Call for Input set out a shared vision for tokenised wholesale markets and invited industry to help shape the route towards scale.

Alongside this, Christopher Woolard's interim report as Wholesale Digital Markets Champion provides a practical route towards adoption at scale. Industry action groups will focus on markets, tokenised collateral, the cash leg, legal and tax questions, financial crime and operational resilience. An orchestration group will aim to bring these strands together through an end-to-end tokenised repo use case. We hope this collaboration will identify practical barriers and give firms greater confidence to invest and move beyond pilots.

Settlement assets will be central to how this develops. In sterling wholesale markets, central bank money remains the anchor as the ultimate risk-free settlement asset. The Bank's renewed RTGS service provides a modern platform for connectivity. We plan to introduce synchronisation functionality so transactions on distributed ledgers can settle in sterling central bank money. We are also consulting on steps towards near-24/7 settlement, which could widen the window for transactions and collateral movements. The DSS can help us understand where tokenised commercial-bank deposits or regulated stablecoins could complement this offering.

Interoperability will be critical to creating a genuine ecosystem. Tokenised and conventional infrastructures will need common data, messaging, and connectivity standards, while new DLT platforms will need to interact with existing trading, clearing, custody and settlement systems. Done well, this can support competition without creating isolated pools of liquidity.

International harmonisation will also be important. Securities markets are global, while legal regimes, settlement models and technical standards are often national or regional. Not every jurisdiction needs an identical model. What matters is compatibility: common principles, interoperable standards, and cooperation between authorities. By designing our domestic reforms with cross-border use in mind, we can help shape emerging global practice.

Building trusted, interoperable digital markets through innovation and delivery.

From a regulatory perspective, the Bank's primary objective is to protect and enhance financial stability. That has not changed. But, as this article highlights, the environment in which we pursue that objective is evolving rapidly as new technologies, firms, and market structures reshape wholesale and retail financial infrastructure. In the UK, the legislative framework has evolved to reflect that. Under the Financial Services and Markets Act 2023, the Bank now has a secondary objective to facilitate innovation in FMI services, particularly in relation to CCPs and CSDs. That formalises something that had already been developing in practice: an understanding that innovation, done well, can strengthen the resilience and efficiency of the financial system, and support broader economic growth.

We therefore have good reason to be confident. By putting in place the infrastructure and live use cases needed for innovation, and combining ambition with practical delivery, we can help build a connected, resilient, and scalable digital market.

AXEL WEBER
Chairman, Board of Directors – Raisin GmbH

How can new technologies improve post-trading in European capital markets?

European post-trading infrastructure is among the world's safest and most resilient, but it remains operationally fragmented. Trading, clearing, settlement, custody and collateral management are performed by multiple institutions operating across different jurisdictions and technology platforms. While this market structure has evolved successfully over several decades, it generates significant operational complexity through duplicated processes, multiple reconciliations, fragmented collateral pools and extensive messaging between intermediaries. New technologies—including distributed ledger technology (DLT), tokenisation, smart contracts, artificial intelligence (AI) and, where appropriate, decentralised finance (DeFi) concepts—offer the opportunity to modernise these operational processes without fundamentally changing the existing market structure or the roles of regulated market participants.

The main opportunity lies in simplifying post-trade processing. Today, transactions pass through several intermediaries, each maintaining separate records and exchanging settlement instructions. DLT and tokenisation can provide a shared digital representation of securities and transactions, reduce reconciliation and improve data consistency. Smart contracts can automate settlement instructions, coupon payments, corporate actions and other lifecycle events, reducing manual intervention, operational risk and settlement delays. Tokenisation enables programmable settlement through atomic Delivery-versus-Payment (DvP) by transferring securities and cash simultaneously. This reduces settlement risk and shortens settlement cycles. Digital securities can also improve collateral mobility by automating collateral transfers, substitutions and eligibility checks. This supports more efficient collateral use, stronger liquidity management and improved capital efficiency. AI can enhance post-trade operations by optimising settlement, reconciliation, collateral allocation, exception management and operational monitoring. Rather than replacing existing market functions, AI can automate routine processes and improve decision-making across market infrastructures.

Successful deployment requires several important conditions. Interoperability is essential to ensure digital platforms connect seamlessly with existing trading venues, CCPs, CSDs, custodians and payment infrastructures using common standards. Access to appropriate settlement assets is necessary to enable efficient tokenised settlement, whether through central bank money or appropriately regulated digital settlement assets. Legal certainty must provide clear recognition of digital securities, ownership rights, settlement finality and smart contract execution across jurisdictions. Governance and operational resilience are equally important. Future infrastructures should remain market-neutral, secure, scalable and subject to appropriate regulatory oversight. Finally, market adoption will require broad participation by issuers, investors and market infrastructures, with conventional and tokenised securities likely to coexist during a lengthy transition period.

DLT, tokenisation, AI and related technologies will modernise the operational market infrastructure.

Industry-led solutions can play an important role in accelerating innovation by developing interoperable technology platforms that complement existing financial market infrastructures. Rather than replacing established institutions, such solutions can provide shared digital capabilities including tokenisation services, programmable settlement, common connectivity, collateral optimisation, digital identity management and automated operational workflows.

A particularly promising model is the development of a common horizontal interoperability layer connecting existing trading venues, clearing houses, CSDs and custodians. Such a layer could standardise connectivity, support tokenised securities and settlement assets, enable AI-assisted operational optimisation and reduce duplicated post-trade processing across Europe. This approach preserves the existing institutional landscape while significantly improving operational efficiency, transparency and interoperability.

Overall, the greatest opportunity presented by DLT, tokenisation, AI and related technologies is not the replacement of current market structures but the modernisation of the operational infrastructure that supports them. By reducing reconciliation, automating manual processes, improving collateral mobility and enabling programmable settlement, these technologies have the potential to strengthen the efficiency, resilience and integration of European post-trading while supporting broader objectives such as the Capital Markets Union.

ISABELLE DELORME

Head of Product Strategy & Innovation – Euroclear S.A.

Tokenisation: building safer, more efficient and more connected capital markets

Tokenisation and DLT are often presented as major technological innovations for capital markets. Their real significance lies in what they can help build: deeper, more integrated and more competitive European capital markets connected to a global investor base.

Euroclear's purpose is to innovate to make financial markets safer, more efficient and connected. Tokenisation must be assessed against that objective. The ultimate test is not the technological sophistication but whether additional value is created for issuers and investors. We think that DLT can help, but cannot by itself solve fragmented rules on ownership, insolvency or tax.

The potential impact of tokenisation on post-trade is significant.

DLT-based models can enable fully automated, data rich processes which eliminate reconciliation breaks, improve efficiency and lower operational risk. They may also enable a more immediate, always-on environment, appealing to new and digital-native investors, with services available nearly 24/7 across time zones. Market structure design needs to evolve to fully capture these benefits whilst preserving liquidity, the benefits of netting and minimising fragmentation are critical.

Asset servicing is another promising area. Lifecycle events remain complex and data intensive. Shared ledgers and smart contracts could automate processes, improve transparency and reduce discrepancies.

Collateral management may offer one of the strongest use cases. Tokenisation could make assets easier to mobilise across institutions, markets and time zones, improving liquidity management and balance-sheet efficiency.

Innovating at scale

Markets will not simply abandon infrastructures built over decades to provide resilience and operational reliability. The challenge is to capture new benefits without compromising the trust on which capital markets depend. This is the logic behind Project Pythagore, a Euroclear - Banque de France initiative showing how a full market ecosystem, including the ECB, can move to a DLT-enabled infrastructure while preserving trusted infrastructure standards.

The future European ecosystem is trusted, efficient internally and attractive externally.

Tokenisation will only deliver at scale if it avoids new fragmentation. Multiple platforms with different standards, governance models and liquidity pools could reproduce existing fragmentation in digital form. End-investors, including retail investors, should have access to products and services irrespective of the network they use. Therefore, interoperability between new networks and traditional ecosystems will be key, at least for a while. Eventually, Europe needs a fully scalable digital market, not simply connect today's structures to tomorrow's technology.

The same applies to regulation. Europe should avoid separate frameworks for traditional and tokenised markets and aim for one core, technology-neutral framework.

The Digital Asset Securities Control Principles, developed by major global market infrastructures, address how digital securities can benefit from innovation while preserving legal certainty, investor protection, resilience and governance. Follow-up work on interoperability recognises that the next phase will be defined by the ability of assets, data and liquidity to move efficiently across new and existing ecosystems.

The future European ecosystem: efficient internally, attractive externally and built on strong foundations.

Appia offers an opportunity for public-private debate on a European tokenised financial ecosystem. Its objectives — preserving central bank money as an anchor of trust, supporting integration, competitiveness and innovation, and promoting standards, interoperability and governance — mirror the ambitions of the Savings and Investments Union.

Europe should not build a closed regional digital market. It should build markets that are more efficient internally and more attractive externally. International investors value liquidity, legal certainty, operational efficiency and access. Tokenisation can strengthen these attributes only if embedded in trusted infrastructure, aligned with global standards and designed to serve institutional and end-investor needs. FMIs therefore have a critical role. Their value is not simply technological. It lies in neutrality, governance, risk management, resilience and connectivity across large market ecosystems.

Success should be measured by whether tokenisation can safely mobilise savings, facilitate cross-border investment, improve collateral circulation and strengthen Europe's capacity to finance innovation, growth and the green and digital transitions. For Euroclear, tokenisation is not about technology replacing trust. It is about using technology to reinforce trust, efficiency and connectivity. Managed well, it can help Europe build capital markets that are more integrated, competitive and connected to the world — moving from experimentation to meaningful transformation in support of the real economy.

STEPHANIE ECKERMANN

Member of the Executive Board of Deutsche Börse Group, responsible for Post-Trading – Deutsche Börse Group

Avoiding new fragmentation while scaling innovation

The digital transformation of capital markets continues to accelerate. With the review of the DLT Pilot Regime, the EU is aiming to lay the foundation to scale technological innovation – significantly higher thresholds, a shifting asset class focus from cryptos to include all traditional finance instruments, and a discussion around exemptions from key financial regulations, such as MiFID II and CSDR – quo vadis?

At Clearstream, we are fully committed to driving new efficiencies and the next generation of technological evolution, also in the DLT sphere. From our digital issuance platform D7, over our DLT collateral and repo services, through to our Funds DLT and institutional crypto asset custody - we have developed regulatory compliant business offers within existing frameworks.

Amongst all of heated conversations on technological leadership in a different geopolitical context, one fundamental is particularly close to my heart: Avoiding new fragmentation across the internal market's post trading sphere while scaling innovation to drive the next generation of efficiency, boosting global competitiveness.

To unlock the power of DLT in post-trading, we must look beyond the securities issued natively on blockchain. The ultimate objective for the ecosystem across the internal market must be to tokenize existing securities under domestic securities law to ensure a hybrid approach that efficiently bridges traditional finance and new digital assets.

Otherwise, the EU will run the risk of injecting new and unintended fragmentation risks that run against the parallel objectives to integrate the post-trading landscape, fostering cross-border competition and empowering a natural drive towards liquidity consolidation, efficiency, and structurally lower costs for issuers and investors.

The geopolitical clock is ticking: In the US, a No-Action Letter granted by the SEC gives DTCC a direct path to tokenize the existing $115 trillion of securities at scale jointly with key market participants. In addition, NASDAQ and NYSE can offer tokenized securities trading, opening regulated market access for real on-chain assets. The comparison shows: Irrespective of the deployed technology, it will remain critical to avoid fragmentation driven by a regulatory framework that provides different rules for the same business against the argument of incompatibility of the existing regulatory frameworks with new technology.

To secure global competitiveness and avoid new and unintended fragmentation in a time when the internal market needs scaling, the priority must be a technology-neutral modernization of core, crisis-proven frameworks rather than containing innovation within siloed, parallel regimes. Importantly, CSDs should be allowed to tokenize existing securities via notification under their existing CSDR license. On the trading layer, we need to create an environment for liquid secondary trading of tokenized securities on MiFID-regulated trading venues.

> **Bridging traditional finance and digital assets to drive efficiency and global competitiveness.**

In this regard, we welcome the E6 MISP consensus aimed at scaling DLT under CSDR and defining a viable transition path from the DLT Pilot Regime. This path could successfully maintain a level playing field with the ordinary market infrastructure framework, avoiding the creation of a lighter, parallel regime for systemically important activities.

Crucially, we must avoid creating parallel structures that lead to liquidity fragmentation. Especially in an environment where the US is allowing its core infrastructures to apply the new tech realities within their existing proven and trusted regulatory frameworks. This would lead to a significant competitive disadvantage in a world where capital is a global good. The EU cannot repeat the MiFID mistake in post-trading. To prevent legal, operational, and liquidity silos, traditional and DLT rails must be interoperable.

Finally, a modern digital securities layer requires common digital rails. Clearstream strongly supports the Eurosystem's foundational work on Project Pontes, viewing it as an effective project for settling the cash leg of wholesale transactions in a DLT environment. The ECB's wholesale Central Bank Digital Currency (wCBDC) workstreams are important opportunities and should be accelerated and accompanied through effective private-sector execution – this would be a unique value proposition of European capital markets in a global context.

By establishing an environment that seamlessly bridges traditional and digital rails, we can secure our continent's global competitive edge, reinforce our strategic financial autonomy, and position the EU as the pioneer and standard setter for the next generation of digital post-trading. Together, we can build a thriving, highly integrated capital markets ecosystem that will drive growth and prosperity for decades to come.

MARCO KESSLER

Head of Custody Business Development & Markets – SIX Group

From tokenized pilots to trusted market scale

Europe has made important progress in digital finance. Tokenization is moving from experimentation to early adoption: tokenized securities are being issued, new settlement assets are being tested, and AI-enabled controls are entering the post-trade value chain. Yet large-scale deployment remains limited. The issue is no longer whether the technology works, but whether it can scale safely across markets, participants and ledgers.

Europe does not need a separate tokenized market alongside the existing one. It needs a framework that allows trusted market infrastructures to support both traditional and tokenized securities in a coherent way. The future is hybrid, not parallel. Both forms of securities should coexist within the same infrastructures, processes and client ecosystem, with common risk standards and interoperable access.

Financial market infrastructures have an undisputed role in this model. Tokenization does not remove the need for trusted infrastructure; it increases it. As more assets, ledgers and forms of money emerge, markets will need neutral institutions that provide finality, asset protection, resilience, governance and supervisory accountability. These are the conditions under which banks, issuers and investors can adopt new technology with confidence.

For Europe, this points to a clear regulatory direction. CSDR should evolve to enable regulated CSDs to support tokenized securities alongside traditional securities under a single framework. Existing CSDs should be able to provide issuance, custody, settlement and asset servicing for both forms of securities. This would avoid forcing market participants to choose between today's regulated infrastructure and tomorrow's digital capabilities.

The benefits are hard to dispute. First, a hybrid FMI model gives the market a credible migration path. Adoption will be gradual, asset-class specific and driven by use cases. Allowing traditional and tokenized securities to coexist in the same trusted environment reduces duplicative connectivity, operating models and controls. It lets innovation enter the core market progressively, rather than through isolated parallel networks.

Second, it supports market integrity and a level playing field. Equivalent activities and risks should be subject to equivalent rules, regardless of whether a service uses traditional technology or DLT. This is essential to avoid regulatory arbitrage, protect investors and prevent fragmentation. In a tokenized environment, common rules for issuance, settlement finality, custody, corporate actions and lifecycle management become more important, not less.

Europe needs hybrid FMIs, not parallel tokenized markets.

Third, the future of settlement will require multiple forms of regulated digital money. Tokenized securities cannot scale if the cash leg remains uncertain, fragmented or limited to a single model. Europe should enable wholesale CBDC, MiCA-compliant e-money tokens and tokenized deposits to coexist as settlement assets, provided they meet robust standards for credit, liquidity, governance, settlement risk and financial stability. This would give markets flexibility to innovate and scale, while preserving market integrity. The relevant test should be the quality and risk profile of the settlement asset, not its technology label.

Fourth, interoperability will ultimately determine success. The future will not be built on a single ledger. Different asset classes, jurisdictions and networks will use different technologies. Scaled adoption will depend on connecting these ledgers without fragmenting liquidity or weakening controls. FMIs are well placed to act as neutral interoperability hubs: validating assets, orchestrating settlement, and promoting common standards.

The EU has taken important steps with MiCA and the DLT Pilot Regime. But legal clarity is not the same as market scalability. If securities, crypto-asset and payment rules remain in separate silos, Europe may end up with well-regulated experiments rather than integrated markets. The Market Integration and Simplification Package can help if it builds a bridge between CSDR, MiCA and related rules, enabling regulated infrastructures to combine securities services, digital assets and regulated digital-money settlement in a controlled way.

Europe should focus on four priorities: make the DLT framework permanent and scalable; enable FMIs, including CSDs, to operate hybrid securities services; recognize multiple safe forms of regulated digital money as settlement assets; and promote common standards for multi-ledger interoperability, custody, asset servicing and resilience.

The prize is not simply faster settlement. It is a more integrated European capital market in which innovation strengthens trust rather than bypassing it. Tokenization will scale when it connects to the institutions and supervisory expectations that institutional markets rely on. Europe should move from parallel experiments to a trusted FMI-led post-trade layer connecting traditional and tokenized finance across multiple ledgers.