Accelerating digital transformation in EU financial services

1. Digitalisation of the European financial sector: current state, opportunities and future trends

1.1 Current level of digitalisation

An official observed that digitalisation in the financial sector is advancing at an exponential pace worldwide. What today feels fast will soon appear slow by comparison. Three successive waves of change can be identified. The first, around three decades ago, was the rise of fintechs, which addressed specific consumer needs for greater accessibility and speed that traditional incumbents were not adequately providing. The second wave was the entry of big tech firms into financial services. More recently, the third and potentially most disruptive wave has been the emergence of decentralised solutions, followed by "pseudo-decentralised" ones such as stablecoins, which resemble traditional deposit-taking institutions but are built on new types of databases and under different rules. Each of these waves has been driven by unmet customer demand, creating strong economic incentives for new players to offer innovative services.

A second official noted that levels of digitalisation currently vary widely across Europe, even though there has been clear progress throughout the Union. In Lithuania, for example, where society is highly digitalised, almost all financial services are available online, with the exception of mortgages due to local notary requirements. By contrast, in some other European countries the degree of digitalisation remains significantly lower.

An industry representative argued that Europe is better positioned than often perceived with regard to the digitalisation of its financial sector. In the capital markets, for instance, Europe is preparing for T+1 settlement, which requires a high level of automation, and there are also ongoing discussions about instant or atomic settlement using distributed ledger technology (DLT). Europe already has a scalable and reliable post-trade infrastructure to build on, yet TARGET2-Securities (T2S), the pan-European settlement platform, remains underutilised. A first step would be to ensure that all European CSDs are connected to T2S, which would deepen liquidity pools and enhance overall efficiency.

A second industry representative observed that digitalisation has already significantly transformed the payments value chain, which links consumers and merchants through financial institutions. Technology has brought new players into the market and has reshaped both the front end (customer and merchant interaction) and the back end (transaction processing and reporting) of the value chain.

A third industry representative agreed that Europe is accelerating its pace of technology adoption, supported by a more uniform regulatory framework, starting with the Digital Operational Resilience Act (DORA). However, challenges remain. Uncertainty persists regarding how digital regulation on cyber resilience and AI will be implemented, how supervision will evolve, and whether additional rules will be introduced, complicating long-term technology investment decisions.

1.2 Opportunities and challenges from digitalisation

An official stated that digitalisation presents both opportunities and challenges. On the one hand, it enhances access and resilience; on the other, bank branches are closing in rural areas due to profitability concerns, financial fraud is on the rise, and blackout risks are increasing.

An industry speaker highlighted two main drivers of technology adoption in financial services. The first is competitiveness: digitalisation enables institutions to remain competitive and to meet evolving customer expectations, such as the demand for seamless and convenient payment solutions, illustrated by the growing use of mobile phones instead of cards. The second is resilience, in particular cyber resilience, as legacy systems are increasingly vulnerable to sophisticated attacks that have recently affected the sector.

A second industry speaker stressed that the digitalisation of capital markets is essential to the success of the Savings and Investments Union (SIU). The objective is not to use technology for its own sake, but to achieve three outcomes: greater market efficiency, stronger resilience, and, as a result, market growth. Past experience shows that successive waves of technology have consistently driven both efficiency and growth, largely through enhanced market demand. A challenge, however, is that Europe is lagging behind some other jurisdictions in adopting certain technologies. For example, leading US stablecoins such as USDC and Tether have capitalisations of $140 billion and $60 billion respectively, while their European equivalents remain marginal.

A third industry speaker explained that, on the front end of payment services, digitalisation is enabling a wider and more diverse range of solutions. For example, car manufacturers can integrate in-car payments for fuel and other services directly into vehicle interfaces. Another trend is the gradual replacement of traditional point-of-sale terminals with mobile phones, allowing small merchants to accept card payments at lower cost. Significant progress has also been made in authentication. In the past, there was a trade-off between security and convenience, with cumbersome processes such as the use of card readers. Thanks to

PSD2 and improved customer authentication procedures, transactions are now easier, faster and more secure, typically completed in a single step on a mobile device. While this has reduced fraud within the payment system itself, fraud has shifted to other areas.

Digitalisation is also generating back-end efficiencies and reducing infrastructure costs. Beyond this, technology can also strengthen fraud prevention and improve communication with cardholders. For instance, payment statements can now display merchants' logos, making it easier for customers to recognise and check their transactions.

1.3 Future market trends and prospects

An industry representative highlighted several emerging trends in capital markets driven by technology. Crypto markets have triggered calls for 24/7 trading, the development of new asset classes such as crypto listings and tokenised securities, instant issuance, and direct access to liquidity. These developments point to a potential shift towards "instant capital markets," which would require both infrastructure and regulation to adapt.

A second industry representative emphasised that the use of agentic AI is another emerging trend in the financial sector. Concepts of "agentic commerce" are taking shape, where AI agents could evolve from merely suggesting products and services to executing purchases on behalf of users. This, however, may raise questions of liability.

An official argued that traditional financial systems are not evolving quickly enough to capture the full benefits of digitalisation. They remain constrained by regulation, legacy systems, and the complexity of building the new infrastructures required to exploit digital solutions. Unless traditional institutions accelerate, alternative solutions will continue to emerge. To respond effectively, the financial sector must "shift gear." For instance, AI agents could provide services comparable to open finance without requiring data sharing, thereby bypassing many of the challenges that have slowed open finance implementation so far.

Looking ahead, several scenarios are possible. One is a continuation of the current fragmented and inefficient systems, bogged down in interoperability issues. Another is dominance by big tech firms, where network effects and interoperability could develop within each ecosystem, but fragmentation would persist across different big techs. A third scenario is regulatory arbitrage, with global solutions such as stablecoins crossing borders without national control, making it difficult for domestic solutions to remain effective. A fourth, more constructive path is the development of digital public infrastructures, as seen in India and Brazil, which provide neutral platforms enabling private actors to connect, generate interoperability and create network effects for the wider benefit of society. In practice, a mix of these paths is likely to emerge. Policymakers and industry have a responsibility to act decisively to avoid falling behind the pace of technological change.

2. Adequacy of the existing regulatory and supervisory frameworks

The chair noted that the current EU framework already includes several digital legislations - the DLT Pilot Regime, the AI Act, DORA, MiCA, the Digital Services Act (DSA) and the Digital Markets Act (DMA) - and asked whether this framework is adequate and sufficient. The panellists generally considered that the existing European legislative framework provides a strong basis for the digitalisation of financial services.

An industry representative confirmed that these European digital frameworks, together with existing capital market regulation (MiFID, EMIR, and CSDR), are fit for purpose and provide a solid foundation for the digitalisation of capital markets and the strengthening of existing infrastructures. The real challenge lies not in regulation but in the adoption of technology by the market. Some initiatives are encouraging, such as the ECB's digital euro trials in 2024, which can be considered among the most successful global sandboxes. Private sector projects are also contributing: Deutsche Börse's D7 digital platform, a hybrid system supporting both the digitalisation of securities and tokenisation, now processes 50 to 60,000 securities per week. Cooperation between infrastructures and fintechs can also drive progress, for example in the areas of collateral mobilisation and fund tokenisation.

A second industry representative concurred that Europe is often seen as being at the forefront of regulation, with policy models frequently copied elsewhere. Strong authentication, for example, has been widely adopted internationally. An official added that European digital and financial regulation is widely regarded as a global reference point in terms of design and approach. PSD2 has had a major influence on payments regulation in other jurisdictions, and MiCA is already shaping regulatory approaches internationally.

Another official agreed with the previous speakers that the existing legislative framework provides a strong basis for digitalisation but emphasised that implementation remains challenging, with uncertainty around level 2 regulations. The implementation of adopted rules must accelerate. Regarding stablecoins, while MiCA provides a strong level 1 framework, market participants report that level 2 requirements impose such high compliance costs that operating in the US often appears more attractive. Addressing these shortcomings will be key to accelerating Europe's digital transformation.

3. Further evolutions needed to support digitalisation

3.1 Improving the regulatory and supervisory approach

The panellists suggested improvements to the current regulatory and supervisory approach to digital finance

likely to support the uptake of new technologies in the sector.

An official stressed that European legislation must move faster to keep pace with digitalisation, which is advancing at exponential speed. Accelerating rule-making would benefit the entire financial ecosystem. The new payment services package, PSD3, for instance, contains many positive elements for tackling financial fraud, and some supervisors would be favourable to introducing certain provisions into national law without waiting for full EU adoption. Fragmentation also persists: some national IBANs are still not accepted in other member states despite the single market. The European Commission and the ECB are working on this, but inconsistencies remain.

With new business models and products constantly emerging, regulators often lag behind innovation, making continuous joint learning with the private sector crucial. In Lithuania, supervisors hold regular meetings with firms presenting new business models and ideas, not for prior approval, but to better understand trends and anticipate responses. With supervisory practices differing across member states and multiple regimes in place, the more stakeholders learn together, the better Europe can advance its competitiveness.

An industry speaker agreed that accelerating the implementation of new digital policies is essential. Under the EU's current sequential approach, adopting and revising frameworks such as PSD2 can take years. A more pragmatic, parallel process is needed, allowing agreed elements to be introduced earlier instead of waiting for full packages that take five or six years to complete.

A second industry speaker suggested that the current regulatory framework needs updating in several areas to better support digitalisation. First, existing capital market rules, including EMIR and CSDR, should be modernised to accommodate new digital asset classes, in line with more recent legislation such as MiCA and the DLT Pilot Regime. Second, regulation should allow for the coexistence of centralised market infrastructures and decentralised developments, enabling both to be managed in a regulated and integrated way. Third, EMIR and CSDR should be broadened beyond CCPs and CSDs to encompass multi-value chain solutions and operating models, as the DLT Pilot Regime already does.

The continuing problem of fragmentation must also be addressed. Across Europe, tokenised and dematerialised securities are governed by national frameworks that are not interoperable. As a result, firms must operate 27 separate digital platforms, each with their own registers and tokenisation processes, which is neither efficient nor scalable. A focused "28th regime" at EU level could help resolve this issue. While a fully-fledged framework would take years to establish, an initial step could be to apply it to specific European products, such as Eurobonds.

An official suggested that for regulation to be effective and adapt to fast-evolving innovations, it must focus on functions, rather than how they are provided and the specific technologies that deliver them. If liability rules in traditional payment systems are clear, for instance, there is no need for new legislation if AI agents initiate transactions on behalf of users. Similarly, regulating DLT differently misses the point. What matters is regulating the core financial functions DLT enables, such as settlement finality or deposit-taking.

An industry speaker argued that the regulatory framework is not the main issue; the real challenge lies in supervision. All stakeholders (market participants, consumers and regulators) share the goal of a resilient financial system, and in the EU, efforts to simplify rules and boost competitiveness should not be seen as conflicting with resilience and stability. Both can be achieved with effective supervision without lowering standards.

Three priorities stand out for strengthening supervision. First, greater supervisory convergence is essential. Divergent guidelines across member states create fragmentation and excessive supervisory discretion adds to this by generating de facto requirements that go beyond legislation. The EU already has a solid regulatory framework, and supervisors should adhere to it. Second, supervision must adopt a risk-based approach suited to the digital environment. Outdated tools are still widely used and cannot deliver effective results; for example, operational resilience cannot be enhanced simply through capital add-ons. Third, supervisors should make better use of technology. While projects are underway, including at the ECB, it remains unclear how much such tools are applied in practice, for instance, whether AI is being used to detect emerging risks or support onsite inspections.

3.2 Conditions for effective digitalisation beyond the regulatory framework

An official observed that, beyond regulation and supervision, progress is needed in other areas that hold back the digitalisation of finance, requiring a more holistic approach. Faster progress on digital identity is particularly important. Despite years of discussion, a European digital identity has not yet been realised and requirements for proving identity still vary across the EU. Its introduction could transform access to financial services. Other frameworks with a decisive impact on digitalisation, such as the General Data Protection Regulation (GDPR), also need to evolve.

A second official added that even with perfectly harmonised regulation, the industry still needs focal points around which to converge, to overcome the current fragmentation of digital platforms, which is neither efficient nor scalable. A hub-and-spoke model supported by public digital platforms could provide such focal points. These central platforms would not need to be controlled by the public sector but should remain open infrastructures, enabling all market participants across Europe's 27 jurisdictions to connect and benefit from network effects.

An industry speaker argued that global technology players driving digitalisation, such as major social media, e-commerce and entertainment platforms, should be more closely integrated into European initiatives from the outset to accelerate digital

transformation. Testing use cases with a wide range of participants helps reveal issues no single institution could anticipate. During the PSD2 implementation, for example, the expertise of these players in customer behaviour informed new use cases and improved the design of digital solutions. Such collective efforts are essential to achieving real progress in Europe's digital transformation.

3.3 Promoting solutions that meet customer needs

An industry speaker underlined that what matters, beyond promoting the use of new technologies, is delivering solutions that meet market needs, address concrete problems and create tangible value. Market participants will only adopt digital options if they provide clear advantages over existing systems, and this is the key to accelerating uptake and improving market efficiency.

A second industry speaker agreed that the adoption of digital solutions depends on whether they deliver real added value to customers and users beyond what already exists. Fostering the emergence of such solutions and ensuring their timely delivery should be a central objective of the European policy agenda. This requires collaborative agreement upfront on common rules and technical standards. Once these are in place, market players should compete freely. Such a sequence would make the roll-out of new solutions far more efficient.

Wrap up

The chair concluded that while the EU has a solid regulatory framework, several key messages emerged from the discussion. Effective implementation of new digital policies is critical, and supervisory convergence is essential to avoid fragmentation. Policymakers must also move faster, even if democratic processes inevitably take time. On payments legislation, there is hope that agreement on the Payment Services Regulation, particularly its fraud provisions, can be reached swiftly, ideally by the end of the year.