

REGULATION AND INNOVATION IN PAYMENTS: THE EUROPEAN PERSPECTIVE

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INTRODUCTION

Over the past two decades, the European Union (EU) payments market has been shaped and structured by successive directives and regulations. What was once a largely technical matter of banking infrastructure has become a central pillar of the digital economy. Today, payments are not only a driver of innovation and financial inclusion but also a strategic lever for competitiveness and, at times, even a matter of geopolitical significance, given their role in economic sovereignty and cross-border integration.

In Europe, [sovereignty-driven initiatives in the payments sector](#) have gained clear strategic prominence as policymakers and regulators seek to [reduce structural dependence on non-EU infrastructures and technology providers](#).

For example, the [European Payments Initiative \(EPI\)](#) – an initiative backed by 16 European banks and financial services companies¹ - launched [Wero](#), a pan-European digital wallet built on built on [instant account-to-account \(A2A\)](#) payment infrastructure, intended to serve as a viable alternative to non-European wallets such as [Apple Pay](#) and [Samsung Pay](#) and [card schemes](#)².

At the same time, the European Commission — in particular through DG COMP³, and in coordination with DG FISMA⁴ — has actively promoted greater interoperability and open access within mobile payment ecosystems. Recent developments, such as Apple's binding commitments to open up iOS NFC functionality following an antitrust investigation, together with the broader framework established by the Digital Markets Act (DMA)⁵, illustrate the EU's strong determination to ensure fair access, competition, and technological neutrality in digital payments⁶.

Complementing these initiatives, [regional alliances](#) such as the [European Payments Alliance \(EuroPA\)](#)⁷ are strengthening [cross-border interoperability](#) by linking national schemes like [Bancomat \(Italy\)](#), [Bizum \(Spain\)](#), and [MB Way/SIBS \(Portugal\)](#)⁸.

In parallel, the [Digital Euro project](#), led by the European Central Bank, has evolved from an exploratory phase into a structured programme aimed at reinforcing the [monetary and payments autonomy](#) of the euro area⁹.

Taken together, these measures embody a coherent European strategy: to [retain sovereignty over payment rails](#), foster [innovation under open standards](#), and build an integrated, competitive payments landscape resilient to external dependencies.

Similar ambitions can be seen in other parts of the world, most notably with [Pix](#)¹⁰ in Brazil. Launched by the Central Bank in 2020, Pix has become the country's dominant retail payment method, combining instant transfers, low costs, and universal accessibility. [Its rapid adoption](#)¹¹ [has not only transformed the payments landscape](#)¹² but also expanded financial inclusion, making it a [global benchmark for sovereign payment systems](#) — and a source of inspiration for Europe's own trajectory.

These national perspectives also offer practical insights for companies seeking to better understand and operate within these diverse markets.

Whitepaper Objectives

This white paper pursues a dual objective: first, to take stock of the implementation of the EU's payment directives — highlighting both achievements and shortcomings — and second, to provide a forward-looking analysis of upcoming trends in innovation and regulation. It includes four national case studies — France, Italy, Portugal, and Spain — illustrating how local regulatory and market dynamics have shaped the reception and enforcement of common rules, particularly in the field of open banking.

Looking forward, the paper analyses the forthcoming Payment Services Directive 3 (PSD3)¹³, the Payment Services Regulation (PSR)¹⁴, clarifying the key regulatory changes they will introduce. It also considers the proposed [Regulation on a Framework for Financial Data Access \(FiDA\)](#)¹⁵, which extends the principles of open banking to the wider financial sector through harmonised data-sharing standards and consumer-controlled consent mechanisms. Together, these legislative initiatives form the cornerstone of the EU's next-generation payments and open-finance framework.

Beyond regulation, the paper examines the transformative impact of emerging innovations — from [stablecoins and tokenised money](#) to [AI-driven financial agents](#) — which are set to redefine how payments are executed, supervised, and experienced by end-users across Europe. These developments collectively illustrate a structural evolution: the shift from rule-based compliance to [intelligence-enabled, data-driven financial infrastructures](#).

About of the inter-firm partnership

This white paper has been prepared as part of a partnership between four independent European law firms, each with recognised expertise in financial services regulation:

Pledge Avocat (France), represented by [Sofia El Mrabet](#), initiated and coordinated the project, contributing the French perspective. Based in Paris, Pledge Avocat is recognised for its strong focus on financial services, compliance, and fintech, advising both regulated institutions and innovative start-ups on the challenges of European regulation.

Alma LED (Italy), represented by [Sergio Visalli](#), provides an in-depth analysis of the Italian regulatory framework and market practice. Alma LED is a boutique law firm, with offices in Milan, Rome, and Luxembourg, widely recognised as a leading player in Italy in the FinTech and Fund Formation sectors, where it advises financial institutions, payment service providers, investment managers, and innovative market entrants on regulatory, structuring, and compliance matters. Combining deep regulatory expertise with a cross-border perspective, Alma LED has built a strong reputation for guiding both domestic and international clients through Italy's complex financial and legal landscape.

PLMJ Advogados (Portugal), with the contribution of [André Abrantes](#), [Ana Nunes Teixeira](#) and [José Eduardo Oliveira](#) brings insights into the Portuguese market and its supervisory environment. PLMJ is one of the largest and most prestigious law firms in Portugal, with over 50 years of history. Its Financial Services team is widely recognised for advising leading banks, payment institutions, and investment firms on regulatory and supervisory matters, both nationally and across the Lusophone world.

Linares Abogados (Spain), led by [Miguel Linares Polaino](#) and [Alejandro Carrasco Garcia](#), contributes the Spanish perspective. Founded in Madrid in 2010, Linares Abogados has rapidly become a leading independent law firm in Spain in the fields of fintech, crypto-assets, and financial regulation. The firm, with a team of around 15 specialised lawyers, is consistently ranked in Chambers & Partners FinTech Guide for its expertise in digital finance, regulatory compliance, and cross-border financial services.

This inter-firm collaboration reflects a shared ambition to foster cross-border dialogue on financial regulation. By pooling expertise from four different jurisdictions, the partnership enables a nuanced assessment of both common European challenges and local specificities.

Finally, we wish to thank the market participants and industry stakeholders who contributed their insights. Their feedback has enriched this white paper with a practical perspective on the implementation of payment directives and the challenges of the evolving European payments ecosystem.



THE PSD2 EXPERIENCE: FROM EUROPEAN AMBITION TO NATIONAL REALITIES

The evolution of European payment regulation reflects the EU's long-standing ambition to create a single, secure, and competitive market for financial services. Over the past two decades, two major legislative milestones — the first Payment Services Directive (PSD1)¹⁶ and its revision (PSD2)¹⁷ — have shaped this transformation, moving from market harmonisation to digital innovation.

When the first Payment Services Directive was adopted in 2007, its primary objective was to remove national barriers and establish a common legal foundation for payment services across Europe. PSD1 introduced the concept of “payment institutions,” opening the EU payments market to non-bank providers, and provided the legal foundation for the implementation of the Single Euro Payments Area (SEPA)¹⁸. By defining the rights and obligations of both providers and users, it aimed to make cross-border payments as easy, efficient, and safe as domestic ones. This first generation of regulation was primarily about integration — ensuring that a fragmented market could operate under shared rules.

The second phase began with the Revised Payment Services Directive (PSD2), adopted in October 2015 and transposed into national law by January 2018. PSD2 recognised that digitalisation and fintech innovation had fundamentally changed how Europeans pay, transfer, and manage money. Its key innovation was the creation of a legal framework for open banking, requiring banks to provide secure access to payment account data for licensed third-party providers — account information services (AISPs) and payment initiation services (PISPs). The directive also introduced Strong Customer Authentication (SCA) and detailed Regulatory Technical Standards (RTS) on SCA and Common and Secure Communication (CSC), which came into force on 14 September 2019, with an extended migration period for e-commerce transactions ending 31 December 2020.

At its core, PSD2 pursued three complementary objectives: [enhancing security](#), [fostering innovation](#), and [deepening market integration](#). Its overarching ambition was to make

electronic payments more secure, to enable new digital business models, and to strengthen the Single Market for payments through harmonised rules and interoperable infrastructures. The [European Banking Authority \(EBA\)](#), together with national competent authorities, translated these objectives into operational reality through a detailed set of [regulatory technical standards, guidelines](#), and supervisory frameworks designed to ensure consistent implementation across Member States.

Beyond its legal provisions, PSD2's most lasting contribution arguably lies in its ability to catalyse a cultural and organisational transformation within the European payments ecosystem.

It redefined the relationship between incumbents and new entrants, shifting the regulatory paradigm from institutional exclusivity to functional interoperability — from closed infrastructures to open, collaborative innovation.

Yet, the way [these objectives have translated into practice varies widely across Europe](#). While PSD2 provided a single legislative framework, its implementation has reflected the diversity of [Europe's financial landscapes](#) — from regulatory traditions and supervisory cultures to the maturity of banking infrastructures and fintech ecosystems. National authorities have interpreted and enforced the directive through different lenses, producing distinct experiences and speeds of adoption.

Understanding these national trajectories is essential to assess the true impact of PSD2. France, Italy, Portugal, and Spain offer particularly telling examples: four mature markets operating under the same European rulebook, yet each revealing its own balance between compliance, innovation, and market adaptation. Their experiences highlight how a harmonised directive can yield differentiated outcomes — and what this means for the future of payment regulation in an increasingly digital Europe.

France – Open Banking, BaaS Models, and Regulatory Leadership

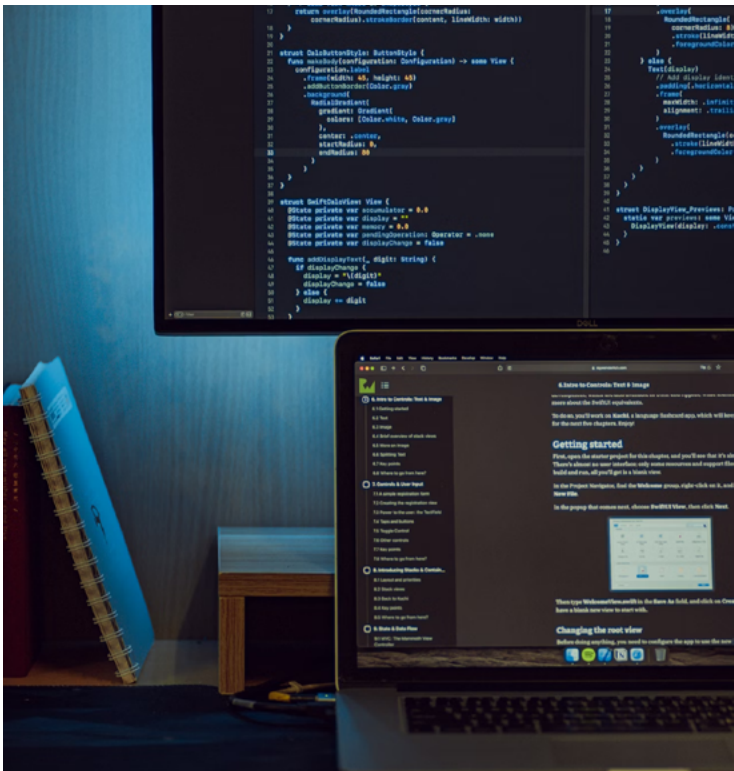
Prior to the implementation of the Open Banking framework, financial data aggregation frequently relied on a technique known as “web scraping” (or “screen scraping”). This approach involved the automated use of customers’ online banking credentials to access and extract account information directly from web interfaces, subject to the customer’s consent. In France, early financial technology providers such as [Bankin’](#) or [Linxo](#) developed aggregation services based on this practice, enabling users to consolidate and analyse data from multiple accounts at a time when no standardized application programming interfaces (APIs) were available. French companies initially deployed scraping-based solutions to facilitate data connectivity, before progressively transitioning towards regulated, API-based infrastructures. While this practice fostered early financial innovation, it also presented significant drawbacks — notably the absence of a legal framework, vulnerabilities in data security arising from credential sharing, and limited technical stability.

The adoption of PSD2 constituted a turning point in the regulation of financial data access within the European Union. PSD2 established a [harmonized legal and technical framework](#) for such data sharing, under the [supervision of national competent authorities](#), thereby replacing unregulated web scraping practices with secure, standardized access mechanisms. The Directive introduced two new categories of regulated payment services: [Account Information Services \(AIS\)](#), allowing customers to retrieve and view aggregated information from multiple payment accounts, and [Payment Initiation Services \(PIS\)](#), enabling authorized providers to initiate payments directly on behalf of customers. To ensure the integrity and security of these activities, PSD2 introduced [Strong Customer Authentication \(SCA\)](#) requirements and encouraged the development and deployment of standardized [APIs](#) as the primary access channel for authorized third-party providers. These measures collectively aimed to enhance consumer protection, promote innovation, and ensure a level playing field between incumbent financial institutions and new market entrants. In summary, Open Banking represents the evolution from fragmented, unregulated data access models towards a coherent, transparent, and secure regulatory framework for data sharing in the European financial sector.

The State and Market Dynamics of Open Banking in France: Diverging Market Visions and Strategic Outlook

At the heart of the European Open Banking framework lies the principle of non-discrimination, enshrined in [Article 67\(3\) of the Payment Services Directive \(EU\) 2015/2366 \(PSD2\)](#), which stipulates that account-servicing payment service providers (ASPSPs) must ensure that users of account-information and payment-initiation services do not face obstacles when accessing their payment accounts via duly authorised third-party providers¹⁹. This principle is further elaborated in [Article 36\(1\) of the Regulatory Technical Standards on Strong Customer Authentication \(RTS SCA\)](#), requiring that customers accessing their data through an authorised third-party provider enjoy the same level of functionality, reliability, and service quality as when using their own bank’s interface²⁰.

Against this legal background, the French Open Banking landscape displays a diversity of strategic approaches and varying degrees of engagement among market participants. The HCJP Report on the revision of the payment services directive 2 (2023) identifies contrasting visions: incumbent banks tend to interpret PSD2 primarily as a compliance obligation, while fintech and data-service providers regard it as an opportunity to expand innovation and customer value²¹. Regulators, for their part, seek to reconcile these perspectives by maintaining both consumer protection and fair market access.

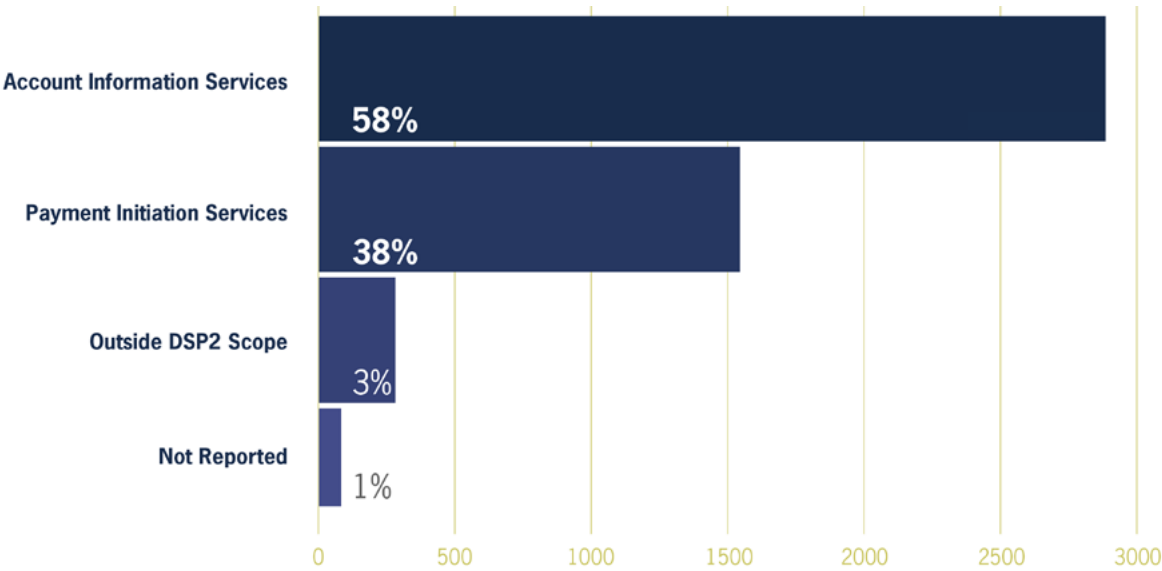


Banks generally perceive Open Banking as a regulatory cost centre, pointing to limited profitability and modest customer uptake despite substantial investments in API standardisation and security. Fintech actors, conversely, highlight persistent [asymmetries of access](#), arguing that ASPSPs retain informational advantages by controlling API performance and restricting data scope²². In line with these observations, the [ACPR's report on Open Banking in France](#)²³ notes that API-based Open Banking activity in France remains, for the time being, largely confined to payment services governed by [PSD2](#). Among the two categories of regulated services — [account information services](#) and [payment initiation services](#) — the use of the former is by far the most developed, while the latter remains comparatively limited and generates only modest revenue streams. Activities outside the PSD2 perimeter

continue to represent a marginal share of the market, although they tend to be more profitable given that they are [not subject to the zero-fee requirement](#) applicable to PSD2 APIs.

These asymmetries have also drawn scrutiny from the [French Competition Authority](#), which in its Opinion No. 21-A-05 (April 2021) warned that the concentration of payment data and API control within incumbent banking groups could create structural barriers to competition and innovation²⁴. The Authority urged improved data portability, strengthened interoperability, and rigorous application of the non-discrimination principle to safeguard competitive neutrality²⁵.

Distribution of Open Banking by Activity



Source : ACPR (2025). Distribution of Open Banking by Activity, Open Banking in France. Report published on September 11, 2025.

This imbalance continues to fuel debate regarding remuneration for API access and reciprocal data-sharing obligations — issues expected to be clarified under the forthcoming Payment Services Regulation (PSR) and Financial Data Access Regulation (FIDA)²⁶.

In practice, the French market has evolved along two complementary paths. On one side, incumbent institutions are developing [embedded-finance](#) models and selective partnerships to integrate Open Banking functionalities within their digital ecosystems. On the other, fintech aggregators and data-infrastructure providers are expanding beyond the PSD2 perimeter, offering ancillary services.

These diverging interpretations of the Open Banking framework underscore the need for greater regulatory clarity and harmonisation at the European level.

“The transition proved particularly painful for Third-Party Providers (TPPs) and end-users, due to a range of issues — from incomplete APIs to persistent delays and recurring failures by some banks”.

- Guillaume Sarthoulet, CEO of Bankin'



The Qualification of “Collection of Funds on Behalf of Third Parties” and the Structuring of the French Payments Ecosystem

The [Autorité de contrôle prudentiel et de résolution \(ACPR\)](#) has developed a consistent and influential interpretation of what constitutes collection of funds on behalf of third parties (*encaissement de fonds pour compte de tiers*). According to this position — first outlined in the ACPR’s 2015 communication any entity that both (i) receives funds on a payment account that it controls, and (ii) does so [for the benefit of a third party](#), is deemed to be providing [payment services](#)^{27/28}.

The [EBA’s position](#) now aligns with this functional interpretation, which confirm that “receipt and forwarding of funds” generally qualifies as a regulated activities under [Annex I of PSD2](#), unless a specific exclusion applies (such as the commercial agent exemption under Article 3(b))³⁰.

In practical terms, this interpretation leaves market participants with two compliant pathways:

- to obtain [authorisation as a payment service provider \(PSP\)](#) or
- to operate as a [registered agent of a payment service provider](#).

This supervisory stance has directly encouraged the rise of [Banking-as-a-Service \(BaaS\)](#) models in France. Licensed PSPs such as [Treezor](#), [Xpollens](#), and [Lemonway](#) have developed API-based infrastructures enabling third parties — marketplaces, crowdfunding platforms, and embedded-finance providers — to distribute payment services under their regulatory umbrella. These institutions provide the full regulatory and operational stack: account creation, safeguarding of client funds, anti-money laundering (AML) due diligence, and payment execution.

According to the Regafi register and the EBA Central Register, these companies maintain significant amount of registered agents (more than 100) across the European Economic Area with a passport networks covering more than 20 Member States³¹.

This model has played a decisive role in shaping the French fintech ecosystem. According to France FinTech and KPMG³², France now hosts more than [1,100 fintech firms](#), making it the largest ecosystem in continental Europe. Total capital raised reached approximately [€1.3 billion in 2024](#), following a market adjustment in 2023.

The report highlights the growing importance of embedded-finance and API-based infrastructures — from Banking-as-a-Service to Payment-as-a-Service models — which have become structural enablers for innovation and scalability across the French market³³.

The Third Path: IOBSP Intermediation

Alongside these regulated models, a third category of actors exists: *intermédiaires en opérations de banque et en services de paiement (IOBSPs)*. Defined under the [French Monetary and Financial Code](#), IOBSP activity consists of presenting, proposing or assisting in the conclusion of banking operations or payment services, or performing preparatory work or advisory activities related to such operations³⁴.

Under the implementing provisions, any person who solicits or obtains a client’s agreement for a banking operation or payment service or explains the terms and conditions of such an operation verbally or in writing with a view to its completion, is deemed to be engaging in intermediation³⁵.

IOBSPs must register with the [ORIAS](#), the national register of financial intermediaries, which ensures that they meet minimum professional, ethical, and insurance requirements.

While the IOBSP framework was originally designed for credit [brokerage and financial advisory services](#). This status is increasingly used by [fintechs and digital platforms](#) as a [commercially convenient alternative](#) to acting as a formal [payment agent](#)³⁶.

Many entities whose operations could arguably qualify as providing payment services have opted for IOBSP status to simplify compliance, reduce regulatory costs, or avoid the operational constraints associated with agent registration. However, this strategy remains precarious: the ACPR has repeatedly clarified that where an intermediary [receives, holds, or controls client funds — even temporarily — on behalf of a third party](#), such activity [falls squarely within the scope of PSD2](#) and must therefore be carried out either as a licensed PSP or an authorised agent.

For cross-border fintechs, the French model offers both opportunity and complexity. On one hand, the country’s [BaaS models and API ecosystem](#) is among the most developed in Europe, providing ready-to-use regulatory infrastructure and market connectivity. On the other, France remains one of the few jurisdictions to enforce a [broad functional interpretation](#) of what constitutes a payment service, leaving limited scope for unregulated handling of client funds. This combination of openness and regulatory discipline has made France a strategic gateway for scaling EU-wide payment operations, provided that fintechs align their structure with ACPR expectations on authorisation, agent registration, and fund safeguarding.

NATIONAL PERSPECTIVES

Italy – Conservative Supervision and Gradual Market Opening

The implementation of the PSD2 in Italy marked a crucial evolution in the regulation of the payments ecosystem in a market traditionally characterised by [strong incumbent players and growing fintech dynamism](#). Adopted through Legislative Decree No. 218 of 15 December 2017 (which amended the Italian Consolidated Law on Banking – TUB), PSD2 reshaped the Italian legal framework by aligning it with European standards, while introducing a number of national peculiarities that continue to shape the structure and supervision of the market.

From the outset, Italy opted for a full implementation of the Directive's provisions, almost without relying on optional exemptions or transitional arrangements. The Bank of Italy was designated as the competent supervisory authority, holding the primary role in licensing, prudential supervision, conduct regulation, and enforcement. The Italian supervisory approach has consistently shown a high degree of conservatism and rigour, particularly in the interpretation of transparency and consumer protection obligations, as confirmed by the extensive interpretative activity of the Bank of Italy and the increasing number of decisions issued by the Banking and Financial Ombudsman (ABF) in the payments domain.

A key element of the Italian regulatory environment is the emphasis on strong customer authentication (SCA), whose application has been subject to stringent interpretation and strict enforcement. The Italian regulator has taken a particularly rigid approach in assessing the effectiveness of authentication mechanisms, often holding PSPs accountable for unauthorised transactions, even when two-factor authentication had been applied. This has resulted in a consistent trend in ABF case law that, while recognising the effectiveness of SCA on a technical level, shifts the burden of proof to the PSP to demonstrate the absence of fraud or user negligence – leading to a de facto presumption in favour of the payer. The burden of transparency placed on PSPs is equally significant: clear, standardised and upfront information on costs, charges and execution times is required, and non-compliance often leads to sanctions or reputational risks.

In addition to the obligations directly stemming from PSD2, Italian law provides for specific requirements on the registration of payment agents and distributors. Entities that distribute or promote payment services on behalf of a licensed PSP (including e-money institutions) must be registered in a dedicated section of the public register managed by the Organismo Agenti e Mediatori (OAM), an independent supervisory body. This is particularly relevant

in the Italian context, where distribution networks are often articulated and extensive, especially for players operating in the retail payments segment. These subjects are also required to comply with anti-money laundering (AML) obligations and are supervised, albeit indirectly, through their principal. Italian law requires these third parties to be disclosed, vetted and adequately trained, and the Bank of Italy has stressed the need for clear delineation of responsibilities across the distribution chain.

The legal framework also allows for the use of certain exemptions provided under PSD2 – for instance, limited networks and digital content exemptions under Article 3(k) and (l) of the Directive – but the Bank of Italy applies a strict interpretation and requires formal notification procedures. Similarly, the so-called “agent exemption” under Article 3(b), referring to commercial agents acting on behalf of a single principal, has been closely scrutinised, particularly in light of potential circumvention risks. Overall, the Italian approach to exemptions remains cautious and highly controlled.

On the Open Banking side, the Italian ecosystem has been relatively slow in comparison to other European countries. Despite the mandatory introduction of APIs by account servicing payment service providers (ASPPs), the uptake of PIS and AIS services remains modest, both in terms of market penetration and consumer awareness. Several banks implemented “access to account” (XS2A) interfaces in a compliance-driven manner, without seizing the opportunity to offer value-added services or fully embrace the concept of data portability and innovation. The lack of harmonisation across API standards and the operational frictions in accessing data have further limited the growth of third-party providers (TPPs). Nonetheless, a number of fintech players – including Italian and international firms – are progressively entering the market with account aggregation, budgeting tools and embedded finance offerings, leading to the emergence of new collaborative models between banks and non-banks.

In conclusion, the implementation of PSD2 in Italy has been characterised by a formalistic and compliance-heavy approach, with a strong focus on consumer protection, risk mitigation and transparency. While this has ensured a high level of regulatory robustness and trust in the system, it has also posed challenges for innovation and speed to market. The upcoming PSD3 and PSR proposals are expected to further reshape the landscape, introducing more streamlined licensing procedures, broader access to data and enhanced consumer rights. Italy is actively participating in the legislative process and will need to adapt its already complex regulatory ecosystem to maintain alignment with the evolving EU framework.

Italy's Open Banking Framework — Between Regulatory Precision and Market Caution

The Italian market has progressively embraced the Open Banking paradigm introduced by the PSD2, albeit with a degree of strategic caution and significant regulatory stringency. While the Directive was intended to foster competition and innovation in retail payments by opening access to account data (AIS) and enabling payment initiation (PIS) via APIs, its implementation in Italy has followed a path marked by high regulatory standards, fragmented market practices, and limited consumer engagement.

From a regulatory standpoint, the Bank of Italy has consistently adopted a formalistic and conservative approach. Authorization and supervision of PISPs and AISPs are subject to rigorous assessment of organizational and IT requirements, with particular emphasis on data security, outsourcing risk, and operational continuity.

A distinctive feature of PSD2 implementation in Italy is the widespread adoption of dedicated interfaces (APIs), rather than adapted customer interfaces. According to the latest data from the CPI Open Banking working group, around 98% of Italian ASPSPs have implemented dedicated APIs, often based on the NextGenPSD2 standard developed by the Berlin Group. While this has reduced the legal uncertainty around fallback options and adapted interfaces, the actual technical implementation of these APIs remains inconsistent, with frequent reports from TPPs regarding fragmentation, missing functionalities, and weak developer support.

Italian law does not mandate a uniform technical standard, and the EU regulatory framework only encourages the use of internationally recognized specifications. While this allows for technical innovation, it has also led to a costly and inefficient integration process for TPPs, which must adapt their systems to each ASPSP's unique interface. The potential introduction of a single API standard at EU level, currently under discussion in the PSD3/PSR and FiDA (Financial Data Access) Regulation proposals, is seen by many stakeholders as a way to reduce friction and level the playing field, though it would also imply significant migration costs and governance challenges.

On the market side, Italy's Open Banking ecosystem remains dominated by traditional banks, which have generally limited themselves to minimum legal compliance. Most AIS and PIS services are embedded within existing digital channels (e.g., banking apps), rather than offered through open and developer-friendly ecosystems. These services are often aimed at strengthening internal client engagement, rather than supporting true third-party

innovation. Only a handful of banks and fintechs are experimenting with value-added services or leveraging Open Banking to attract new customers. As a result, the Italian model has been more “compliance-driven” than “innovation-led.”

The platformization of banking services is emerging as a promising but still immature trend. Some institutions have started integrating non-financial services—such as utility bills, transportation passes, or e-commerce features—into their apps, often in collaboration with fintechs. These initiatives reflect a move toward Banking-as-a-Service (BaaS) and embedded finance, though they remain limited in scope and uptake. Strategic partnerships, rather than full-fledged third-party platforms, remain the preferred route.

A further constraint on Open Banking uptake is the absence of a clear economic model. PSD2 does not allow banks to charge TPPs for access to data, and no contractual relationship exists between ASPSPs and TPPs. While this principle supports data democratization, it has also limited ASPSPs' incentives to improve API performance. Many stakeholders in Italy now advocate for the introduction of a remuneration model, as proposed under FiDA and the SPAA scheme promoted by the European Payments Council (EPC), to ensure a fair distribution of value and sustainability of investment in infrastructure. However, any fee structure would need to respect proportionality and avoid being passed on to end-users in a way that could discourage adoption. Additional regulatory challenges include the scope and effect of SCA exemptions proposed by PISPs (which are currently subject to ASPSP discretion), and the lack of clear rules for payment revocation initiated through PIS, which has led to operational uncertainty and risks for merchants in e-commerce contexts. These operational gaps are under active review in the PSD3 legislative process, with Italian regulators and stakeholders advocating for clearer rules to facilitate circular information flows between ASPSPs, PISPs, and users.



Looking forward, PSD3 is expected to streamline the existing framework, merging the PSD2 and EMD2 into a single legislative text, clarifying the role of silent parties, strengthening enforcement against obstacles to access, and extending the reach of the framework to new actors. Italy is expected to support these reforms, having already flagged implementation burdens and API quality issues in EU consultations.

In conclusion, while Italy has established a strong legal and technical foundation for Open Banking, the market remains relatively closed, fragmented, and cautious. Unlocking its full potential will require not only legal reform at EU level but also cultural change, stronger incentives for banks, improved API performance, and the emergence of viable business models for all stakeholders. Only then can Open Banking in Italy move beyond compliance and evolve toward a dynamic, value-creating, and customer-centric ecosystem aligned with the broader vision of Open Finance and the European digital single market.

The Italian Payment Market: Innovation, Public Infrastructure and Platformization

Italy represents a particularly dynamic context within the European payment ecosystem, with distinctive features stemming both from public infrastructure initiatives and from the evolution of private players.

Among the most significant public innovations is pagoPA, a national platform developed to streamline and digitalize payments to public administrations. Thanks to pagoPA, users can freely choose both the electronic payment instrument (e.g., SEPA credit transfer, debit/credit/prepaid cards, or direct account debits) and the payment service provider (PSP) among those connected to the central infrastructure, known as the “Nodo”. This system ensures freedom of choice, transparency, and competitive conditions, as the PSP acts on behalf of the payer and not of the public administration, applying fees – if any – directly to the user.

Another key pillar of the Italian market is Bancomat, the domestic payment scheme historically linked to debit card payments. Bancomat has evolved into a multi-functional platform supporting both traditional in-store transactions and newer digital services, such as “Bancomat Pay” – a mobile payment solution based on phone numbers and IBANs. This confirms Italy’s strategy of fostering national alternatives to international card schemes, while encouraging interoperability and digital adoption.

Italy has also seen significant activity from both FinTech startups and non-bank players, including operators from the energy and gaming sector as well as technology providers, entering the payment space by leveraging network and scale economies. The implementation of PSD2 has further boosted this trend by opening the infrastructure of incumbent banks to third-party providers (TPPs), thus allowing them to build value-added services on top of traditional payment accounts. This regulatory shift has accelerated the disintermediation of traditional banking functions, enabling innovative offerings such as AIS and PIS, and embedded finance products.

In this environment, both traditional banks and new entrants are increasingly embracing ecosystem strategies and platformization models. Italian banks, in particular, have begun to invest in open APIs and data-driven services, often in partnership with FinTechs, to remain competitive. At the same time, the regulatory framework is adapting to support this transformation. The PISA framework introduced by the European Central Bank, now applied by the Bank of Italy, extends supervisory scrutiny to new payment arrangements (e.g., wallets, digital tokens, and payment orchestration tools), reflecting the need to ensure trust and efficiency in a fast-evolving market.

Moreover, Italy is at the forefront of Buy Now, Pay Later (BNPL) offerings, with the Bank of Italy closely monitoring these models and emphasizing the need to treat deferred payments as forms of credit – subject to appropriate consumer protection rules. The Italian interpretation of PSD2 and its implementing acts has also strengthened user safeguards (notably regarding consent revocation, strong customer authentication, and data access), promoting innovation while preserving financial stability and legal certainty.

All in all, the Italian payment market reflects a balanced combination of public infrastructure development (like pagoPA), private innovation (especially in FinTech), and strategic evolution by incumbent players. The next step for many Italian operators is international expansion – and conversely, Italy continues to attract foreign PSPs and e-money institutions, particularly those leveraging the passporting regime under PSD2. As new challenges emerge from the implementation of DORA, MiCAR, and the revised PSD3 proposal, Italy stands as a relevant and evolving laboratory for the future of European digital finance.

Italy has demonstrated a firm commitment to the objectives of PSD2 – security, consumer protection, and market integrity – while also reflecting its own legal culture and market structure, often privileging caution

over rapid innovation. This approach has produced a regulatory environment that is robust and resilient, but at times perceived as fragmented and challenging for new entrants and third-party providers.

At the same time, the Italian market is showing increasing signs of maturity, with a gradual but concrete transition towards Open Finance. Fintech adoption is growing, collaborative models are emerging, and banks are starting to move beyond compliance, exploring new business models centred on platformization, embedded finance, and data-driven services. Public infrastructure initiatives like pagoPA and national schemes like Bancomat illustrate the country's potential to combine innovation with strategic autonomy and user-centric design.

Italy represents a dynamic and evolving environment for payment services and Open Banking, with strong institutional involvement and a growing number of market players. Despite structural and cultural challenges, the ecosystem is progressively aligning with EU ambitions in digital finance and offers interesting opportunities for cross-border collaboration and service provision.

In this evolving context, Italy is well-positioned to contribute to a more innovative, secure, and competitive European financial ecosystem – provided that stakeholders continue to invest in technological readiness, foster dialogue between institutions and industry, and embrace a culture of transparency, inclusiveness, and responsible innovation.





NATIONAL PERSPECTIVES

Portugal – Competition Challenges and Fintech Entry Barriers

Payment services sector in Portugal still concentrated among the five Portuguese largest banks. In fact, according to a recent Call for Information consultation paper published by the Portuguese Competition Authority³⁷, these five institutions held 70,50% of total assets in the sector, exceeding the European average of 68,61%. Payment services in this context are no exception, particularly in regards payments in the retail sector, which are also mostly concentrated in these major banks due to some practical restrictions to competition in Portugal.

Over the same period, these five banks also accounted for 74,96% of all deposits in the banking system³⁸. This concentration on the Portuguese clients deposits also impacts the competition on the payment sector as banking clients tends to concentrate day-to-day payment transactions on banks where their funds are deposited.

In accordance to João Matos Cruz (Vice-President of the Portuguese Association of Payment Institutions and E-Money Institutions and also a founder of a VASP), [lack of competition in the Portuguese market is mostly due to different layers](#): (i) one is related to the prominent position of SIBS in the Portuguese market which lets little room for innovation by different players with little player in the payment sector acting almost as agents of SIBS in the distribution of its products (e.g., payment references), this results on lack of interest of new native players in the financial sector with very few payment licensed being granted over the last 10 years: (ii) the other one relates to the layers of complexity triggered by the regulatory requirements which are particularly challenging to smaller players in the payments industry³⁹.

In fact, as pointed out by the Portuguese Competition Authority retail banking is a sector prone to barriers to switching, due to the potential difficulties consumers face in searching for and comparing different banking or financial products, as well as potential frictions involved in account switching⁴⁰.

On the main reasons for this scenario in the Portuguese market is the practice of bundling different banking products, which strongly affects product comparability and make it difficult for consumers to switch credit institutions⁴¹.

It is also common for Portuguese banks to require the opening of a current account as condition for having a term deposit with the institution. The same applies as a condition for access to mortgage loans and personal loans. The effect is of course that clients tend to use their “required” current accounts for their payment needs, affecting competition in the payments sector and new entries into the Portuguese market. In addition, if banks benefit from an immovable customer base competitive pressure weakens and incentives to offer new products and become more efficient from a cost perspective also diminish⁴².

In addition to bundling practices by the leading banks in Portugal, access to the Portuguese banking and payment infrastructure has also been considered as a practical issue affecting competition in Portugal.

Fintech players and traditional e-money and payment service providers have continuously mentioned that need for bank’s representation and intermediation in access to SICOI⁴³ poses a relevant barrier on access to the payment infrastructure (SICOI, the interbank clearing system, is the retail payment system managed by the Bank of Portugal which processes and clears retail payments made with cheques, bills of exchange, direct debits, credit transfers, instant transfers and payment cards).

Delay in the banks’ response to requests for representation, long time frames for implementing access and the fear that access to SICOI is hindered as a result of the conflict of interests inherent to the banks acting as an entity on which their competitors are dependent for access to essential input are among the legal and practical barrier of accessing to this payment infrastructure. In fact, the need to ensure effective access to SICOI by Fintech entities, either via facilitated direct access or through clearly regulated indirect access, is one of the major recommendations repeated by the Portuguese Competition Authority over the recent years.

In this context, the Portuguese Competition Authority (PCA) have shared important recommendations with the aim to enhance comparability and contracting conditions of banking and financial products, and to facilitate switching between banking service providers, including on the removal of unnecessary and disproportionate barriers to entry and expansion by new players which can further exacerbate the negative impact of switching costs⁴⁴.

In 2020, the PCA conducted a survey of fintech companies, including both those active in Portugal and potential entrants from outside the country. In light of the findings of this survey, the PCA launched an investigation into SIBS Group⁴⁵, the entity responsible for the Portuguese domestic payment scheme and the central payment processing network. SIBS Group was fined €13,869,000 for abusing its dominant for abusing its dominant position in the payment services sector by requiring card issuers and acquirers seeking to access the SIBS Group's payment schemes to also contract its processing services⁴⁶. This decision is subject to an appeal, which will be decided by the Portuguese Competition Court.



Irrespective of the final decision by the by the Portuguese Competition Court, it is clear that the Portuguese payments market will inevitably adjust and be more open to new players, thus triggering important incentives to Portuguese fintech players but also to internal fintech entities exploring the Portuguese market, both on B2B and B2C markets.

In fact, successive Portuguese Governments and financial regulators have launched several initiatives aiming to support the emerging startup and FinTech ecosystem, including:

- StartUp Portugal Programme, a four-year plan focused on building a Portuguese ecosystem and facilitate access to funding and internationalization;
- Portugal FinLab, an innovation hub, with the mission of supporting the development of innovative solutions in fintech and related areas through cooperation and mutual understanding between entrepreneurs investors and financial regulators (the Bank of Portugal, CVMV and ASF);
- The Technological Free Zones (ZLTs) approved by the Portuguese Government with the purpose of creating a legal and regulatory framework that promotes and facilitates the testing of innovative technologies, services, products and processes;
- The Market4Growth sandbox launched by the Portuguese Securities Market Commission (CMVM), a regulatory sandbox with purposes of enabling companies to test innovative financial services and products in a simulated environment;
- Some other private incubators, such as Maze, which have also helped technological startups in the Fintech industry.

Thus, in accordance to João Matos Cruz we will still probably see even more concentration in Portuguese payment service providers with new potential players coming from well-established groups that might see payments as an additional source of revenue in combination with is current business activities. Additional innovation and market disruption will then probably come from international fintech players investing in the Portuguese market, either by acquiring Portuguese targets or establishing branches in Portugal.

João Matos Cruz (Revolut) believes that the infrastructural and regulatory barriers in the Portuguese payment system, as outlined above, still gives little room for new projects or investment of native national payment service providers in Portugal.

Role of fintech players in fostering innovation

Notwithstanding the above practical competition issues affecting the competition between traditional incumbent players and fintech entities, there is indeed room for progress and development of the fintech industry in the Portuguese market. The public and private initiatives mentioned above might also be used by small and medium fintech entities to test and scale its financial products and services, but also to access to funding from venture capital or institutional investors.

In addition, over the recent years, both the Portuguese Competition Authority and the Bank of Portugal have shown strong interest in removing these barriers and facilitate the entry into the market of new fintech players with upcoming implementation of PSD3 and PSR being an important milestone to speed up the necessary adjustments in the market.

These changes in the Portuguese market are also driven by a strong customer appetite for innovation and new technologies, particularly in the payment sector where fintech players (both with a presence in the Portuguese territory and acting on a pure cross-border basis) were able to grow its customer base at a fast pass. An example of this is the recent incorporation of a branch of Revolut in Portugal boosted by the increasing customer base in Portugal which reveals the well acceptance by Portuguese banking customers of new fintech providers.

Fintech players have played an important role in fostering innovation in Portugal and challenging the traditional payments system. In fact, some of the issues analysis above were firstly raised by Fintech entities trying to access SICOI or to SIBS payment infrastructure.

We have seen this fintech impact not only in the above said cooperation with the Portuguese Competition Authority and national regulators, but also from practical perspective in the continuous offering of new products and services and by investing in the Portuguese market.

In this regards, we note the following recent trends of international fintech entities exploring the Portuguese market:

- acquisition of regulated entities (instead of applying for local licences) mostly by non-EU fintech entities with a view to revolutionising the business models of the Portuguese targets;
- establishment of branches of EU fintech entities in Portugal, creation of tech hubs in Portugal and strong marketing campaigns related to the offering of new products and services in Portugal, either by the branches or on a cross-border basis; and
- establishment of joint ventures between fintech entities and incumbent financial entities with a view to offering innovative products leveraging the regulatory and financial background of the incumbent entities.

Challenges in the creation of an open banking environment in Portugal

Open banking requirements are essentially based on PSD2 and its implementation in Portugal. One of the key technical hurdles revealed by PSD2 was interoperability—the inconsistent implementation of APIs across institutions led to fragmentation and inefficiencies.

In Portugal, payment processor SIBS has developed the SIBS API Market, which is an integrated platform giving access to other APIs in the financial sector. Nevertheless, some non-bank players in the payment sector are still reporting difficulties in achieving a true open banking environment in the Portuguese payments market. The above comments on the difficulties of having access to SICOI, but also to SIBS payment system, are one of the reasons of concern of Portuguese regulators affecting the entry into the payments market of new players. As an illustration of these challenges to effective open banking in Portugal, there are currently no officially registered TPPs (third party providers of open banking solutions) in Portugal, as per Open Banking Tracker, which is mostly likely due to the prominent position of SIBS payment solutions in the Portuguese market.

As at the time of writing, no licenses for Portuguese account information service providers (AISPs) or payment initiation service providers (PISPs) have been granted by the Bank of Portugal. This is a clear limitation in the Portuguese payment market, which is affecting open banking maturity in the jurisdiction. In fact, account information services are basically being offered in the Portuguese market by incumbent banks but still with little traction in the market and contributing quite little to financial literacy improvement of Portuguese clients.

We are then of the view that the recent strong approach of the Portuguese Competition Authority, as well as attention spent to this matter by the Bank of Portugal, together with the upcoming PSD3 implementation in Portugal will certainly boost innovation and help creating an effective open banking environment in Portugal. This will create new opportunities for the Portuguese payments' ecosystem leveraged by strong customer appetite, a large pool of skilled talent based in Portugal (both Portuguese nationals and digital nomads) and the space left for innovation in the provision of banking services, notably in the payments sector.

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NATIONAL PERSPECTIVES

SPAIN – Innovative Ecosystem, Bizum and Tokenization Trends

The economic effects of PSD2 in Spain have been particularly visible in payment technology (paytech) companies. A recent study by the Bank of Spain⁴⁷ shows that, following the entry into force of the regulation, these companies **improved their performance relative** to the rest of the ecosystem, driven mainly by revenue growth. They reduced their dependence on long-term bank debt, accessed more stable financing in capital markets, and increased their liquidity and productivity. According to the same analysis—based on microdata from 406 Spanish fintech companies between 2014 and 2022—paytech companies increased their profitability (ROA) by 23% compared to the control group, invested less in fixed assets, and gained access to market capital, strengthening their financial position and capacity.

Another distinguishing feature is the **centralisation of the APIs** required by PSD2 through Redsys⁴⁸, which has promoted standardisation and interoperability between banks and third-party providers, although with less flexibility than in other countries where the model is more decentralised. This deployment has been complemented by the RTS on SCA and secure communication and the EBA Guidelines (EBA/GL/2018/07), which set the requirements for granting exemption from the contingency mechanism to banks with APIs that demonstrate operational maturity, publication of statistics, and absence of obstacles for TPPs.

As we can see, the European experience also shows contrasts: while in the US, India, and Japan, open banking has emerged from market agreements, in Europe—and by extension in Spain—it is a mandatory regulatory initiative, with a strong focus on payments and high security standards (SCA and RTS)⁴⁹. This approach has favoured access to payment data for new entrants and increased consumer confidence, although it has entailed **significant costs for traditional institutions** and smaller fintech companies, which must comply with demanding security and governance requirements.

The high degree of banking penetration in Spain, together with the availability of standardised APIs, has favoured its adoption⁵⁰. Today, approximately 12% of payment institutions⁵¹ registered with the Bank of Spain are equipped to provide AIS and PIS services, in a trend that continues to rise⁵².

We bring up the case of Fintonic, which started operating in 2012 and became the first Spanish fintech to obtain the combined AIS and PIS licence in 2019. As of today, it manages more than 700.000 customers.

Initially, **Fintonic used screen scraping techniques** to provide its services, with users authorising it to connect to their online banking credentials so that Fintonic could automatically ‘see’ their transactions, balances, etc., extracting the data from the bank’s web interface. With PSD2 Fintonic went from being primarily an information aggregator and product comparison site to becoming an open banking player.

Open banking is not limited to the field of payments: it has also boosted advanced credit scoring and risk analysis solutions⁵³.

Specialised providers—such as Algoan, Tink, and Belvo—use up-to-date banking data to generate dynamic metrics on income, recurring expenses, and behavior patterns, optimising creditworthiness assessments and expanding access to credit, even for traditionally underserved segments. Similarly, companies such as Experian have integrated categorisation and machine learning engines into their analysis models, enriching default prediction, strengthening fraud prevention, and improving identity verification.

Overall, the Spanish experience shows that open banking, supported by PSD2, has not only transformed access to information and payment execution, but also constitutes a strategic lever for modernising risk management, promoting financial inclusion, and consolidating a more competitive and innovative ecosystem.

Having given an overview of the payments market in Spain, we now want to share the stories of two private companies, [Iberpay](#) and [Bizum](#), whose business model has affected, does affect and will affect both payment service providers and their users, Spanish consumers and merchants. Iberpay and FinTech access to the payment and settlement system in Spain

In Spain, the processing, clearing and settlement of SEPA credit transfers, SEPA instant transfers, SEPA direct debits, cheques and other transactions is managed by Iberpay. Historically, access to Iberpay was restricted to credit institutions, either as direct participants or represented by a direct participant.

This restriction is related to the regulation of the legal regime of European payment systems, the Directive 98/26/EC of the European Parliament and of the Council, of 19 May, on settlement finality in payment and securities settlement systems (implemented in Spain through Law 41/1999, of 12 November 1999), where the European regulator limited the application to credit institutions and investment firms.

Initially, exclusive participation in Iberpay by credit institutions was consistent, as they were the main players in the payment services market. However, this limitation has gradually become obsolete, with the entry of new financial institutions that were taking market share. Thus, almost 20 years later, Royal Decree Law 19/2018 was enacted in Spain, implementing Directive (EU) 2015/2366 (PSD2), with the aim of reinforcing security and homogeneity in payment processes, prioritising efficiency and reducing the costs of these processes, both at national level and in payments made between Member States.

In this context, although the priority was to improve the payment environment for users by adapting the regulation to two new agents, Payment Institutions (PIs) and Electronic Money Institutions (EMIs), it also meant that credit institutions saw the arrival of a new competitor.

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The European regulator included in PSD2 two provisions on access to payment systems: a first paragraph indicating that “Member States shall ensure that the rules on access of authorised or registered payment service providers that are legal persons to payment systems are objective, non-discriminatory and proportionate and that they do not inhibit access [...]”; and a second, which exempted the first paragraph from application when it applied to “payment systems designated under Directive 98/26/EC”.

On the Spanish regulator's side, we find the equivalent of this precept in Article 8 of RDL 19/2018, so that when reference is made to "designated payment system", it refers to Iberpay. In other words, the shareholders of Iberpay, which all are credit institutions, were covered by the regulation which allowed them to hinder access to not credit institutions payment service providers.

This situation has been a clear impediment for PIs and EMIs authorised in Spain, forcing them to go to foreign clearing systems, such as the one operated by the Bank of Lithuania (CENTROlink), in order to access SEPA. The emigration of financial institutions for the above reasons gave Spanish banks the reputation of being not-fintech-friendly.

It was not until 15 December 2020 that Iberpay's position became more flexible: not only credit institutions could now access SEPA, but also PIs and EMIs, through a direct participant⁵⁴. We then saw a move towards a level playing field among the players in the payment system, but still a direct participant was needed. In other words, a credit institution willing to negotiate with PIs and EMIs to gain access to Iberpay.

Two years later, Inversis Bank decided to be the first to take the plunge and, as a direct participant in Iberpay, expanded its scope of services by offering PIs and EMIs accessing to Iberpay to operate their own Spanish IBANs. One year later, in January 2023, the e-money institution Pecunpay reached an agreement with Inversis, becoming the first EMI to access the Spanish payment system⁵⁵.

Even though it was a milestone within the business relationships between credit institutions and FinTechs, connecting to SEPA via a foreign clearing system was still an easier and faster option.

It was not until April 2024, with the entry into force of Regulation 2024/886, of instant credit transfers in euro, that Directive 98/26/EC was amended to include PIs and EMIs in the scope of application, extending the definition of "institution" in its second article. This change was justified in recital 15, as the European regulator understands that, if these institutions are going to contribute to facilitating the acceptance of immediate transfers in euros, "inability to participate in such payment systems can impede payment institutions and electronic money institutions from providing instant credit transfers in euro efficiently and competitively".

In other words, the European and national regulators have formalised the consideration of PIs and EMIs as potential participants in EU payment systems, which applied to the Spanish authorised entities means that they can now directly participate in Iberpay under the same conditions as credit institutions.

We believe that this change reinforces Spain's reputation as a FinTech hub, whose banking system does not discriminate or obstruct, but rather understands that new players in the payments market foster innovation and open up potential partnerships and operational synergies.



The impact of Bizum on instant transfers

We have already mentioned the European Regulation on instant credit transfers (2024/886), the impact of which we saw at the beginning of 2025, when banks in Spain started to offer instant credit transfers (SEPA Instant) at zero cost, as ordinary credit transfers (SEPA). This change, although positive for individuals, has had a greater impact when merchants are involved (B2B, B2C and C2B), as Bizum, a platform that offers instant transfers, is widely used in Spain and is already the second most widely used means of payments between individuals (P2P), with a user base that almost doubled between 2021 and 2023⁵⁶.

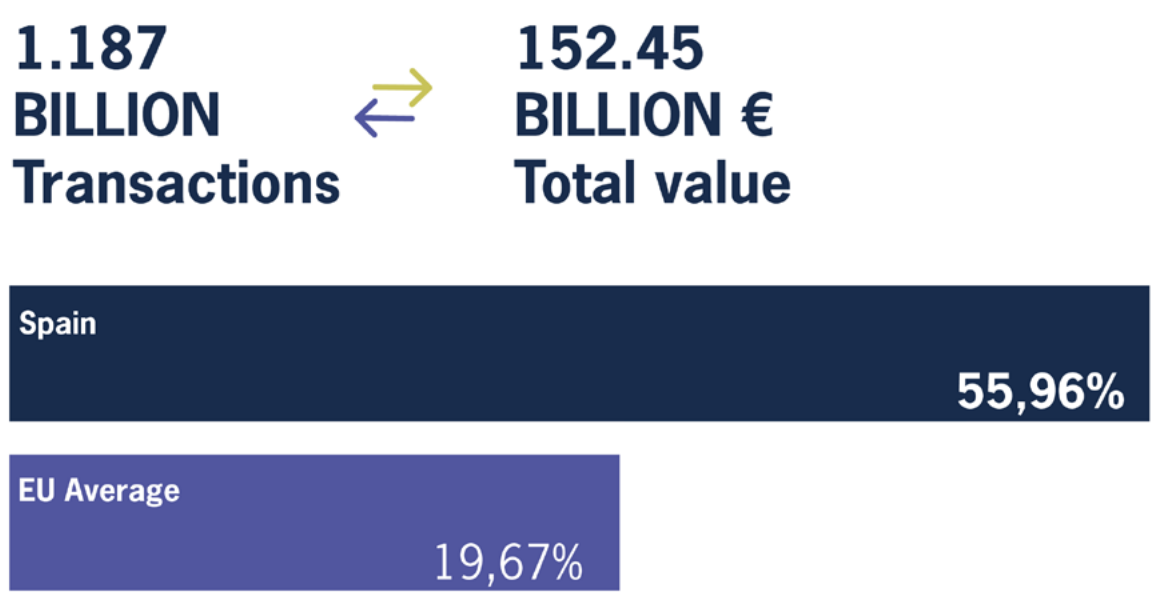
The Bank of Spain published on 10 April 2025 the article “Trends and developments in payments by Spanish consumers” which, using the 2024 survey conducted by the European Central Bank (ECB), has been able to draw several conclusions on the share of migration from ordinary to instant transfers in Spain, where Bizum has been the most responsible⁵⁷.

Bizum is a technology company that has developed a mobile payment service that allow users to send and receive instant SEPA transfers only by inserting the beneficiary’s phone number or finding it within its contacts. It originated from a joint initiative by the Spanish banking sector that decided to promote a common solution rather than compete with separate apps. As of today, more than 30 banks participate, integrating Bizum in their own banking mobile apps. This explains both the wide coverage and user confidence, as the service is backed by the banks where they have their accounts.

In this regard, while cash is still the most widely used means of payment by Spanish consumers (43%), the next one is instant payments (35%), where the data show that these figures are getting closer and closer to each other every year, both in terms of amount and transactions.

In 2024, Spain reached a new record in instant transfers, with 1.187 billion transactions processed, amounting to a total value of €152.45 billion. They already account for 55.95% of all transfers made in Spain, standing out compared to other European countries, where the average stands at 19.67%. These figures show that instant transfers have established themselves as a new standard for payments⁵⁸.

Instant transfers in Spain in 2024



On top of the previous growth, Bizum is particularly relevant in terms of amount, accounting for a 95% share of P2P payments. According to respondents, the main motivations are greater security (37%), ease of use (34%), lower cost (14%) and speed (12%).

Bizum’s share supports its widespread use among individuals, its integration with banking has generated trust among its users, as they can make instant transfers from the mobile app itself, with their phone number as an indicator, without the need to manually enter the IBAN of the beneficiary. Likewise, settlement is immediate; the user sees their balance being updated in their bank account when making or receiving a Bizum transfer. These features, which are highlighted by users in Spain, are precisely what differentiate it from similar platforms in other European countries, such as iDEAL in the Netherlands, that is focused on e-commerce rather than individuals; or Swish in Sweden, with high penetration and daily use, but without having managed to integrate into the banks’ app, generating mistrust and friction in its adoption.

Meanwhile, the widespread use of Bizum in Spain among individuals has consolidated it as a benchmark in instant transfers, leading to an increasing number of merchants that have integrated this payment method into their platforms as another alternative for online purchases, reaching businesses in all sectors: food, airlines, textiles, electronics and services. Although other countries have similar solutions, the direct integration with banking and its simplicity have driven the success of Bizum in Spain, which is currently the dominant means of payment between individuals.

State of the Spanish market

Despite the advance of digitalisation, cash is still very much present in Spain: around 65% of the Spanish population uses it daily, although its importance is declining, especially among young people⁵⁹. Cards continue to occupy a dominant position, with 88% of the population owning at least one⁶⁰, representing 28% of transactions in 2023. The use of cash at physical commerces in Spain is expected to decline from 38% in 2023 to 30% in 2027, confirming a sustained reduction, according to the FIS Global Payments Report (2024).

The use of mobile payments at the point of sale continues to gain ground, with the use of mobile applications to pay for purchases increasing from 4.6% in 2022 to 8.2% in 2023, confirming sustained adoption. This evolution is supported by the possibility of [integrating tokenised credentials](#), loyalty programs, and instant financing options into mobile devices, reinforcing the appeal of wallets over physical cards.

Usual Means of Payment

	 Cash	 Cards	 Payment
Total	59%	30%	11%
Men	63%	27%	10%
Women	55%	33%	12%
Aged 18-24	39%	26%	35%
Aged 25-34	39%	34%	27%
Aged 35-44	50%	37%	13%
Aged 45-54	59%	34%	7%
Aged 55-64	66%	30%	4%
Aged 65 or over	78%	21%	1%
Lower education	77%	20%	4%
Secondary education	55%	32%	13%
Tertiary education	42%	40%	17%

In this context, the [transformation of the payment ecosystem](#) in Spain is not limited to traditional instruments. Asset tokenisation and the incorporation of blockchain-based technologies are advancing rapidly. Entities such as Cecabank, after obtaining a license under the MiCA Regulation, are making progress in the custody of tokenised assets; [BBVA is exploring the integration of blockchain for key management and crypto asset custody](#), seeking a unified view of risk and the value chain that combines traditional and digital assets.

Furthermore, companies such as Prosegur Cripto are transferring their experience in physical custody—including gold tokenisation projects—to the digital realm, while global platforms such as Kraken and Bit2Me are expanding their offerings with tokenised stocks and bonds that can be traded even outside of trading hours. Networks such as ISBE, promoted by Alastria, highlight public-private collaboration to consolidate regulated blockchain infrastructures, facilitating the tokenisation of funds, real estate, and loans. These advances confirm that institutional custody of crypto assets and tokenisation are now integrated elements of the Spanish financial ecosystem, anticipating a more efficient, secure, and open market for new forms of investment.

In short, the payment ecosystem in Spain is undergoing a period of unprecedented innovation and diversification, driven by technological evolution, changing consumer habits, and a regulatory framework that provides legal certainty and encourages competition.

Added to these innovations are [QR code-based payments](#), which have gained visibility since the pandemic thanks to their low implementation cost and ease of contactless operation. The report “Transformation of the payment ecosystem: evolution, challenges, and opportunities 2025”⁶¹ highlights that, although their penetration in Spain remains moderate, QR codes represent an efficient alternative for restaurants, local businesses, and delivery services, especially in scenarios where card processing fees are high.

This shift responds not only to changes in demand, but also to the strategy of financial institutions, which have redesigned their processes to promote digital banking and optimise customer relations. In recent years, banks in Spain have reduced their dependence on physical channels, opting for technological solutions that facilitate remote product contracting and management, the use of mobile applications, and the incorporation of innovative services into their platforms.

This strategy seeks to improve operational efficiency and cater to the growing preference for fast, secure, and readily available payment methods, moving away from models focused exclusively on over the counter or cash transactions and embracing new emerging alternatives.





THE NEXT REGULATORY WAVE: PSD3 AND THE PAYMENT SERVICES REGULATION (PSR)

The EU internal payments market stands at a pivotal crossroads. On one hand, emerging tech-native players are reshaping the financial landscape⁶², by introducing innovative services and embedding advanced regtech solutions — particularly to streamline compliance with regulatory, anti-money laundering and counter-terrorism financing requirements. On the other hand, incumbent PSPs from the traditional banking sector continue to hold a leading market position, with the widest client reach throughout the EU.

While this dual-track model theoretically fosters greater availability of services and should contribute to fairer price-setting mechanisms, in practice it remains [constrained by regulatory asymmetries](#) that limit genuine competition between incumbents and challengers. Market fragmentation and regulatory arbitrage (“forum shopping”) further exacerbate these inefficiencies, often generating negative externalities ultimately borne by end users and beneficiaries of payment services.

The proposals for a new Directive on Payment Services and E-Money services (“PSD3”) and for a Payment Services Regulation (“PSR”)⁶³, published by the European Commission in June 2023, come at a time where competition, technology-neutral solutions and the principle of a level playing field are seen as key areas for improvement in the regulation of payment markets.

It is worth noting that this reform package [is not a standalone](#) legislative initiative. Rather, is intended to amend and repeal several key legal instruments within the payment services ecosystem, including the repeal of the Electronic Money Directive (Directive 2009/110/EC) whose provisions will be incorporated into PSD3, and the amendment of the Settlement Finality Directive (Directive 98/26/EC).

Although widely framed as [“evolution, not revolution”](#), this framework represents a significant regulatory milestone that will affect credit institutions and traditional

PSPs, FinTechs and other emerging market players. By establishing a coherent, simplified and harmonized framework – with clearly defined delegated powers and transitional arrangements – the new regime aims to strike a balance between fostering innovation, ensuring market integrity and protecting consumers.

As expected, this reform should require all stakeholders to [proactively review and adapt their business](#) and compliance strategies in order to safely navigate through an increasingly dynamic and evolving legal landscape.

Impacts of key innovations & simplifications

Incumbent payment service providers will be directly impacted by the new PSD3/PSR framework, primarily due to the full harmonization principles it enshrines.

While the adoption of PSD3 and PSR introduces significant changes to main *acquis* of the prudential framework governed by PSD2, the shift toward directly applicable rules on core aspects of the provision of payment services means that Member States will no longer be able to maintain national provisions that go beyond (so-called gold-plating) or fall short of (e.g., to foster regulatory arbitrage) the harmonised standards set at the EU level.

This development, which is broadly positive for legal certainty, integrity and competitiveness, will, nevertheless, require traditional banking-sector PSPs to continuously adapt their compliance strategies — particularly those operating across multiple jurisdictions (e.g., via branches) or providing cross-border services through passporting regimes.

Notably, the PSD3/PSR legislative blueprint also imposes [several new requirements](#) that are expected to have a bigger impact on Fintechs and other non-bank market entrants. The proposed framework seeks [to bring within its scope a range of new actors and services](#), such as digital wallets, stablecoins and certain technical service providers (e.g., payment schemes and IT platforms), which are currently not fully regulated under the existing PSD2 definitions. This expansion aims to ensure a coherent regulatory perimeter that reflects market evolution, reinforces consumer protection, and safeguards financial stability in the face of rapidly developing digital payment solutions.

The transition to the new PSD3/PSR framework will bring significant regulatory adjustments for FinTechs and other emerging players, notably in the following areas:

- 1 **Standardisation of Strong Customer Authentication (SCA):** the framework reinforces uniform SCA requirements, aiming to enhance the reliability, usability, and security of authentication processes, while reducing friction in the customer experience;
- 2 **Implementation of advanced risk-based fraud prevention mechanisms:** PSPs will be required to adopt more sophisticated, real-time strategies to detect and mitigate fraudulent activity, thereby strengthening consumer protection and safeguarding the integrity of the financial system;
- 3 **Mandatory International Bank Account Number (IBAN) /name verification across all credit transfers:** a key change is the extension of the obligation to verify the alignment between the IBAN and the name of the payee to all credit transfers, beyond the original scope of instant payments. This is intended to improve accuracy and mitigate misdirection risks;
- 4 **Promotion of competition within the Open Banking (OB) ecosystem:** the new rules aim to foster a more competitive and transparent environment by mandating dedicated data access interfaces for account-servicing PSPs, introducing permission dashboards for end-users to monitor and manage third-party access, and defining clear technical specifications for Open Banking APIs and data-sharing protocols;
- 5 **Ensuring non-discriminatory access to payment systems:** PSD3/PSR strengthens access rights by allowing authorised payment institutions (PIs) to participate directly in designated payment systems under the Settlement Finality Directive (SFD), thereby reducing structural barriers imposed by legacy institutions. This measure is particularly relevant for levelling the playing field and enabling a broader range of PSPs to compete on equal terms, with potential substitution effects on consumer preferences.

Compliance & transition strategies

The new framework pushes stakeholders to adopt flexible and scalable compliance systems, capable of quickly adapting to updates in rules and regulations issued by the European Commission. Whilst, as said, PSD3/PSR does not, in itself, introduce major innovations in terms of internal controls and prudential requirements for payment institutions, it does enact harmonized solutions and reinforce anti-fraud and cybersecurity measures, which should be diligently implemented by market participants and other stakeholders to ensure consumer protection and safe payments EU-wide.

As part of a wider regulatory framework applicable to institutions of the financial sector, institutions should not, however, neglect the need to comply with other key pieces of legislation that have recently been enacted with purposes of reinforcing the internal market's resilience, most notably Regulation (EU) 2016/679 (the General Data Protection Regulation, "GDPR") and Regulation (EU) 2022/2554 (on digital operational resilience for the financial sector, "DORA")

From a prudential standpoint, one of the key aspects affecting FinTechs and other emerging providers should be that of imposing a winding-up plan to be submitted upon new applications. This plan, which serves the purpose of supporting orderly winding-up procedures in the event of business failures (bankruptcy or insolvency, as deemed by local law), should be proportionate to the business model of payment institutions, and include provisions for the continuity or recovery of any critical activities performed by outsourced service providers, agents or distributors.

It is also noteworthy to mention that PSD3/PSR framework is expected to be enacted at a time when payment services intertwine with parallel regulated activities, most notably those involving E-Money providers. In a circumstance where two key pieces of financial regulation may overlap, i.e., Markets in Crypto Asset Regulation ("**MiCAR**") and PSD2, by qualifying E-money both as crypto-assets (Electronic-Money Tokens under MiCAR) and funds (PSD2), EU institutions face practical challenges ahead of upcoming licensing and registry procedures. In this scenario, it is worth mentioning the recent "**No Action Letter**" issued by the European Banking Authority ("**EBA**")⁶⁴, which recommends the European Commission and National Competent Authorities to apply a single piece of legislation for each activity principle and discourages disproportionate regulatory solutions during the transitional period preceding the commencement of application of this new framework, whose deadline is set for 1 March 2026.

From this vantage point, it is apparent that if, on the one hand, the PSD3/PSR aims at setting the regulatory bar higher by offering clearer pathways and legal certainty – while, reinforcing payees and beneficiaries' rights –, on the other hand pushes market participants to navigate a complex legal system which could potentially raise compliance and transaction costs.





OPEN FINANCE AND DATA ACCESS (FIDA FRAMEWORK)

From Open Banking to Open Data

With the proposed [Regulation on a framework for Financial Data Access \(FiDA\)](#), the European Commission seeks to extend the paradigm of open banking (as established by PSD2) across a wider spectrum of financial services⁶⁵. Under the proposal, [consumers and SMEs](#) will be empowered to grant third parties access to financial data held by financial institutions — not only payment account data, but also information related to [loans, mortgages, savings, investments, insurance \(non-life\), pension rights, and related contract data](#)⁶⁶.

FiDA is explicitly designed to [complement](#), rather than replace, PSD2 / the forthcoming [PSR](#): payment account data and the domain of payment initiation remain regulated under the payments architecture, while FiDA governs access to non-payment financial data⁶⁷.

To enable safe and interoperable data sharing, FiDA mandates that [data holders](#) and [data users](#) participate in [Financial Data Sharing Schemes \(FDSS\)](#), which will

define API interoperability, common contractual terms, membership rules, governance, liability rules, and dispute resolution mechanisms for data access.

At the core of the regulation is [customer control](#) — data sharing is based on [explicit consent](#), and customers must be able to [review, withdraw, or re-grant permissions](#) via a unified [permission dashboard](#)⁶⁸.

The framework also sets out liability regimes, aims to prevent [discrimination or exclusion](#), and is intended to align with [GDPR](#) and the EU's broader data strategy (including the Data Act)⁶⁹.

Business Models, Liability, and Consumer Empowerment

Under FiDA, new entrants and incumbents may act as [data users](#) — formally defined as [Financial Information Service Providers \(FISPs\)](#) — provided they obtain authorisation from the relevant competent authority⁷⁰.

The regulation envisions several complementary business models within this new framework:

- **Value-added services:** credit scoring, portfolio recommendations, aggregated financial dashboards, cross-product comparisons.
- **“FISP-as-a-Service”:** authorised FISPs may offer data aggregation services to entities that are not themselves FISPs (subject to conditions)⁷¹.
- **Compensation mechanisms:** although API access is generally open, FiDA allows data holders to receive reasonable compensation for infrastructure costs. The methodology for compensation is to be determined via the Financial Data Sharing Schemes (FDSS).⁷²

This [scheme-based model](#) is explicitly designed to foster [economies of scale](#), reduce transaction costs, and eliminate the need for ad-hoc bilateral contracts, by establishing common technical and legal frameworks for data exchange across the Union⁷³.

Liability, exclusion, non-discrimination

FiDA introduces clearer liability rules for data breaches, inaccuracies, or misuse. Both data holders and data users will have defined obligations under the regulation and under FDSS rules; dispute resolution mechanisms must be established⁷⁴.

The proposal also mandates safeguards against unfair exclusion or discrimination in algorithmic profiling or data-based decision making and empowers supervisory authorities to monitor compliance.

FiDA thus marks a decisive step toward Open Finance, extending the principles of PSD2 to the entire financial sector while ensuring that data sharing remains secure, consent-based, and fair.

Consumer Empowerment FiDA places consumers at its core:

- **Full control over consent:** a consumer must explicitly grant, revoke, or withdraw data sharing permissions⁷⁵.
- **Permission dashboard:** data holders will provide a unified interface allowing consumers to view, manage, and configure which providers can access which categories of data, for what purpose, and for how long⁷⁶.
- **Portability & switching:** consumers will be able to transfer their financial data from one provider to another, thus stimulating competition.
- **Safeguards against exclusion:** the regulation sets constraints on the use of shared data to prevent customers from being denied services because of profiling or data-derived discrimination⁷⁷.





“WHAT’S NEXT FOR PAYMENTS IN EUROPE.”

The European payments landscape is entering a decisive new phase shaped by the convergence of digital assets, programmable money, and artificial intelligence. After a decade of regulatory harmonisation under PSD2, Europe now stands at the crossroads of technological maturity and institutional innovation. The next generation of policy reforms — notably MiCA, PSD3/PSR, and the AI Act — will together define the contours of a payment ecosystem that is tokenised, intelligent, and resilient.

Stablecoins and MiCA: Bridging Traditional and Decentralised Finance

One of the most significant developments in the European payment landscape is the integration of [blockchain-based stablecoins](#) into mainstream financial infrastructures. Stablecoins, designed to maintain a stable value by referencing fiat currencies or other assets, have the potential to act as [digital settlement instruments](#) bridging the gap between traditional payment rails and decentralised finance (DeFi).

Their key advantage lies in their [instant settlement capability](#) — transactions can be completed across borders and time zones without relying on correspondent banking networks. Combined with their [on-chain transparency](#) and [immutability](#), stablecoins promise greater operational efficiency, cost reduction, and global reach, particularly for businesses engaging in high-frequency or cross-border transactions.

In the European context, however, stablecoin innovation now operates under the [Markets in Crypto-Assets Regulation \(MiCA\)](#) — the EU’s first comprehensive

framework governing crypto-asset issuance, custody, and intermediation⁷⁸. MiCA distinguishes between [Electronic Money Tokens \(EMTs\)](#), which reference a single fiat currency, and [Asset-Referenced Tokens \(ARTs\)](#), which reference a basket of assets or currencies⁷⁹. Both are subject to strict authorisation, governance, and reserve requirements, ensuring that issuers maintain full redeemability and operational resilience.

MiCA also introduces a [transitional regime](#) allowing crypto-asset service providers active before [30 December 2024](#) to continue operating under national law until [1 July 2026](#)⁸⁰. This period gives firms time to adapt while the supervisory responsibilities of national competent authorities and the [European Banking Authority \(EBA\)](#) are fully established. Early-registered [Virtual Asset Service Providers \(VASPs\)](#) thus hold a strategic advantage, as they can continue to serve clients during the transition — making them natural partners for payment institutions exploring stablecoin-based settlements⁸¹.

The European Banking Authority has further clarified the [regulatory interplay between MiCA and PSD2/PSD3](#). In its [“No-Action Letter” of 10 June 2025](#), the EBA advised national authorities to coordinate authorisation processes to avoid [dual licensing](#) for entities transacting in electronic money tokens⁸². This pragmatic approach seeks to maintain supervisory coherence and avoid unnecessary duplication, ensuring that stablecoin-based payment services can develop within a unified framework.

Despite these advances, European policymakers recognise the tension between [regulatory prudence](#) and [technological competitiveness](#). While MiCA provides legal certainty, its stringent requirements may slow experimentation compared with more permissive jurisdictions in Asia or the United States. As noted by market analysts, Europe’s challenge is to transform its [compliance strength into innovation leadership](#), turning robust regulation into a competitive advantage by embedding stability, transparency, and trust at the core of the digital-asset economy.

The European Gap: Market Realities



Despite this potential, euro-denominated stablecoins remain marginal compared to their dollar-based counterparts. As of October 2025, **EURC**, the euro-backed stablecoin issued by **Circle**, has a market capitalisation of approximately **USD 250 million**, whereas **USDC**, Circle's dollar-denominated stablecoin, exceeds **USD 75 billion**⁸³. This represents less than 1 % of USDC's total supply and highlights the stark imbalance between the **euro's economic weight** and its **digital representation**. This disparity underscores Europe's delay in developing native, euro-backed digital settlement assets — a delay driven by both **regulatory caution** and **structural fragmentation** in the eurozone's financial markets.

As a result, the **European digital-asset economy** remains underrepresented in on-chain settlements, with most stablecoin transactions denominated in US dollars. This imbalance raises strategic concerns for Europe's **monetary sovereignty** and **digital competitiveness**, particularly as stablecoins increasingly serve as the de facto settlement layer for global tokenised assets.

Agentic AI and the Future of Payment Innovation

Alongside digital assets, **artificial intelligence (AI)** — and particularly **agentic AI** — is redefining the future of payments. Agentic AI refers to autonomous or semi-autonomous systems capable of performing actions on behalf of users, such as transaction routing, fraud prevention, or dynamic payment orchestration.

Several key factors explain this lag:

- **Regulatory Prudence.** The **MiCA Regulation** imposes strict authorisation, reserve, and governance requirements for stablecoin issuers, ensuring prudential soundness but raising entry barriers for innovation.
- **Limited Liquidity Networks.** USD-based stablecoins benefit from global acceptance, high liquidity, and established integrations with exchanges, payment processors, and decentralised finance platforms.
- **Fragmented Market Infrastructure.**
- **Monetary Sovereignty Concerns.**

In practical terms, agentic systems can:

- dynamically route transactions through optimal networks in real time;
- detect anomalies and prevent fraud through continuous learning;
- optimise payments based on cost, speed, or reliability; and
- enable **conversational payments**, where chatbots or voice assistants initiate transactions securely.

Mastercard launched [Agent Pay](#) in April 2025 as part of its broader initiative to enable [agentic, AI-powered payments](#) within conversational and autonomous environments⁸⁴. The program is designed to integrate with conversational interfaces and AI platforms such as Microsoft and technology enablers such as IBM's Watsonx. Mastercard emphasizes that only “trusted agents” with explicit user authorization can execute financial operations, with controls around limits, data sharing, and transparency.

In September 2025, [PayOS](#), a payments infrastructure company, announced that it had successfully conducted the [first live agentic payment transaction](#) using a [Mastercard Agentic Token](#). This demonstration showed how tokenized payment credentials could be used safely within a secure agentic environment — effectively enabling an AI agent to complete a transaction under strict compliance and visibility conditions⁸⁵.

In addition, OpenAI and Stripe have introduced [Instant Checkout](#) within ChatGPT, enabled by the newly developed [Agentic Commerce Protocol](#)⁸⁶. This functionality allows users — initially in the United States — to purchase products directly from within the ChatGPT interface, without being redirected to an external website. Payments are processed through [Stripe's infrastructure](#), combining [Billing, Checkout, Radar](#) (fraud prevention), and [tokenization technologies](#) to ensure seamless and secure transactions⁸⁷.

These developments highlight that [agentic AI in payments](#) is no longer speculative innovation but an operational reality, signalling the emergence of a new paradigm in digital commerce where conversational interfaces, tokenized identities, and payment execution converge within a single intelligent environment.

Governance and Regulatory Alignment

The integration of AI into payments introduces new regulatory imperatives around [operational resilience, governance, and ethical oversight](#). Under the [Digital Operational Resilience Act \(DORA\)](#) — applicable from 17 January 2025 — financial entities must identify, classify, and monitor all critical ICT assets. While the regulation does not explicitly refer to artificial intelligence, any AI systems or models supporting critical or important functions fall within the definition of ICT assets and are therefore [subject to the same requirements for governance, monitoring, logging, and incident reporting](#)⁸⁸.

Supervision under the EU AI Act will be [coordinated by the European AI Office](#), working with [national competent authorities and the European Supervisory Authorities \(EBA, EIOPA, ESMA\)](#) to ensure consistent oversight across the financial sector. Together with frameworks such as [DORA](#), this cooperation aims to create a [coherent approach to model governance, ICT risk management, and compliance](#). Even as AI systems become more autonomous, [human accountability remains non-transferable](#): financial institutions must maintain [override capabilities, auditable decision logs, and accessible redress mechanisms](#) to preserve trust and integrity.

This integrated framework — combining [DORA's resilience requirements](#) with the [AI Act's ethical obligations](#) — reflects Europe's distinctively human-centric regulatory approach: innovation is encouraged, but [automation remains accountable](#), and technology is designed to serve broader objectives of transparency, inclusiveness, and systemic stability.

Convergence: The European Payments Horizon

Together, [MiCA](#), [PSD3/PSR](#), [FiDA](#), and the [AI Act](#) define the next horizon for Europe's payment ecosystem. They signal a shift from regulatory harmonisation to [digital sovereignty](#) — a phase where Europe seeks to master not only the legal framework of payments, but also their technological architecture.

Europe's comparative strength lies in its ability to blend [trust, compliance, and innovation](#). If effectively implemented, this next generation of EU regulation can position the continent not merely as a regulator, but as a [global benchmark for responsible digital finance](#) — where [stablecoins, programmable payments, and AI-driven automation](#) form a coherent, secure, and human-centred financial infrastructure.

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FOOTNOTES

¹ About us section of the EPI.

² European Payments Initiative (EPI) Company SE, “EPI Launches Wero, its European digital payment wallet in France”, September, 2024.

³ DG COMP (Directorate-General for Competition) is the department of the European Commission responsible for enforcing EU competition law, including antitrust enforcement, merger control, and state aid oversight.

⁴ DG FISMA (Directorate-General for Financial Stability, Financial Services and Capital Markets Union) is the Commission department responsible for EU policy on financial regulation, supervision, and the stability of the financial system, including banking, capital markets, and payment services.

⁵ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector — establishes a harmonised set of rules to ensure that large online platforms acting as “gatekeepers” behave fairly and do not abuse their market power.

⁶ European Commission “Commission accepts commitments by Apple opening access to ‘tap and go’ technology on iPhones”, 11 July 2024; see also Digital Markets Act (Regulation (EU) 2022/1925).

⁷ The European Payments Alliance (EuroPA) is an industry-led initiative supported by the European Payments Council (EPC) and the European Central Bank (ECB), aiming to enhance cross-border interoperability among European retail payment schemes.

⁸ European Mobile Payment Systems Association, “Leading European mobile payment solutions BANCOMAT, BIZUM and MB WAY pioneer interoperability launching first instant transactions”, 13 November 2024.

⁹ European Central Bank (ECB), “ECB Publishes Third Progress Report on the Digital Euro Preparation Phase”, 16 July 2025.

¹⁰ European Payments Council (EPC), “Pix: The Latest Updates on Brazil’s Leading Instant Payment Scheme”, EPC Insights, 2024.

¹¹ Bank for International Settlements (BIS), “Central Banks, the Monetary System and Public Payment Infrastructures: Lessons from Brazil’s Pix”, BIS Bulletin, no 52, 2022 — the report notes that within a year of its launch, Pix had enrolled approximately 67 % of adult Brazilians.

¹² Banco Central do Brasil, Pix Statistics

¹³ Detailed Data on Transaction Volumes, Participation, and Adoption Trends, 2023.

¹⁴ European Commission, Proposal for a Regulation of the European Parliament and of the Council on Payment Services in the Internal Market (PSR), COM(2023) 366 final, 28 June 2023.

¹⁵ European Commission, Proposal for a Regulation on a Framework for Financial Data Access (FiDA), COM(2023) 360 final, 28 June 2023.

¹⁶ Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on Payment Services in the Internal Market (PSD1).

¹⁷ Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on Payment Services in the Internal Market (PSD2), Official Journal of the European Union, L 337, 23 December 2015.

¹⁸ European Commission, Payment Services Directive: frequently asked questions, MEMO/15/5793, Brussels, 12 January, 2018.

¹⁹ Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market (PSD2), Art. 67(3) — prohibition of obstacles to access for authorised third-party providers.

²⁰ Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 supplementing Directive (EU) 2015/2366 with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication, Art. 36(1) — equal-access obligation ensuring equivalent functionality and reliability.

²¹ Haut Comité Juridique de la Place Financière de Paris (HCJP), Report on Open Banking, pp. 111–113, discussing the contrasting positions between ASPSPs and fintech aggregators on PSD2 objectives.

²² Ibid., pp. 115–117

²³ ACPR, “Open Banking in France”, 11 September 2025, p. 12.

²⁴ Autorité de la concurrence, Opinion No. 21-A-05 (29 Apr 2021), §§ 130–135 — concentration of data and risk of foreclosure effects.

²⁵ Ibid., §§ 142–147 — recommendations on non-discriminatory access, interoperability, and data portability.

²⁶ Haut Comité Juridique de la Place Financière de Paris (HCJP), Report on Open Banking, p. 115 — debates on API remuneration and reciprocity of data access.

²⁷ Autorité de Contrôle Prudentiel et de Résolution (ACPR), La régulation des nouveaux intervenants du marché des services de paiement, Revue ACPR, no. 21, Jan.–Feb. 2015.

²⁸ Within the meaning of Article L.314-1 of the French Monetary and Financial Code transposing Annex I of PSD2.

²⁹ European Banking Authority (EBA), Q&A nos. 2020_5216, 2020_5099, and 2020_5355.

³⁰ European Banking Authority (EBA), Q&A nos. 2020_5216, 2020_5099, and 2020_5355.

³¹ Regafi register (consulted Oct. 2025); EBA Central Register — Trezor, Lemonway, and MANGOPAY listings and passport notifications.

³² Pulse of Fintech France 2025.

³³ France FinTech & KPMG, “Pulse of Fintech France 2025 – Étude sur l’écosystème français,” December 2024, pp. 4–5 and 13–14.

³⁴ Article L.519-1, I, first paragraph of French Monetary and Financial Code.

³⁵ Article R.519-1, French Monetary and Financial Code.

³⁶ ACPR website, “Defining my activity – Once I start receiving funds, what legal status should I adopt?” (Guidance note, 2024).

³⁷ Portuguese Competition Authority, Call for information: Retail Banking in Portugal, July 2025.

³⁸ Portuguese Competition Authority, Call for information: Retail Banking in Portugal, July 2025, p. 2.

³⁹ Regulatory requirements will actually be even more strict with PSD3 and PSR (by way of example, the investment required to implement DORA could reach around EUR 1 M even for small players with limited business plan).

⁴⁰ Portuguese Competition Authority, “According to the October 2022 Eurobarometer quoted by the Portuguese Competition Authority, only 14.2 % of Portuguese respondents with a current account and 6.5 % with a savings account reported having switched provider at least once over the past five years. These figures are below the European average, where 17 % of current account holders and 7.4 % of savings account holders reported having switched”, Call for information: Retail Banking in Portugal, July 2025, p. 3.

⁴¹ By way of example, some “discount interest rates” in mortgage or personal loans are linked to maintaining certain current accounts and to the effective use of payment instruments with the relevant bank, which has been a significant barrier for competition on the payments sector, particularly in B2C services. The same also applies to promotional interest rates in term loans which typically require the subscription and use of other unrelated services, such as credit cards, direct debits, insurance products, or having other loans with the bank.

⁴² In accordance to the Portuguese Competition Authority, Portuguese banks lack incentives to offer higher deposit. This might be partially explained by the high liquidity coverage ratios and low loan-to-deposit ratios of the Portuguese major banks, which tend to less aggressive approach to attracting new deposits, but is also strongly explained by the relevant switching costs and to some commercial barriers to switching between financial institutions.

⁴³ SICOL (Sistema de Compensação Interbancária) is the Portuguese interbank clearing system, operated and supervised by the Bank of Portugal.

⁴⁴ Portuguese Competition Authority, Call for information: Retail Banking in Portugal, July 2025.

⁴⁵ SIBS Group is a Portuguese interbank payment infrastructure and technology company that operates the national clearing system (SICOL) and manages the Multibanco network.

⁴⁶ Portuguese Competition Authority, this “tying practice is capable of restricting competition and innovation in the payment services sector, harming both competitors of the SIBS Group, which also provide processing services and ultimately merchants and consumers who were deprived of differentiated services. According to the AdC’s investigation, the SIBS Group abused its dominant position in the markets related to the group’s payment schemes by conditioning access to these schemes upon the obligation to also contract its processing services. This practice, which lasted for about three years, limited the entry and expansion of competing processors of the SIBS Group, which maintained market shares exceeding 90% in the markets for processing services throughout this period”, Call for information: Retail Banking in Portugal, 22 July 2025.

⁴⁷ Andrés Alonso-Robisco, José Manuel Carbó, Pedro Jesús Cuadros-Solas et Jara Quintanero, The Effects of Open Banking on Fintech Providers: Evidence Using Microdata from Spain, Working Paper n° 2514, Bank of Spain, 2025.⁴⁸ Redsys is a Spanish payment processing and technology company that operates shared infrastructure for the country’s banking sector.

- ⁴⁹ Andrés Alonso-Robisco, José Manuel Carbó, Pedro Jesús Cuadros-Solas et Jara Quintanero, *The Effects of Open Banking on Fintech Providers: Evidence Using Microdata from Spain*, Working Paper n° 2514, Bank of Spain, 2025.
- ⁵⁰ Joaquín Maudos, “The Banking Penetration of the Spanish Economy in the European Context”, *Cuadernos de Información Económica*, no 271, Juillet-août 2019, FUNCAS, p. 27–35.
- ⁵¹ Bank of Spain, *Start-up of the Register of Entities (REN) application*. “Loading Register of Entities application...”.
- ⁵² Bank of Spain, *Account information and payment initiation services: don't confuse them*.
- ⁵³ Experian Business Solutions Spain, *Credit Risk Management “Open Banking”*.
- ⁵⁴ Iberpay, *Informative Note “New SNCE Regulation Enabling Fintech Access to the National Payment System”*, 16 December 2020.
- ⁵⁵ Inversis, “Inversis Ranks Pecunpay as the Leading E-Money Institution in the Spanish Payment System”, 11 January 2023.
- ⁵⁶ Bank of Spain, “Study on Cash Use Habits”.
- ⁵⁷ Molina Rodríguez, Isabel, et Álvaro Esandi Erro, “Trends and Developments in Payments by Spanish Consumers”, Bank of Spain, 2025.
- ⁵⁸ Iberpay, “Iberpay sets new record for transactions and clients in 2024”, 28 January 2025.
- ⁵⁹ Bank of Spain & Ipsos “Study on cash usage habits”, Executive Report 2024.
- ⁶⁰ Bank of Spain, “Cash use, access and acceptance in Spain: An analysis drawing on the 2023 Study on Cash Use Habits”.
- ⁶¹ Management Solutions, “Transformation of the payment ecosystem: evolution, challenges, and opportunities”, 2025.
- ⁶² As stated by the ECB in its opinion on the PSD3/PSR framework, large FinTechs tied to non-banking groups are increasing their activities in the Union, typically starting by providing payment services. See, ECB, Opinion on a proposed regulation and directive on payment and electronic money services.
- ⁶³ European Commission, “Proposal for a Directive of the European Parliament and of the Council on Payment Services and Electronic Money Services in the Internal Market, amending Directive 98/26/EC and repealing Directives (EU) 2015/2366 and 2009/110/EC”, 28 June 2023, COM(2023) 367 final.
- ⁶⁴ European Banking Authority, “EBA publishes No Action letter on the interplay between Payment Services Directive (PSD2/3) and Markets in Crypto-Assets Regulation (MiCA)”, 10 June 2025.
- ⁶⁵ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access and Amending Regulations (EU) No 1093/2010, (EU) No 1094/2010, (EU) No 1095/2010 and (EU) 2022/2554, COM(2023) 360 final”, 28 June 2023.
- ⁶⁶ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access and amending Regulations (EU) No 1093/2010, (EU) No 1094/2010, (EU) No 1095/2010 and (EU) 2022/2554, COM(2023) 360 final”, 28 June 2023, Article 2 and summary of scope in the Commission's communications.
- ⁶⁷ Commission fact sheet: the framework is intended to complement (not displace) payment services law.
- ⁶⁸ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access and amending Regulations (EU) No 1093/2010, (EU) No 1094/2010, (EU) No 1095/2010 and (EU) 2022/2554”, COM(2023) 360 final, 28 June 2023, Article 8.
- ⁶⁹ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access and amending Regulations (EU) No 1093/2010, (EU) No 1094/2010, (EU) No 1095/2010 and (EU) 2022/2554, COM(2023) 360 final”, 28 June 2023.
- ⁷⁰ Ibid. Proposal, COM(2023) 360, Art. 4 and Art. 10 — authorisation of FISPs.
- ⁷¹ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access, COM(2023) 360 final”, 28 June 2023, Article 5 and Recital 22 — delegation by FISPs to non-FISPs under conditions.
- ⁷² European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access, COM(2023) 360 final”, 28 June 2023, Article 12 and Recital 51 — compensation by data users; methodology via Financial Data Sharing Schemes (FDSS).
- ⁷³ Ibid., Recitals 29 and 34 — objectives of standardisation, efficiency, and interoperability through FDSS.
- ⁷⁴ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access, COM(2023) 360 final”, 28 June 2023, Recital 29 and Articles 11–13 — scheme model, liability, and standardisation.
- ⁷⁵ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access, COM(2023) 360 final”, 28 June 2023, Article 8 — permission dashboards and user control.
- ⁷⁶ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access, COM(2023) 360 final”, 28 June 2023, Article 8 — permission dashboards and user control.
- ⁷⁷ European Commission, “Proposal for a Regulation of the European Parliament and of the Council on a Framework for Financial Data Access and amending Regulations (EU) No 1093/2010, (EU) No 1094/2010, (EU) No 1095/2010 and (EU) 2022/2554, COM(2023) 360 final”, 28 June 2023, Recitals 4 and 34, and Article 13 — non-discrimination, safeguards, and supervisory oversight.
- ⁷⁸ Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on Markets in Crypto-Assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 (MiCA).
- ⁷⁹ Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on Markets in Crypto-Assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 (MiCA), Titles III–V — requirements for Electronic Money Tokens (EMTs) and Asset-Referenced Tokens (ARTs).
- ⁸⁰ Ibid., Art. 143 — transitional provisions for crypto-asset service providers active before 30 December 2024.
- ⁸¹ ING, “Nine Major European Banks Join Forces to Issue Stablecoin”. It is worth noting that several European banking groups are actively exploring the issuance of euro-denominated stablecoins aligned with MiCAR. A prominent example is the joint initiative by nine major European banks — ING, Banca Sella, KBC, Danske Bank, DekaBank, UniCredit, SEB, and Raiffeisen Bank International — to develop a blockchain-based digital payment instrument that aims to serve as a trusted European standard within the digital ecosystem. This stablecoin project is designed to offer near-instant, low-cost, and 24/7 settlement capabilities, including support for cross-border payments, programmable finance, and use cases ranging from supply chain optimization to the settlement of tokenised securities and crypto-assets. If successfully implemented, such initiatives could play a pivotal role in reshaping the European payment landscape by enhancing efficiency and reducing fragmentation, while maintaining alignment with EU regulatory safeguards on financial stability and consumer protection, 25 September 2025.
- ⁸² European Banking Authority, “EBA publishes No Action letter on the interplay between Payment Services Directive (PSD2/3) and Markets in Crypto-Assets Regulation (MiCA)”, 10 June 2025.
- ⁸³ CoinCodex, “EURC Price & Market Cap”; CoinMarketCap, “USDC Overview” — EURC ≈ USD 257 million; USDC ≈ USD 30 billion (accessed October 2025).
- ⁸⁴ Mastercard Press Release — “Mastercard Unveils Agent Pay: Pioneering Agentic Payments Technology to Power Commerce in the Age of AI”, April 2025.
- ⁸⁵ GlobeNewswire — “One Small Step for PayOS, One Giant Leap for Agentic Commerce”, 29 September 2025.
- ⁸⁶ OpenAI, “Buy it in ChatGPT”, Press Release, 25 September 2025.
- ⁸⁷ Stripe, “Stripe Powers Instant Checkout In ChatGPT And Releases Agentic Commerce Protocol Codeveloped With OpenAI”, 29 September 2025.
- ⁸⁸ Regulation (EU) 2022/2554 of the European Parliament and of the Council of 14 December 2022 on digital operational resilience for the financial sector and amending Regulations (EC) No 1060/2009, (EU) No 648/2012, (EU) No 600/2014, (EU) No 909/2014 and (EU) 2016/1011 [2022] OJ L 333/1 (ICT risk management and incident reporting).