

## RETAIL PAYMENT INNOVATION



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## Building an innovative, safe and inclusive payment ecosystem

The rapid evolution of e-commerce is one of the drivers reshaping the payments landscape and fuelling demand for digital payment solutions. In Europe, this transformation intersects with ongoing initiatives to enhance payment infrastructures, such as instant payments and the digital euro, as well as private sector payment initiatives.

E-commerce has seen strong growth for many years, with the COVID-19 pandemic acting as a catalyst for further digital adoption. This coincided with declining cash usage at points of sale (POSs). Cash payments at the POS in the euro area dropped from 72% (2019) to 52% (2024), according to the ECB. At the same time online payments surged, driving demand for fast, secure, and user-friendly payment solutions. Digital wallets are becoming increasingly popular. In Germany, for instance, mobile wallets tripled their market share to 6% between 2021 and 2023, according to the Bundesbank's payment behaviour study.

In the growing markets for mobile and e-commerce payments globally operating, non-European networks are a strong presence. In Germany, for instance, PayPal and credit cards belonging to the international card schemes accounted for two-thirds of online payments. When looking at the broader picture of card payments in the euro area, around 60 % of those were settled using the international card schemes. Geopolitical shifts highlight the urgent need to enhance Europe's strategic autonomy and reduce dependency on non-European payment providers. Therefore, further efforts from both the private and the public sector in Europe are needed.

One building brick of a more sovereign and at the same time faster and more efficient payment system are instant payments. They are settled in real time within seconds and — being built on European infrastructures — strengthen strategic sovereignty and competitiveness. Central banks are promoting the adoption of instant payments as a key element of their joint retail payments strategy. The Instant Payments Regulation ensures Europe-wide reachability and brings an increase in security — particularly through verification of the payee (VoP) which will soon be mandatory for instant and traditional credit transfers.

With the goal of a more innovative and sovereign payment ecosystem in mind, it is gratifying that a number of European payment service providers have joined forces in the European Payment Initiative (EPI), creating a digital payment solution under the brand name wero. It has launched for person-to-person payments and will expand to POS as well as e-commerce — a welcome development in view of the growing importance of e-commerce outlined above. By cooperating and aiming for interoperability with other initiatives like EuroPA, the idea is to expand geographical coverage significantly across euro area countries and potential user groups.

To address increasing digitalisation, the declining use of cash and the need to safeguard sovereignty in payments, policymakers and central banks are working on the introduction of central bank digital currency (CBDC) — in the form of a digital euro for the general public and as wholesale CBDC for the interbank sector. The digital euro

would complement cash, not replace it. Unlike cash, it will be usable in online environments, offering a secure and universally accepted means of payment built on a European payment infrastructure, which would strengthen Europe's sovereignty even more. It could provide a pan-European alternative, fostering competition and innovation.

Another cornerstone is the EU's digital identity framework with the European Digital Identity Wallet as a key element. It seeks to provide a secure and interoperable system for verifying user identities across borders. Eurosystem central banks are facilitating this with a special focus on payment services.

While digital payment solutions are becoming mainstream, certain user groups remain underserved, especially the less digitally savvy. Supporting broader accessibility to digital means of payment is another element of the Eurosystem's strategy. Payment solutions must be designed with inclusivity in mind, offering intuitive interfaces. The digital euro, for instance, is envisioned as a universal payment tool that can be used online and offline, aiming at accessibility for all citizens.

**Europe must foster innovative payment solutions that are inclusive and strengthen European autonomy.**

To maximise impact, European initiatives must be coordinated to ensure compatibility and scalability. For instance, the digital euro could be integrated into the wero wallet to provide comprehensive payment solutions that support retail and online transactions throughout the euro area.

To harness its full potential, Europe must foster innovative payment solutions that are inclusive, secure and strengthen European autonomy. However, success will require action from policymakers, central banks and industry stakeholders. A coordinated approach by the private and the public sector is pivotal to creating an innovative, safe and efficient payment ecosystem that meets the needs of European citizens and businesses.



## ULRIK NØDGAARD

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### New era for retail payments: faster, cheaper, and more accessible

Europe's retail payment landscape is at a pivotal moment. As digital transactions are used more and more, the need for secure, resilient and efficient payment systems has never been greater. The heavy reliance on traditional card-based solutions – often reliant on non-European infrastructure – pose challenges to strategic autonomy and resilience. To address these challenges, the EU as well as member states on a national level are advancing initiatives like instant payments, the digital euro and payment contingency measures, all of which are reshaping the future of retail payments in Europe. These efforts aim to modernize cross-border retail payments, foster competition, and ensure that European citizens and businesses benefit from faster, cheaper, and more resilient payment options. For instance, the TARGET Instant Payment Settlement (TIPS) infrastructure offers a central bank-backed alternative to card networks, enhancing systemic resilience and reducing dependency on commercial intermediaries. By operating independently of traditional card rails, instant payments have the potential to diversify the payment ecosystem, increase payment efficiency and reduce costs for European citizens and businesses.

While TIPS has successfully enabled instant payments within the same currency – primarily the euro – it does not address the challenges with payments across different currencies that are often slow, costly, and opaque. That's where TIPS Cross Currency (TIPS x-ccy) comes in. This initiative, launched by the European Central Bank and the Swedish Central Bank, and joined by Danmarks Nationalbank in 2024, extends the capabilities of TIPS to support real-time cross-currency payments. TIPS x-ccy will enable instant settlement between the euro, Danish krone, and Swedish krona, with Norway and Iceland exploring participation. Beyond those currencies, initiatives are underway on linking the platform with other currencies.

By enabling instant cross-currency payments, TIPS x-ccy reduces frictions in cross-border transactions, lowers costs, and enhances transparency and resilience. Crucially, it contributes to the improvement of the EU single market by making cross-border trade more efficient, resilient, and accessible for citizens and businesses alike. Moreover, TIPS x-ccy introduces scale effects by allowing the same infrastructure to support multiple currencies, streamlining operations and reducing complexity across jurisdictions.

### The need for secure, resilient and efficient payment systems has never been greater.

However, success hinges on overcoming key hurdles. Widespread adoption by banks and payment service providers is essential, as is regulatory and technical harmonization across jurisdictions to ensure seamless interoperability. To fully realize the benefits of TIPS x-ccy – and cross-border payments in general – banks and fintechs must also develop user-friendly solutions that can communicate effectively across different systems and currencies, enabling a consistent and intuitive experience for consumers and businesses. This collaborative effort will be critical to unlocking the full potential of instant cross-currency payments and embedding them into everyday financial interactions across Europe.

TIPS x-ccy aligns with the G20 roadmap for faster, cheaper, and more transparent global payments. It also complements EU initiatives like the digital euro, which aims to provide a secure, public digital currency for retail use. Together,

these efforts can create a more inclusive, efficient, and independent European payment landscape.

To realize this vision, collaboration between central banks, regulators, and the private sector is vital. Only through collective effort can Europe build a payment system that meets the needs of consumers and businesses in an increasingly digital world.

In a digital society like Denmark, where 9 out of 10 in-store payments are made digitally, citizens are highly dependent on these systems working. To strengthen resilience, Denmark is working on a nationwide contingency measure for payment cards. The goal is that all adult Danes with a card from one of the three main brands, Dankort, Mastercard or Visa, can make offline payments in pharmacies and nationwide grocery chains for at least one week. This would secure access to basic necessities even if connectivity is disrupted.

While card payments dominate, instant payments have long been available as an alternative. Wider use in stores and e-commerce could improve efficiency and resilience, as they run on separate infrastructure from cards and involve fewer intermediaries. This will give consumers more options if another major payment method fails.



## CHRISTOPHE BORIES

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### Strengthening the integration and sovereignty of the European payments market

The payments sector is no longer seen as a simple back office infrastructure. Its crucial importance in terms of strategic autonomy, sovereignty and resilience has been underlined by a number of recent international events, such as the giant power cut in Spain that left inhabitants without digital means of payment.

In recent years, the payments sector has been reshaped around specialised players, partially emancipating itself from the banking sector. This competition for innovative payment solutions has benefited consumers and businesses alike, as demonstrated by the fact that the overall cost of payments in Europe is much lower than in the United States.

The European payments market is now facing two major problems: fragmentation and sovereignty.

However, while the strengthening of the SEPA zone and the deployment

of pan-European public and private infrastructures have sought to reduce the fragmentation of the European payments market, it is still largely structured along national lines. Few payments players are able to achieve the critical mass to deploy their services in several Member States, and regulatory obstacles continue to raise issues in terms of level-playing field in Europe. Furthermore, as the ECB recently pointed out, only 8 of the 27 Member States still have a national payment card scheme, but many others depend exclusively on non-European players.

The deployment of a single currency has not been accompanied by pan-European retail payment solutions. Political authorities and private players start reversing this trend.

First, the regulatory and supervisory divergences that are often at the root of this fragmentation of the internal market must be solved through the PSD3/PSR package, which has now entered into a trilogue phase. It is crucial that these regulatory barriers, which stand in the way of an integrated market, are solved by this package in order to guarantee full competition, for the benefit of consumers and businesses alike. In order to be effective, this framework must no longer be limited to payment service providers alone, but must also include digital wallet providers as well as other players, currently considered to be technical service providers, but which have become strategic in payments, such as card payment networks or technical acceptance providers, which are exempt from any authorisation.

Second, the development of several pan-European payment solutions, strongly supported by the political authorities, bears witness to the desire to defragment the market, but for the time being these solutions remain fragmented due to their lack of integration. The anticipated interoperability between the European Payments Initiative (EPI), the consortium behind the Wero solution, and the European Payments Alliance (EuroPA) represents a major turning point in achieving genuine interoperability between sovereign payment solutions across Europe.

Innovation will also be a key parameter in encouraging the development of pan-European payment solutions. In addition to Wero, which is based on the instant transfer that the regulation of 13 March 2024 aims to promote, the digital retail euro project, developed by the Eurosystem, must guarantee, in addition to private initiatives, European sovereignty over our everyday payments. Finally, the benefits of tokenisation-based solutions, such as stablecoins,

also need to be explored, particularly by traditional banking players. The strong impetus given by the United States in this area, with the adoption of the GENIUS Act, will need to be closely monitored.

Payment solutions will also need to be accompanied by a European digital identity portfolio designed in particular to facilitate strong authentication. The eIDAS II regulation of 11 April 2024 is an essential building block for modernising strong authentication methods.

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**The European payments market faces two problems: its fragmentation and sovereignty issues.**

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Digitalisation also brings with it new threats in terms of fraud, which may seek to circumvent the protections put in place by payment service providers through techniques that directly manipulate the user. The PSD3/PSR package should, while providing increased protection for users, strengthen the range of preventive tools available to PSPs.

These issues and challenges underline the strategic importance of payments and show us that the next few years will be rich in commercial developments and technical innovations. We must collectively ensure that the European Union remains at the forefront of payments in the coming years, serving individuals, businesses and the economy. To do this, the Europe of payments will need both industrial policy tools and regulatory leverage.



## YVES BLAVET

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### Innovation in payments – What truly matters

Change in payment habits used to occur at a slow pace, with traditional methods like cheques rarely disappearing altogether. In recent years, however, the pace of transformation has accelerated significantly. This article highlights the most noteworthy recent developments and explores what determines whether a payment innovation succeeds.

#### Contactless and mobile wallets have reshaped usage

Contactless payments are now an integral part of everyday life. Although contactless cards were launched in the mid-2000s, adoption remained gradual until the Covid pandemic. Hygiene concerns sparked a sharp rise in usage in 2020. Tokenisation—which allows cards to be stored securely on mobile devices—enabled tech companies to introduce wallets like Apple Pay and Google Pay, which further drove the expansion of contactless payments. In France today, around 60% of card transactions are contactless.

Digital-only banks introduced intuitive apps offering features such as real-time notifications, configurable spending limits, and options to deactivate online or contactless functions. These innovations quickly gained popularity among users and allowed these players to reduce fraud risks. In response, traditional banks were compelled to

modernise their mobile apps to remain competitive.

Peer-to-peer (P2P) applications also gained traction, particularly those enabling money transfers via mobile phone numbers rather than IBANs. PayLib, now part of the European Payments Initiative's (EPI) Wero wallet, is a notable example. These services grew further with the introduction of free SEPA instant transfers.

With payments now largely frictionless, new layers are being added—such as instant credit via Buy Now, Pay Later (BNPL) services. Adoption has been so widespread that regulatory intervention is increasingly deemed necessary to guard against over-indebtedness.

#### Open banking services failed to meet their audience

In some areas, regulation has played a helpful role—for instance, by promoting instant payments or mandating strong customer authentication for online transactions.

However, the second Payment Services Directive (PSD2), implemented in 2018–2019, has fallen short of expectations. It required banks to provide third-party fintechs with access to their customers' payment accounts for services like account aggregation and payment initiation. In France, fewer than 10% of consumers have tested aggregation, and much fewer continue to use it. Fintechs built on these services have rarely achieved lasting success. Open banking payments remain marginal, accounting for less than 1% of transfers. Some banks are even discontinuing these services altogether. In the end, PSD2 proved costly for the financial sector and delivered little in return—a very disappointing outcome.

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#### Lessons should be learnt

Only market-driven innovations tend to succeed—either because they address a clear consumer need (such as instant transfers or BNPL) or because they meaningfully improve user experience (like contactless cards or mobile wallets). Innovation requires experimentation and market feedback. Attempts to innovate by law are doomed, because they fail to meet actual needs or to design the right answers. Mandating

innovation by law is as vain as decreeing life, it doesn't work! Nevertheless, some regulators still claim PSD2 is a success and are now advocating for a more ambitious European framework with open finance through FIDA (Financial Data Access). But why are earlier lessons being ignored? In Australia, the main three banks spent hundreds of millions of euros to implement the Consumer Data Right, yet today, only 0.3% of the population uses the open finance services it enabled. If rolled out at European scale, FIDA could cost much more—with equally modest results.

Another area of concern is the European Central Bank's retail digital euro project. The underlying motivations—such as regaining independence from non-European card networks or reducing reliance on dollar-backed stablecoins—are understandable. However, the proposed solution fails to meet any clear consumer need and would likely offer a clunky and inconvenient user experience. Without either of the two key ingredients—demand and usability—this complex and costly project could be doomed to irrelevance.

#### One certainty and two unknowns for the future

One thing is certain: artificial intelligence will both enable new forms of fraud—such as identity theft and deepfakes—and serve as a key element in combating them. Banks alone cannot address these evolving threats. A coordinated effort involving telecom providers, social media platforms, and other players will be essential to effective fraud prevention.

Two other developments warrant attention. First, the ongoing growth of crypto-assets: will they evolve from speculative tools into widely accepted means of payment? Second, the potential rise of super apps. These have become dominant in Asia, but Europe has been more reluctant. Will that resistance persist—or merely delay the trend?



## METTE GROLLEMAN

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### Innovation in payments and the evolving role of global payment networks

Reflecting on the rapid changes in how we pay, it's clear that innovation in payments is driven by people—their needs and expectations for secure, seamless transactions. As digital payments have already become part of everyday life, we've recently seen the rise of account-to-account (A2A) transfers and the integration of artificial intelligence, each making payments simpler, safer, and more intuitive. Throughout this journey, Visa has evolved beyond a card payments network to become a collaborative partner—adapting, learning, and supporting the growth of the European payments ecosystem and empowering local players as they help shape the future of commerce and economic growth.

Looking back, Visa's journey began in the 1950s with the introduction of payment cards, which helped make everyday transactions simpler and more convenient for millions. In recent years, the rise of contactless payments has further transformed how we shop, making purchases quicker and more intuitive. At the same time, advances like tokenisation—replacing

sensitive personal data with encrypted tokens—have made payments safer in an increasingly digital world. These milestones are not just about technology; they reflect a broader commitment to creating payment experiences that are secure, seamless, and ready for whatever the future holds.

In Europe, a balanced and forward-looking regulatory environment has played a vital role in fostering competition and encouraging innovation across the payments sector. By ensuring a level playing field, regulation has enabled new entrants and solutions to emerge, enriching the payments ecosystem and offering consumers more choice. Alongside established card payments, we are now seeing the rise of A2A transfers, digital assets, and stablecoins—each bringing unique opportunities and challenges for the ecosystem.

Take, for example, the growing adoption of A2A payments in Denmark and Visa's evolving role within this ecosystem. While instant payments offer clear benefits such as speed and convenience, they also introduce new challenges due to their speed and irrevocability, which can increase vulnerability to fraud. As this technology matures, it must be complemented by solutions that address current gaps—particularly in terms of consumer choice, availability, protection, and fraud prevention—to ensure trust in the payments ecosystem. Leveraging our longstanding experience in secure and reliable payments, we recently launched Visa Protect in Denmark, a solution that combines robust security features to support local payment players as they grow. This all comes together with the help of Visa's advanced AI capabilities.

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**We are entering a new era of digital commerce powered by AI.**

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AI has been integral to Visa's operations for over 30 years, helping us to better address fraud and security threats. Visa's AI technology can analyse billions of transactions each year, generating a risk score indicating the likelihood of an account-to-account payment being part of fraudulent activity, helping banks protect their customers from falling victim to scammers. This all takes place within the blink of an eye, without any inconvenience to the speed and reliability of A2A payments.

We are entering a new era of digital commerce powered by AI—where

shopping and payments become more intuitive and seamless. At the Visa Global Product Drop in April, we announced Visa Intelligent Commerce, a groundbreaking initiative that enables developers and engineers to build AI agents that will transform commerce experience. Soon, millions of people will rely on AI to find the perfect sweater, plan a vacation, or manage their grocery shopping. Visa Intelligent Commerce, an initiative that will empower AI agents to deliver personalized and secure shopping experiences for consumers – at scale. Consumers will be empowered with control over what a designated AI agent purchases on their behalf and provide a set of protections against fraud and disputes. Visa is committed to removing friction from payments in this new environment, ensuring that transactions remain secure and trusted in an AI-driven world.

To ensure Europe maintains its position as a global leader in innovation, it is essential to foster an environment where investment in technology is matched by a regulatory framework that is enabling and forward-looking. Regulatory approaches should seek to facilitate, rather than hinder, the seamless introduction of new technologies, ensuring that European citizens and businesses can quickly benefit from the latest advancements. The coexistence of global payment solutions alongside regional alternatives will enhance market stability, while competition will drive innovation and allow consumer choice.