DIGITAL EURO TIMELINE AND SUCCESS FACTORS

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The digital euro: harnessing European payment innovation in the digital age

The European Central Bank is making significant progress in developing the digital euro, bringing central bank money to the digital era as a natural evolution of cash. As cash usage declines and electronic payments become more widespread, the digital euro ensures that people and businesses can continue to rely on central bank money in an increasingly digital world. It strengthens monetary sovereignty and supports innovation within Europe's fast-changing payments landscape. As the preparation phase nears its conclusion, several aspects of the digital euro's design are coming into focus, while its realisation remains urgent due to geopolitical tensions.

Measures by the U.S. administration to promote USD-backed stablecoins are taking shape, making the work on the digital euro especially relevant today. Stablecoins are beginning to enter the retail space through global payment providers with a footprint in Europe and could potentially result in euro deposits being moved. At the same time, most digital retail transactions by value are currently processed by non-European schemes, highlighting Europe's reliance on external players.[1] In response, the digital euro ensures a unified payment solution under European governance – usable in physical shops, online, and between people.

To encourage adoption, the digital euro must deliver clear benefits for both consumers and merchants. For consumers, the digital euro offers a secure, private and easy payment option that is accepted across the euro area. For merchants, especially in e-commerce, it would provide an alternative to costly non-European schemes and improve conversion rates, since consumers prefer relying on one familiar payment method.

To ensure the digital euro would bring concrete benefits to the lives of Europeans, the ECB has established an innovation platform that brings together almost 70 market participants.[2] This collaborative laboratory allows participants to test and explore features such as conditional payments – transactions triggered only when agreed conditions are met. For example, imagine receiving an automatic refund if your train is delayed: this kind of functionality would avoid lengthy reimbursement procedures and improve user experience.

Although the digital euro would be central bank money, thus a liability on the Eurosystem's balance sheet, it would be distributed by banks and payment service providers. These intermediaries would make digital euro services accessible to citizens, supported by a fair compensation model developed by the ECB to ensure that payment service providers and banks can generate revenues comparable to those of other payments methods when it comes to transactions or the services they offer.

The ECB's goal is to provide pan-European rails that private sector providers can build on, without creating confusion for end users. Thanks to the digital euro scheme rulebook, developed in close cooperation with market stakeholders, the ECB will provide common standards and ensure a level playing field that fosters innovation and collaboration. By enabling interoperability and acting as the backbone for new services, the digital euro can unify Europe's fragmented payment landscape while preserving consumer choice.

Importantly, the digital euro is designed as a means of payment, not as a store of value. It will not bear interest, and limits will apply to the amount individuals can hold in their wallets, helping to safeguard financial stability and ensure the effectiveness of monetary policy.

> **The digital euro ensures secure, innovative, and unified payments across Europe.**

Ultimately, the digital euro offers Europe a unique opportunity to harness innovation while preserving its strategic autonomy in payments. By addressing gaps in the existing payment systems, we aim to create a digital form of central bank money that complements cash and private solutions. With a focus on user needs, technical innovation, legal tender status, and strong stakeholder collaboration, the digital euro can become a cornerstone of Europe's digital future. As the Eurosystem is moving forward, robust legislation and continued collaboration with public and private actors will be crucial to make the digital euro a reality. Now is the time to prepare and collaborate, to protect Europe's strategic autonomy and to ensure that all Europeans can pay everywhere in the euro area with a trusted European payment method.

1. *ECB (2025), "Report on card schemes and processors".*
2. *ECB (2025), "ECB partners with private sector through digital euro innovation platform", Press release, 5 May 2025.*

GEDIMINAS ŠIMKUS
Chair of the Board – Bank of Lithuania

What is the value proposition of the digital euro?

Over the recent years, private financial innovation has allowed EU citizens to enjoy increasingly faster, more accessible, and convenient digital payments. In Lithuania, market participants have been at the forefront of the ongoing financial innovation: the rollout of open banking services has been accompanied by the increased use of credit transfers and card payments. Moreover, market-driven innovation has already resulted in instant payments becoming the dominant practice in Lithuania – 74% of domestic interbank credit transfers are settled instantly. While the widespread use of instant payments and their consumer-tailored applications (person-to-person payments via the smartphone's contact list or through a link request) make Lithuania one of the innovation leaders, advancements in payment services are an EU-wide phenomenon. In this context, it is legitimate to ask: what added value would the digital euro bring?

The answer lies in the ability of the euro area-wide CBDC to strengthen the European payments system in areas where market-driven solutions alone may not suffice. In particular, the digital euro can enhance systemic resilience across several critical dimensions.

First, enhancing operational resilience. The digital euro's design is expected to ensure the continuity of payments regardless of the situation. The experience of regional blackouts, such as those in the Iberian Peninsula, demonstrates that large-scale disruptions are no longer a hypothetical concern. In addition, the growing frequency and sophistication of cyberattacks highlight the need for a robust and secure payment infrastructure. In this context, features such as the digital euro's offline functionality and the ability for users to switch quickly and easily between payment service providers, will enhance the operational resilience of the payments market. Hence, the ability to pay – an important public good – will be maintained under all circumstances.

Second, increasing Europe's payment autonomy. The digital euro is intended to serve as a European alternative to the limited number of non-European providers that currently dominate the retail payments landscape. In 13 euro area countries, including Lithuania, daily digital payments at physical points of sale are effectively limited to non-European branded cards or mobile wallets. The situation is similar for e-commerce and m-commerce, where cross-border transactions rely almost exclusively on non-European solutions. While these services have demonstrated operational reliability, their governance presents various vulnerabilities. In addition, the current market structure is sub-optimal, yielding limited competition and choices for consumers. Introducing the digital euro as a domestically governed, pan-European payment solution would strengthen Europe's payment autonomy and increase consumer welfare.

> The digital euro can enhance systemic resilience across several critical dimensions.

Third, preservation of monetary sovereignty in the digital age. The Eurosystem remains firmly committed to ensuring the continued availability of cash – a crucial pillar of monetary sovereignty – for all those we serve. However, there is a need to extend this commitment by making sure that citizens have easy and equitable access to central bank money in digital form. This is becoming increasingly important as consumer payment preferences evolve, reflecting a growing demand for the speed and convenience that digital age offers. By complementing cash with a digital solution, we reinforce the role of public money as a reliable foundation in the financial system and underpin the central bank's capacity to support macroeconomic stability. The digital euro would offer a secure and trusted form of money – backed by the state – enabling citizens to plan, save, and transact with confidence in the context of ongoing financial and technological innovation.

The digital euro project extends far beyond purely economic, let alone, payment considerations – it also plays a strategic role in strengthening Europe's resilience, safeguards monetary sovereignty, and upholds citizens' trust in public institutions amid rapid technological change. Thus, it is essential to frame the digital euro as a European project, not merely an initiative of the Eurosystem. Its success will depend on a broad societal dialogue, inclusive governance, and careful alignment with the diverse needs of European citizens. While its final design is still taking shape, the path forward must be guided by transparency, collaboration, and a long-term commitment to equip Europe with tools fitted for the digital age.

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The digital euro as a strategic tool in Europe

The digital euro requires strong political leadership to resolve the remaining key issues, and the Danish Presidency has built momentum at the July ECOFIN meeting. Recent high-level discussions on holding limits demonstrate a willingness to find common ground on controversial topics, leading to meaningful progress on a crucial aspect for safeguarding financial stability. A compromise that balances the role of the ECB and the Council, while ensuring financial stability when launching the digital euro, is within reach. Other areas that require political guidance include privacy and the compensation scheme for the distribution of the digital euro. These elements will shape its overall design, and to get them right, we need to understand the value proposition of the project and how it will interact with private sector-led solutions.

The value proposition of the digital euro must go beyond what existing solutions offer. At its core, it is a public project aimed at strengthening European sovereignty in the payments landscape. For intermediaries, it reduces dependence on non-EU providers and opens opportunities to develop value-added services on top of ECB provided infrastructure. For merchants, it can lower acceptance costs by increasing competition and offering protection against abusive pricing. For consumers, it guarantees access to a pan-European digital payment tool that is easy to use, free for basic operations, available offline, and accessible even without a bank account.

The digital euro will not be launched in a vacuum. It will coexist with existing private payment solutions already contributing to Europe´s strategic autonomy. Therefore, it should be both complementary to and interoperable with these systems. Private instant payment solutions are gaining traction in the EU aiming for pan-European reach. The two main private initiatives pursuing this goal are the European Payments Alliance (EuroPA), founded by Bizum (Spain), MBWay (Portugal) and Bancomat (Italy); and the European Payments initiative (EPI), operating under the brand Wero in France, Germany and Belgium. These initiatives already facilitate peer-to-peer payments across participating countries and have recently agreed to collaborate, enabling interoperability and expanding use cases to e-commerce and point of sale payments. The digital euro should build upon this progress by adopting existing standards, and developing an open system architecture, that private solutions can leverage to scale-up across Europe or beyond. As a public good, the digital euro can serve as a backstop for the European payment system during disruptions. Its offline functionality also enhances system resilience by enabling payments without connectivity.

A digital euro complements other European initiatives and enhances the resilience of payment systems.

With these goals in mind, we can now address the key outstanding issues in Council negotiations.

Privacy is a primary concern for European citizens. The ECB is committed to ensuring that the level of privacy in online payments with the digital euro is equivalent to that of comparable payment methods. In addition, the offline functionality can offer privacy levels similar to that of cash while promoting financial inclusion. These benefits must be balanced against AML/CFT risks, similarly to the way that Member States already balance these risks with regards to cash, for instance by capping the size of cash transactions.

On the distribution model, the regulation should design a fair compensation framework that aligns incentives for all parties. Intermediaries must be fairly compensated for their distribution role while protecting merchants, required to accept payments in digital euros, and consumers must have free access to basic payment functions. The Spanish delegation has actively supported the Council presidencies on this matter, advocating for a limited set of mandatory use cases (peer-to-peer payments and transactions in physical and online stores) and a compensation model based on a" no worse-off" clause. This clause ensures that merchants do not pay more for accepting digital euros than for comparable payment methods. It also aligns incentives and provides pricing clarity during the initial years, when cost data may not yet be available.

Ultimately, the digital euro will represent a major milestone in the history of the Economic and Monetary Union. This project is not about replacing cash but about adapting our common currency to the digital age. A successful implementation will strengthen the international role of the euro, while delivering tangible benefits to citizens, merchants, and financial institutions.

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The digital euro in context: Building Europe's digital payments future

The ECB's initiative to introduce a digital euro (D€) represents a pivotal development in the evolution of the European monetary, financial and payment systems. The D€ responds to a confluence of strategic needs, such as the decline in cash usage, the EU's well justified ambition to reduce dependence on non-European payment systems, and the rise of foreign-denominated stablecoins, among others. To that end, the European Commission's 2023 legislative proposal outlined a regulatory framework with uniform standards for the D€, while the ECB has focused on its technical design, also considering broader policy implications.

At the heart of the debate around the D€ lies a fundamental concern: how to introduce it without undermining the stability of the very financial system it seeks to modernize. The ECB has been clear in its intent — the D€ is to function as a means of payment, not a store of value. This distinction is critical. Central to the financial stability discussion is the role of banks in transforming short-term deposits into long-term credit. This process, known as maturity and liquidity transformation, is fundamental to the functioning of the real economy. Banks' deposits also underpin relationship lending, which is particularly relevant for households and SMEs.

To prevent and mitigate the risk of abrupt disruptions to financial intermediation and other unintended consequences, the implementation of holding limits is paramount. The holding limits would restrict the amount of D€ individuals can hold, ensuring that the D€ remains a transactional tool. The calibration of these limits must be informed by a nuanced understanding of the EU diverse banking landscape. Differences in bank size, business models, and national financial structures are all relevant. Smaller banks, for instance, may be disproportionately affected by deposit shifts, potentially triggering systemic vulnerabilities.

The design of holding limits must also account for differences in consumer behaviours across countries, particularly in terms of cash usage and digital payment preferences. Limits may also need to differentiate between online and offline D€ transactions, balancing privacy concerns with AML/CFT requirements. Furthermore, the interaction between D€ holdings and broader monetary policy tools must be carefully managed to avoid distorting liquidity conditions or undermining regulatory frameworks.

Europe should explore all paths to strengthen its digital payment competitiveness.

Despite the best modelling efforts, a non-negligible level of uncertainty is likely to persist. Consumer adoption patterns, merchants' behaviour, and the strategic responses of private actors — including BigTechs for example — are difficult to predict. This uncertainty reinforces the case for a gradual, "start-small" approach. By rolling out the D€ gradually, policymakers can monitor its effects, adjust parameters, and build public trust without jeopardizing financial stability.

The operational implementation of holding limits will also require a robust technological infrastructure. This includes systems capable of tracking individual D€ balances in real time, enforcing caps through automated mechanisms, and ensuring interoperability with existing banking platforms.

Importantly, the D€ intersects with a dynamic ecosystem of private digital payment solutions. In this regard, in June 2025, The European Payments Alliance (EuroPA) and the European Payments Initiative (EPI) announced a strategic collaboration aimed at creating a pan-European digital payments solution. This partnership aims to bring together leading digital payment providers in the EU to enable cross-border transactions for over 382 million citizens across 15 countries as a starting point.

In conclusion, there is a unique strategic opportunity ahead or Europe to explore the most efficient way to strengthen its competitiveness in the global digital economy. Such exploration should remain open to complementary or alternative approaches, particularly those emerging from the private sector. The growing interoperability among domestic solutions — such as those under the EuroPA and EPI initiatives — suggest that a pan-European, user-centric payment ecosystem could also be built through collaborative innovation.

Whether through a public digital currency, private interoperable platforms, or other potential alternatives or combinations, the ultimate goal should be to enhance core EU policy objectives such as preserving financial stability and boosting competitiveness, while ensuring that European citizens and businesses benefit from secure, efficient, and EU-wide digital payment options.

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Progress towards sovereign payments, and the role of the digital euro

The EU is increasingly alone in pursuing retail central bank digital currency (CBDC). The only other major country running a concrete project is China. The Bank of England appears prepared to shelve the digital pound if private sector initiatives get off the ground. Central banks in Denmark, Japan, Ecuador, and earlier Finland have investigated or even issued a retail CBDC, but have since abandoned these projects. A Swedish public inquiry concluded no current societal need for a retail CBDC. The US administration has also moved away from retail CBDC.

These developments warrant a critical evaluation of the digital euro's goals and its role in the payment landscape. Currently, four policy goals are typically mentioned:

Maintaining a "monetary anchor" in an environment of declining cash usage. The two-step argument is that a) cash provides confidence in digital, privately issued money (bank accounts). And b) as cash usage declines, a digital publicly issued alternative is needed. But it is questionable whether cash is indeed a trust anchor for privately issued money. Countries with low cash usage (like Sweden and the Netherlands) do not face any specific money trust issues. Arguably, stable institutions, good regulation and supervision, and a credible deposit guarantee system are more important.

Strengthening the international role of the euro. An understandable policy goal, which would be excellently served by wholesale CBDC. Retail CBDC can contribute very little.

Providing a home-grown, digital pan-European means of payment, reducing foreign dependencies and strengthening Europe's "strategic autonomy". Authorities have been calling on the private sector to develop this for many years. And they are right to note that banks have not delivered on this in the past. However, geopolitical developments have focused minds, both in the public and private sector, on the need to reduce foreign dependencies in vital EU infrastructure. This has created new commitment among all parties. Thus, renewed efforts are underway in the private sector to develop a way for citizens to use their favourite domestic or EU-based digital means of payment across Europe.

Improving resilience of payments. If disaster strikes and main digital means of payments become unavailable, fallbacks include e.g. cash and stand-in processing of digital payments. Having a digital euro available could be considered an additional insurance policy. This works well in particular if the digital euro were running on a dedicated offline-capable digital infrastructure.

> Four years after project launch, we still need discussion about goals and how best to achieve them.

I have two other considerations to add. First, the digital euro should not compete with European-led payment solutions that are live or being built. Despite reassurances that the digital euro will be complementary, the risk of direct competition is high. Current plans are for the digital euro to cover all digital payment methods, online and offline. For most payment methods, EU-based private sector solutions are available or on the roadmap for roll-out. To avoid direct competition, the digital euro could focus on specific payment methods only. Such an approach could also serve the resilience goal well.

Second, distribution costs are a complex aspect where more technical discussions are needed. A digital euro transaction may routinely involve four banks or payment service providers (PSPs):

- the "distributing PSP" hosting the payer's digital euro wallet,
- the "funding PSP" hosting the payer's commercial bank account which replenishes the digital euro wallet ("reverse waterfall" functionality),
- on the receiving end, the "merchant PSP" hosting the payee's digital euro wallet, and in some cases
- a PSP hosting the payee's commercial bank account (for "waterfall" functionality)

This does not even include additional roles like Payment Initiation Service Providers (PISPs) and Technical Service Providers (TSPs). All of these incur costs, which deserve fair compensation. At the same time, policymakers have committed to a free set of core digital euro services and capped costs for merchants. While the ECB has made clear it will provide its part of the infrastructure for free, this covers only one of many aspects in a transaction.

More generally, the transaction-based approach to compensation neglects the considerable non-transaction related cost and revenue streams, including e.g. seigniorage, KYC, account management and service subscriptions. These may actually exceed the transaction-related streams. Therefore, the compensation model as currently envisaged in the digital euro legislative proposal, requires a thorough redesign.

This concise assessment shows that, four years after project launch, the digital euro would still benefit from further discussion about goals and how best to achieve them. Given the diversity of challenges Europe faces, the limited availability of European human and other resources for innovation and implementation should also be carefully considered.

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Unleashing Europe's payment power for innovation and sovereignty

Over the past decade, I've had the privilege of building MB WAY, Portugal's leading mobile payment solution and the first wallet launched in the Eurozone. Today, MB WAY is the most used solution in Portugal—spanning from peer-to-peer, in-store, online, and more than 10 additional use cases. Trusted by millions and deeply embedded in daily life, it proves that European innovation can scale and compete when rooted in user trust and strong infrastructure.

But MB WAY is just one example. As Co-Leader of EuroPA—the European Payments Alliance—I've seen how cooperation can move mountains. In under a year, EuroPA connected MB WAY, Bizum (Spain), and Bancomat (Italy), creating P2P interoperability across 45 million users and 180 PSPs. With three additional solutions onboarding, we are fast approaching 105 million users. Cross-border, European mobile payments are no longer a vision—they're already here.

Today, 26 European countries, including 20 from the EU-27, host domestic payment solutions. Together, they cover 95% of Europe's population and already account for more than 40% of all retail payment transactions, with 40 billion processed annually. This isn't theory—it's one of the world's most advanced, sovereign, and inclusive digital payment ecosystems.

The digital euro holds a real promise—to strengthen sovereignty, inclusion, and trust in public money. But it must be designed with purpose, complementarity, and clarity. Europe already leads in digital payments usage, accessibility and innovation through its mobile wallets, instant transfers, and regional card schemes. Interoperability, once aspirational, is now a reality thanks to initiatives like EuroPA. A standalone system—with separate rails, wallets, and infrastructure—could take a decade to deploy, cost billions, and offer little added value. Worse, it risks disrupting what already works and crowding out years and billions of investments in European payment innovation.

The digital euro must complement, not compete with, existing solutions. It should be accessed through trusted apps users already rely on. It should be designed on reinforcing infrastructures like TIPS—extending their reach to POI use cases—while avoiding duplication of investments. Interoperability must be guaranteed by aligning technical standards, commercial models, and access rules. Governance should be inclusive and balanced, ensuring public and private actors shape the ecosystem jointly. At the same time, the regulatory framework should mandate that all PSPs and merchants offer and accept at least one European solution—not exclusively the digital euro—to ensure universal access and consumer choice. A phased rollout should prioritize underserved use cases, like offline payments, rather than replicate what private solutions already deliver. Development should follow a clear cost-benefit logic, focusing first on standards and functionalities that complement the existing ecosystem, not compete with it.

This approach empowers the private sector to continue innovating while ensuring that public objectives are met in a practical, scalable, and efficient way.

Without the right safeguards, a poorly designed digital euro risks distorting competition—granting the public-run wallets privileged access. It could overwhelm merchants and PSPs with yet another system and equivalent migration costs, while confusing consumers, leading to poor adoption or even resistance. Worse, it could redirect private sector investment towards (more) compliance focus rather than innovation, weakening the very ecosystem it aims to strengthen.

Full-scale rollout of a new, standalone payment system across the EU is not trivial—realistic estimates, drawing parallels with SEPA, put the cost at a minimum of €20 billion. And that's before factoring in the cost of merchant upgrades, ongoing maintenance, and user acquisition. For PSPs and banks, the operational burden would stretch over years—diverting resources from other critical areas of innovation and modernization. The opportunity cost is enormous.

Digital euro must complement EU solutions, building on Europe's innovation, scale, and sovereignty.

European providers like SIBS are ready to help avoid this. With deep experience in managing and distributing digital payments—and leveraging the trust built through MB WAY among users and merchants—we are well-positioned to support adoption if private solutions are given a formal role. Cost-sharing across the value chain must also be fair and sustainable.

If the goal is true European sovereignty, then we must accelerate what already works by embedding the digital euro as one layer—at the currency level—within an ecosystem of trusted, already-operational European platforms.

For the first time, payments are central to Europe's political and strategic agenda. The momentum is real. The infrastructure is here. The solutions are proven. Let's unleash Europe's payment power—not by starting over, but by building on what we've already achieved. From MB WAY to EuroPA, we've proven what's possible. Now let's scale it—confidently, collaboratively, and with sovereignty at its core.