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EBF vision on a Digital Euro Ecosystem

The European Banking Federation is the voice of 33 national banking associations from all across Europe, representing over 3,500 banks

Executive Summary

The digital finance landscape is constantly evolving. As part of this evolution, the topic of Central Bank Digital Currencies (CBDCs) has gained ground and in Europe the project to explore the issuance of a digital euro is moving ahead rapidly.

In this paper, the European Banking Federation (EBF) – representing the vast majority of the European banking sector – sets forth its **initial vision for the digital money ecosystem of the future, where a retail digital euro, a wholesale CBDC and bank-issued money tokens would all play a role** in enabling innovation, supporting customer needs and ensuring that Europe stays at the forefront of digital finance and the digital economy.

These different initiatives would respond to different policy objectives:

- **a retail digital euro** could – if properly designed – support the strategic autonomy of Europe and ensure a monetary anchor role of the euro;
- **a wholesale digital euro based on DLT** for the settlement of interbank transfers and related wholesale transactions in central bank reserves, would support the international role of the euro, enhance global cross-border payments and match the needs arising from digital finance;
- **bank-issued money tokens** would cater for the evolving needs of customers, e.g. automated industrial processes for businesses.

The paper focuses on different aspects of a retail digital euro – given its prominence in the current debate – but also sets out the main principles for the other elements of a digital money ecosystem. If issued, **the EBF envisions a retail digital euro that would be issued by the Eurosystem as raw material**, allowing the industry to develop solutions and fully deploy its innovative potential to deliver future-proof and competitive payment solutions to the European market. To make this a reality, **a retail digital euro should be developed with strong market involvement, in a full and transparent public-private partnership, to ensure that it:**

- **creates value for end-customers and the economy** for existing and for new innovative use cases, without crowding out payment services provided by the private sector,
- **preserves financial stability and bank funding**, thus maintaining European banks' lending capacity to the economy,
- foresees a **robust business model** so as to **incentivize** intermediaries to provide services and innovate based on the digital euro,
- balances design choices to **safeguard privacy and enable** the fulfilment of **compliance requirements** (KYC, AML, CFT) while allowing intermediaries to process customers' payment data based on customers consent to provide value-added services and
- leaves ample **room for the private sector to add on solutions and services** to better serve customers**.**

The issuance of a retail digital euro would be a major evolution, with wide implications for all economic actors and the ECB/Eurosystem itself. These implications must be discussed thoroughly, in an open, transparent and continuous dialogue between all stakeholders.

The project goes well beyond the creation of a new tool for payments, and questions related to impact on the macroeconomic, societal and financial sector levels should be a central part of the discussion.

1. Introduction

In recent years, the topic of Central Bank Digital Currencies (CBDCs) globally and the digital euro in Europe have become a prominent part of discussions on the future of the role of national currencies, banking, the payments market and the digital transformation of financial services. It is understandable that the ECB/Eurosystem explore the option of a digital euro, as they must duly consider their role in the age of the digital economy, especially in terms of how to ensure the stability of the euro and of the monetary system. Questions on the strategic autonomy of the European payments market, the possibility of foreign CBDCs and/or global private stablecoins gaining ground, and the overall expected developments around digital assets bring forward considerable challenges. They can also bring important opportunities for European authorities and market participants.

The banking industry supports a long-term vision of European strategic autonomy in payments and sees that new forms of digital currencies and payment methods will be needed to support the multi-faceted digitalisation of the economy. We envision a future digital economy where Europe has a strong, resilient, innovative and competitive payments and digital asset ecosystem, with enhanced European strategic autonomy.

In the emerging world of digital currencies a retail digital euro - if appropriately designed - could be one of the ingredients in the mix of new tools and solutions to meet the evolving payment needs. The future digital money system should cater for essential market demands and policy objectives by integrating a retail digital euro alongside other solutions:

- a wholesale CBDC, or an adequately regulated equivalent by the private sector, that would facilitate transactions and settlement of tokenized assets (e.g. in capital markets) and cross-border/cross-currency payments; and
- bank-issued money tokens to cater for evolving user needs.

In this paper, we first discuss briefly the main policy objectives underlying the current developments, and then approach the different parts of the future digital money ecosystem. We focus on the retail digital euro, given the importance of the ongoing ECB/Eurosystem investigation. We highlight the key factors for the industry in the retail digital euro project, and strongly call upon all the involved authorities to take due account of these factors as the project evolves.

2. Objectives of digital money

A number of policy objectives have been referred to as potential reasons for issuance of a retail digital euro. It is however important to note that a *retail* digital euro, particularly if not able to offer a concrete value-added compared to existing electronic payments, is not an appropriate or sufficient tool to meet all the goals that have been put forward in the debate surrounding it. Different policy objectives will require different actions. Some could be met for instance by a wholesale DLT-based digital euro or by private sector initiatives.

A retail digital euro could help move towards the goals of **strategic autonomy of the EU payments market, monetary sovereignty and offering an alternative to other forms of digital money. However, there are three fundamental pre-conditions that need to be in place for that: is the right design, a robust and sustainable business model underpinning it, and a strong role for the market in designing payment solutions.** It is also essential to allow for exploiting the innovation potential while catering as much as possible for interoperability with existing systems. The key factor in attaining these policy goals is to create attractive European payment solutions,

that will be able to provide a viable addition to other digital means of payment, both domestic and international. A retail digital euro could only achieve this through an open and iterative collaboration between the authorities and the market actors who have the expertise and experience in building such solutions.

A digital euro could contribute to the goal of **continued access to central bank money and providing a monetary anchor in a digital world** and in a future where cash is less used for payments. It has to be highlighted though that trust in the financial system depends on much more than the availability of central bank money, be it cash or digital euro. Likely more important sources of trust include robust legal and supervisory structures, reliable deposit guarantee, and the stability of the payment and banking system. In any case, a monetary anchor function for the digital euro should be reconciled with the requirement that it should never have a store of value function to guarantee financial stability.

Supporting the international role of the euro concerns large-value and cross-currency payments in global trade and on financial markets, and not the retail-domestic role of the euro. Hence meeting this objective requires rather a wholesale digital currency suited for large-value, cross-border and cross-currency transactions. From this perspective, allowing also different wholesale CBDC systems to link and be interoperable will be key. At the domestic level, conversely, the features that the digital euro will be able to offer will be key in order not to be disadvantaged by other CBDC solutions issued by foreign central banks and stablecoins issued by private actors.

3. Developments in the digital money ecosystem of the future

Alongside the existing payment instruments and methods, cash, and account-based commercial bank money, there are three important developments that can be envisaged to play a part in the future payments' ecosystem: a retail digital euro, a wholesale CBDC and bank-issued money tokens. In the following sections these are explored in more detail.

3.1 A retail digital euro

Europe currently relies on non-European companies for important parts of its payment needs, including for cross-border transactions within the Union. This is a major challenge that European financial entities have been trying to address, and that a retail digital euro would also seek to tackle. It is important to understand that **a retail digital euro in and of its own will not lead to less dependence on these non-European market actors.** Such an outcome can only be achieved by **front-end solutions that are seamless, innovative and attractive for customers and merchants, and therefore widely adopted in the European market.** The private sector is the one best placed to develop such solutions and infrastructures, based on the 'digital euro as raw material' principle.
Two factors need to be combined to make a retail digital euro successful: strong market role ensured by a public-private partnership and design elements that enable the creation of attractive end-user solutions, while mitigating potential negative consequences.

3.1.1 Strong market involvement: a full public-private partnership

The introduction of a digital euro would be an unprecedented, large-scale change for both the Eurosystem, the financial ecosystem and the whole EU economy. Although banks would appreciate the increased stakeholder involvement organised by the ECB on the design aspects, it is not sufficient for the development of a successful digital euro and there is currently no dialogue in place to address the fundamental changes and risks to the monetary and financial system. **The EBF calls for a closer public-private**

partnership of EU authorities and market participants. As banks are foreseen to play a key role in bringing the digital euro to end users, they need to be deeply involved in the detailed work of its use cases and design, with enough time and information to analyse options and related impacts. This dialogue should span from the strategic objectives and goals to be realised by a digital euro, to the relevant use cases, design options and their concrete implementation, including the entire range of components (back- and front-end) and the business model. This partnership can be articulated through:

- An open **dialogue on the digital euro's strategic and political objectives, the macroeconomic aspects and the mix of policy instruments** that can best achieve the intended goals. A proper "fact check" and a broad impact analysis are essential in such a dialogue, which would be part of a permanent high-level engagement between authorities and banks to ensure alignment of strategic objectives and support for the project as its development unfolds.

- A **framework** put in place by the ECB/Eurosystem setting out at high level the way in which the **public-private partnership** in the implementation of a digital euro will materialise. An example would be the SEPA project, which was carried out jointly by the public and private sectors, based on commonly understood and agreed objectives. The digital euro, being a **new form of money**, is a much broader and more consequential project than SEPA, therefore a close cooperation is even more crucial, with the involvement of all relevant fields of expertise (payments, digital finance, innovation, prudential, macroeconomic, cybersecurity, privacy, AML, etc). The framework and design should as a priority consider how the digital euro would interoperate with existing payments channels and avoid fragmentation.

- **A digital euro scheme** organised in three separate but interconnected levels. This is a well-proven and most efficient concept in the payment industry, even for the distribution of physical cash, where the private sector is fully responsible to facilitate the interbank-clearing and interoperable customer-facing solutions through the definition of rules and standards. The three levels would be

  1) **ECB level:** this scheme layer should define aspects related to issuing, convertibility, and maintenance of the digital euro, as well as principles to ensure harmonisation of some key aspects that are defined in the subsequent layers (e.g. onboarding, AML checks and policy aspects). Meaningful involvement of the banking industry is crucial. If the initial scheme Rulebook goes beyond these aspects, the governance of the scheme should be handed over to market participants in due course.

  2) **Industry level A:** similarly to the SEPA schemes, the rules on payments and all related aspects should be an industry-led initiative, with the participation of the ECB/Eurosystem (and any other relevant authorities). Synergies with existing SEPA schemes should be sought, while consistency and interoperability with other schemes and digital currencies could also be explored.

  3) **Industry level B:** on top of the above two basic scheme layers, the private sector should be able to envision and build solutions with innovative, value-added services. The scheme's role should be to lay down the appropriate rules that would ensure the interoperability of the various payment solutions that would be subsequently developed and operated by the private sector, in compliance with the principles set out in the previous layers.

The recent establishment of a dedicated structure by the ECB to work on the development of the digital euro scheme could serve as a starting point for such a partnership.

In addition, **the European market needs the authorities to clarify the interaction of different and converging policy objectives**, especially when it comes to the development of pan-European payment solutions at the Point of Sale / Point of Interaction. The digital euro is positioned by the ECB as an everyday payment method to be used for person-to-person, Point of Sale and e-commerce transactions. In parallel, the authorities are giving a high priority to the development of **instant payments** in these same use cases. The absence of clear prioritisation and defined synergies bears a high risk of multiplying investments and endangering the objective of creating successful pan-European payment solutions. Therefore, the perimeter of the two projects and the capabilities required must be clearly identified, and a review should be undertaken to ensure that there are no points of duplication of capabilities. The digital euro project should be aligned with the instant payment initiative and not conflicting. For example, it is important to understand how much the digital euro project can leverage the capabilities already built for instant payments and thus optimise the investments already made.

3.1.2 Design aspects

The design elements of the digital euro will be crucial in determining its success, but also in mitigating the associated risks. The elements below would help fulfil the ECB's objective of maintaining citizens' access to a central bank liability, while mitigating the risks related to the fundamental change of the banking landscape, the impact on banks' business model, and the roles and responsibilities of banks and the ECB.

- **Guarantees for financial stability and bank funding**

The regulatory reform of the last 12 years has increased the resilience of the banking system, **safeguarding financial stability and the lending capacity of banks**. The introduction of a digital euro poses a significant risk for banks due to the potential shift of significant funds that are currently held as bank deposits to digital euro accounts/wallets that will be a central bank liability and therefore not on the balance sheet of the banks. This is a fundamental aspect of the discussion because **deposits are a stable and major source of funding for European banks**. Depending on how big these shifts are, and the subsequent impact on banks' funding base, there will be consequences on banks' ability to meet their prudential requirements. This will in turn affect their ability to extend loans to the economy, the price at which they can do so, and their ability to provide fixed rates. Therefore, it is important that the ECB is envisaging the digital euro as a means of payment and **not as a store of value** but putting this idea in practice calls for deep analysis and a robust design. This is more important in Europe, where bank deposits sustain the huge mortgage credit portfolio for residential real estate that is held on the balance sheets of banks over the long term.

The level of holdings of the digital euro should be carefully limited by design at a level that prevents financial stability risks. The design of the digital euro should combine a very low cap on holding limit with a limit on the transaction amount, that could be higher than the holding limit. Given the character of the digital euro as a means of payment, a low **fixed cap on individual holdings** should be designed reflecting the average daily payment needs of European citizens[OBJ]. This cap would not hamper the usability of the digital euro thanks to the waterfall functionalities that would enable citizens paying over this limit. At the same time, setting a low limit would significantly reduce the potential negative impacts of the digital euro on financial stability. The cap should then be

accompanied by adequate **mechanisms to effectively enforce it** and control the number of digital euro wallets that can be held by any individual.

In addition, given the envisaged automatic funding mechanism (reverse waterfall functionality) that would allow users to make payments in excess of the holding cap, it is necessary to set a **limit also to the amount of each transaction** in digital euro. Such a limit would have to be proportionate to the use cases that the digital euro is intended to cover (but the same for all the use cases).

Transaction amount limits would be necessary for security and fraud prevention reasons and to support a gradual roll-out of the digital euro, as well as to facilitate liquidity management by intermediaries. Moreover, a permanent and reliable **ECB liquidity facility** for both structural and cyclical liquidity needs of banks will have to be put in place to compensate for the deposit outflows in a reliable way.

Another important consideration in the design is that **the digital euro should not bear any interest.** This would help that it is perceived as a means of payment, rather than a store of value or an investment and would also be in line with cash that is not subject to interest remuneration.

There is a need for impact assessments validated by the banking industry that take into account different scenarios, including stressed ones, in order to prevent threats to financial stability.

- **Compensation and remuneration**

Although payments are sometimes seen as a utility, all successful payment solutions need a viable economic model to sustain them. **It is of utmost importance to have a sound business model underlying the digital euro in order to make it appealing for all parties.** The business model between the payee bank and the payer bank should be clearly established in the digital euro scheme and take into due consideration existing business models for payment solutions, creating strong incentives for Payment Service Providers (PSPs) to intermediate the digital euro. While it is currently envisaged by the ECB that digital euro transactions would befree for consumers, this should not be the case for merchants, as acceptance of digital euro would bring benefits to them (e.g. reducing costs and risks related to cash management). Intermediaries should also be able to be compensated, beyond the payment-related costs, for providing all digital euro-related services, such as: (a) opening and maintaining digital euro accounts, (b) performing KYC (Know-Your-Customer) procedures, (c) continuous monitoring for AML/CFT[1] and anti-fraud purposes, (d) portability services, (e) funding and defunding of the wallet, (f) dispute resolutions. Finally, value-added services provided to payers and payees should be subject to remuneration.
In addition, public funding should be made available to support the investments that will be required, for instance for the update of the acceptance infrastructure to accommodate the digital euro. The cost of such updating across euro markets should not be underestimated. It is a huge endeavour that will involve upgrading and certification of hundreds of different types of terminals, distribution in acceptance networks, contracting with merchants and upgrading of back-end systems, to enable the millions of POSs held by businesses, SMEs and professionals, to accept digital euro transactions.

- **A two-tier system**

The ECB has already stated – and rightly so - that **it is not feasible or desirable for the central bank to directly distribute the digital euro**. It is not the role of the ECB, and arguably not within its mandate, to directly interact with or hold accounts for end-users,

[1] Anti-Money Laundering and Countering Terrorist Financing.

and these tasks are successfully fulfilled by the private sector. **A two-tier system can ensure the highest level of innovation and competition for the development of best solutions for EU citizens**.

The digital euro should be the **'raw material' issued by the ECB, on which the private sector can add products and services** to offer to the end-users. This means that only a few functionalities should qualify as mandatory core functionalities, and all the rest should be qualified as optional or value-added, to be further customised by the private sector. To provide the best digital euro-based payment products and ensure uptake, it should be up to intermediaries to decide if and how to integrate with their existing offering, in a way that is most convenient to their customers and best fit to their overall business development. There should be no obligation for digital euro intermediaries to support/interface any stand-alone Eurosystem wallet, as that would increase the cost and complexity of implementation, without any benefits.

As to the types of intermediaries, all eligible intermediaries must be licensed and supervised in the EEA. However, no PSP or type of PSP should be obliged to distribute the digital euro. Moreover, if non-bank PSPs (payment institutions and e-money institutions) are to gain direct access to central bank accounts/settlement systems, they should be subject to the same level of stringent rules as credit institutions, for instance in terms of capital and security requirements, in order to safeguard the stability and resilience of the payment system. Additionally and given that a main policy objective of a digital euro is to support European strategic autonomy and more specifically EU payments sovereignty, there should be sufficient controls and safeguards in place to avoid the risk linked to non-EU companies playing a significant role in the digital euro value chain. Therefore, it is necessary to address ex ante the challenges and risks that would arise, if foreign actors and/or gatekeepers (as per the DMA) play significant roles in the digital euro ecosystem.

- **Infrastructure and conditional payments**

The supporting infrastructure should also ensure that the **digital euro is future-proof and has innovation potential built-in by design**. We agree with the ECB that a digital euro should not be programmable money but rather allow for programmable transactions, i.e. **conditional payments** and this should be embedded from the start of issuance. It should allow from the start of issuance for intermediaries to develop conditional payments. The back-end infrastructure must enable supervised intermediaries to complement it with enablers of full conditionality of payments from the start.

The ECB should draw on the knowledge and experience of banks and the private sector, and work together on the conditionality of payments, also leveraging to the extent possible investments already made in terms of infrastructure This would be an additional layer, on top of the digital euro, providing the private sector with the platform to program payments and execute them, and develop new value-added services for citizens and businesses. It should be explored if this new layer could also enable programmable payments in commercial bank money, hence adding more value to customers and the payment ecosystem.

An **offline functionality** could provide the advantages of digital payments in situations where there is no connectivity. However, adequate limits and the need for online re-connection should be required to ensure the highest level of security.

➢ Privacy

In order to gain public trust, it is important that the ECB/Eurosystem's access to personal data of users is minimised, and the ECB is rightly working to build tools to prevent this.

On the other hand, **it is crucial that intermediaries have access to payment transaction data in the same way as they currently do for digital payment means**. This access is governed by frameworks such as GDPR, AMLD and PSD2, and we would expect these to apply to digital euro payments as well. Intermediaries need the relevant data to fulfil their legal compliance obligations, most importantly related to Anti-Money Laundering and Countering Terrorist Financing (AML/CFT) and fraud prevention. **Smaller transactions do not pose fewer AML/CFT risks** (e.g. transactions associated with the financing of terrorists may be conducted in very small amounts; larger payments may be split into many smaller ones to circumvent checks) or fraud risk, especially in the context of the new and rapidly expanding fraud models. Consequently, the digital euro could readily be used by criminals and terrorists to finance their activities, which would be further facilitated by the easy conversion of digital euro into commercial bank money or cash. In considering an option of higher privacy for transactions below a certain threshold – and if this means that even the intermediary would not be able to see certain details of the transaction – it should be clear that this requires a specific exemption of AML obligations for intermediaries.

In addition, payment data is key for providing financial services such as lending (as they help to better assess a customer's credit score) and for enabling personalised use cases in the context of the European Data Economy. **Intermediaries should be able to access customers' payment data – with their consent - in order to provide value-added services but also to build more effective tools, for instance, to protect the users from fraud**. Finally, users should be able to share their digital euro data with authorised third parties in accordance with the PSD2 framework.

➢ Cybersecurity and resilience

As with any digital innovation in finance, **cybersecurity and resilience are fundamental to ensure trust**. Security by design should be factored in for all use cases of a digital euro, and this is also an aspect directly linked to the technologies and intermediaries to be used for the digital euro management and distribution. It is understood that the latter should be subject to the related legislative requirements such as those in the Digital Operational Resilience Act (DORA).

The digital euro will most likely be an attractive target once it goes live. Therefore, the technical ECB infrastructure for it will be subject to all related risks, including the risk of being a "single point of failure" which could immediately impact all digital euro wallet holders. The ECB/Eurosystem will have to put in place suitable risk management mechanisms to ensure the digital operational resilience of the ecosystem, e.g. from large-scale attacks and cyber scams. In fact, it is key that every intermediary has in place the highest cybersecurity standards and procedures in order to maintain trust in the system.

In addition, a clear allocation of liability in case of fraud should be defined, also related to components delivered and operated by the ECB/Eurosystem.

3.2. A wholesale digital euro

As mentioned above, not all the policy objectives laid down by the ECB can be achieved through a retail digital euro. Banks welcome the ECB exploration on a wholesale CBDC for the settlement of interbank transfers and related wholesale transactions in central bank reserves to further strengthen the EU's strategic autonomy and monetary sovereignty.

The current wholesale central bank settlement systems could be updated to service DLT-based products, so as to better support the international role of the euro, enhance global cross-border payments and match the development of digital finance.

The following main objectives would be best tackled through a wholesale CBDC:

- **Digital finance:** new forms of capital market products based on DLT have emerged and are increasingly traded by financial institutions. We expect a significant growth in native and hybrid digital assets accessible to, and used by, mainstream financial market participants. Having a DLT-based wholesale digital currency for the settlement of transactions in DLT-based assets would be beneficial. It would ensure that financial markets in tokenised assets are secure and anchored to the current principles that maintain financial stability. Such a wholesale digital currency should allow market participants to settle a payment related to a securities transaction in central bank money. A DLT settlement arrangement in euro based on central bank money would play a crucial role in preventing fragmentation, providing stability and anchoring the system, minimising credit, liquidity, and operational risk. **The possibility to settle in DLT-based central bank money would support more dynamic, efficient, and transparent European capital markets, as well as facilitate the delivery of services to market participants and end-investors.** More benefits can be envisaged e.g. in securities issuance and the related activities, trading, post-trade, asset servicing, and improving transaction reporting, collateralisation and liquidity management.

- **International cross-border and cross-currency payments:** Several challenges exist today in cross-border payments between jurisdictions. These are caused by a combination of complex issues, that include differences in legal frameworks, lack of common and harmonised standards, differences in infrastructures, challenges faced by intermediaries (the reduction in the number of correspondent banks mainly due to compliance concerns and burden), and FX issues. The G20 roadmap to enhance cross-border payments aims to address long-standing challenges in the cross-border payments market, including high costs, low speed, limited access and insufficient transparency. As also noted by the G20, linking different jurisdictions' CBDC systems could help overcome some of these challenges and reduce frictions related to correspondent banking, This requires **central banks to consider cross-border functionality at an early stage, and coordinate on development** (source: BIS). However, CBDCs are not a silver bullet to improve all aspects of cross-border payments and will also come with considerable challenges. Other private initiatives (e.g. ongoing SWIFT work) should also to be taken into account.

  The cross-border payment functionality should be factored in the ECB work on a wholesale digital euro at an early stage to best address these challenges. The potential value of CBDCs for international payments could materialize first in a wholesale environment, where efficiencies could be unlocked and agreement with other CBDCs could be reached more easily. Hence, it is important for the EC/Eurosystem to engage with international standard setters, and particularly the BIS and other central banks to ensure the definition and commitment to harmonized interoperable protocols and standards of CBDC infrastructures as the individual national projects progress.

- **Foreign CBDCs / international role of the euro:** the majority of central banks globally are evaluating the issuance of CBDCs and a few have even

started issuing their own digital currencies. The threat of foreign CBDC and the question of the international role of the euro in the context of global CBDCs are valid concerns. In order to address the risk of a foreign CBDC increasingly being used as a reserve currency and to enhance the international role of the euro, the design of a digital euro should mainly address the wholesale aspect and support international trade. **A multi-currency approach to an innovative, wholesale, CBDC-based payment system** (e.g. in private initiatives or multi-CBDC projects initiated by the BIS) **could overcome these risks from the beginning** and at the same time bring efficiency across international payment and capital market corridors.

Banks see many opportunities in the area of a wholesale digital euro. The private sector could also offer solutions to these challenges through the use of central bank reserve-backed digital currencies (i.e. tokens 100% backed by fiat money held at the ECB). This kind of public-private partnerships could become an interesting complement to wholesale CBDCs.

3.3 Bank-issued money tokens

Businesses' needs for money and payments will evolve over the next years, and possibly not all of them will be accommodated by account-based commercial bank money. This is particularly true for business needs such as **automated industrial processes that run on DLT and use smart contracts.** In response to such needs **banks are starting to develop payment solutions that allow for their seamless integration in these processes and technologies**. For these types of solutions, pan-European standards will need to be defined by the market, similar to SEPA standards, in order to establish efficient solutions that serve businesses across the EU. Commercial bank money is the dominant form of money today and banks may need to offer their payment and deposit solutions with new features, such as programmability. Those could be provided natively on DLT and work seamlessly with industrial processes.

4. Conclusion

The coming years will be pivotal in re-shaping the European financial services landscape in the face of continuous digitalisation. The challenges are considerable but so are the opportunities and the potential for innovation. **European citizens and businesses should continue to have access to efficient and competitive means of payment, underpinned by the euro, both in the form of central bank and commercial bank money.**

Public authorities and market participants have their role to play in ensuring that these challenges are met. The market's role is to develop attractive solutions, innovate, carry out customer-facing functions and add value for customers. Public authorities should ensure the issuance of the currency, provide settlement infrastructure and establish a balanced legal framework. At the same time, **effective and in-depth cooperation between public and private entities is fundamental.**

Different forms of digital money should be enabled and developed in the new ecosystem: user needs for domestic and international, retail and wholesale payments, as well as needs arising from the continuous evolution of digital finance will be very broad and diverging. The table below indicates the three developing trends that European banks currently see and highlights the key elements needed to ensure that the underlying objectives are effectively met:

	Objectives / Market needs	What is needed to reach objectives
Retail D€	Monetary anchor Strategic autonomy	Strong market role Design aspects Business model Innovation potential
Wholesale D€	New form of digital finance International payments International role of the euro	ECB settlement infrastructure compatible with DLT Cooperation with other central banks and BIS for international standards
Bank-issued money tokens	Innovative solutions for the evolving customer needs, and industrial needs for increased automation in payments	Pan-European standards

In these unprecedented developments, all stakeholders need to play their respective part on the strategic, political and technical levels within a democratic debate. The end goal is a thriving, competitive and innovative European economy that delivers for its citizens and businesses.

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About EBF

The European Banking Federation is the voice of the European banking sector, bringing together national banking associations from across Europe. The federation is committed to a thriving European economy that is underpinned by a stable, secure, and inclusive financial ecosystem, and to a flourishing society where financing is available to