Introduction

Bitkom as Europe’s largest digital association places a special focus on financial innovation, where we rely on the expertise of our broad network of company members with more than 15 banks, 60 Fintech companies, and 40 Blockchain startups. We published a first report on the digital euro in April 2020 and have since addressed the topic in numerous web meetings, conferences and working group sessions within our association. This paper displays our industry association responses to the ECB consultation on the digital euro. We look forward to drive the discussion politically and publicly in the ensuing months. Please bear in mind that we have exclusively put a focus on the professionals’ perspective on a digital Euro. Thus we skipped questions 1-4 which are dealing with the user perspective.

The Questionnaire: Financial, Payment and Technology Professionals’ perspective

5. What role do you see for banks, payment institutions and other commercial entities in providing a digital euro to end users? For more information, please refer to Sections 5.1.1 and 6 of the Eurosystem Report on a digital euro.

All activities planned with regards to a digital currency are to be considered complementary to the existing money regime of cash and commercial bank money while some aspects of their legacy business might change with rising distribution of a digital euro. The current role of banks as a provider of SEPA accounts, credit providers, etc. and the financial viability of banks and deposits shall remain unchanged. More generally speaking: to sustain and protect financial stability for the Eurosystem, the indirect or hybrid access model appears to be the most feasible. In the BIS Quarterly Review, March 2020, this is referred as hybrid CBDC model where the digital euro is accessible by the end user via front-end solutions provided by supervised intermediaries / commercial banks. The digital euro in these front-end solutions would represent a direct claim on the ECB whilst intermediaries handle the payments. In addition, the supervised intermediaries servicing the merchants will be in a position to establish payment acceptance solutions to ensure a convenient payment experience. The background infrastructure for a hybrid CBDC could either be 6.1.1 (ii) intermediated access by end users to central bank accounts, or 6.1.2 (ii) hybrid bearer digital euro and
account-based or token-based infrastructure. Option 6.1.2 (ii) is the preferred approach as it is closest to the current set-up, parameters and allows the digital euro to be integrated in existing processes of retail and commercial banks.

Supervised intermediaries would continue to be responsible for KYC, AML, on-boarding and maintenance processes and serve as the single point of contact for the end-user (similar to cash).

Clarification is still required as to how these intermediaries technically operate accounts and keep track of records that are not in their books. Use cases from securities where custodians operate securities accounts at the Central Securities Depository on behalf of the account holder could serve as operational role model.

6. A digital euro may allow banks and other entities to offer additional services, on top of simple payments, which could benefit citizens and businesses. What services, functionalities or use cases do you think are feasible and should be considered when developing a digital euro? For more information, please refer to Section 6 of the Eurosystem Report on a digital euro.

The banks should be allowed to offer additional services on their behalf/risk in respect of all privacy and security requirements defined by the ECB. A realization of CBDC after model 6.1.2 (ii) must ensure that retail and commercial banks as intermediaries can operate the needed services linked to the distribution, storage, and transaction of a digital euro. As today, all monetary policy decisions linked to the (digital) euro shall exclusively remain with the ECB/the central bank regime, e.g. the creation and control of circulated amounts of digital euros.

When developing a digital euro, the key consideration of ECB should be the financial stability and efficiency of the existing money and payment ecosystem as well as the sovereignty of the euro and the autonomy of the EU economy. All of this can be achieved by granting end-users convenient access to the digital euro through supervised intermediaries, which will establish trust among EU citizens in the digital euro.

Key to the success is the definition of the digital euro as legal tender and the interoperability with existing forms of money: cash/central bank money and commercial bank money. A feasible backend-infrastructure that replicates the current forms of money – cash/central bank money and commercial bank money – will allow numerous innovative use cases for consumers and businesses if integrated in their online-banking functionalities and business processes respectively.

That said, the ECB has to bear in mind that the digital euro (CBDC) needs to co-exist with privately-issued digital money of banks and non-banks. In that regard, existing and future legislative frameworks need to be adopted to guarantee a well-functioning, interoperable ecosystem of CBDC and privately issued digital money, allowing supervised intermediaries to efficiently integrate different forms of digital money via their payment solutions. In this
context, the Markets in Crypto Assets Regulation (MiCA) and the Directive on Deposit Guarantee Schemes (DGSD) are of particular relevance.

7. What requirements (licensing or other) should intermediaries fulfil in order to provide digital euro services to households and businesses? Please base your answer on the current regulatory regime in the European Union.

The licensing and authorization concept for intermediaries providing services for a digital euro should be embedded into existing frameworks of payment systems. Intermediaries should fulfil all requirements and obligations defined for accessing payment systems across the EU or for becoming a payment service provider in the EU. Relevant pan-European regulations to be reflected are CRR, PSD2, MiCA, DGSD and EMD2.

8. Which solutions are best suited to avoiding counterfeiting and technical mistakes, including by possible intermediaries, to ensure that the amount of digital euro held by users in their digital wallets matches the amount that has been issued by the central bank? For more information, please refer to Section 6.3 of the Eurosystem Report on a digital euro.

At this stage – prior to closer analysis – the concept of real-time audits/reconciliation appears to be the most feasible approach to avoid technical mistakes (e.g. double-spending) whereby administrator-like access of the ECB to the systems operated by the intermediaries should be avoided. As referred to in question 6, the ECB is the only bank that is able to issue new units of digital euro (through intermediaries e.g. commercial banks), i.e. only the amount issued by ECB to the commercial banks can be in circulation. Security mechanisms should be in place ensuring that false digital euros will fail in every transaction attempt.

9. What technical solutions (back-end infrastructure and/or at device level) could best facilitate cash-like features (e.g. privacy, offline use and usability for vulnerable groups)? For more information, please refer to Requirement 2 in the Eurosystem Report on a digital euro.

Perfectly replicating all features of physical cash in a digital euro will per se not be possible. From a consumer perspective, privacy and anonymity – as it is the case with spending cash today – are of utmost importance. The focus shall be put on transactional anonymity. Today’s AML and KYC mechanisms in place ensure that banks know their customers but do not know what they spend their cash on with money withdrawn from ATMs. With a digital euro similar mechanisms can be replicated without undermining mandatory KYC obligations for supervised intermediaries.
To guarantee a frictionless functioning of a digital euro, mechanisms for temporary offline-usage shall be in place. The temporary offline functionality should serve as a contingency measure followed by an immediate audit when online. The permanent offline usage bears certain risks (e.g. double-spending) and could be disincentivized e.g. by limiting amounts that can be transferred offline or by applying a different remuneration approach. Another solution to guarantee cash-like features is to allow hardware based "storage" of the digital euro. This could be a solution for backup, hazard and offline situations.

In short, technical solutions should offer transactional anonymity and at least temporary offline-usage options.

10. What should be done to ensure an appropriate degree of privacy and protection of personal data in the use of a digital euro, taking into account anti-money laundering requirements, and combating the financing of terrorism and tax evasion? For more information, please refer to Section 5.1.2 of the Eurosystem Report on a digital euro.

Privacy arrangement for a digital euro could follow the same approach as for cash i.e., in Germany transactions up to 10,000 EUR, considering smurfing etc. Likewise, for the transfer of digital euros across EU borders the same limits should apply as for carrying/importing cash into non-EU countries. Higher amounts (over 10,000 EUR) should be transferred through an intermediary only, e.g. a commercial bank.

11. The central bank could use several instruments to manage the quantity of digital euro in circulation (such as quantity limits or tiered remuneration), ensuring that the transmission of monetary policy would not be affected by shifts of large amounts of commercial bank money to holdings of digital euro. What is your assessment of these and other alternatives from an economic perspective? (Tiered remuneration is when a central bank sets a certain remuneration on holding balances of digital euro up to a predefined amount and a lower remuneration for digital euro holding balances above that amount.) For more information, please refer to Sections 3, 5.1.3 and 5.1.8 of the Eurosystem Report on a digital euro.

As already stated in the answer to question 5, negative economic impact of the issuance of a digital euro must be prevented. Especially in a crisis scenario, a highly attractive digital euro might potentially facilitate a digital bank run (depending on its design) and thus to a destabilization of banks’ balance sheets, resulting in a reduction of credit provisioning and money creation capabilities. A remuneration could therefore follow today’s cash zero-interest approach while considering its storage cost for larger amounts.

From an operational standpoint, there is a need to implement functionalities that would allow the ECB to manage the quantity of a digital euro in circulation. Principles and clear
distinctions of competences between central banks and commercial banks currently in place appear to be feasible and need to be transferred when setting up a digital euro. However, if and how these concepts can be applied for a digital euro depends on the technical infrastructure eventually chosen. For example, measures like remuneration might not be easily possible in a token-based model which, in turn however, might facilitate offline payments.

12. What is the best way to ensure that tiered remuneration does not negatively affect the usability of a digital euro, including the possibility of using it offline? For more information, please refer to Section 5.1.8 of the Eurosystem Report on a digital euro.

See response to question 7. A non-remunerated digital euro as pure transfer systems would definitely have some advantages in terms of customer trust and usability.

13. If a digital euro were subject to holding balance limits, what would be the best way to allow incoming payments above that limit to be shifted automatically into the user’s private money account (for example, a commercial bank account) without affecting the ease of making and receiving payments? For more information, please refer to Section 5.1.3 of the Eurosystem Report on a digital euro.

The transfer of commercial bank money into digital euro holdings and vice-versa should be a possibly seamless service provided by banks. The intermediary and the ASPSP (Account Servicing Payment Service Provider) will implement automated processes for incoming digital euros exceeding the maximum holding balance.

14. What would be the best way to integrate a digital euro into existing banking and payment solutions/products (e.g. online and mobile banking, merchant systems)? What potential challenges need to be considered in the design of the technology and standards for the digital euro? For more information, please refer to Section 6.2 of the Eurosystem Report on a digital euro.

This depends on how the hybrid CBDC will be implemented (see comment on #1). If intermediaries have full control over the CBDC accounts of their customers at the central bank, it will be easy to integrate these into existing payment solutions to ensure convenient usability for the end-user. The digital euro could also be carried by a physical token that is handed out via intermediaries and usable offline. Also, handover payments could be possible with this solution.
15. What features should the digital euro have to facilitate cross-currency payments? For more information, please refer to Scenario 6 in Section 2.2 of the Eurosystem Report on a digital euro.

It is important to stress that at this early stage of discussions cross-currency interoperability should not be a short-term priority. Establishing and setting up a well-functioning digital euro interoperable with existing central bank and commercial money as well as payment solutions should form the center of attention. Cross-currency CBDC use cases can be rather seen as a long-term goal.

In general, it is important that the ECB and other central banks agree on global minimum standards to ensure cross-currency interoperability of different CBDCs. This is an important basis to make the technical processing of cross-currency payments in digital currencies as efficient as possible.

In addition to that, the facilitation of cross-currency payments of a CBDC will face the same challenges as those of traditional currencies: the fragmented global regulatory frameworks applicable when processing payments i.e. AML surveillance rules, cross-border transfer limits, etc. This relates to the challenges identified by the FSB in their roadmap for enhancing cross-border payments and in most cases will not be solved by dedicated functionalities of a digital euro.

Intermediaries will be responsible for cross-currency transactions.

16. Should the use of the digital euro outside the euro area be limited and, if so, how? For more information, please refer to Requirement 13 in Section 3 of the Eurosystem Report on a digital euro.

The usage of a digital euro outside the euro area has the potential to increase the importance of the EUR as a currency in the global payment ecosystem. Geographical limitations for the digital euro – if considered a political necessity – should not form a priority prior to the technical set-up and infrastructure of a digital euro. A layer of barriers can still be added if political decision-making processes ask for a certain degree of limitation.

17. Which software and hardware solutions (e.g. mobile phones, computers, smartcards, wearables) could be adapted for a digital euro? For more information, please refer to Section 6.2 of the Eurosystem Report on a digital euro.

From the end consumer perspective, the software or hardware solutions applied for digital euro solutions should be identified and established by the private sector in line with the identified consumer demand and ECB standards. Ideally, these solutions can be integrated seamlessly with existing infrastructure for commercial bank money. Software and hard-
ware solutions could take the form of digital wallets, mobile and web-based banking services, and physical tokens that are handed out via intermediaries and are usable offline.

18. What role can you or your organisation play in facilitating the appropriate design and uptake of a digital euro as an effective means of payment?

Bitkom is Europe’s largest digital association and represents more than 2,700 companies of the digital economy, including 1,900 direct members. We place a special focus on the topic of financial innovation, where we rely on the expertise of our broad member company network in this field: more than 15 banks, 60 Fintech companies, and 40 Blockchain startups. We published a first report on the digital euro in April 2020 and have since addressed the topic in numerous web meetings, conferences and working group sessions within our association.

We are committed to supporting the ECB in its effort to be ahead of the curve with digital currencies and could for example provide coordinated industry and expert feedback on different design choices at every step of the implementation – not from a private company standpoint, but from a concerted industry perspective. If desired, we could contribute our expertise in how to manage cross industry projects and help the ECB setting up industry feedback mechanisms and working groups. Apart from that, we are fully committed to further raising political, economic, academic, and societal awareness to the topic of the digital euro and could support the ECB in any large scale communication and uptake strategy.

Bitkom represents more than 2,700 companies of the digital economy, including 2,000 direct members. Through IT- and communication services alone, our members generate a domestic annual turnover of 190 billion Euros, including 50 billion Euros in exports. The members of Bitkom employ more than 2 million people in Germany. Among these members are 1,000 small and medium-sized businesses, over 500 startups and almost all global players. They offer a wide range of software technologies, IT-services, and telecommunications or internet services, produce hardware and consumer electronics, operate in the digital media sector or are in other ways affiliated with the digital economy. 80 percent of the members’ headquarters are located in Germany with an additional 8 percent both in the EU and the USA, as well as 4 percent in other regions of the world. Bitkom promotes the digital transformation of the German economy, as well as of German society at large, enabling citizens to benefit from digitalisation. A strong European digital policy and a fully integrated digital single market are at the heart of Bitkom’s concerns, as well as establishing Germany as a key driver of digital change in Europe and globally.