



nexi

D I G I T A L C U R R E N C I E S

November 2022



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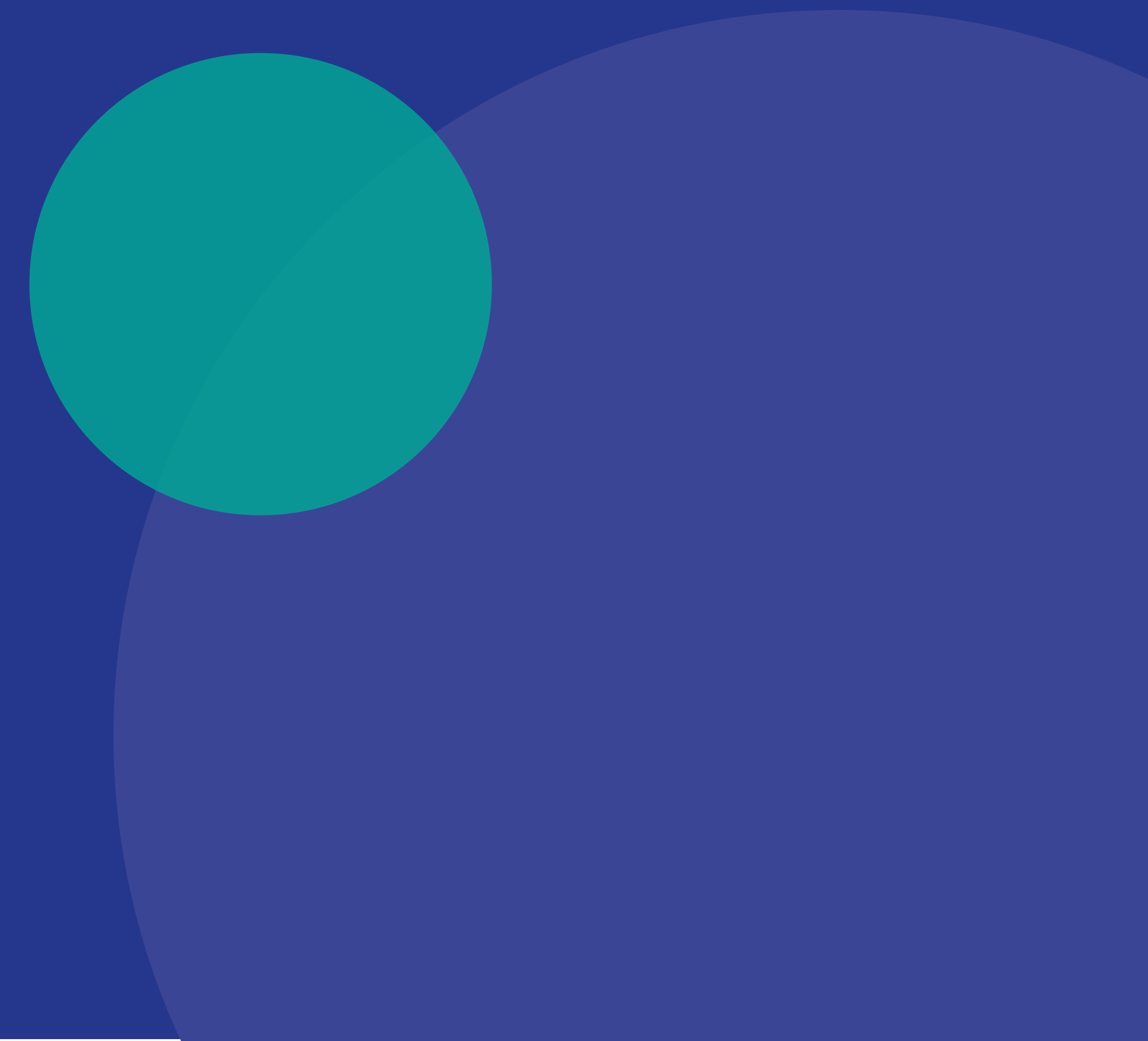
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A person wearing a VR headset is shown in profile, interacting with a glowing digital interface. The interface displays various data visualizations, including a green circular chart and a blue bar chart, all set against a dark background with blue and green light effects.

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**Digital currencies
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01

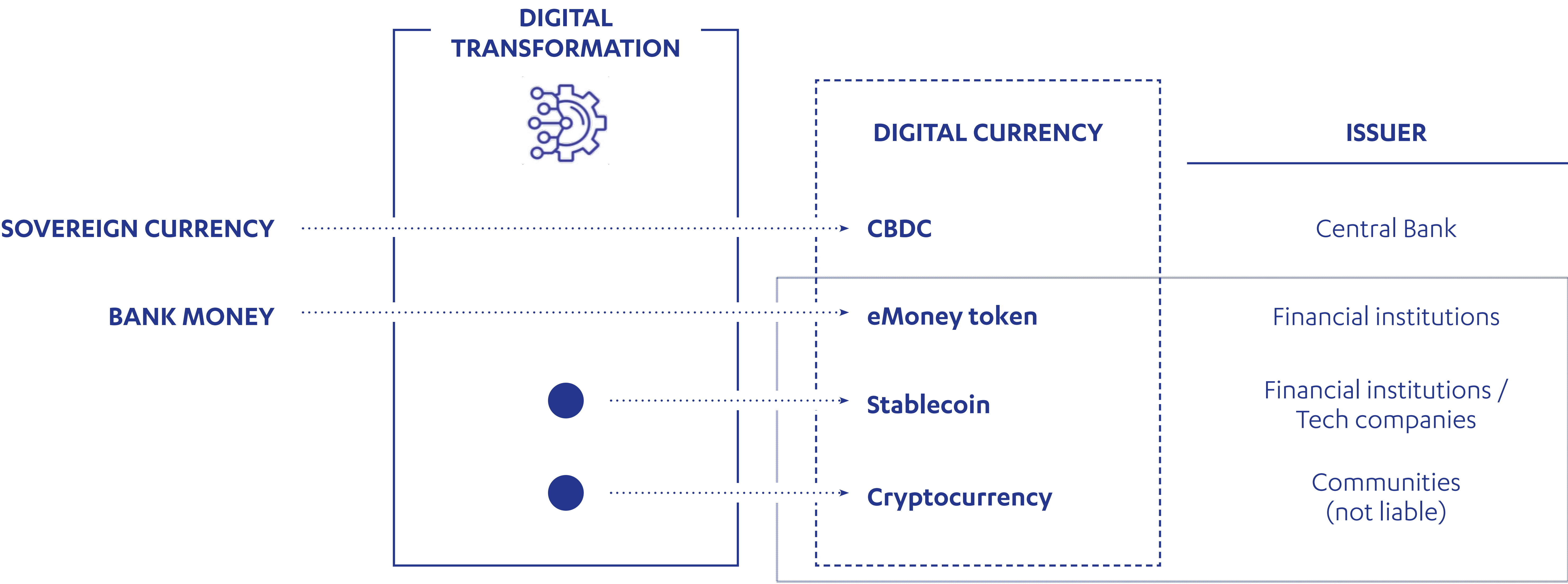
INTRODUCTION

Digital currencies have the potential to transform the financial and payments sector, generating knock-on effects on all areas of people's lives, from identity to security, from new ways of interacting to geopolitical balances. Growing market demand and technological evolution are further accelerating this phenomenon.

Digital currencies are now starting to reach their full potential, from CBDC, to eMoney tokens, to Cryptocurrencies and Stablecoins. Some with a sole payment objective, also through advanced use cases, and others with financial speculation objectives.

The role of intermediaries supported by a common regulatory framework is fundamental to boost a sustainable and inclusive adoption and to make our industry a virtuous case of systemic aggregation at European level.

Nexi Group (“Nexi”) has set itself the goal of supporting its customers in maximizing the value generated by the evolution of payments in the Digital Currency space, aiming at secure, easy and fully compliant digital products.



Source: Nexi elaboration

Crypto assets with a function of medium of exchange



02

THE IMPACT OF THE DIGITAL TRANSFORMATION ON PAYMENTS

Digital transformation is having a profound impact on the economic and social spheres, challenging established paradigms and at the same time opening new opportunities.

This also applies to the payments industry, which is being called upon to meet the growing expectations of citizens, businesses and institutions, who increasingly feel the limitations of traditional payment tools.





THE IMPACT OF THE TRANSFORMATION MAY BE MOST EVIDENT IN AREAS SUCH AS:

Cross-border payments.

Globalisation is a well-established phenomenon and despite possible slowdowns, it is not expected to stop.

According to [Juniper Research](#), B2B cross-border payments (customer-supplier transactions and intra-group liquidity management) will grow up to **\$42.7T** in 2026 from \$34T in 2021.

Cross-border payments also include remittances,

the value of which is estimated by [Allied Market Research](#) at **\$0.7T** in 2020 with growth forecast to **\$1.2T** in 2030.

Finally, the field of business-to-consumer payments is not insignificant considering the phenomenon, currently in embryonic form but sure to grow, of companies using a highly delocalised workforce.

Identity-based payments.

The possibility of associating one or more payment instruments with a digital identity system can substantially impact the efficiency of payment services by simplifying identification and authorisation processes. It can also be a useful tool to address the issue of financial inclusion by bundling digital identity with entry-level financial services.

Internet of Things payments.

More and more unattended devices will be entitled to manage digital wallets, and autonomously make event-based payments (e.g., parking time, refuelling, maintenance or upgrades). [MENAFN](#) estimates that the IoT payments will rise to **\$3.2T** in 2027 from **\$0.1T** in 2021.

Metaverse.

Although there is no agreed definition yet, the metaverse is expected to become a further enhancing factor of the Internet, allowing for an immersive experience, and improving people's current daily life. A physical and virtual environment in which it is possible to create value, participate in communities, boost sales, and much more through new digital platforms and devices, at the disposal of people and companies. A study published by [McKinsey](#) estimates that the metaverse could reach the value of \$5T in 2030.

Micro-payments.

The term can apply to low-value (<€1) pay-per-use digital content, such as online media content (e.g., music, news, magazine) and related royalties and copyrights.

Programmable payments and programmable money.

Programmable payment corresponds to the broad concept of triggering a payment upon the occurrence of a specific event. Programmable money refers to the possibility of issuing payment instruments with an embedded code, thus setting the criteria for their use.

Current payment services and systems may not have the efficiency and flexibility to deal with use cases such as those listed.

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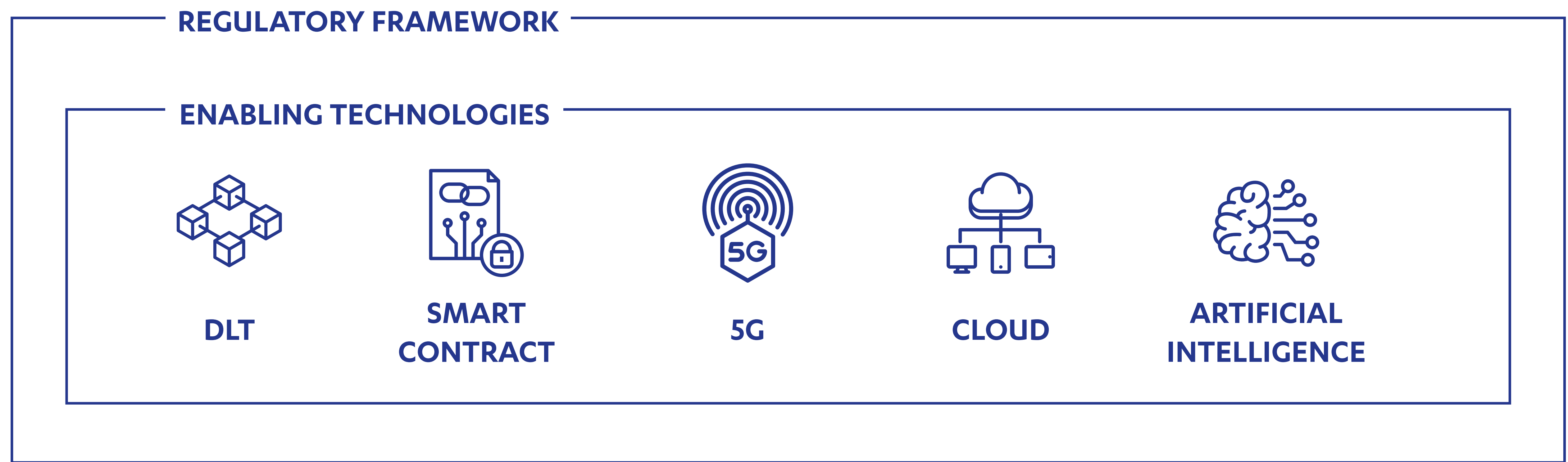
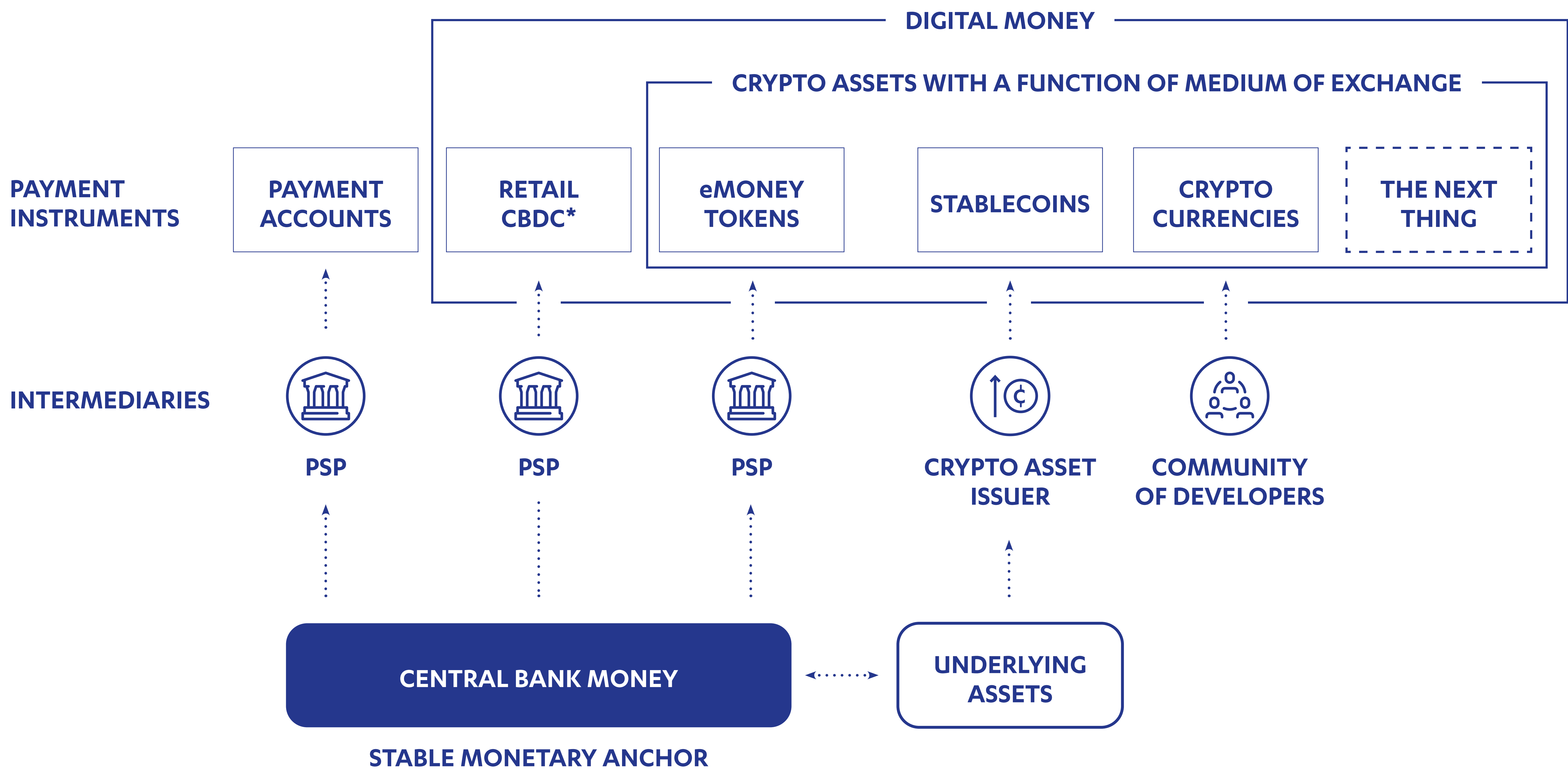
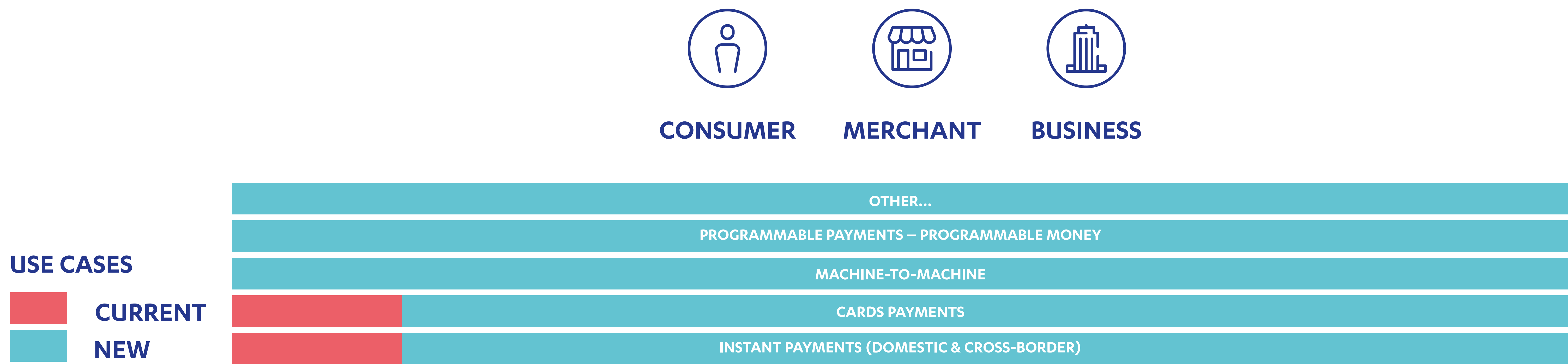
03

NEW FORMS OF DIGITAL CURRENCIES

Until a few years ago, only two forms of money were available: sovereign money issued and printed by Central Banks as coins and banknotes, and bank money managed by commercial banks in the form of payment accounts, the latter still being at the very core of digital payments services.

Digital transformation, and especially the introduction of Distributed Ledger Technology (DLT), has made it possible to conceive new forms of digital assets able to act as medium of exchange, just like traditional money.

Following the foreseeable evolution of regulation and governance models, the future will likely see the coexistence of different payment instruments in a new ecosystem of digital money, all relying on Central Bank money as a stable monetary anchor through the action of intermediaries.



Source: Nexi elaboration *Issued by Central Bank, distributed through intermediaries



Payment use cases will be developed using the payment instrument best suited to the purpose, exploiting the potential of new enabling technologies (e.g., DLT, smart contracts, 5G, cloud computing, artificial intelligence, etc.) and guided by a sound regulatory framework. The expected outcome is a positive effect on efficiency and effectiveness as well as an increased ability to prevent the illicit use of digital payment services.

In this scenario, citizens and companies are expected to rely on trusted intermediaries to make the best of this ongoing transformation.

This is a challenge for traditional PSPs who will need to:

- Design new digital products that simplify the integration of new forms of payment into customers' business processes;
- Equip themselves with new capabilities, attracting talent and also establishing partnerships with specialised companies;
- Explore new business models and pricing schemes;
- Leverage their distinctive assets, first and foremost customer trust.

Nexi has launched initiatives to support its customers in fully exploiting the potential benefits of digital currencies, while preserving customer-centricity, security and service continuity at European level.



03.1

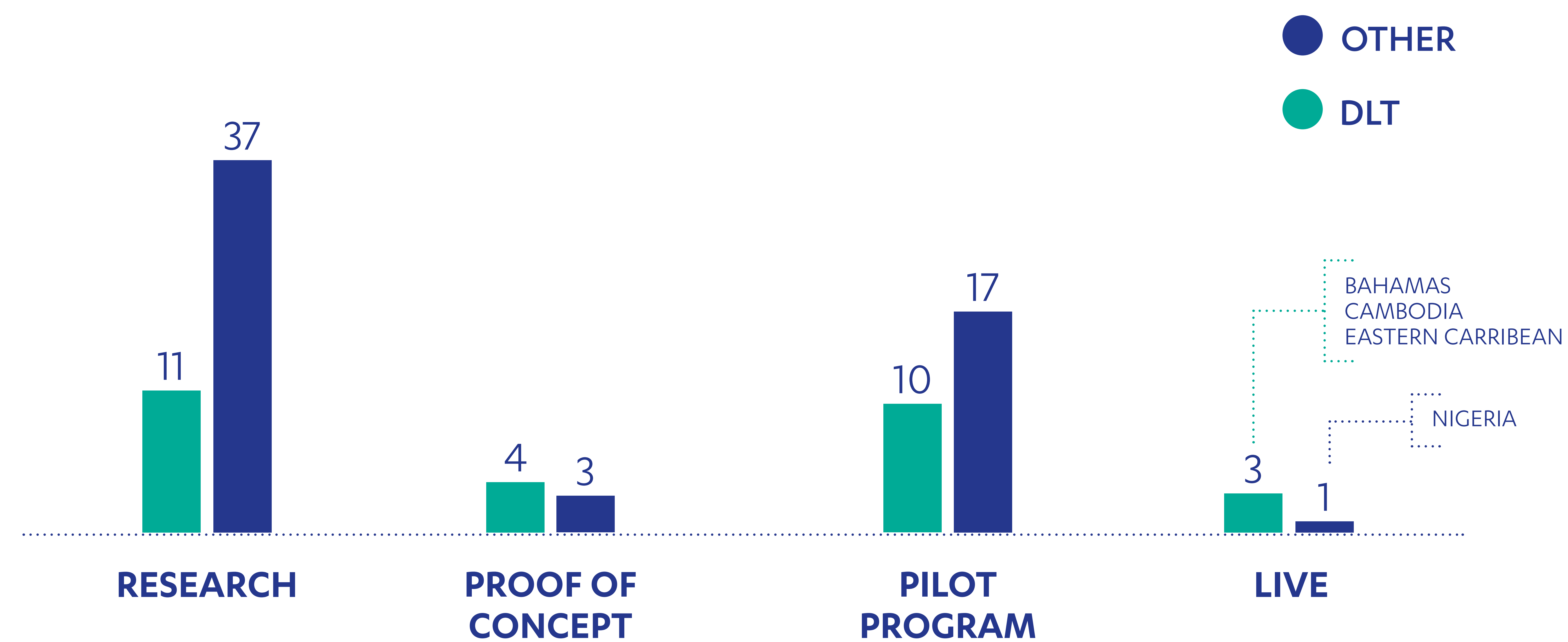
CBDCs

Central Banks are working on issuing sovereign currencies in digital form and making it available to citizens and companies.

The underlying motivations are different depending on the jurisdiction, but the most common drivers include countering the use of privately-issued stablecoins and cryptocurrencies, safeguarding the monetary sovereignty and the stability of the financial system and fostering innovation and financial inclusion.

According to a [BIS study](#), 90% of Central Banks are actively studying the potential of CBDCs, while 26% of Central Banks are currently developing a CBDC or conducting a pilot. Some countries, however, including the Bahamas and Nigeria, have already launched their own CBDCs. China, instead, is in an advanced pilot phase (as at April '22 more than 260 million people and 10 million merchants participated in the trial, with transactions reaching the value of \$14B according to [CNBC](#)).

BREAKDOWN OF RETAIL CBDC PROJECTS BY TECHNOLOGY



Source: Nexi elaboration on public data, July '22



CBDCs could potentially provide for safer, faster and cheaper payments (including cross-border payments), spur innovation and expand financial inclusion. On the other hand, an “excess of success” of a CBDC could jeopardize existing digital payment systems and undermine the stability of the financial system as a whole.

Central Banks and regulators face the challenge of designing a CBDC able to meet the policy targets without threatening other payment systems.

Nexi is primarily supporting the European Central Bank in its investigation phase, by participating in:

- Market Advisory Group (MAG), providing input in the interest of the payments industry as a whole, through an internal expert acting in a personal capacity;
- Euro Retail Payment Board (ERPB) Tech Sessions, via EDPIA;
- Development of the first D€ front-end prototype. Nexi is one of the five companies selected by the ECB to develop a prototype front-end solution to be integrated with the ECB digital euro back-end infrastructure, with the aim to test five payment use cases. Nexi will be in charge of the “POS payee-initiated payment” use case.

Nexi is also in discussion with other Central Banks and monetary authorities to support them in investigating a possible CBDC.

03.2

e-MONEY TOKENS

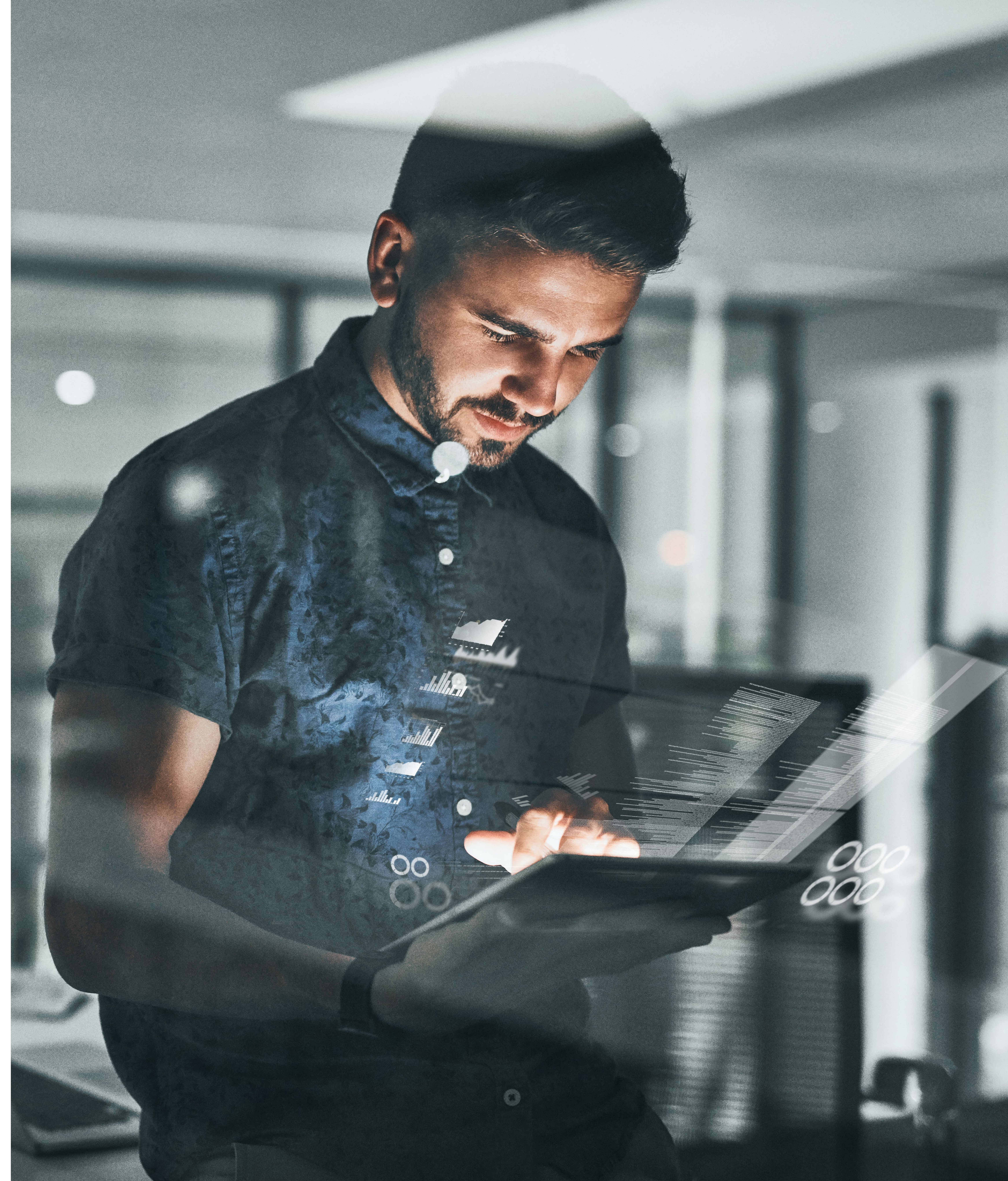
The concept of e-Money tokens blends the regulatory framework of electronic money (mainly the obligation for the issuer to deliver tokens only against the deposit of equivalent funds and the obligation to redeem at par) with the technical features of DLT. Some real-life experiences implement similar models.

For instance, USDF, a consortium of ten US regional banks and J.P. Morgan, with its JPM Coin allows clients to facilitate transactions across a blockchain network and with other JPMorgan clients. In Europe, Fnality International, a consortium of 15 international banks, enables tokenized 'on-chain' payment.

Nexi has developed a DLT-based application framework for issuing and managing digital tokens. Since 2018, the framework has been used by multiple companies in different use cases such as couponing, Delivery vs Payment platforms for bond issuance, and loyalty - in a bid to engage their end users.

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03.3

CRYPTOCURRENCIES AND STABLECOINS

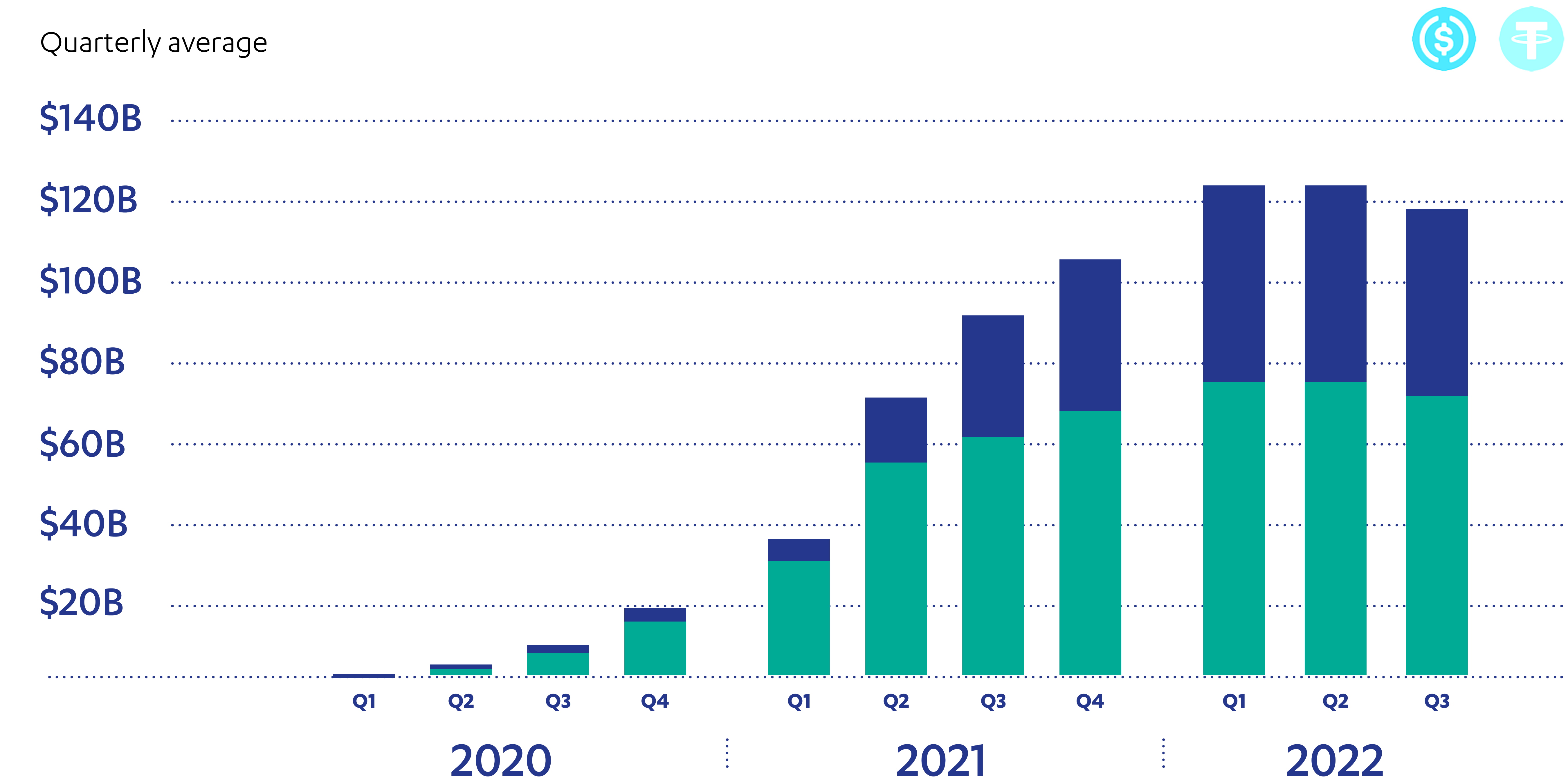
After reaching an astonishing \$3T value in late 2022 and in spite of recent turmoil (total loss of two thirds of the peak value), the market for cryptocurrencies is still worth circa \$1T, that is a 2.7 increase over a 24 month timeframe.



Much of this value is driven not only by Bitcoin, but also by the emergence starting from 2015 of stablecoins, which have managed over time to conquer more and more space in the market, growing by 370% in the year 2021 alone, reaching a transaction volume of [\\$5T](#).

TOTAL SUPPLY OF TOP STABLECOINS DENOMINATED IN USD

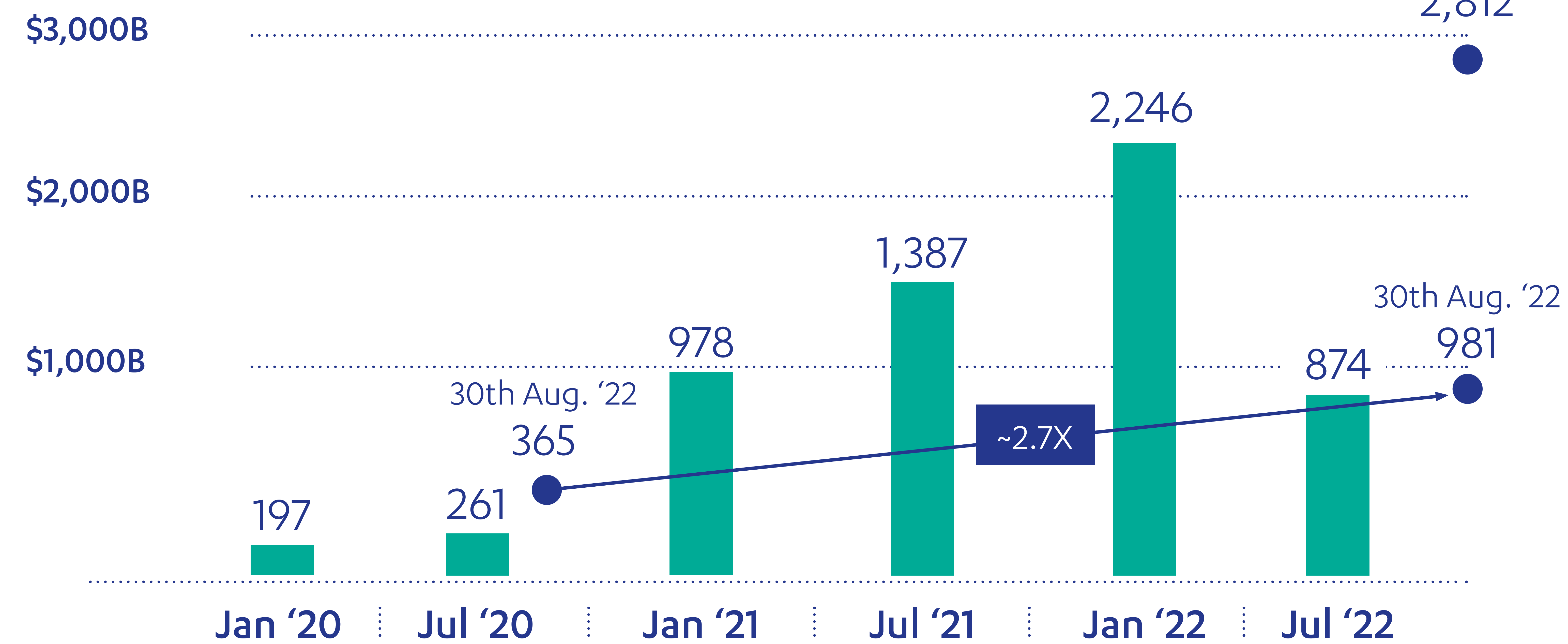
Quarterly average



Source: Nexi elaboration on data from Coinmetrics.io (Sep. '22)

TOTAL CRYPTOCURRENCIES MARKET CAP

All-time peak Nov. '22
2,812



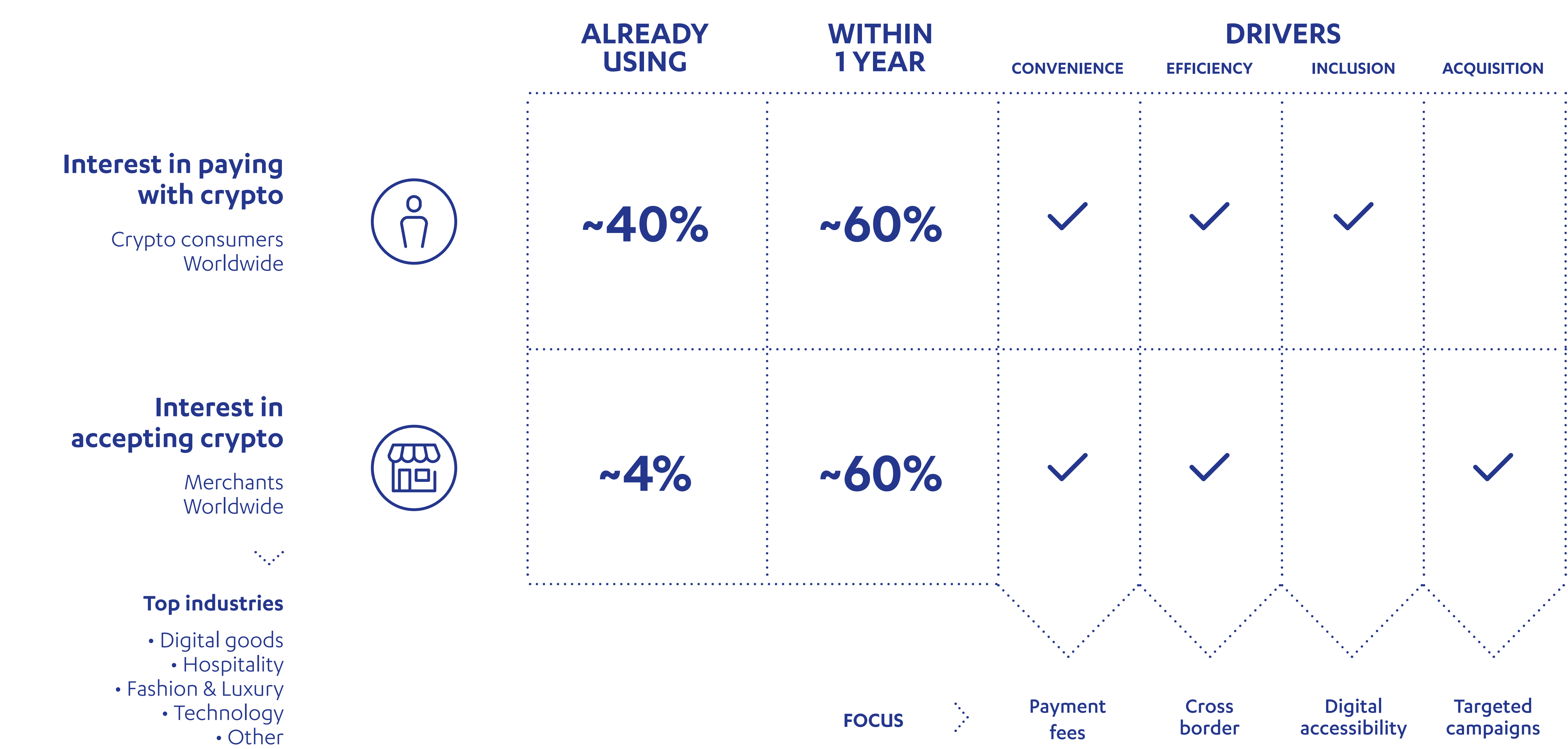
Source: Nexi elaboration on data from Coinmarketcap.com (Aug. '22)



A [research](#) of the Bank for International Settlement showed that 80% of Central Banks in advanced economies consider single-currency stablecoins (e.g., [USDC](#)) to have the potential for scalability as a payment instrument.

Both merchants and consumers are showing increasing interest in using cryptocurrencies for payments.

MARKET ATTITUDE TOWARDS CRYPTO PAYMENTS

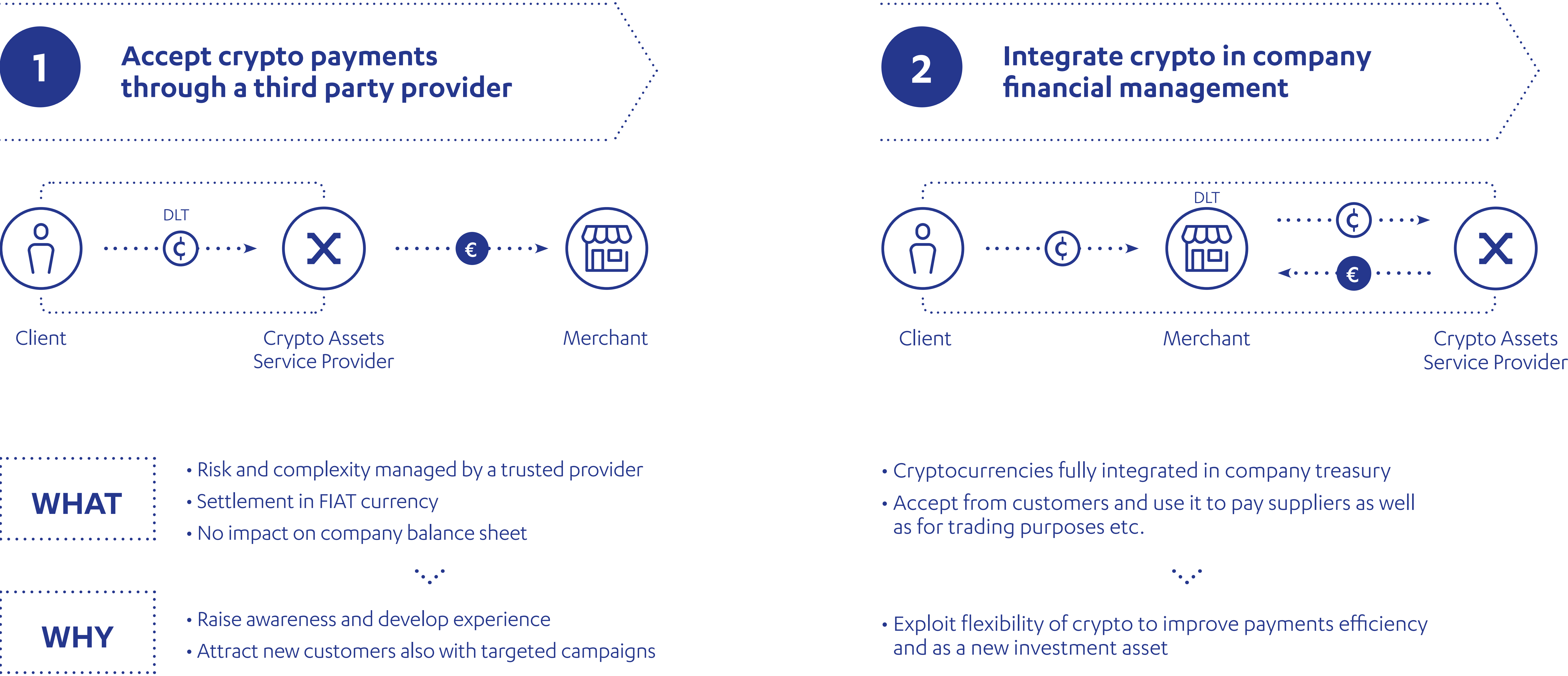


Source: Nexi elaboration on data from Worldpay & Crypto.com – crypto for payment report, February 2022



From a merchant’s perspective, the typical approach is a two-step strategy.

MERCHANTS’ TWO-STEP STRATEGY TO ENTER CRYPTO MARKET



Source: Nexi elaboration

An interesting case is the use of stablecoins by companies to remunerate collaborators operating abroad without the costs and delay of standard cross-border payments.

STABLECOINS IN B2C PAYMENTS



Source: Nexi elaboration

Nexi is testing solutions to allow merchants to receive FIAT money from payments in cryptocurrencies and stablecoins, in order to expand the pool of payment options offered, attract new customers and position itself as a player in touch with current trends in innovation.



04

THE SOCIAL IMPACT OF DIGITAL CURRENCIES

The access for every individual to financial services is explicitly included in the Sustainable Development Goals defined by the United Nations.

By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance ([United Nations Sustainable Development Goal 1 – Target 1.4](#))

Access to financial services is an enabling factor for an individual's ability to create value for the community to which he or she belongs, with the broader objective of social inclusion.

The ongoing digital transformation will generate disruptive effects in this field, stimulated also by the advent of digital currencies.



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Payment systems

will have the opportunity to generate a positive impact by pursuing objectives of:

Accessibility.

Digital currencies services should be usable from a variety of devices according to users’ preferences, capabilities and possibilities, with no barriers to entry or use.

Affordability.

PSPs must ensure that their payment solutions are accessible to all segments of the population, by developing pricing models based on the sophistication of the service and the added value generated.

Sustainability.

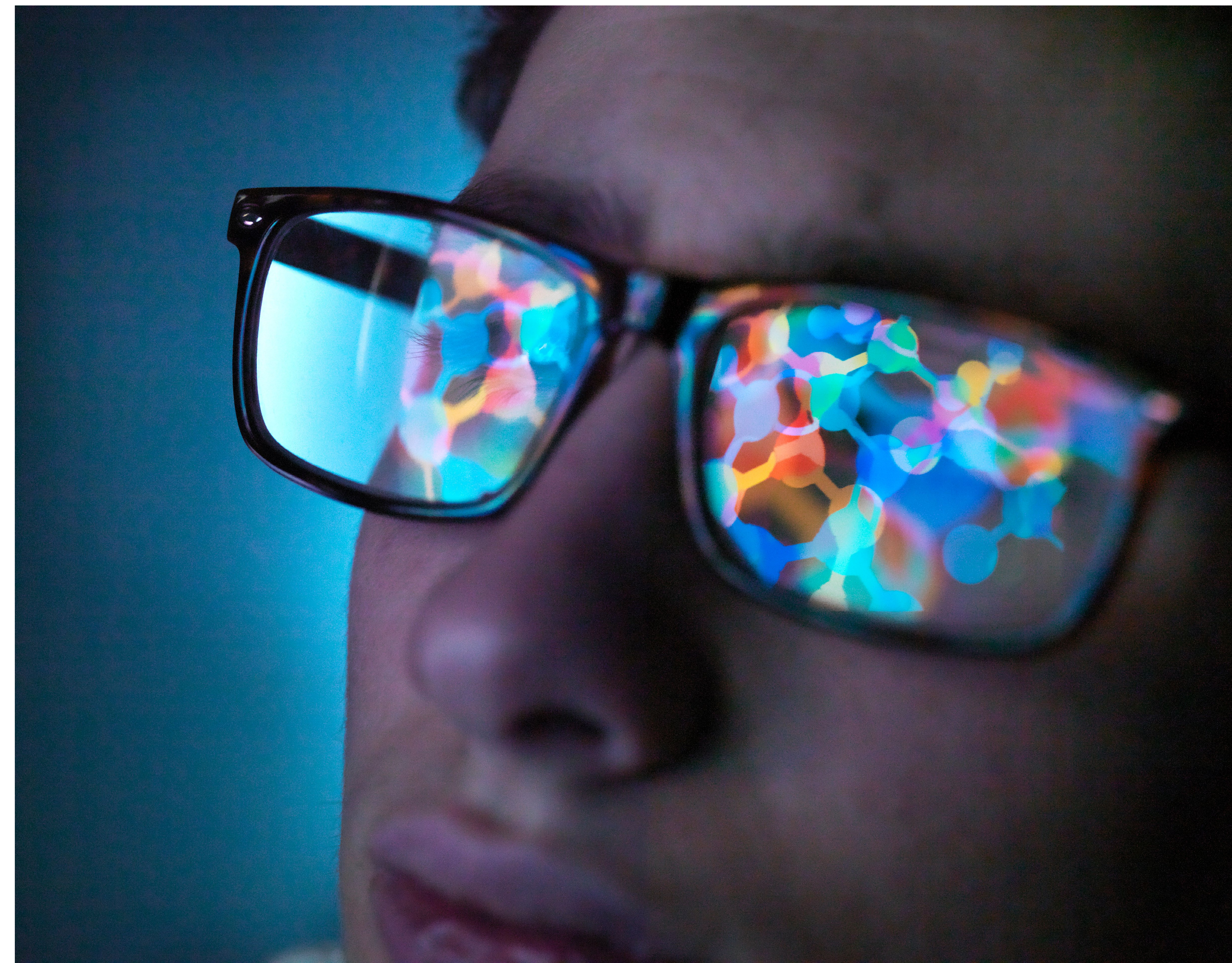
The energy consumption of digital systems has to be monitored to favour solutions that reduce consumption, even compared to the impact generated by traditional systems. The challenge is especially in the crypto world, where there is increasing pressure to abandon consensus mechanisms based on proof-of-work in favour of less onerous protocols.

Nexi is strongly committed to the development of digital products and platforms that meet these needs.

In particular, Nexi adopts a strategy of omni-device access to payment services, whose user interfaces are designed in compliance with the European Web Accessibility Directive.

This complements Nexi’s broader corporate social responsibility strategy, the pillars of which include:

- Driving dematerialization and improve eco-friendly design of products;
- Fighting climate change achieving “net zero” on direct and indirect emissions;
- Promoting sustainability standards across the supply chain;
- Supporting digital and financial inclusion and increasing proximity to local communities.





“
Nexi constantly monitors
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”

05

THE CHALLENGE FOR REGULATORS

Digital currencies are posing challenges to regulators around the World. CBDC and crypto are expected to follow different paths, since the former is a sovereign currency closely linked to the issuing jurisdiction, while the latter is a private money with a potential global impact.

CBDCs will probably be regulated by adapting existing national regulations and international agreements, while crypto will require specific action, as there is no uniform and shared regulation between countries.

In Europe, the Market in Crypto Asset Regulation (i.e. [MICAR](#)) along with the [Sixth AML Directive](#), both under approval, will set a common framework. The initiatives aim to define the regulatory treatment of crypto-assets that are not covered by existing legislation and support innovation and fair competition by creating a framework for the issuance and provision of services related to crypto-assets.

Regulators tend to refer as much as possible to existing regulatory frameworks and models, e.g., the Principle for Financial Market Infrastructure (i.e. [PFMI](#)) and [Financial Action Task Force](#) “Travel Rules” to reduce complexity and create a level playing field according to the “same service, same risk, same rule” principle.

This will create common ground between traditional and cryptocurrencies-based payment systems.

Companies providing crypto assets services (Crypto Assets Service Providers) will have to get used to concepts such as supervisory reporting and capital requirements to safeguard the stability of the financial system.

Nexi constantly monitors the development of European legislation and proactively participates in discussions with legislators both directly and through industry associations with the aim to **comply with and anticipate local and international regulatory provisions.**

¹ On [June 29th 2022](#) and [June 30th, 2022](#) respectively the European Council and the European Parliament reached a provisional agreement on the MICAR final text to be submitted for approval and on transparency of crypto asset transfers.

06

CONCLUSIONS

The path towards the evolution of payment systems based on digital currencies is clear, and is one of the great opportunities generated by the ongoing digital and cultural transformation in Europe and worldwide.

The growing interest of the market is pushing European institutions to create a common and agreed regulatory framework to enable intermediaries to stimulate the adoption and scalability of new payment solutions.

Nexi has accepted the challenge, knowing that true digital transformation must be inclusive to all stakeholders involved, sustainable to respect the environment and diversity, safe to safeguard trust and enable new value creation.



“The path towards the evolution of payment systems based on digital currencies is clear”

Nexi is Europe's PayTech company operating in high-growth attractive European markets and technologically advanced countries. Listed on Euronext Milan, Nexi has the scale, geographic reach and abilities to drive the transition to a cashless Europe.

With its portfolio of innovative products, e-commerce expertise and industry-specific solutions, Nexi provides flexible support for the digital economy and the entire payment ecosystem globally, across a broad range of different payment channels and methods. Nexi's technological platform and the best in-class professional skills in the sector enable the company to operate at its best in three market segments: Merchant Services & Solutions, Cards & Digital Payments and Digital Banking & Corporate Solutions.

Nexi constantly invests in technology and innovation, focusing on two fundamental principles: meeting, together with its partner banks, customer needs and creating new business opportunities for them.

Nexi is committed to supporting people and businesses of all sizes, transforming the way people pay and businesses accept payments. It offers companies the most innovative and reliable solutions to better serve their customers and expand.

By simplifying payments and enabling people and businesses to build closer relationships and grow together, Nexi promotes progress to benefit everyone.

www.nexi.it www.nexigroup.com

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