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# Present and future of account-to-account payments

September, 2023



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# 01.

## Detail of participants





The Spanish FinTech and InsurTech Association (AEFI 2023) came into being in 2016 in order to bring together and represent the interests of the FinTech and InsurTech industry in dealings with legislators, regulators, supervisors, financial and insurance industry players and society at large. AEFI is currently made up of more than 200 companies, has 28 international alliances and represents 13 different verticals in the FinTech industry, which has made it an international benchmark association in this industry.

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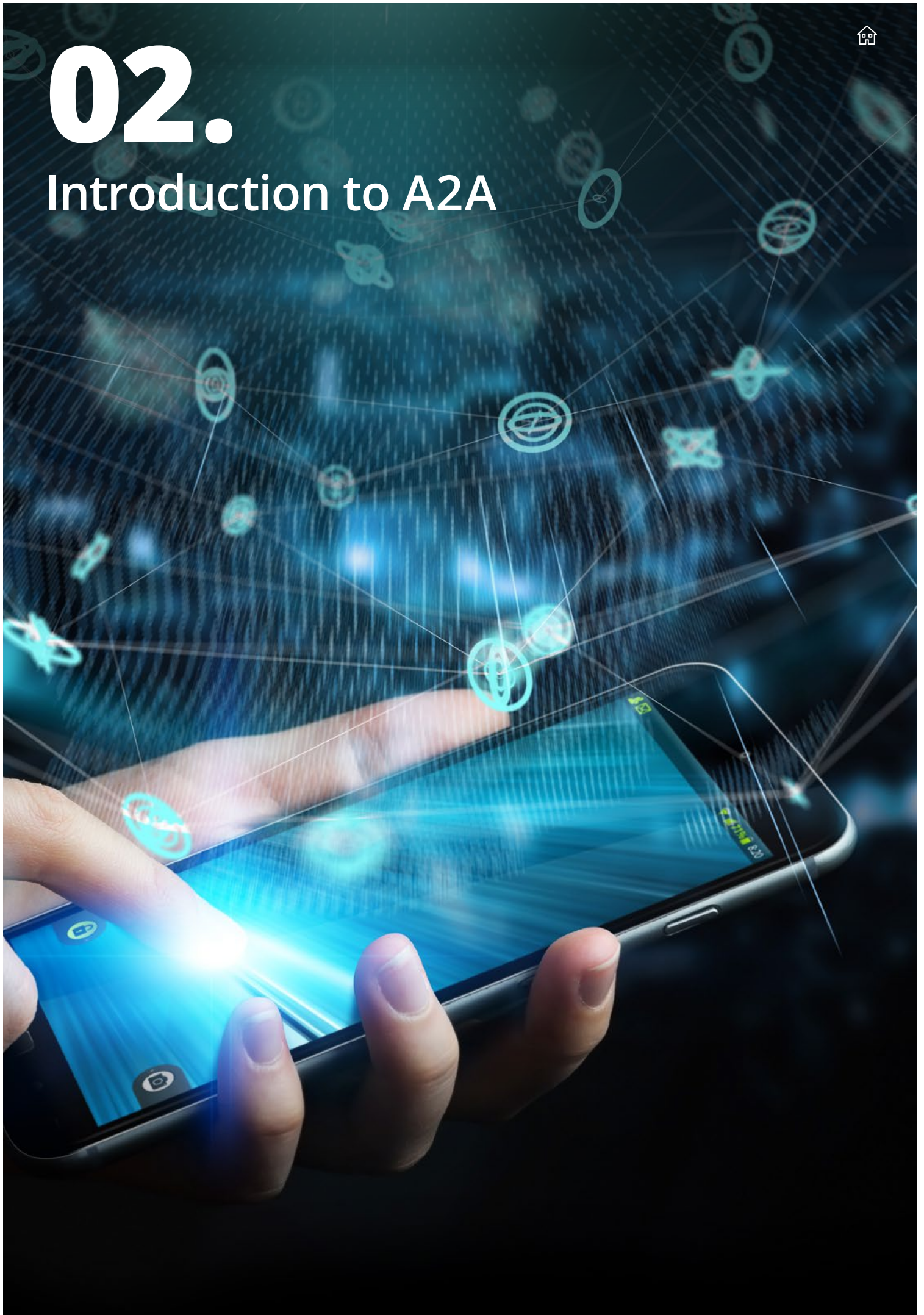
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It advises its clients on how to implement responsible and profitable business practices, thereby ensuring a social, environmental and financial balance. Deloitte is aware that the change in organisational priorities and real-time access to information are among major changes that have redefined the way in which companies carry on their businesses.



# 02.

## Introduction to A2A





**2.1. Background**

Account-to-account (A2A) payments are payments that are made directly from one bank account to another through clearing houses. These include traditional bank transfers, a service that has existed for more than 150 years and has been adopted across

the board by users in a wide variety of use cases. Although it is a burgeoning means of payment, there are four major areas for improvement that need to be addressed if it is to compete with other payment instruments:



REDUCTION IN EXECUTION TIME



COMPATIBILITY WITH PROXIMITY PAYMENT TECHNOLOGIES



MECHANISMS ENABLING PAYMENTS WITHOUT THE PRESENCE OF THE USER



STANDARDS ENABLING UNIVERSAL ACCEPTANCE IN ALL ENVIRONMENTS

**Execution time**

There is a time lag between the order, execution and settlement of most traditional bank transfers, which affects their potential use as retail payments. This lag may be between one and three days even in evolved systems such as Single Euro Payments Area (SEPA) transfers (SEPA Credit Transfers (SCTs)). Consequently, references made to the new generation of A2A payments relate to instant account-to-account bank transfers. A transaction is deemed to have been executed in real time if the end-to-end process is performed in less than 10 seconds. However, it is feasible for this time to be reduced for payments in the physical environment if a user experience that is competitive with other instruments is desired.

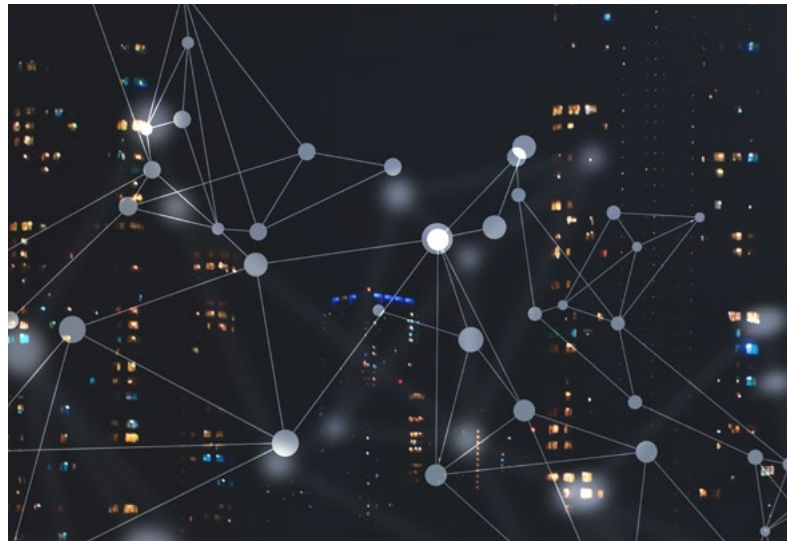
The main problem with non-instant traditional bank transfers as a means of payment is that they give rise to a “non-execution risk”, which will be of greater or lesser significance depending on the nature of the payment. Although various alternatives could be designed to mitigate this non-execution risk, such as transaction history analysis by a Third Party Provider (TPP), or the use of reserve funds or other mechanisms, there is no better way to mitigate the risk than to make it possible for the funds to be in the business’s account before delivery of the good or service.

The development of technological infrastructure that enables the execution and settlement of A2A transfers in real time, such as SCT Inst, is a transformational change. Consequently, transfers could evolve from being a fund transfer service into a means of payment that could support numerous use cases. Instant transfers could thus become an alternative to cash or debit cards as a means of payment. In addition, should the accounts used for instant A2A payments be associated with credit mechanisms, they could also constitute an alternative to credit cards.

The penetration of instant transfers in the Spanish market is significant. In 2022 a record 823 million instant transfers were processed in Spain, and they accounted for 49% (Iberpay, 2023) of all the transfers processed in the country’s system in November 2022<sup>1</sup>. This has been the result of the widespread use of the Bizum service, which now has 23 million users. However, the adoption of instant payments in other European countries is variable.

1. Static datum.

It is important to bear in mind that the references made to prices or commercial policies included in this document do not constitute business recommendations; they are merely the result of the observation of general or dominant market trends.



### **Proximity payments**

In addition to execution time, in order for A2A payments to be competitive in an in-person environment, users must be able to make such payments by means of proximity technologies (e.g., using NFC, bluetooth or QR codes on a mobile device such as a smartphone) and these solutions must be available in businesses.

### **Payments without the presence of the user**

Some means of payment such as credit and debit cards can be used in transactions initiated by a business without the presence of the user when the transaction is executed; these are normally known as “card-on-file” transactions. Examples of such transactions could be recurring or non-recurring deferred or future payments for fixed or variable amounts. Typically, non-recurring payments are used in certain e-commerce environments and recurring payments in the subscription economy (payments initiated by the business without the participation of the cardholder known as Merchant Initiated Transactions (MITs)).

Payments involving separate authorisation and capture also exist when the final amount is not known, for example, for car hire, hotel bookings and purchases of perishable goods. In these cases, the user must have given their consent in advance.

A2A payments currently have limited mechanisms for such use cases; in some cases, because they need to be programmed by the user directly on the interface of the entity from which the payment is made, and in others, as in SEPA Direct Debits (SDDs), many businesses do not offer the possibility because of the potentially very high risk of the user reversing the payment. Nevertheless, new instruments such as the SEPA Payment Account Access Scheme (SPAA) and SEPA Request-to-Pay provide businesses with new means of payment, which can be initiated by the business digitally and are frictionless.

### **Generating the deployment of standards to enable interoperability and universal acceptance in all environments**

Means of payment such as credit and debit cards have universal acceptance standards that enable any user, irrespective of the country in which the card is issued, to carry out transactions at ATMs and traditional or e-commerce transactions of any other country. Universal acceptance is required for payment instruments to become widespread, and they must be convenient and trusted by customers in order to be used as a default means of payment.



## 2.2. Aim of the document

The aim of this report is to provide an overview of the status of instant A2A payments, and of their principal qualities and future challenges. Specifically, this report centres on five key areas:

01. The maturity and stability of an adequate regulatory framework for the deployment of A2A payments.
02. The current situation and outlook regarding the technological infrastructure supporting A2A payments.
03. The impact of financial innovation in the Eurosystem and the potential launch of the digital euro.
04. The dynamics of current Spanish and multinational players and initiatives such as SPAA, iDeal, Bizum, Bancomat, EPI and MB-Way.
05. The expected developments of the big technology companies (Big Tech).

This report does not just give an idea of the main levers of growth, it also presents an overview of the future outlook for A2A payments with the focus on the following aspects:

- Trends in the level of acceptance of A2A payments, for both online payments and physical payments.
- Economic models resulting from the rise of A2A and the various implications for the industry.
- Infrastructure required for the development of A2A; a roadmap for development and the technological and economic implications of the infrastructure.
- Possible solutions to mitigate the current gap with respect to traditional transfers in areas such as internationality and anti-fraud protection.
- Outlook for the scalability of the current multi-currency payment structure at a pan-European level.





# 03.

## Description of A2A



### 3.1. A2A objectives and value proposition

Since 2001, various international regulators and institutions have been promoting instant A2A payments, as in the case of the UK with the development of the Faster Payments Service (FPS) and the EU which began its own initiative with the launch of the Target Instant Payment System (TIPS) in 2017, which is now mandatory for all entities adhered to the SCT Inst scheme.

The convergence of a series of factors has been the catalyst for growth in A2A payments: the implementation of a stable regulatory framework (PSD2), the launch of local initiatives in various countries led by traditional financial institutions, and the success of newcomers such as Sofort and Trustly.

The value proposition of A2A instant payments is based on six pillars that make them highly competitive:



#### INSTANTANEOUSNESS

The transfer and availability of funds is instantaneous for the recipient. This instantaneousness eliminates the non-execution risk.



#### DISINTERMEDIATION

Since transfers are made between financial institutions, all that is required is a clearing house to execute instant A2A transactions, which reduces the costs of certain models.



#### SECURITY

A2A payments include strong customer authentication (SCA) models to reduce uncertainty, the severity of fraud and security threats (Groen, 2022).



#### NEUTRALITY

Since they are defined on the basis of current account and clearing house infrastructure, they are not associated with a specific scheme or brand.



#### OPENNESS

In the open banking context, it is also easy for Third Party Providers (TPPs) to initiate A2A payments in the accounts of customers. Consequently, any person with a current account can use them.



#### VALUE ADDED

Value-added services can be generated using existing infrastructure such as A2A payment acceptance at the in-store Point of Sale (PoS), loyalty programmes and the registration of users in the subscription economy.

The potential value proposition of A2A payments makes them a competitive means of payment in the retail environment. However, certain aspects, such as the interaction between the payment issuer and recipient using a standardised interface (QR codes, NFC, etc.), continue to pose a significant challenge. Consumers have a greater sensation of control over their spending and availability of funds. Consumers only require access to a bank account to use A2A payments, without the need to create passwords or the involvement of additional processes to those already embedded in their banking applications. In addition, the instant availability of funds enabling A2A payments helps businesses improve their cash management. Lastly, the introduction of A2A payments on the market could lead to an improvement in other means of payment (including private means) due to the increase in competition, thereby enhancing the value and user experience for the end user.

### 3.2. Main models

The most relevant models for A2A payments are peer-to-peer (P2P) payments, both online and offline

consumer-to-business (C2B) payments and business-to-business (B2B) payments. Instant A2A payments can improve traditional payment processes in each use case.

### 3.3. A2A concepts

#### 3.3.1. Processes

Systems that enable the transfer of funds directly and instantly from one bank account to another without the involvement of intermediaries are Real Time Payment Systems (RTPS). These enable two types of A2A payment:

- **Push:** manual or automatic payments initiated by the payment issuer (the consumer in a B2C context).
- **Pull:** payments initiated by the payment recipient (the business in a B2C context) with the explicit consent and prior authentication of the payment issuer. The most common use case for pull payments would be recurring payments such as invoice payments.





**P2P:** until recently payments between persons were usually made in cash, or by means of mobile applications (e.g., PayPal, WeChatPay, etc.) or non-instant bank transfers. Instant A2A payments are a significant improvement on all these options:

- In comparison with A2A payments, cash payments entail withdrawal costs and are inconvenient for large amounts. In addition, withdrawing and handing over cash is a longer process than the maximum of 10 seconds required for instant transfers. Cash also involves significant challenges relating to money laundering and fraud prevention, which can be improved upon with A2A payments.
- Although mobile applications for P2P transfers provide a similar service to A2A transfers in terms of transaction cost and execution time, such applications involve the user having to take several extra steps to complete transactions. For example, in order to use PayPal or WeChatPay services users have to download the application, create an account, validate their identity and transfer funds from their bank account. In contrast, in order to execute A2A transactions users just have to access their online digital bank on the website or mobile application.
- Lastly, instant A2A transfers have several advantages when compared with traditional bank transfers, which have a much longer execution time.



**C2B:** the most common methods used for payments made to businesses by consumers are cards and cash, which have several disadvantages when compared with instant A2A payments:

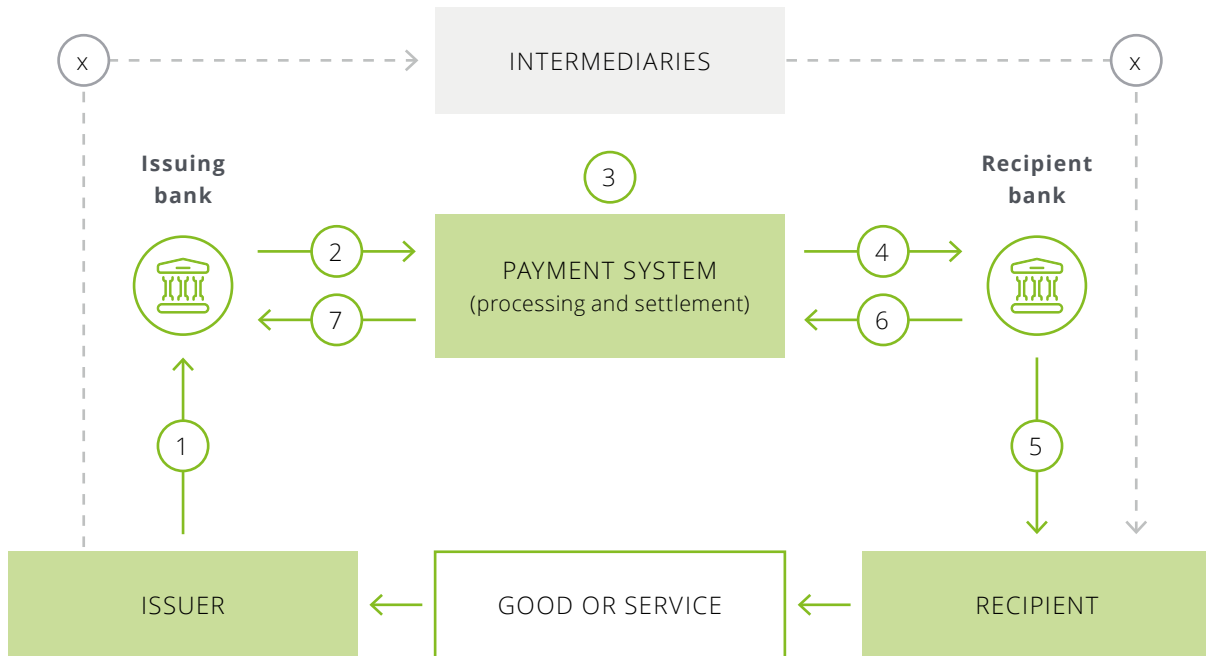
- Consumers have to furnish their card numbers and other personal information in many online cases. A2A payments do not involve consumers having to furnish businesses with any information when initiating payment from their bank accounts, which means they offer greater control and security over their financial information. Consumers do not have to register with a TPP or contract a new means of payment to execute A2A payments. All they need is a bank account with sufficient funds. In addition, A2A payments can present new use cases based on the storage of payment data.
- Lastly, cash cannot normally be used for online payments and has the same disadvantages for users as P2P payments. The deposit of cash also involves extra steps for businesses and moreover holding a lot of cash can pose a security risk.



**B2B:** the most popular means of payment for B2B payments is a bank transfer.

In comparison with traditional bank transfers, A2A payments shorten execution times, which has an impact on treasury management.

**Figure 1: Outline of an A2A payment process**



The instant A2A transfer process is described below:

- 1 Push payments are initiated in an issuing bank account with the bank account user initiating payment on the bank’s website or mobile application, or through a facilitator acting as a payment initiator. This process requires the user to authenticate their identity either when making the transfer or beforehand and to consent to initiating payment without the need for real-time authorisation. Such authentication is usually performed with the traditional systems of each bank such as biometrics (facial recognition, fingerprints, etc.), security questions, PINs or text messages. In contrast, pull payments are initiated in the recipient bank’s account on the bank’s website or mobile application, or through the services of a facilitator. The issuer must have first authenticated their identity and consented to the execution of the pull payment.
- 2 Upon initiation of the payment, the issuing bank confirms the availability of funds and sends a message using a messaging scheme (e.g., ISO 20022) to the payment system in real time (e.g., SEPA Instant Credit Transactions).
- 3 The real time payment system validates the message sent by the issuer (e.g., a payment order) to ensure the transaction complies with the scheme’s rules and technical standards.
- 4 The real time payment system sends the order to the recipient bank using the related payment network (e.g., Iberpay, EBA Clearing Company or TIPS). Financial institutions can connect directly to the aforementioned payment network or use a representative bank to process their transactions (e.g., Cecabank).
- 5 The recipient bank processes the payment order and sends it to the payment network, which executes the instant transfer of funds.
- 6 After the payment is made, the recipient bank confirms its execution in the real time payment system using the payment network.
- 7 The real time payment system confirms execution of the payment to the issuing bank, which notifies the user on the mobile banking application, or on the bank’s or payment initiator’s website

### 3.3.2. Technological infrastructure

In order to understand the infrastructure required for the operability of instant A2A transfers, each player and technology involved in a transaction must be described:

- **Messaging scheme:** a common platform to exchange financial information between systems, institutions and regions. It offers a means of communication between major financial institutions that engage in instant transactions.
- **Real Time Payment System (RTPS):** a payment system enabling instant transfers. Such systems create the rules and standards used for processing and settlement, while providing banks with the messaging structure to communicate transactions.
- **Real Time Gross Settlement (RTGS):** the system which facilitates the transfer of funds from one bank account to another. Known as the clearing and settlement system, it ensures that each transfer is settled, securely and accurately, in gross terms in compliance with the rules imposed by the RTP.

### 3.3.3. Proximity payment technologies

Instant A2A payments can be performed on a POS terminal using proximity technology. This technology includes Near Field Communication (NFC), Bluetooth Low Energy (BLE) Quick Response (QR codes), in-store in-app payments and pay-by-link.

QR codes and pay-by-link may have a similar user process and experience. In the physical store, the business generates a QR code, which the customer can scan using the camera on their mobile phone.

This QR code generates a link taking the customer to their banking application, on which the consumer can execute all the processes required to make the instant A2A payment to the business. Similarly, pay-by-link allows the business to send a link to the customer by means of an email, text message, instant messaging or chatbot. These solutions can be used for both e-commerce and in physical stores (Finextra, 2023). However, QR codes can also be generated by the user and read by the business's POS terminal as in the case of Waylet, the aim being for the EPC or others to standardise QR codes.

NFC offers the possibility of making payments in businesses on the same app. In addition, in-store in-app payments allow customers to monitor the payments they have made in each business by providing them with access to invoices at all times.

These payment technologies involve a larger number of steps than online A2A payments and traditional means of in-store payments. This results in friction that might complicate the instant A2A payment user experience in a POS terminal in comparison with contactless cards, mobile card payments and other traditional means of payment.

However, certain innovations have enabled the integration of A2A payments in payment terminals through the use of NFC technology. For example, the fintech Kevin has developed a wallet for mobile devices which is connected to consumers' banking applications and allows them to pay in a POS terminal using contactless technology (Kevin, 2022). Although users still have to confirm the payment, the process is closer to a card payment experience.

### 3.3.4. SCT Inst payments

First, it is important to distinguish between the different types of SEPA payments:

- **SEPA payments:** SEPA payments refer to any payments made in euros by means of the Eurosystem payment systems without foreign intermediaries (EPC, s.d.).
- **SEPA Credit Transfers (SCTs):** SCTs can be viewed as bank transfers for retail payment services in accordance with SEPA SCT rules and format.
- **SEPA Direct Debits (SDDs):** payments made by means of direct debits initiated by the business under SEPA standards. There are two models, CORE and B2B, with different acceptance and refund conditions in each case.
- **SEPA Instant Credit Transfer (SCT Inst):** single credit transfer (SCT) payments made instantly.
- **SEPA Request to Pay (SRTP):** payments initiated online by a business, which are instrumented by means of instant SCTs.

Most popular instant A2A payments do not have a global, standardised payment scheme with interoperability between geographical areas as each country or public institution is responsible for establishing its own infrastructure. All SEPA payments are administered by the European Payment Council (EPC), an institution set up by the European banking industry to unify payments in euros, which now represents credit institutions as well as all kinds of payment service providers (PSPs), including electronic money institutions, payment institutions and TPPs.

In the case of SCT Inst transfers, the components enabling the execution of instant payments at European level are as follows: ISO 20022, SCT Inst Scheme, EBA Clearing System and Target Instant Payment Settlement (TIPS).

The main difference between the various instant A2A payment systems resides in the RTPS, the rules, processes and institutions governing the end-to-end operation of the transactions. In Europe, most of the A2A systems share the payment networks that provide the rails for the transfer of funds.

All the payments described can be considered to be A2A payments, although only the SCT Inst payments are instant.

#### ISO 20022:

The messaging scheme enabling the operation of SCT Inst. This standard can be used for a wide range of financial transactions relating to payments, securities and currencies, among others, and it is also compatible with various communication channels such as SWIFT, API and web services (EPC, 2022).

#### SCT Inst Scheme:

The RTP governing SCT Inst transfers, which was launched in November 2017 by the European Union. The scheme has a transfer limit of EUR 100,000, is available 24/7 and enables local and cross-border credit transfers in the whole Single Euro Payments Area. On the one hand, the traditional bank transfer system processes such transfers as an end-of-day batch process. On the other hand, SCT Inst makes it possible to make transfers in real time with the exact amount of the transfer being transferred irrespective of the time of day. As a result of the SCT Inst scheme, users can make transfers in less than 10 seconds (EPC, s.d.).

#### EBA Clearing System:

This is one of the payment networks (RTGS) available in the SCT Inst scheme to transfer funds from one bank account to another. The specific EBA Clearing System service that enables instant payments is known as RT1. This payment system operates around the clock on every day of the year and offers full reach to all PSPs that adhere to the SCT Inst scheme. It performs real-time gross settlement in immediately available central bank funds.

#### Target Instant Payment Settlement (TIPS)

TIPS is the other payment network (RTGS) available in the SCT Inst scheme, the main difference with respect to the EBA system being that TIPS operates solely with central bank money. Both TIPS and the EBA Clearing System enable instant transfers with transactions of exact payment amounts in each A2A process (ECB, s.d.).



**3.3.5. PISPs and A2A**

One of the terms most closely linked to A2A payments is PISPs: Payment Initiation Service Providers. These new providers were introduced with PSD2 and open banking. How are they different and what are their respective use cases?

In simple terms, PISPs are a new player in the A2A payment value chain, which came into being as a result of open banking. Traditionally, A2A payments were executed using banking channels (website, application, etc.). The introduction of open banking, which was promoted by PSD2, has made it possible to make bank account payments that are initiated by third-party services. Consequently, the initiation of A2A payments is no longer restricted to the banks' own channels. They can now be initiated in applications adopted by consumers (FCA, 2023).

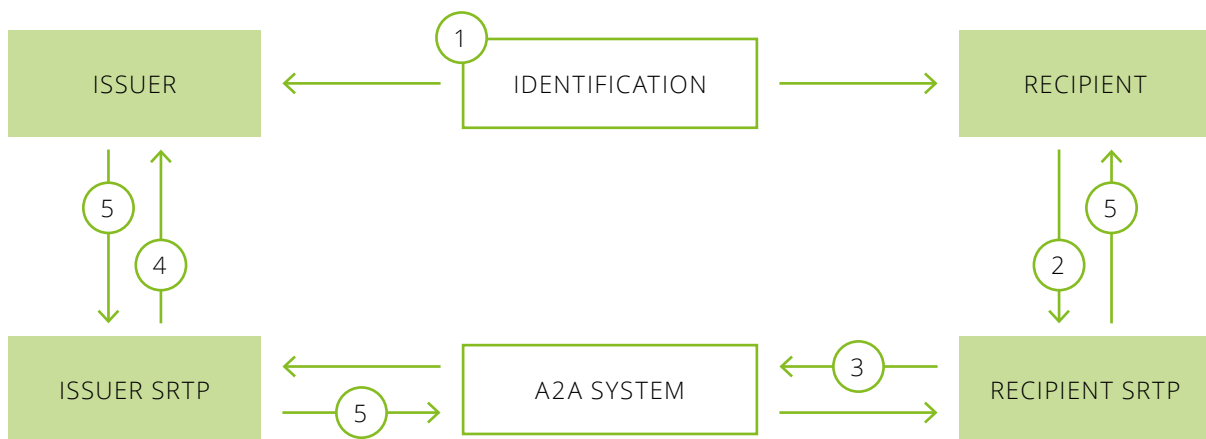
PISPs can be integrated into the payment flows of any business without users having to register in an application or website to access their online banking environment and initiate payments.

**3.3.6. Request to Pay**

A2A payments can be used for various relevant use cases such as Request to Pay (R2P). Request to Pay is an innovative development in the industry that provides a flexible and transparent payment method for the settlement of invoices between individuals, organisations and businesses.

First, it is important not to confuse R2P with a form of money or a payment instrument. It is an A2A use case based on a messaging system, which complements the current payments infrastructure since it allows individuals or businesses to request payment rather than sending an invoice, or to request invoice payments.

**Figure 2: Request to Pay model (Tink, 2021)**



- ① The initial **interaction** enables **communication** between the **identifiers** of each party
- ② The request is **formulated** by the recipient and sent to the **RTP** of the issuer
- ③ The request is sent using a **Request to Pay** provider
- ④ The **request** is submitted to the **issuer**
- ⑤ The issuer takes a **decision**, and the **push** payment is activated when the request is accepted



The payment recipient takes the initiative and requests a specific issuer payment, while furnishing the issuer with all the necessary information such as the payment amount (Tink, 2021).

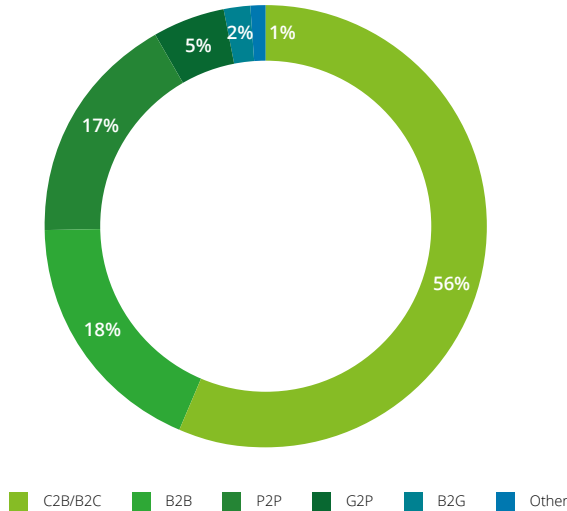
The issuer receives the request on their banking application or from a third party with access to their accounts. After receiving the request, the issuer has various options depending on the R2P system used (Macovei, 2023):

- i. They can pay the total amount immediately with an A2A transaction.
- ii. They can pay a portion of the amount.
- iii. They can defer payment.
- iv. They can communicate with the recipient of the payment that generated the request.
- v. They can reject payment.

However, despite the various options available to payment issuers, their response has no impact on their legal obligations. Should the payment be settled immediately, the user begins the A2A payment process as a push payment. This is because the initiator of the transaction is the issuer, despite the fact that the request is made by the recipient as in pull payments. As is the case for other push payments, the issuer must perform a series of authentication processes in their banking application (or through an authorised third party) when the payment is made.

The first R2P system in the world was created in India by its Unified Payment Interface in 2016, and the first in Europe was developed by Pay UK in the United Kingdom in June 2020. Five months later, the same service was developed in the European Union by EBA Clearing. The EBA service arrived at the same time as the SEPA Request to Pay (SRTP) scheme created by the European Payments Council (EPC). SRTP is basically a standard model for payment requests within the EU, the objective of which is to encourage companies to offer Request to Pay on a larger scale. The SRTP scheme consists of a series of rules, standards and practices enabling a recipient to request the initiation of a payment in a wide range of physical or remote use cases.

**Figure 3: Use cases of the R2P preferred by financial services professionals (EPC, 2021)**



Following publication of the scheme in November 2021, it was made official and began to allow the adherence of PSPs in June 2022 (SEPA, 2020).

There are various models for the implementation of Request to Pay in the market. For example, an RTP could be a superimposed and separate scheme that takes advantage of a financial system's infrastructure as in the case of SRTP. It could also operate by means of an open banking scheme, in which the recipient can request payment without having access to the issuer's data. This last case is possible in Europe as a result of the PSD2 regulation.

According to an EPC survey, the R2P use cases most in demand among financial services professionals are C2B and C2M (56%). R2P has various advantages for banks, businesses, end users and institutional customers (Switzerland, 2023).



### Banks

can improve their value proposition by including the R2P services offering, which allows their corporate customers to speed up the delivery and payment of invoices. In addition, greater integration in SEPA R2P European schemes would expand adoption of R2P and provide opportunities for cross-border payments.



### Businesses

R2P can help reduce cart abandonment as it enables payment at a later date or even after the delivery of products, and reduces chargeback costs. Thanks to instant payment, R2P payments can be settled immediately, which provides new opportunities at the POS and online payment offerings, together with enhanced transaction reconciliation.



### End users

R2P increases the payment options available to the customer and offers an enhanced user experience as a result of digitalisation which enables rapid payment execution.



### Institutional customers

Such customers can improve their cash flow management when invoicing corporate and retail customers by using R2P for more instantaneous payment settlement. Their operating costs can be reduced for recurring or regular payments if they use R2P solutions. Lastly, e-invoicing is now mandatory in the EU. In conjunction with R2P solutions this can improve their settlement of invoices.

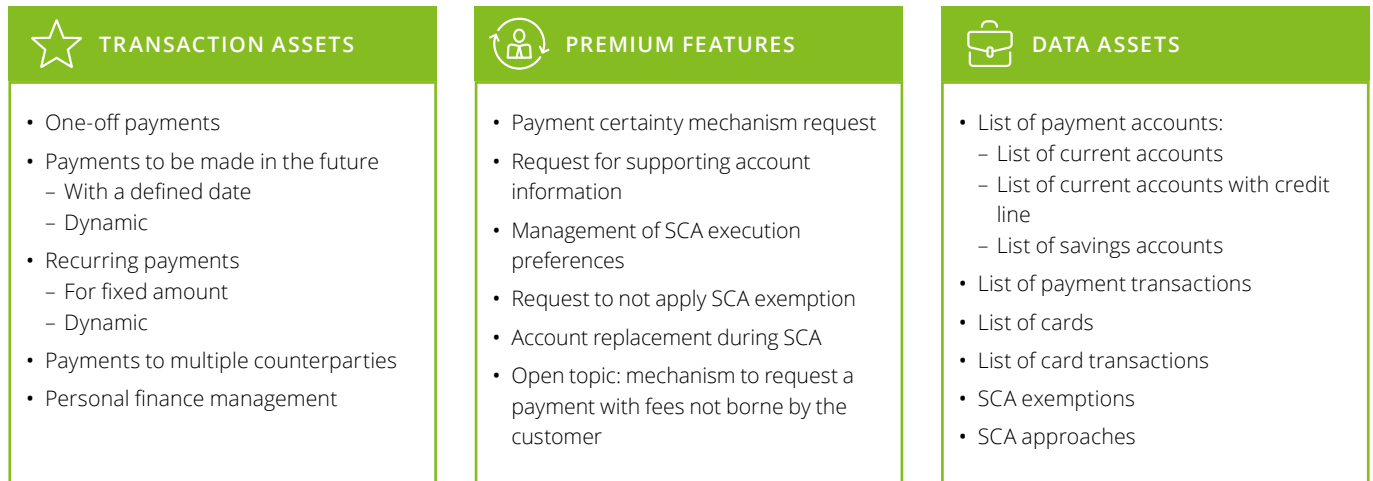
#### 3.3.7. SEPA Payment Account Access Scheme (SPAA)

The SEPA Payment Account Access Scheme (SPAA) is a scheme that enables the exchange of payment account transactions and information between payment service providers acting as managers of transaction assets and of information for their customers and as the brokers of such assets. In this way, SPAA covers the set of rules, practices and standards enabling the exchange of payment account data and facilitates the initiation of payment transactions by holders (EPC, 2022).

There are four main players in SPAA, although the scheme only regulates the relationship between the first two:

- **Asset Holders (AHs):** entities that manage the possibility of performing payment transactions for their customers and safeguard all the information relating to such transactions. They represent an extension of the ASPSP (Account Servicing Payment Service Providers) or payment services manager concept.
- **Asset Brokers (ABs):** intermediaries that allow the users of the service (Asset Users) to access transactions or information provided by the AH with the consent of the owner of the transactions and the related information. They represent an extension of the Third Party Provider (TPP) concept.
- **Asset Owners (AOs):** owners of the assets managed by the AHs on their behalf. The relationship between the AO and AH falls outside the rules of the scheme. They represent an extension of the Payment Service User (PSU) concept.
- **Asset Users (AUs):** customers of the AB, who can be considered to be the end users of the service offered by SPAA. In a transactional environment they may be businesses and, therefore, individuals or legal entities other than the AO. In other environments such as personal finance, the AUs could also be the AOs. As for the relationship between the AO and AH, the relationship between the AU and AH falls outside the rules of the scheme.

**Figure 4: Value-added services in SPAA**



The operation of the SPAA scheme enables value-added services beyond PSD2 and ensures their interoperability and reach within Europe. Asset holders (AHs) use a scheme to submit information on accounts (information assets) and payment transactions (transaction assets) to the ABs in exchange for a fee and with the prior consent of the holder.

The scheme regulates two types of services, transaction services (transaction assets) and information services (information assets), which can be combined with a set of additional “premium” features.

**1) Payment services**

SPAA identifies four different information flows in transaction services:

01. Request for payment resource creation at the Asset Holder by the Asset Broker (resource creation), which would constitute the initiation of, or request for, a payment.
02. Request for information on the status of the payment resource creation (status request).

03. Release of the created resource, which would constitute the request for the payment execution (resource release).
04. Cancellation of the payment request.

SPAA includes a wide range of transactions that make it competitive with other payment services and instruments. Any type of “card on file” transaction could also be performed between accounts by means of SPAA.

**2) Information services**

The SPAA information services scheme allows all the user information that is in any way related to payments and accessible on an interface provided by the Asset Holder to be transferred from the Asset Holder to the Asset Broker. SPAA makes it possible for the transferred user information to be recovered by the user, or furnished to a third party; for example lists of their accounts, cards and transactions. The wealth of information available means these services can be used for account holder identification services (KYC), or for account validation services, together with the services in existence as a result of PSD2.



Following publication of the first public consultation, the SPAA scheme has evolved over recent months and the second review (v1.1) of its rulebook is expected to become effective in November 2023.

It is worth noting that SPAA was designed from the outset to be extended beyond payments; this is the reason why many of the concepts used are extensions of PSD2 concepts. The publication of the draft FIDA (Financial Data Access) proposal -extension towards what is referred to as Open Finance- has made this a real possibility.

### 3.4. Type of participants in instant A2A payments

Although strictly speaking A2A payments are made between two bank accounts, the performance of this type of payment is not restricted to banks. Entities that are able to make instant A2A payments in Europe are referred to as "PSPs"<sup>2</sup> by SEPA. These include (Bank of Spain, s.d.):

- **Credit Institutions:** banks, savings banks and credit cooperatives that are entitled to accept deposits and other redeemable funds from the general public. The participation of these institutions in instant A2A payments is required to ensure account access.
- **Electronic Money Institutions (EMIs):** companies with an EMI licence can issue electronic money, issue and acquire payment instruments such as cards, offer users payment accounts in which to deposit and withdraw cash, grant credit to execute payment orders, provide payment services such as direct debits, and make transfers or purchase payments using cards or other devices in physical and virtual businesses. In the case of instant A2A, EMIs provide end users with the service and simply act as the executor of the transaction made between two bank accounts. PayPal and Coinbase are examples of such companies.
- **Payment Institutions:** financial institutions that are entitled to deposit or withdraw cash from a payment account, execute payment transactions in an account by means of transfers, direct debits or card payment transactions, issue payment instruments, acquire payment transactions, send money and initiate payments.
- **TPPs<sup>3</sup>:** Providers of account information services and providers of payment initiation services. The former provide their users with information on their aggregated bank accounts and the latter initiate payments in their users' accounts without the need for confirmation in real-time.

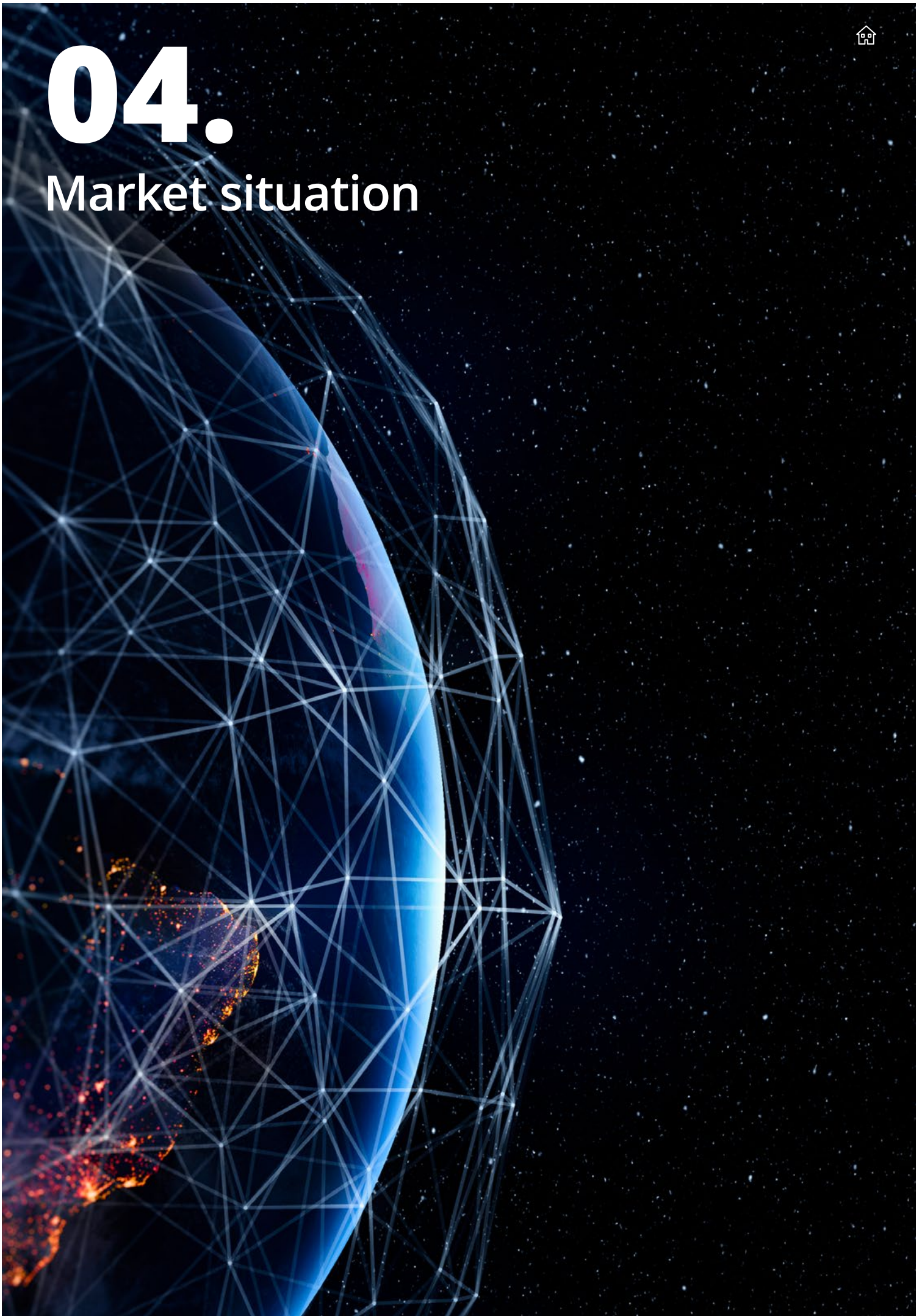


2. Payment Service Providers  
3. Third-Party-Providers



# 04.

## Market situation





#### 4.1. Significant milestones and current regulatory situation

Since the first bank transfers were made in 1800 to pay bills and salaries, in the last 25 years transfers and payments between individuals have undergone a significant transformation, essentially due to digital innovation and to the changes in the regulatory framework that have led to their modernisation.

The most noteworthy of the main milestones in the A2A payments market are shown in Figure 5.

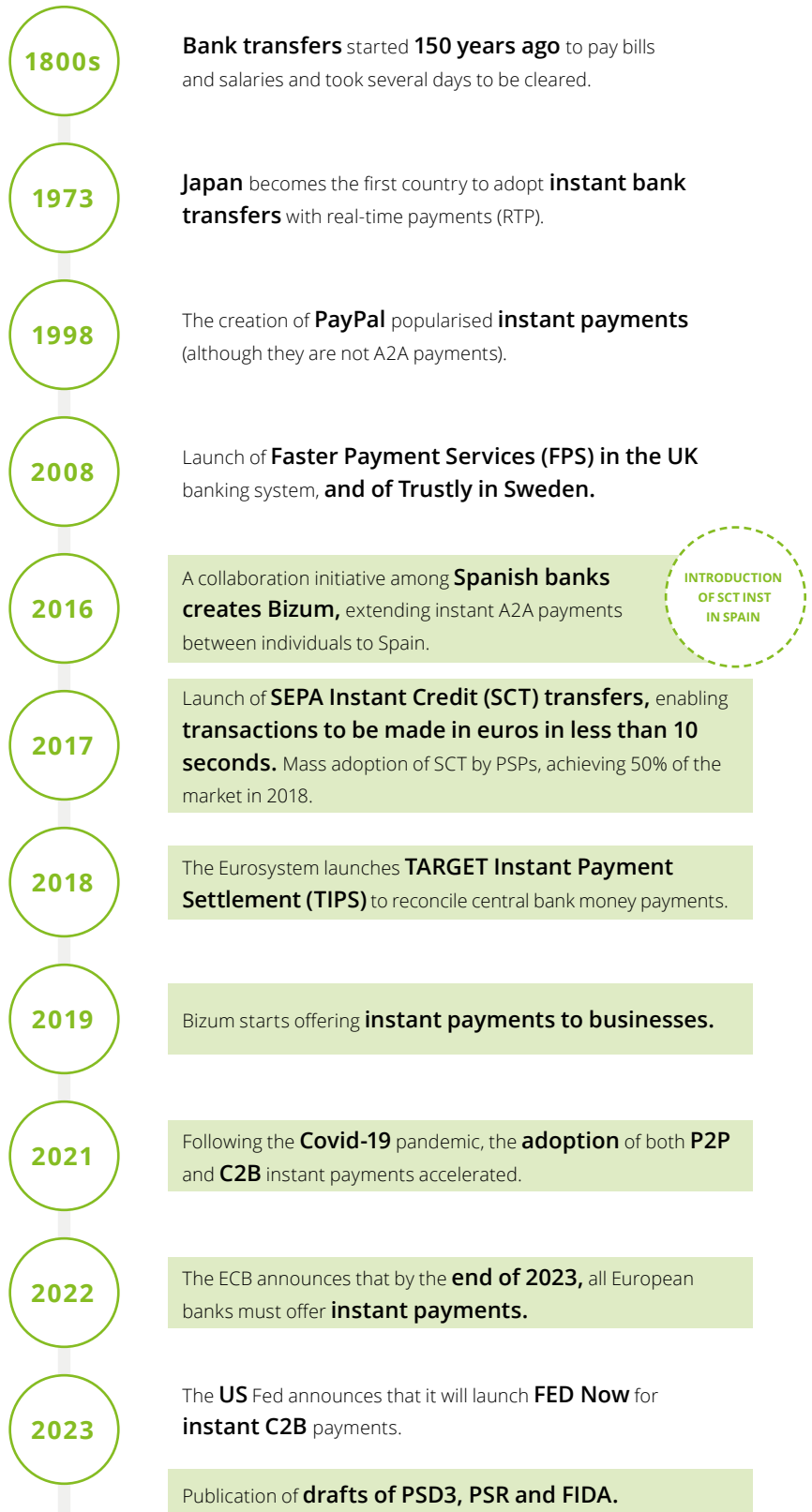
At an international level, the pioneer in instant A2A payments was Japan (JBA, 2012) with the launch of Real Time Payments (RTPs) in 1973. In Europe the first success case was the launch in 2001 of EPS in Austria, which was the first large-scale retail A2A payment network. In the case of Spain, the two main milestones were the creation of Bizum in 2016 (Bizum, 2023) with the participation of substantially all the financial institutions, and the roll out of instant-SCT in 2017, which enabled instant A2A transfers to be made across the board throughout Europe. In the short term, the recent publication of drafts of PSD3,

PSR and FIDA are expected to give rise to a paradigm change in the possible use cases associated with instant A2A payments.

#### 4.2. Main players in the European market

The main A2A payment providers in Europe came into existence to provide service to particular jurisdictions, due mainly to the initial support for, or launch of, these initiatives by financial institutions and local consortia. According to their original shareholder structure, the types of A2A payment providers can be divided into initiatives launched by individual banking institutions, alliances between banking lobbies and independent fintechs.

Figure 5: Timeline of A2A payments in Spain and Europe



■ Relevance for Spain.

# 01.

## DIGITAL INITIATIVES AT BANKING INSTITUTIONS



These are the providers of A2A digital payment solutions designed and launched by traditional financial institutions as part of their initiatives to transform their payments businesses. They have often combined to harness financial institutions' mixed investment and development capabilities, together with the flexibility offered by start-ups' structure.



MobilePay was founded in 2013 by Danske Bank, the main Danish bank, as a digital solution to enable its customers to make payments and transfers using their smartphones. In 2019 the company was spun off from its parent to operate as an independent company in order to increase its reach with other customers. Due to its popularity and success among Danish users, the solution was extended to other Nordic countries like Norway and Finland.



MyBank is an instant A2A payment solution launched in 2013 by PRETA, a company controlled by EBA Clearing that was created to develop competitive services in the digital payments and identity verification fields. EBA Clearing's purpose in creating MyBank was to be able to leverage its knowledge of SEPA and payment infrastructure to create innovative solutions. Now, more than 260 banking institutions have joined MyBank, enabling their users and businesses to benefit from various use cases in instant A2A payments. Specifically, MyBank's value proposition focuses on benefits the benefits for businesses. MyBank offers a series of online B2B and C2B payment solutions that has enabled transactions for a total value of EUR 10,000 million to be performed in 2022, the most noteworthy being payments by email.

4. Consumer to Business

5. Person to Government

6. Monetary incentives (cashback) and non-monetary incentives (rewards) to customers

# 02.

## COLLABORATION BETWEEN FINANCIAL INSTITUTIONS



This is the most common structure among European solutions that combines the efforts of a country's main financial institutions. This is due to its greater reach, its interoperability between customers and the absence of competition between different entities in the same geography. In Spain, the largest success case in instant A2A payments is Bizum; however, Bizum is not analysed here, but rather in section 4.4.3.



iDeal is the online payments leader in the Netherlands and is a company in which the main domestic banks, such as ABN AMRO, ING and Rabobank, have ownership interests. It currently has a 70% share of the online payment market in the Netherlands, and offers recurring payment solutions, physical payments using QR codes and payment requests through pay-by-link.



MBWay is an instant A2A payments application created by the Portuguese interbank network (Multibanco) and owned by SIBS, a company created in 1985 by the main Portuguese banks which now has 27 members. Although SIBS was not created with a specific aim of creating an instant A2A payments solution, it handles the Portuguese ATM network and several of the country's payment solutions. Since it was created in 2013, MBWay has become one of Portugal's favourite payment means, with a 45% share of e-commerce payments in 2022. Its popularity is due to the large variety of use cases, which enable consumers to pay at POS using QR codes, make payments to online businesses, make donations to NGOs, withdraw cash from ATMs without having to carry a card and make international transfers.



Bancomat Pay was launched as a P2P payment platform in 2014 by SIA, a financial technology solutions company, and Nexi, the Italian domestic payments system. In 2018 it was merged into Italy's largest interbank network (Bancomat), providing access to the service to more than 37 million users with Bancomat cards (99% of Italians with bank accounts). Since it was set up, Bancomat Pay has added new use cases such as online C2B<sup>4</sup>, offline C2B (using QR, geolocation and near field communication (NFC) technologies) and P2G<sup>5</sup> payments, cashback and rewards<sup>6</sup>. Despite its extensive availability at businesses (110,000 Italian businesses are members) and among users, Bancomat Pay has not been adopted widely and its use is low, with only 11,000 users and 3.4 million transactions in 2021.

## 03.

### INDEPENDENT FINTECHS



Some solutions were created independently of traditional financial institutions under a start-up structure by small groups of entrepreneurs who managed to scale up their businesses through financing rounds or partnerships.

#### Trustly

Trustly was founded in 2009 by three Swedish entrepreneurs who identified a need for bank transfer payments between individuals in the domestic market. To respond to this need, they developed a system that allowed money to be transferred between accounts such as wallets or card schemes without involving intermediaries. In addition, Trustly has a presence in 29 countries, has agreements with more than 6,000 banks and 8,000 businesses and focuses its payment solutions on e-commerce, recurring payments and instant payments.

#### Sofort.

Sofort is a payment method that originated in 2005 in the German city of Munich and allows payment initiation. In view of the success of this payment method in its first few years of life, in 2014 Klarna bought the company for USD 150 million. It has now become one of the leading electronic banking payment methods in Europe, has more than 85 million users, is present in more than 10 countries and has a significant level of adoption in Austria, Belgium, Poland, Italy and Germany.

#### INESPAY

Inespay is a payment initiation fintech founded in Valencia in 2016 with the aim of digitalising bank transfer payments and converting them into an alternative to traditional transfers and PayPal. Its service allows e-commerce to redirect customers to the banking entity's portal to authorise payment securely and simply. Inespay works with leading companies in several industries offering a real time bank transfer service. The company now transacts more than EUR 600 million per year and has important customers such as Decathlon, PC Componentes and Carrefour Viajes.

#### 4.2.1. Positioning of traditional entities

In general, traditional European banking institutions have opted either to invest in stand-alone digital initiatives or to collaborate in consortia, thereby increasing scalability and the probability of success.

The most significant case in Spain was that of ING Direct with the launch of Twyp as an instant payment tool in 2015. The A2A solution developed by ING allowed instant transfers to be made between the bank's customers in all its geographies, which was somewhat novel when it was launched. The year after its launch, the solution evolved into Twyp Cash, and included functionalities such as agreements for cash withdrawals at supermarket and petrol stations; initially there were 3,500 withdrawal points, which increased as a result of agreements with large retailers, associations and logistics groups. The last launch involved the inclusion of a virtual prepayment card in Apple Pay in February 2020 for making payments to businesses.

In 2022 ING integrated the Twyp solution into its own mobile application in order to retain the capacity for instant payments between ING accounts and the cashback solution. The appearance of Bizum in the Spanish domestic panorama in 2016 and the network effect resulting from its interoperability between customers of many Spanish banks created a barrier for its customers' use experience. Subsequently, ING joined the Bizum structure, at that point bringing more than 1.3 million customers and confirming the model for success of collaborative initiatives that include an instant payment solution of a certain scale in their business models.

Another similar case was the launch of Wizzo by BBVA in 2014. Wizzo was an online application that allowed its users to make instant A2A transfers and make cash withdrawals without the need for a card (BBVA, 2016). However, Wizzo was discontinued in May 2015.



International companies like Mastercard and Visa have seen that their business might be the most affected by advances in A2A payment operations. The two companies had already started to develop internal P2P and B2B payment solutions for holders of cards such as MoneySend and Visa Direct, respectively. These solutions have card-to-account or card-to-card fund transfer use cases, although they have not been widely adopted by consumers.

In the last few years, the two multinationals have adopted a diversification and innovation strategy through investments in and acquisitions of disruptive fintechs in the payments industry that complement their current product and services offerings. In 2021 Mastercard completed the acquisition of the European fintech Nets, which focuses on corporate A2A payments as its most significant transactions (Mastercard, 2021). Also, Visa has added purchases such as Earthport and Currencycloud to its portfolio in order to strengthen its product offering in cross-border transactions.

#### 4.2.2. Main changes in the industry

Most noteworthy in the A2A payments market because of its size is the possible acquisition of iDeal and Payconiq by the European Payments Initiative (EPI, European Payments Initiative) after the banks owning the two entities became shareholders of EPI in April 2023.

EPI was founded in 2020 as an initiative supported by the ECB to create a pan-European cards scheme and was initially supported by 31 European entities including the main banking institutions, as well as important PSPs such as NEXI and Wordline. The EPI network would use pre-existing infrastructure, such as the Eurosystem's TARGET2 real-time payment system.

At the beginning of the 2023 13 of the 31 initial shareholders were on board, and were joined by ABN AMRO, Belfius, DZ Bank and Rabobank in April 2023, the latter being the owners of iDeal and Payconiq who were not previously shareholders of EPI. Thanks to this acquisition, EPI has pivoted its initial model based on a European payments scheme towards a P2P and PoS payments solution, leveraging the two companies' A2A solutions. In addition to this solution, EPI expects to add additional value layers such as instalment payments and digital identity services.

The rollout target for the EPI solution includes an initial pilot project on a controlled customer base in France and Germany at the end of 2023 and a second phase with an extended scope that includes Belgium.

In addition to the A2A payments solution, EPI envisages the launch of a digital wallet that allows bank accounts from any entity to be added to it, as well as third-party payment methods and additional services that have not yet been defined publicly. This digital wallet is under development and will present a separate brand and user experience from the payment method described above.

#### 4.3. Important factors affecting users' behaviour

Having analysed the A2A payments system and the various types of players it involves, the relevant factors for a solution's success in the market are outlined below. These factors can be classified into internal and external factors, the former being those relating to the solution itself and the latter to the ecosystem in which it is regulated.

##### 4.3.1. Internal factors

**Product and contribution of value:** for a solution to be successful it must improve a current process or respond to a need not satisfied by the solutions available. The main functionalities with a positive impact on perceived value are, inter alia, the total time taken for the process to be executed, the number of requirements to be completed to make a payment or to complete initial sign-up and the numbers of use cases offered and needs satisfied.

**Pricing model:** another of the levers to improve the perception of value is the pricing model, since A2A can provide a solution that already exists in the market at a lower price than at present. Spain has the second lowest chargeability ratio in consumer banking in the European Union with 89% of customers enjoying free use of instant transfers, 23 percentage points above the European average (ECB, 2022).



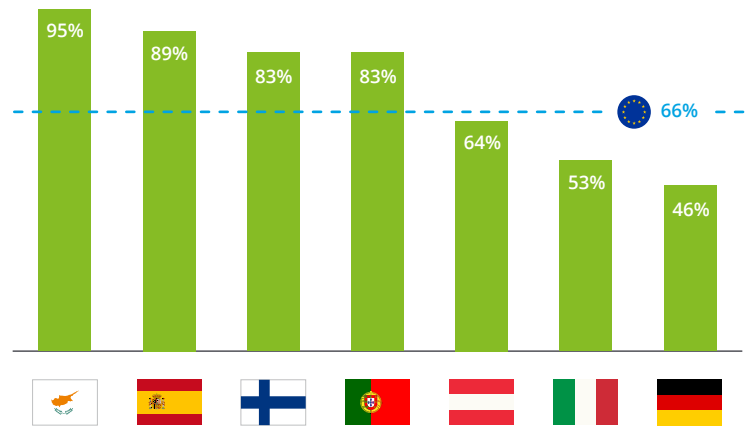
### 4.3.2. External factors

**Access to instant payments:** in addition to the features offered by the A2A payment provider, the market in which the provider operates is a decisive factor in them being accepted. The main adoption accelerators for A2A payments include the following:

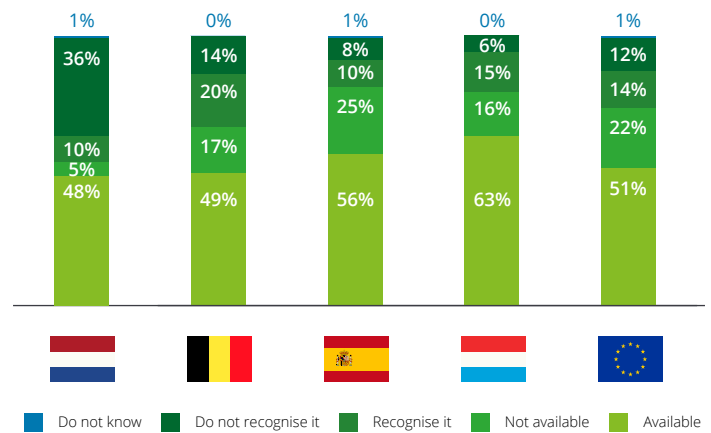
- Banking penetration:** the markets with the highest banking penetration among the population present growth opportunities for instant A2A payments. Also, A2A payment solutions represent an accelerator of banking penetration of customers in emerging markets. This is the case of Brazil with Pix, its domestic A2A solution that has enabled transactions to be executed by 71.5 million people (at December 2023) who had been unable to perform any electronic transfers in the year before the launch of the solution (IMF, 2023).
- Regulatory environment:** as shown by the Chinese case, favourable regulation of A2A solutions can considerably boost their adoption. In the European case, the European Commission is encouraging the acceptance of A2A payments by means of the enactment of Regulation 2022/0341, through which it aims to upscale the current infrastructure, and by launching PSD3 with a view to speeding up the adoption of open banking services.
- Digitalisation:** the digitalisation of a country is a necessary factor for any digital payment solution to proliferate and has a two-fold component: on the one hand, the level of digitalisation of financial institutions and processing that underpins the operational structure of the solution and, on the other, the access to the technology and how it is handled by citizens to enable them to make use of such solutions.
- Technological infrastructure:** lastly, there must be an instant A2A payment rail infrastructure available to solutions developers, once the aforementioned measures have been validated.

Bearing in mind the aforementioned factors, according to the European Central Bank, in Europe 51% of consumers have access to instant payments, which

**Figure 6: Consumers that do not pay fees for instant credit transfers or pay the same fees as for SCT (ECB, 2022)**



**Figure 7: Percentage of consumers with access to instant payments (ECB, 2022)**



is the same figure as that obtained for this indicator in 2019. Spain ranks fourth in access to instant payments (56% of citizens), close behind Luxembourg, which leads the ranking with 63%. It is worth noting data from the Netherlands and Belgium, where local solutions have a high level of adoption but, nevertheless, have ratios that are below the European average with 48% and 49% respectively (ECB, 2022).



**Level of acceptance by businesses and entities:**

Once users’ access to instant payments has been validated, for a payment solution to become rooted in consumer behaviour it must be accepted among the recipients, be they physical or online businesses or individuals. One of the most common models in the design and launch of this type of payment solutions is that of joint initiatives between various significant financial institutions in a country, since it speeds up access to a large number of customers and facilitates penetration at businesses accepting this means of paying for purchases. This is the case of Bizum in Spain, which, through its association with the banking lobby, has managed to achieve a high level of market penetration among the banks with a presence in Spain.

**4.4. Levels of adoption**

**4.4.1. Adoption at international level**

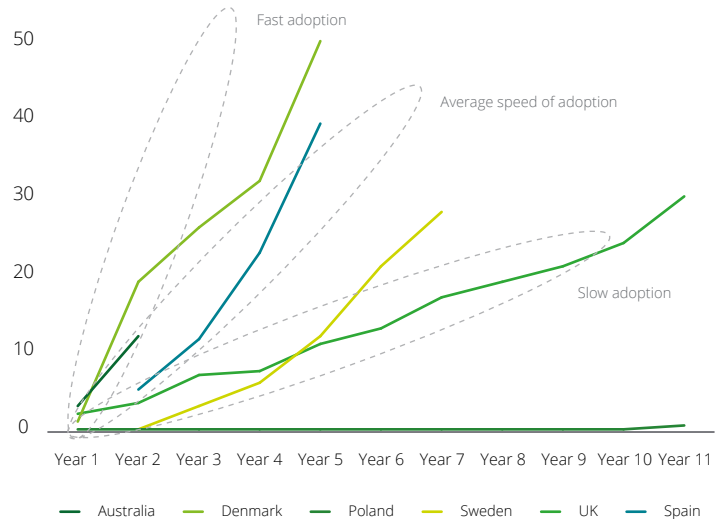
The level of adoption of A2A payments varies considerably by geography depending on the timing of the launch of the solution, the technological situation of the financial services industry and the regulatory and market context in each country (Hartmann, et al., 2019).

Three patterns of adoption have been identified among the success cases analysed based on the following variables:

**Slow adoption:** this is observed in those countries in which an early solution was adopted and there was not enough technological capacity to upscale the scheme. The UK is an example of this model in which, despite being one of the markets in which A2A payments are most used, the rate of growth of A2A payments has been moderate. There are also other types of barriers such as the regulatory environment and cultural and economic matters that make it more difficult to disseminate these solutions. This is also the case in Poland, where, despite having solutions in the market since 2009, adoption is still not widespread.

**Average speed of adoption:** models such as that in Sweden, where an independent fintech has obtained a significant presence in the market. In these cases, the increase in popularity among consumers is due to the differentiated value proposition offered by the new solutions in comparison with the existing ones.

**Figure 8: Evolution of take up of instant A2A payments (% of total transfers; 2019) (ECB, 2019)**



**Fast adoption:** the success cases with faster adoption of A2A payments share various factors such as joint initiatives in the industry, a favourable regulatory environment and use experiences that are simple and free for customers. In line with these factors, similarities can be seen in the Australian case with NPP (New Payments Platform) and in the Spanish case with Bizum. NPP is an infrastructure developed by the Australian Payments Clearing Association (APCA) that allows instant payments to be made 24/7 between bank accounts using a unique identifier for each customer at no cost to the user. NPP is owned by the main banks and financial institutions in Australia, such as Commonwealth Bank and Westpac, among others.

#### 4.4.2. Per capita adoption

A high level of heterogeneity can be observed in the main markets.

Starting with Japan, which despite being the first country to adopt instant payments, is not a benchmark as regards adoption, as instant payments are used mainly for high value payments. Japanese banks consider that the market has limited potential since Japanese people still make a high percentage of transactions in cash.

In Europe, the Netherlands is the country where instant payments are most widely used on a per capita basis, with 68 transactions per person per year, followed by the UK, with 50. Of the southern European markets, Spain presents the highest use of instant payments per customer compared to comparable geographies such as Italy, France and Portugal.

In South America, PIX, the local instant transfer solution launched by the Brazilian central bank, is widely used by Brazilian consumers. This fact has encouraged issuers to create services using this technology to replace the income from fees from cash and the use of cards.

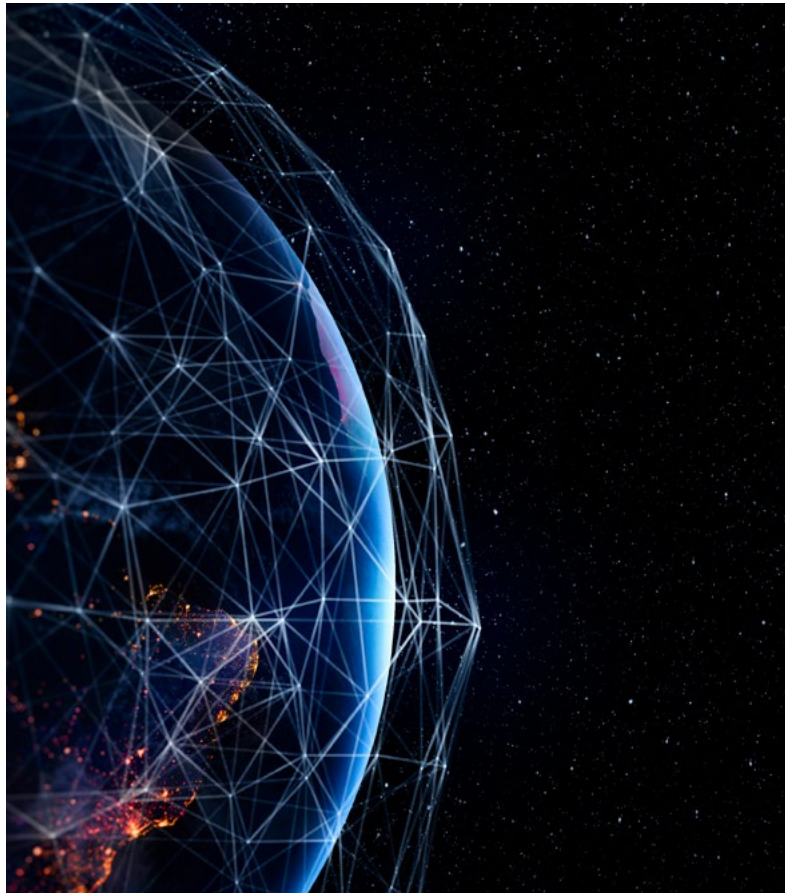
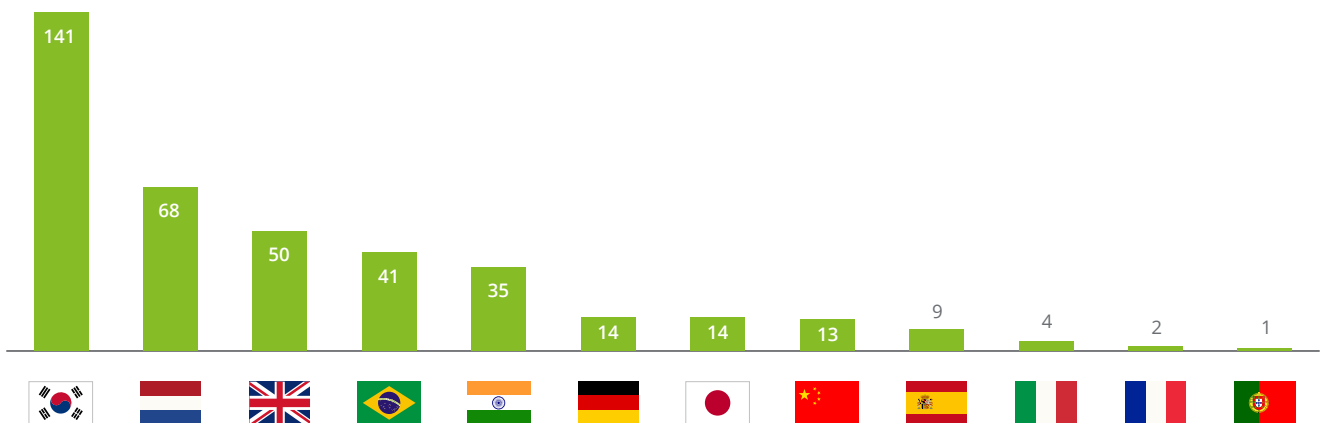


Figure 9: Instant A2A transfers per capita (Worldline, 2022)





### 4.4.3. Adoption in Spain

Ever since they were launched, instant transfers have seen strong growth in Spain and accounted for an average of 30% of the total in 2022. At the end of November 2022, instant transfers had a 49% share of the total.

Users' adoption of the Bizum solution has led to an increase in the percentage of instant transfers of the total number of transfers performed. Instant transfers have experienced compound annual growth of more than 140% in the last five years and have accounted for almost all the growth in transfers in this country.

The growth in instant A2A transfers explains the overall rise in transfer volume in recent years. Non-instant transfers using the SNCE remained stable, while instant transfers contributed 823 million new transactions in 2022, 93% of which were conducted through Bizum.

### 4.5. Economic models of the A2A solutions

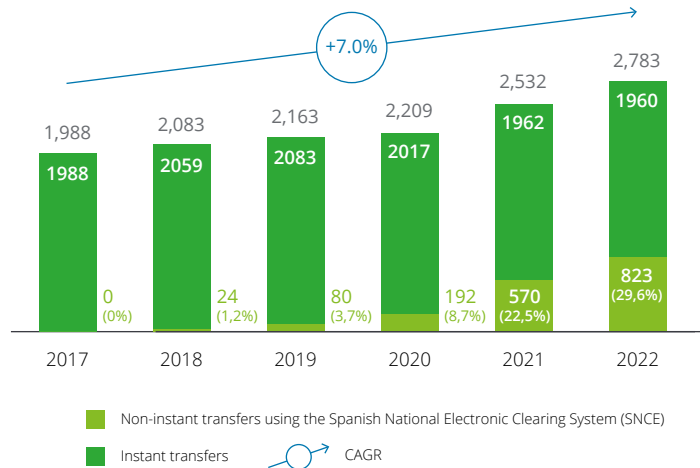
The price of the solutions is a decisive factor for their widespread adoption by consumers. The economic model plays a fundamental role in achieving a balance between an attractive product for users and having a robust and profitable model.

In Europe this is exemplified by the case of SEPA instant transfers. Since its launch in 2017, the improvement SCT Inst offered on the use case of traditional transfers has not been reflected in a rise in adoption. This was because most users did not perceive that value in the price of the transaction, which was significantly higher than that of a traditional transfer.

In contrast to the SCT Inst experience, the digital players offering free A2A payments have managed to upscale the model and achieve a certain level of adoption. These entities apply the transaction cost to the other participants in the transaction.

EUR 0.9

**Figure 10: Annual retail payment performance in Spain using SNCE (millions of transactions; 2017 - 2022) (Iberpay, 2023)**



**Figure 11: Evolution of the number of instant transactions in Spain (millions of transactions; 2018 - 2022) (Iberpay, 2023)**

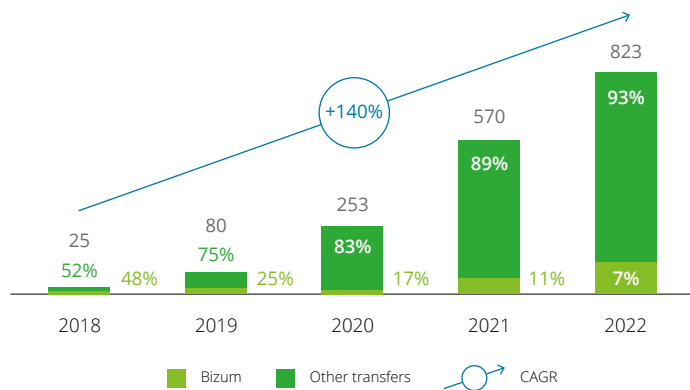
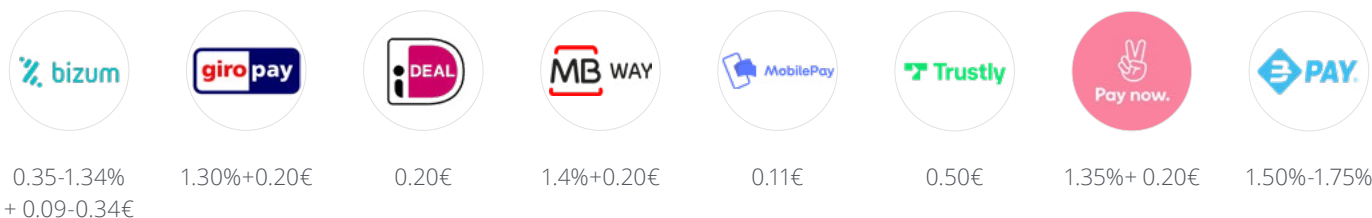


Figure 12: Benchmarking of the prices of the main financial entities operating in Spain<sup>7</sup>

Entity	TRADITIONAL BANKS					DIGITAL BANKS
	ENTITY 1	ENTITY 2	ENTITY 3	ENTITY 4	ENTITY 5	ENTITY 6
Domestic or SEPA zone transfers	Free	Free	Free	Free	Free	Free
Urgent domestic transfers	0.5% (minimum EUR 6)	1% (minimum EUR 8)	1% (minimum EUR 30)	Not available	Not available	Free
Instant domestic transfers	EUR 0.9	0.6% (minimum EUR 8)	EUR 3	EUR 1	EUR 3	Free
Instant SEPA transfers	EUR 0.9	0.6% (minimum EUR 8)	EUR 3	Not available	0.35% (minimum EUR 5)	Free
SHA international transfers	0.6% (minimum EUR 18)	0.6% (minimum EUR 15)	0.75% (minimum EUR 34)	Not available	Not available	EUR 15
OUR international transfers	0.7% (minimum EUR 35)	0.7% (minimum EUR 36)	0.7% (minimum EUR 40)	Not available	Not available	EUR 30

Figure 13: Benchmarking of the fees for instant A2A payment in businesses<sup>8</sup>



4.5.1. Pricing strategies by use case

**Payments between individuals:** A2A transactions carried out between individuals on the main platforms in operation in Europe are, in general, free to the user, although there might be certain restrictions.

In the case of domestic transactions, initiatives launched by a consortium of local financial institutions in general pass on a cost per transaction to the issuer and recipient entities to defray the transaction costs. From a business model standpoint, it is difficult to make P2P payment operations profitable, but they represent one of the main levers of user growth.

In more sophisticated use cases such as cross-border or multicurrency, P2P payments do generally involve a transaction cost for users.

**Payments at businesses:** for the case of purchases at physical or online businesses, A2A payment providers in general pass a cost per transaction on to the business to make the business model profitable.

**Value-added services:** with respect to the use cases presented, many players are developing additional services around the transaction to increase the perceived value of their services, such as digital identity, fraud prevention, account aggregation and buy now pay later (BNPL).

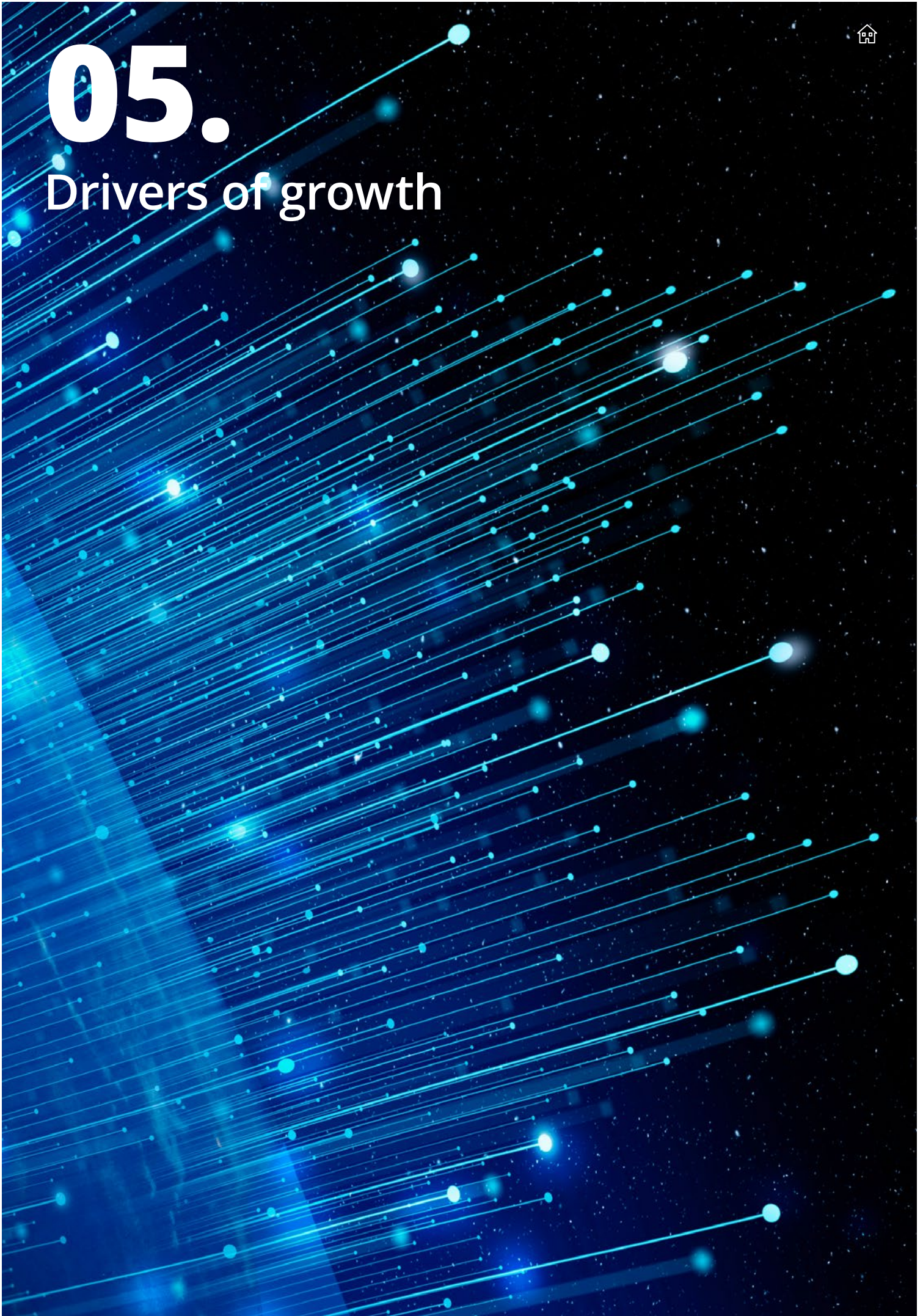
7. Data from the entities' websites.

8. Data from the players' websites and subject to change due to negotiations between entities and businesses.



# 05.

## Drivers of growth





### 5.1. Evolution of the regulatory framework

The entry into force of PSD2 resulted in the growth of new fintechs such as PISPs, an increased control over finances and a wider range of possibilities regarding the offering of financial products. Some of these fintechs such as Budget Insight, Linxo, Tink or Aiiia were acquired by large banking and payment players such as Credit Mutuel, Credit Agricole, Visa and Mastercard, respectively. They have been very important in the market because the core of their business is based on the initiation of A2A payments.

The regulatory framework has been one of the key factors affecting the growth of A2A payments. Against this backdrop, the European Commission’s proposal to make the price for instant payments the same as for bank transfers could be a disruptive factor in the payments ecosystem (Song, s.d.).

Work is currently under way on the implementation of the following legislation: Digital Markets Act (DMA), Digital Services Act (DSA), PSD3 and FIDA. This legislation focuses on improving market conditions, establishing the framework for open banking and fostering open finance. In addition, the European Commission’s proposal for a regulation on instant payments is under development.

#### 5.1.1. DMA and DSA

The DMA establishes a series of criteria for addressing the problem of the concentration of online platforms benefiting both individuals and companies. The DSA provides certain criteria for the protection of users under the basic premise that any practices that are illegal offline should also be illegal online.

It is hoped that these regulations will afford better protection for consumers in the area of A2A payments, increasing consumer trust and fostering their adoption.

Figure 14: Descriptions of the DMA and DSA

### DIGITAL MARKETS ACT (DMA)

Establishes a set of **criteria for classifying platforms as gatekeepers**, to resolve the concentration problem regarding large online platforms

CRITERIA FOR DESIGNATION AS A GATEKEEPER	<b>Good economic position</b> The company should have a <b>good economic position, significant impact and an international presence</b>
	<b>Strong intermediation position</b> A company that is capable of <b>connecting to a broad user base and a broad business base</b>
	<b>Stable position</b> The company has an <b>entrenched and durable position</b> in the market
BENEFITS OF THE DIGITAL MARKETS ACT	<b>Companies</b> The DMA allows for <b>fairer conditions</b> for companies that depend on gatekeepers
	<b>End users</b> Due to a broader offering, users will have <b>more opportunities to switch providers</b>
	<b>Gatekeepers</b> Gatekeepers will still have incentives to innovate but <b>will not be able to conduct anti-competitive practices</b>

### DIGITAL SERVICES ACT (DSA)

Establishes a set of **accountability criteria for online platforms**, in line with the principle that whatever is **illegal offline should also be illegal online**

MEASURES INCLUDED	<b>Prevent illegal goods, services or content</b> <ul style="list-style-type: none"> <li>• <b>New mechanism</b> for reporting improper content</li> <li>• <b>More restrictive terms</b> regarding the traceability level of businesses on online marketplaces</li> </ul>
	<b>User empowerment</b> <ul style="list-style-type: none"> <li>• <b>Easier ways</b> to initiate <b>legal proceedings</b> against platforms</li> <li>• <b>Access to data</b> of platforms and NGOs to provide information on their performance</li> <li>• <b>Transparency</b> measures on online platforms</li> </ul>
	<b>Risk control and mitigation</b> <ul style="list-style-type: none"> <li>• <b>Obligatory risk controls</b> for large platforms to prevent their improper use</li> <li>• <b>Response mechanisms</b> regarding international security <b>risks</b></li> <li>• <b>Protection for minors</b> and the use of <b>sensitive data</b></li> </ul>
	<b>Supervision</b> <ul style="list-style-type: none"> <li>• <b>Supervision of large platforms</b> and creation of a framework for application of the criteria</li> </ul>





### 5.1.2. PSD2 and TPPs

The entry into force of the PSD2 regulatory framework in 2021 should have provided a boost for instant A2A payments as it introduced the concept of new TPPs such as AISPs and PISPs (described in section 3.4) and the possibility for third parties to initiate instant A2A payments from the customer's account. Although PISPs and their solutions have not yet been adopted on a mass scale, they may be a significant factor for the growth of instant A2A payments since they form the core of their value proposition.

AISPs or Account Information Service Providers are companies permitted to access APIs of bank data to obtain information on banking transactions relating to an account (Truelayer, 2022) with the customer's consent. AISPs use their access to this data to offer their customers general information on their expenditure, financial advice and assistance with expediting loan and mortgage applications. Although AISPs cannot make payments or other actions relating to an account, they can facilitate an immediately subsequent A2A payment, thereby adding a layer of value to the instant A2A payment.

The adoption of PSD2 and the continuing work by the European Union to improve and adapt it should boost A2A payments.

### 5.1.3. PSD3 and the Financial Data Access Regulation (FIDA)

The implementation of PSD3 (European Commission, 2023) and the FIDA (European Commission, 2023) will enable a paradigm shift to take place in payments, break down existing barriers and facilitate the appearance of new technologies and use cases in the area of payment methods and financial services,

as well as the entry of new players. The European Commission has outlined four broad areas to be taken into account with regard to the new directive due to their importance and market impact:

- The role of new market players such as fintechs and big techs.
- The control of fraud in payments.
- The possibility of offering access to payment account data to any business, which requires the development of the necessary infrastructure.
- The need to offer international payments in a cost-efficient way and with transparency, taking into account geographical interoperability with countries outside the European Union.

The first draft of PSD3 published on 28 June 2023 describes a series of changes for adaptation of PSD2 to ensure that it functions better. The planned changes include the following which will have a greater effect on the growth of A2A payments:

- Better application of SCA to improve the security of A2A payments.
- The extension of IBAN verification to all credit transfers and for authorised push payments.
- The obligation for PSPs to improve SCA accessibility for users with disabilities and the elderly.
- Reduction in differences between the regulatory regimes for Electric Money Institutions and Payment Institutions.



These changes should improve access to A2A payments and increase their adoption thanks to improved security. However, the draft of PSD3 will also change the authorisation and licensing processes for certain categories of payment institution. For example, electronic money institutions will have to present business continuity plans, analyses of fraud risks and the illegal use of personal information, and will have to provide details on the European jurisdictions in which they operate. They will also be required to be headquartered in the same country in which they are registered.

These obligations may reduce the number of companies qualified to act as payment institutions and make it difficult to create new institutions to make instant A2A payments.

In addition to the changes to PSD2 mentioned above, the new PSD3 will also amend Directive 98/26/EC on settlement finality in payment and securities settlement systems to add payment institutions to the list of institutions that may participate directly in the payment systems designated by a Member State. As a result of this amendment Spanish EMIs and PIs may access SNCE directly.

The European Commission has also published the Financial Data Access Regulation which aims to establish and clarify the rights and obligations

concerning the management of consumer data in the financial sector beyond payment accounts. The measures include the following:

- The possibility but not the obligation for customers to share a wide range of data with financial institutions and fintechs.
- The obligation for institutions who handle financial data to adopt the required technical infrastructure to share data subject to customer permission.
- Full control by customers over who accesses their data and for what purpose.
- Standardisation of customer data and the required technical interfaces.
- Clear liability regimes and penalties for data legislation breaches.
- Additional incentives for data holders to put in place high-quality interfaces for data users.

The Regulation is expected to come into force at the end of 2025. Once in effect, financial institutions will have a greater capacity to create more innovative use cases relating to payments. This new regulatory framework should help drive the growth of instant A2A transactions.



#### 5.1.4. The European Commission's proposal for a regulation on instant payments

The European Commission has recently launched a proposal (26 October 2022/0341) whereby PSPs (credit institutions, payment institutions and electronic money issuers subject to European regulation) who offer traditional transfers will also have to offer instant transfers. In addition, the price of these instant transfers shall be the same or less than traditional transfers in euros. Also, PSPs will be required to offer IBAN verification services and check that customers belong to the European Union. This new Regulation will also apply to cross-border instant transfers in the European Union. It is expected to have an impact in several areas (Europea, 2022).

Firstly, any PSP that does not offer instant transfers will have to offer them and, therefore, they will be available for all customers of PSPs. However, since the majority of PSPs have already adhered to the SNCE's SCT Inst initiative or SEPA scheme, this will not be a differentiating factor. Therefore, the greatest impact is expected to come from the reduction in the price of instant transfers due to the obligation to make them the same price as traditional transfers, the greater availability of instant transfers between European jurisdictions and improved security in these transactions as a result of IBAN verification.

On the basis of this new regulation, three possible scenarios relating to the adoption of instant transfers by each service provider have been identified:

- Standard transfers will remain free of charge while instant transfers will be given the same price.
- Rise in the price of standard transfers to match the price of instant transfers.
- Rise in the price of standard transfers to a point between the free-of-charge traditional transfers and the current price of instant transfers, reducing instant transfers to the same amount.

It is important to take into account that, regardless of the economic model, the current penetration of A2A payments, in terms of both issuing and acquiring payments, is still limited, and there is a long way to go until the critical mass needed for A2A to be considered a widespread payment method can be reached.

#### 5.1.5. Anti-money laundering measures

The measures to combat money-laundering and terrorist financing in each jurisdiction may affect the functioning of payment institutions and instant A2A payment providers. In 2021, a Swedish A2A provider postponed its plans to raise USD 9 bn through an initial public offering (IPO) indefinitely after regulators raised concerns regarding its due diligence on its end customers. Specifically, the regulators determined that KYC measures were not conducted on end customers for transactions of more than EUR 1,000 and fined the company SEK 130 million. Therefore, it could not be floated without being compliant (Electronic Payments, 2021), showing the importance of legislative compliance for the growth and functioning of instant A2A payment providers.

In June 2023, the EBA published a study analysing the risks associated with money-laundering and terrorist financing at payment institutions. The study concluded that institutions' internal controls were not sufficiently robust to mitigate the risks identified, that not all supervisors based the frequency and intensity of their activities on each payment institution's risk profile and that authorisation practices varied considerably from country to country, enabling institutions with less exhaustive controls to operate throughout the European Union. The EBA clarified that these risks could be prevented by more robust implementation of their published guidelines (EBA, 2023).



Accordingly, to prevent the disruption of instant A2A payment providers' business due to anti-money laundering rules, a set of standardised rules across the European Union are required, which need to be implemented correctly by supervisors and applied by the companies in question.

## 5.2. Developments in technological infrastructures

One of the most significant drivers of instant A2A payments and innovation in financial services is the application of the economy. An API<sup>9</sup> is an intermediary software component that enables two different applications to connect to one another and exchange data. Although this technology was developed decades ago, its role in transitioning from vertical silos to an open ecosystem has transformed financial services. Specifically, the APIs with the greatest impact have been the modern web APIs developed at the beginning of the 2000s. Today, the transition of the economy to services provided through applications has meant APIs have had an exponential effect (Kriaris, 2023).

APIs serve three purposes in the context of instant A2A payments:

- They ensure the connectivity of open banking bank and financial applications, allowing the product's features and functionalities to be easily extracted and are combined in processes which suitably authorised users can access from anywhere.
- They are the rails used to transfer the necessary information for conducting instant A2A payments.
- They integrate products and services relating to A2A payments in different commercial environments resulting in what is known as "embedded finance".

Therefore, two API-related trends have been highlighted which will help drive instant A2A payments in the future:

- The development of a new generation of standardised API economy enabling APIs that increase the potential for opportunities, tools and platforms relating to instant A2A payments.
- The world economy's growing dependence on online services and mobile phone apps.

First the API economy is evolving rapidly towards a low-code environment. This is a trend towards creating technological tools which are easier to integrate and have fewer lines of code. As a result, developers will find it increasingly easy to integrate APIs into their technological tools, thereby facilitating the expansion of A2A solutions. In addition, low-code APIs also require less technological knowledge to be used effectively. Therefore, these tools will be available for non-developers and will enable them to implement instant A2A payments.

APIs are also faced with the challenge of improving their security levels since decentralised microservices-based architectures involve greater risk as there is no centralised system that manages all the inflows and outflows of information in a tool. The security market for APIs is therefore forecast to grow from around USD 1 bn in 2022 to USD 10 bn in 2032. In parallel, new regulations are expected which will introduce strict security standards for all API solutions.

Combining these factors, it is possible that APIs will achieve a level of security and user confidence to ensure that their growth and the growth of payment systems is not hindered (Lehair, 2023).

9. Application Programming Interface.

### 5.3. Changes in the Eurosystem

Since the introduction of the SEPA Regulation in 2001, the European Union and the Eurosystem have worked to improve and increase the efficiency of payment systems in the eurozone. Thanks to SEPA, traditional transfers between Member States in euros began to be charged at a standard price. Following this historical milestone, the European Payments Council was created in 2002, which is an organisation dedicated to developing electronic payment instruments in euros.

Today, the Eurosystem is making strides with a series of developments that could offer significant new use cases such as, for example, the development of a digital euro possibly based on TARGET services that function using SCT Inst technology. The Eurosystem is currently working on three large projects:

- **T2/T2S consolidation project:** the consolidation in progress of the Target 2 and Target 2-Securities platforms aims to make the system more stable, ensure better user preparation and fluid adaptation to the new platform.

- **SPACE:** its main objective is to understand consumers' behaviour relating to payment methods with a high level of detail by instrument and geographical area.
- **Digital euro:** this is a project at the research stage which was begun in October 2021 with the objective of reaching a decision in September 2023 on its possible implementation.

#### 5.3.1 SPACE survey

The ECB uses the evidence presented in the SPACE survey to understand actual consumer demand and trends in the payments market. This survey is conducted periodically to facilitate the implementation of strategies relating to payment services and cash in the Eurosystem. The strategies implemented involve fostering competitive and innovative pan-European market solutions. They also try to ensure that efficient and resistant payment options are available to all citizens in the eurozone. The main conclusions of the latest survey were as follows (ECB, 2022):

**Figure 15: Conclusions of the 2022 SPACE survey (ECB, 2022)**

01. The survey was performed in the 19 countries of the eurozone through interviews with consumers to identify their behaviour and preferences relating to payments and how they access them
02. The survey maintained the same structure as the 2019 edition in order to obtain comparable data and observe consumer changes and trends
03. Cash is the most frequently used payment method at point of sale (PoS), accounting for 59% of transactions, representing a fall of 13 p.p. compared to 2019 and of 20 p.p. compared to the 2016 data
04. Cards are used in 34% of transactions at PoS, representing an increase of 9 p.p. on 2019 and of 15 p.p. on 2016
05. Non-recurring online payments accounted for 17% of transactions in 2022, up 11 p.p. on 2019, and were used particularly for food shopping and daily supplies at supermarkets and restaurants
06. Regarding access to cash, 89% of the users considered that access to cash was easy and ATMs accounted for 74% of cash withdrawals
07. Cash is accepted as a payment method at 95% of points of sale, a fall of 3 p.p. compared to 2019, while digital payment methods have an acceptance rate of 81%

The conclusions from surveys such as the SPACE survey can assist the Eurosystem to assess the adoption of A2A in order to create policies and strategies to help foster A2A payments in all Member States.

### 5.3.2. Digital euro

The introduction of the digital euro in 2026 could have a profound impact on the European payment ecosystem. Therefore, it is important to understand exactly what the digital euro is and what future scenarios it could involve. The digital euro would be a Central Bank Digital Currency (CBDC) issued by the European Central Bank.

A CBDC can be classed as a digital asset for general use issued by a central bank for circulation among the population and businesses. Since the CBDCs would be a central bank liability they would be free of credit and liquidity risk. The digital euro that the European Central Bank wishes to create would be specific to the retail area in C2B, B2B, P2P and P2G transactions. Figure 16 summarises the main expected benefits of the launch of a CBDC.

The reasons put forward by the European Central Bank for the creation of the digital euro include supporting the digitalisation of the European economy and the European Union’s strategic independence. One of the specific objectives is to reduce European dependence on international payment systems. Also, the aim is to respond to the significant fall in the use of cash as a payment method, as shown by the SPACE survey. In addition, the digital euro would mitigate the possibility of foreign CBDCs or digital private payment methods, such as cryptocurrencies, being adopted in the eurozone. Another opportunity provided by the digital euro is the creation of a new monetary policy transmission channel but this may be ruled out in future developments of the ECB. The ECB has also highlighted the need to mitigate risks to the normal provision of payment services and foster the international role of the euro. Lastly, the ECB’s final objective in creating the digital euro is to reduce costs and the carbon footprint of payment and monetary systems (ECB, 2020).

**Figure 16: Potential benefits of CBDCs and the digital euro (Lagarde & Panetta, 2022)**





Over 2022 and 2023, the ECB and the European Commission published the characteristics and designs of the digital euro until arriving at a final proposal issued on 28 June 2023:

**Figure 17: Features of the digital euro defined by the ECB and the Commission (European Commission, 2023)**

	CHARACTERISTICS	NUEVA PROPUESTA DE LA COMISIÓN EUROPEA	EUROPEAN CENTRAL BANK'S FORMER PROPOSAL
01.	<b>LEGAL TENDER</b>	Obligatory acceptance in <b>online and offline functionalities</b> , including <b>penalties for infringements</b> (exceptions apply)	The <b>digital euro</b> should be considered <b>legal tender</b>
02.	<b>DISTRIBUTION MODEL</b>	<b>Intermediaries</b> will be able to offer <b>basic and additional</b> services and <b>users may have more than one wallet</b>	<b>PSD2</b> intermediaries as <b>distributors</b> and the principle of <b>one account per citizen</b>
03.	<b>REMUNERATION</b>	As with <b>cash</b> , the <b>digital euro</b> will not bear interest	Possible introduction of a <b>tiered remuneration system</b> to <b>mitigate the effects of inflation</b>
04.	<b>LIMITS</b>	Considers that the <b>ECB</b> is responsible for <b>establishing limits</b> and focus on the funded/defunded <b>holdings and limits</b>	Limits should be placed on <b>holdings</b> and possibly on <b>transactions</b> , with a particular focus on <b>offline</b> payments
05.	<b>COMPENSATION MODEL</b>	<b>No charges for users</b> and the <b>ECB</b> will publish the <b>maximum</b> fees for merchants (will not apply to funding)	<b>Free-of-charge basic use</b> , <b>comparable charges for merchants</b> , <b>fees for PSPs</b> and the <b>ECB</b> will cover its <b>own costs</b>
06.	<b>EXTRATERRITORIAL USE</b>	<b>Staggered</b> approach to granting <b>access to the digital euro</b> to users in countries outside the <b>eurozone</b> and then to <b>third countries</b>	Staggered approach: i) <b>eurozone</b> ; ii) <b>EEA</b> ; iii) <b>third countries under a monetary agreement</b> ; iv) <b>other jurisdictions</b>
07.	<b>FUNCTIONALITIES</b>	<b>Online</b> and <b>offline</b> options available from <b>launch</b> , enabling the use of <b>conditional payments</b>	The existence of <b>online</b> and <b>offline</b> payments while permitting <b>conditional</b> payments and <b>fostering financial inclusion</b>
08.	<b>DISTRIBUTION</b>	<b>Instant settlement</b> of payments, <b>fraud module</b> and compatibility with <b>eIDAS</b> and <b>existing payment methods</b>	<b>Instant settlement of payments</b> and possible <b>existence</b> of a fraud module
09.	<b>PRIVACY AND DATA PROTECTION</b>	<b>Minimise personal data processing</b> by <b>PSPs</b> and the <b>ECB</b>	Facilitate <b>privacy</b> but <b>allow intermediaries to obtain the data</b> required for <b>AML</b> purposes
10.	<b>AML/CTF IN OFFLINE PAYMENTS</b>	<b>PSPs</b> may <b>only</b> retain data of <b>offline</b> transactions relating to funding/defunding and <b>device registration</b>	The intermediaries <b>will not have data on offline payments</b> once the <b>wallet</b> has been funded

Source: European Commission; ECB; Monitor Deloitte

The digital euro also faces significant challenges, such as possible financial instability due to the disintermediation of deposits, with the resulting reduction in financing and its increased cost for individuals and companies, the high investment involved in developing a similar technology to bank card schemes and the difficulty in achieving the international operability of other payment methods.

The digital euro is significant in the context of A2A payments because, essentially, it would offer a service akin to instant transfers. It would therefore be in direct competition with A2A payments. In addition, the ECB is considering the possibility of using the same payment rails that execute instant A2A payments for the digital euro, which would have a drastic effect on the scalability and operativity of the systems (ECB, 2023).

There are four possible future scenarios for the digital euro with various effects similar to A2A payments:

01. The execution of digital euro transfers through the rails of TIPS.
02. The creation of a new rail specifically for the digital euro.
03. The possible aggregation of all the European A2A schemes for the creation of the digital euro.
04. The interoperability of the current payment infrastructures.

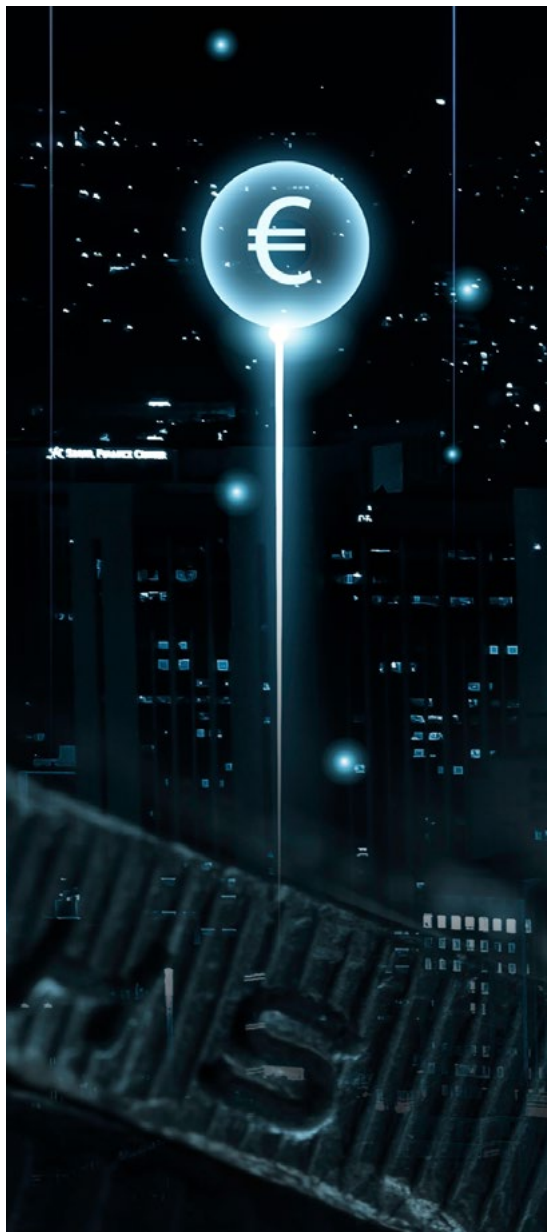
The rail preferred by the ECB for transfers of a possible digital euro would be the Eurosystem’s Target Instant Payment System (TIPS). TIPS, the TARGET instant transfers system used to execute the majority of instant A2A payments could be adversely affected to a considerable extent in this case. Presently, TIPS has a capacity for 40 million daily transactions which, together with the EBA’s STEP2-SCT rail, is sufficient for the daily transactions of the European A2A schemes. However, the ECB envisages the following scenarios for digital euro transactions (Figure 18).

In the worst-case scenario for the adoption of the digital euro in Europe, an average of 3.75 million daily transactions and a maximum of 37.5 million are forecast. This increase in transaction volume would be a challenge for TIPS.

The development by the Eurosystem of a single transfer rail for the digital euro without the need to use TIPS or the other A2A payment rails would require significant investment by the Eurosystem.

**Figure 18: Digital euro adoption scenarios (millions of transactions) (ECB, 2023)**

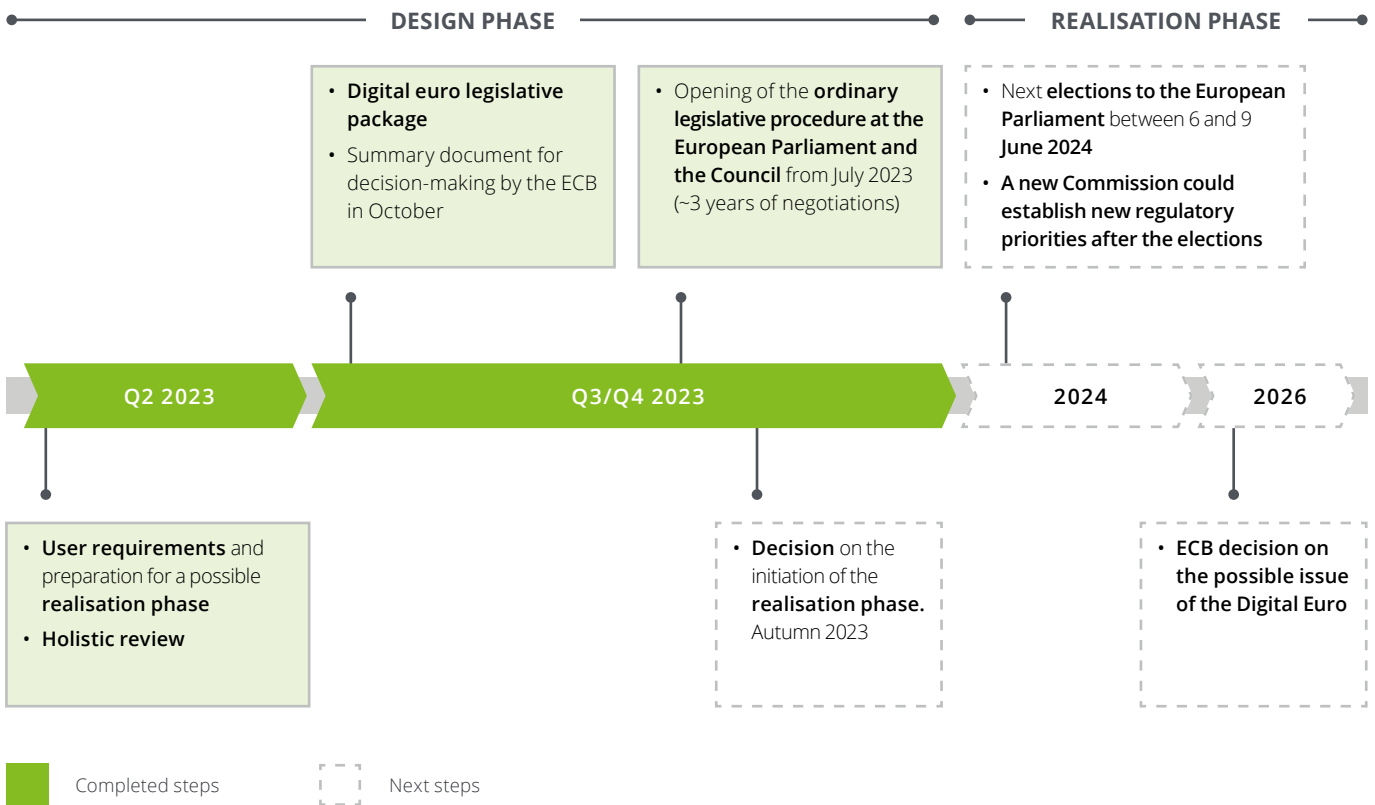
		CONSERVATIVE	MEDIUM	OPTIMISTIC
Daily transactions (M)	DAILY AVERAGE	3.75	55	175
	DAILY MAXIMUM	37.5	550	1.750





The roadmap currently envisaged for the digital euro is as follows:

**Figure 19: Digital euro roadmap**

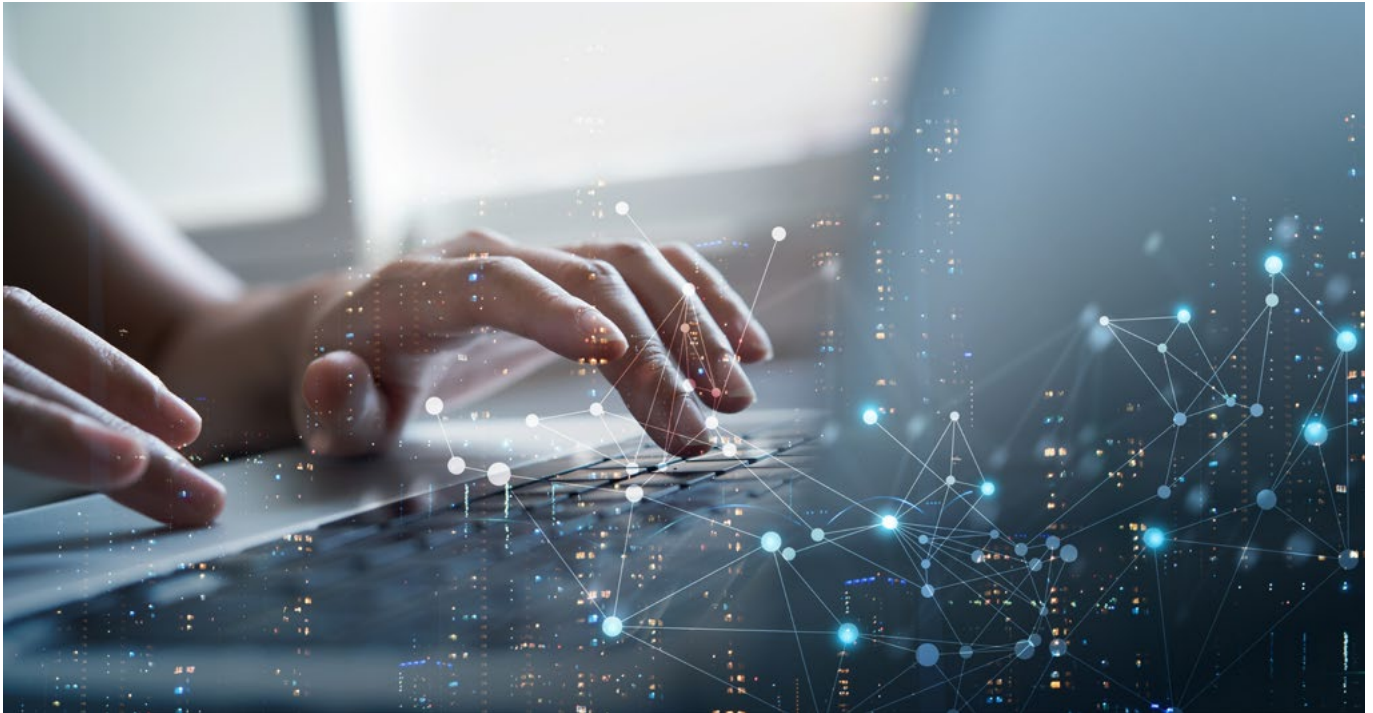


**5.3.3. Consolidation in a single A2A payment scheme**

A very important scenario to assess is the potential integration of the main local players by a single European operator, which could provide a considerable boost for the A2A market. This would have an important impact in terms of geographical interoperability, as it would enable payments to be made using the local payment method abroad thanks to integration in a larger scale payments scheme. Integration would have significant advantages with regard to cost synergies for the development of technologies for companies. It would also have important advantages from an integration standpoint for PSPs, who would have to integrate a smaller number of payment methods, and also for merchants

who would avoid the need to perform numerous integrations every time they wished to add a new payment method.

Although the developments in the Eurosystem offer multiple advantages, there are also several barriers to full application, which include the significant technological development costs and the costs of implementing these solutions. Also, identifying differentiating elements in the use cases with respect to the existing rails is not so obvious and they have stiff competition in the market, making it difficult to find wide acceptance at European level. This can be seen in the case of the digital euro which faces numerous challenges in terms of acceptance, efficient distribution and attracting end user demand.



The United States has also developed its own A2A transfer tool although the difference is that it was created from scratch without the need for acquisitions. The US instant A2A solution called FedNow was launched on 20 July 2023. It supports use cases in P2P, C2B, M2C (merchants to consumer) and G2C. It already has 35 adhered financial institutions and the Federal Reserve expects to be able to give access to more than 9,000 banking institutions. At the moment the solution only allows push payments to be made up to a limit of USD 25,000.

#### 5.4. Sector agreements

At global level, 64 markets operate real-time A2A payments structures. In its latest update, SEPA reported that 2,308 institutions are registered on its instant payment system, 61% of all those that adhere to SEPA. This, together with the growth of companies that invest in A2A schemes, players that create instant payment solutions and users that adopt the solutions, suggest a good outlook for the sector. As

a result, companies innovating in A2A services are starting to experience the advantages of being first movers in instant A2A payments.

Also, the adoption of A2A payments is conditional upon the success of the native players as well as the traditional institutions that are developing their own solutions. Therefore, the competition between the various players is expected to be translated into a significant boost for instant A2A payments. In this context, the competition in instant payments has led to two broad movements:

- Consolidation of the market in which M&A transactions are performed to open up new markets and offer value added services.
- Alliances between native A2A players and traditional institutions who have better brand reputations and a longer track record with customers.



#### 5.4.1. M&A transactions

Due to the limited maturity of the instant A2A payment market, M&A transactions are not yet widespread. Such transactions generally become necessary for consolidated players when no new opportunities for organic growth can be identified and an industry has achieved maturity.

However, certain transactions are being carried out. For example, Trustly has closed four rounds of funding to obtain a total of EUR 23 million and has performed two acquisitions of companies relating to its operations: PayWithMyBank (2019) and Ecospend (2022). These acquisitions enabled Trustly to gain a foothold in the US and UK markets, respectively, and increase its customer base by integrating competitors already established in those countries. The fact that it acquired regulated operators, thereby cutting the time required to obtain regulatory approval to operate is also another possible explanation for these acquisitions.

The acquisitions of iDeal and Payconiq by EPI have also been very significant to the growth potential of A2A payments in Europe because the integration of these solutions will enable EPI to extend business models that have had considerable success in their countries of origin across Europe. In addition, the existing solutions of iDeal and Payconiq will also be enhanced by value-added services from EPI such as instalment payments and digital identity verification.

Also of note is Australian Payments Plus (AP+), which was formed in 2021 through the merger of three payment providers: NPP Australia, Eftpos and BPAY Group. The union of these three businesses enabled AP+ to create a more competitive and coordinated Australian payment organisation that is strategically placed to respond to possible regulatory and technological impacts in the future (Gam, 2022).

Therefore, although intensive M&A activity is not expected in the industry in the short term, such transactions have been key to the international growth of certain players, ensuring their regulatory and technological efficiency, offering value added to their customers, and forming the basis to potentially drive the widespread adoption of instant A2A payments.

#### 5.4.2. Collaborations

Like M&A transactions, collaborations between different payment system players also have an important role to play in driving A2A. These collaborations usually involve two elements: a technological component that develops the solution and a business or commercial component that provides access to a consolidated customer base. In this respect, a widespread trend in 2022 was the creation of alliances between banking institutions and technological providers to supply their customers with instant A2A payment services based on the SEPA scheme. Other examples are Modulr, TrustPay, Citibank and Answer Pay (Ochiana, 2022). The previously mentioned case of ING's Twypp solution and its integration with Bizum is another example of collaborations between entities to improve services and scale solutions at a national level.

In parallel, another type of collaboration is that between fintechs and traditional brands such as MasterCard, Visa or Discover to develop instant A2A payment solutions.

- In June of this year, **MasterCard** announced a strategic partnership with Dapi, a fintech based in the UAE. This collaboration will harness Dapi's expertise in open banking and Mastercard's payment options to provide businesses in the UAE with a secure and optimised A2A payment solution within the Mastercard Payment Gateway Services (MPGS) ecosystem (MasterCard, 2023).
- At the start of 2022, **Discover** created an alliance with Buy it Mobility Networks to offer its customers instant A2A payments through mobile applications. This strategic alliance has enabled more than 12 million merchants across the US to offer the service (The Financial Brand, 2022).

These alliances demonstrate the inherent need for the network effect to ensure the success of instant A2A payment solutions. ING's Twyp and BBVA's Wizzo were discontinued and integrated with other solutions since they provided their services to the users of just one bank. Also, Verse has announced that it has terminated its business due to reaching a ceiling in user growth. Alliances therefore seek to achieve universal availability to trigger the benefits of the network effect and ensure the success of an instant A2A payment solution.

### 5.5. Geographical interoperability

The next challenge for instant A2A payments will be achieving critical mass and developing cross-border capabilities. Most of the A2A services and applications are embedded within the national clearing systems of each country and their international expansion is a complex matter. International financial institutions need to understand the benefits of cross border A2A payments so that they can collaborate to create a viable cross border model (Lawrence, 2022).

One of the problems associated with geographical interoperability is the unavailability of 24/7 payments due to different timetables. Also, the complexity involved in establishing a centralised database for several countries makes widespread accessibility difficult.

The geographical interoperability of instant A2A payment systems is particularly important now due to the fact that current levels of mobility, global economic interconnectivity and foreign investment are at an all-time high. For example, in 2027 cross border e-commerce is forecast to account for 27% of all online sales (Edgar, Dunn & Company, 2021).

Today, the greatest developments in this area are being carried out by traditional financial institutions whose technical innovations are helping to create geographical interoperability for A2A payments. For example, a medium-term horizon for the



development of instant A2A transactions within SEPA appears to be viable thanks to significant advances such as OLO (one leg out). Between 21 June and 7 July 2023, a scheme led by Iberpay and Swift conducted the first pilot of international instant transfers in collaboration with Santander, CaixaBank, BBVA, Lloyds, Itaú and ANZ, marking a milestone in the introduction of OLO technology (BBVA, 2023). The official service will enter into operation on 28 September, will be available 24/7 and accessible by individuals and businesses. Although each bank will decide on the marketing of the service and the associated fees, the launch of OLO has significant implications for instant A2A payments. It could pave the way for the introduction of international instant payment rails for A2A players, enabling them to access the remittance market and cross border e-commerce and compete with other payment methods compared to which they provide significant advantages.



# 06.

## Possible future scenarios





**6.1. Methodology**

With a view to evaluating the alternatives for development facing A2A payments at European level, an process involving the consideration and assessment of possible scenarios was carried out using a scenario planning methodology (Figure 20). This methodology is structured in two sequential phases:

- 01. Identification and analysis of impact variables or uncertainties.
- 02. Development of scenarios based on critical uncertainties.

**6.2. Identification and analysis of impact variables or uncertainties**

According to the study “Future of Money 2035” and the complementary analysis carried out by Monitor Deloitte Spain, four critical uncertainties with a transformational impact on the development of A2A services have been defined.

**1) Evolution of payment rails**

“Payment rails” means infrastructure, networks or protocols that organise and connect the various different players in a payment based on a defined procedure. Thus, they connect the issuer, recipient, processor and other possible players involved in the digital payment value chain in an orderly manner and with security safeguards. In short, a structured flow

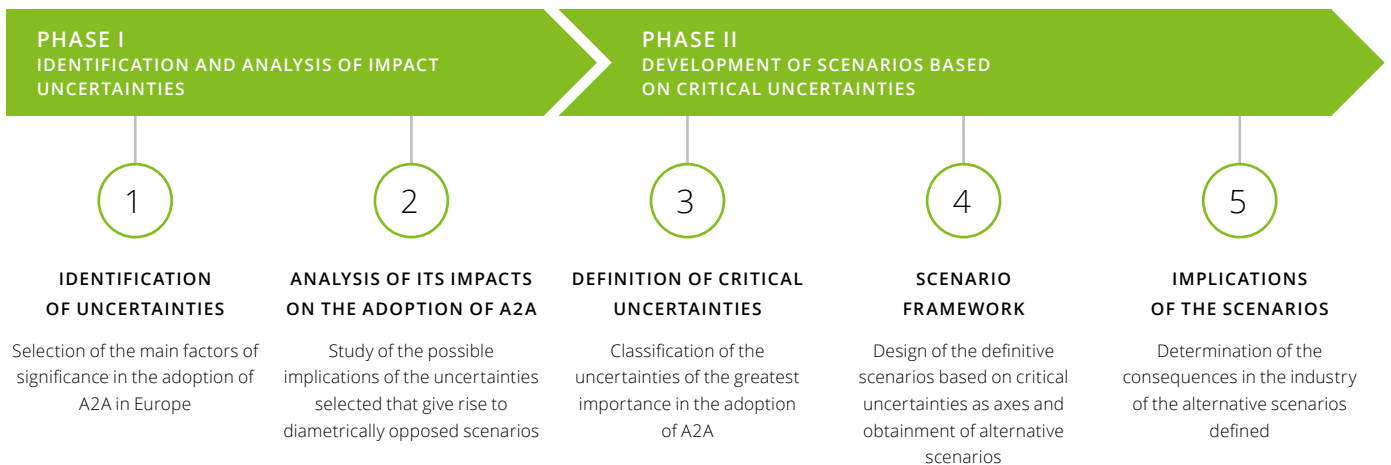
of information that ensures the operability of the various means of payment. Examples of the most common payment rails are card schemes or the SEPA initiative.

In order to carry out transactions within a payment rail, it is necessary to have a communication protocol that guarantees the transmission of information between the participants. These protocols can include standards such as the ISO 20022 standard or SWIFT (Society for Worldwide Interbank Financial Telecommunication) regulations, and are subject to the regulations and standards applicable in different geographical areas (local or continental).

**2) Competitive structure in pan-European solutions**

As indicated above, the current A2A payments ecosystem in Europe is characterised by its atomisation and lack of common value-added functionalities. Therefore, the main market players have a predominantly domestic sphere of operations, due to their origins as solutions for domestic banking groups. This has made it possible for such payments to achieve significant levels of acceptance in the various jurisdictions, although many still have growth potential. However, their international reach is, in general, presently still very limited or non-existent, due largely to regulatory limitations or their own terms of use, such as local customer or account identification directories.

**Figure 20: Scenario planning methodology**





**3) Open banking regulation (PSD3, FIDA, etc.)**

The entry into force of PSD2 facilitated innovation and growth in digital banking, significantly increasing security and protection against fraud. The purpose of PSD3 and FIDA is to revise the measures implemented in 2020 and extend the scope of A2A to all financial transactions including investments, insurance, factoring and reverse factoring or the payment of taxes, thus permitting the exchange of data in a much broader financial services ecosystem. As a differential factor, it will also encompass issues regarding the presence of new players with a major role in the market such as the Big Techs, and aims to implement a reform that facilitates cross-border transactions. The facilitation of the banking information of users, with their prior consent, to new players could lead both to the access of such players to the A2A payments market and to the greater technological and operational disruption of the solutions in the market as a result of the significant market reach of companies of this nature and their investment capabilities and capacity for technological development.

**4) Impact and control of the regulator on the European ecosystem**

The European regulator is promoting or endorsing various public and private initiatives such as the SCT Inst or EPI incentive, which could have a direct positive impact on the adoption of A2A payments. Furthermore, the regulator is working on the design and definition of the digital euro as legal tender (CBDC) in Europe, thus providing a new digital payment alternative. This is particularly significant in the A2A context because it would essentially offer the same service as A2A immediate transfers. The European Central Bank could regulate the digital euro as legal tender and make the adoption of the CBDC by businesses mandatory. A digital euro with lower transaction costs than immediate A2A transfers could represent a major disruption in the prospects for the development of the service.

**6.3. Critical uncertainties**

With a view to proposing alternative scenarios in which the impact of the uncertainties identified is characterised, those that are considered critical have been selected based on five characteristics:

- A. Plausible:** each variable must define a scenario that may occur in the future based on currently identified evidence.
- B. Challenging:** the scenarios proposed must challenge the current situation and must not be merely a slight variation of the present situation.
- C. Balanced:** globally, the scenarios must present alternatives regarding the evolution of and momentum in the adoption of A2A payments that are contrary to the current scenario.
- D. Relevant:** each of the scenarios considered must be relevant to the main issue and its strategic implications for the future.
- E. Divergent:** the critical uncertainties selected will drive the future evolution of A2A in different directions.

Accordingly, the uncertainties relating to the evolution of payment rails and the competitive environment have been considered critical (Figure 22).

**Evolution of payment rails.** Firstly, the interoperability of payment rails is a key element for the interconnection of the various players and geographical areas. Currently, international and intercontinental transactions pose one of the main barriers to the widespread adoption of certain means of payment. Moreover, since the competitive environment of the various different A2A payment issuers and players in Europe on a disaggregated basis in the different jurisdictions limits their capacity for adoption, the existence of a single solution would boost their growth by guaranteeing connection at customer level between the various different geographical areas.

**Figure 21: Scenario planning factors**





**Pan-European A2A structure.** Despite the idiosyncratic component of payments at a domestic level, the pan-European reach of a payment method is a fundamental element for its consolidation as an alternative to existing means of payment.

In this regard, the main idea that led to the promotion of the European Payments Initiative project was precisely the creation of such a pan-European immediate A2A payments structure. On the basis of the ups and downs that the initiative has undergone, there are widely divergent paths down which it could travel (i.e., pan-European solution, regional solution or local player).

**Geographical interoperability.** At the present time, a feature that differentiates cards (both credit and debit) from other means of payment is the international scope of their acceptance. Neither the sound functioning of SEPA transfers nor the increase in the use of domestic A2A payments in each geographical area have addressed the problem of cross-border transactions. To address this issue, the European Payments Council (EPC) is working on the One-Leg Out (OLO) Instant Credit Transfer scheme (EPC, 2023) dedicated to international instant credit transfers in which only one of the participants is located in SEPA. These scheme covers the set of rules, practices and standards to achieve interoperability in the case of the leveraged use of SEPA Payment rails. In this case, the functioning of the solution in terms of payment speed will depend on the structure of the non-Euro Leg of the international instant credit transfer.

One of the benefits of the OLO scheme is its greater up-from transparency on the transaction costs corresponding to each of the parties, as well as a

better payment status traceability via the UETR (Unique End-to-End Transaction Reference). In this connection the maximum amount per transaction is currently EUR 100,000.

Version 1.0 of the rulebook was published in March 2023 and will be revised over the following eight months. After this period, based on the timetable proposed, its launch is scheduled for 28 November 2023. The EPC proposal presents two scenarios for the future adoption of A2A payments in Europe:

- In an unfavourable scenario, according to the EPC proposal, there is a high degree of complexity in the integration with other international payment rails, so both the deployment process and the operation of the different cases of use could give rise to average performance. The differentiating factor in this case will be the cost of use for those participating in transactions of this nature. For the case addressed in this exercise, the negative scenario or scenario with a low impact on the increase in the adoption of A2A payments is considered to that in which the current situation regarding transactions of this kind remains unchanged.
- A favourable scenario, on the contrary, would be one in which the scheme were integrated with the majority of international payment rails, offering the customer a competitive cost per transaction, thereby causing high disruption in the market. The industry is currently dominated by both international card schemes for point-of-sale payments and by fintechs and financial institutions specialising in cross-border transfers, which would see their business model threatened due to their disintermediation due to the expansion of the geographical reach of A2A solutions.

**Figure 22: Scenario planning uncertainties**

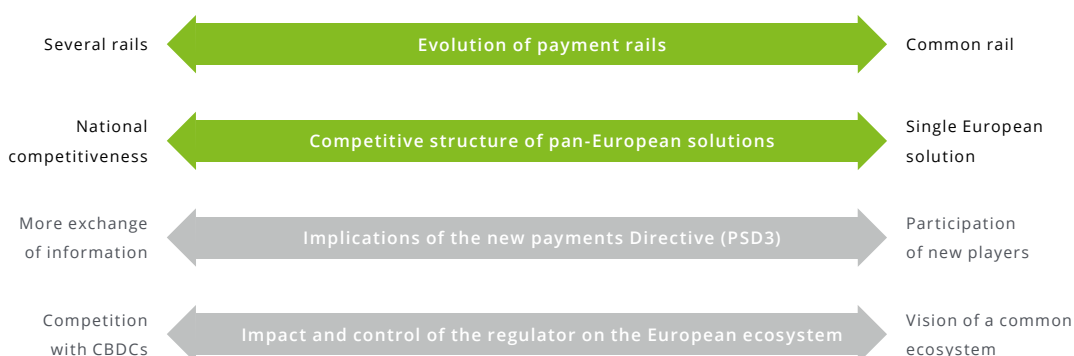
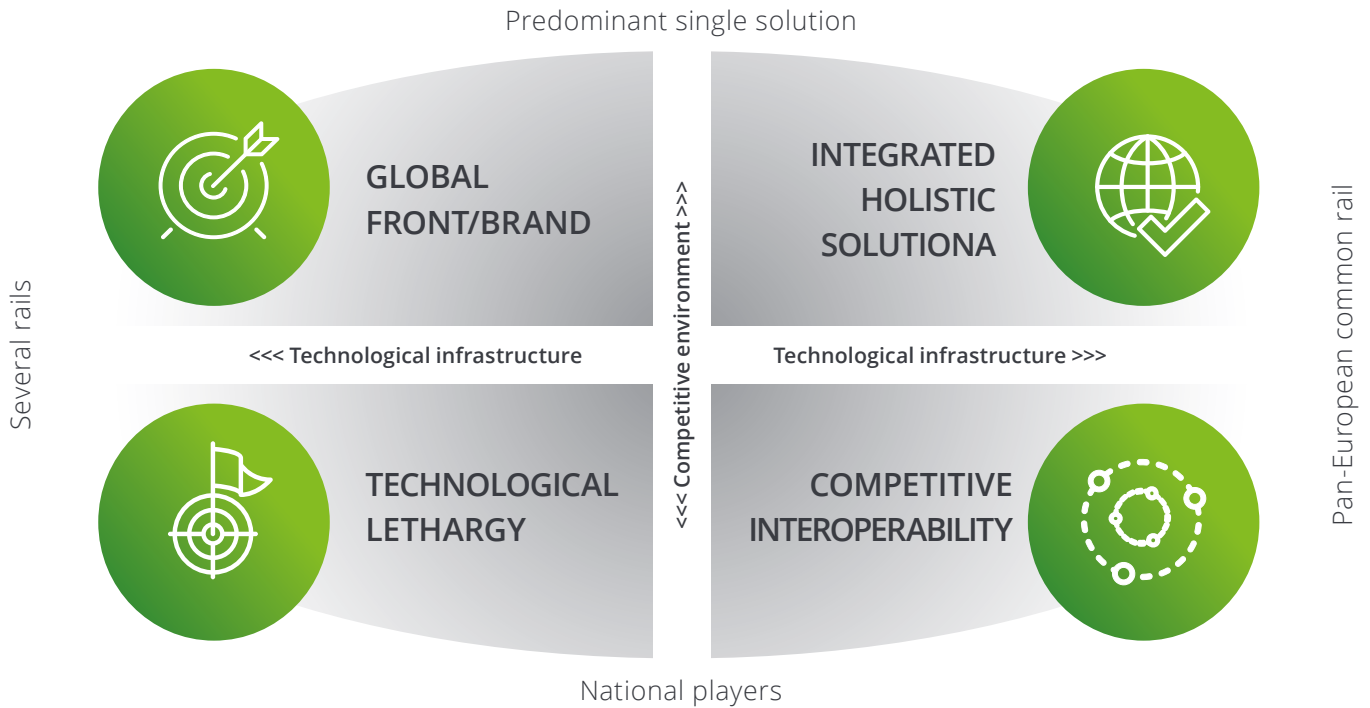




Figure 23: Possible scenarios



01. TECHNOLOGICAL LETHARGY

In an environment in which different solutions or schemes based on geographical areas and the current diversity of payment rails continue to exist, the adoption of immediate A2A solutions as a payments standard for retail customers would be highly unlikely. This scenario envisages the extension of the current market status, in which the growth vector is limited to local operations and always within a portfolio of different payment solutions.



02. COMPETITIVE INTEROPERABILITY

The unification of the technological and operational infrastructure through a common payment rail for the various European solutions would encourage greater adoption of such solutions due to the increase in their basic interoperability. However, if a competitive landscape of dominant players in each geographical area continues to exist, the growth of these solutions and of common value-added functionalities would be limited. The focus of these solutions should be on offering value-added services, as well as enhanced user experience and/or an aggressive pricing policy with the aim of achieving a differentiated position in the market with respect to other solutions with a similar operating framework.



03. GLOBAL FRONT/BRAND

If a European solution/scheme dominates the market by setting itself up as a layer of interoperability on the existing rails, it would foreseeable be possible to achieve sufficient scale at a commercial level by gaining customers clients and transactions, but at a significant cost due to the operational complexity and recruitment effort involved, in both organic and inorganic terms. The reuse of current payment infrastructure and the connection thereof could facilitate the rapid deployment of users and represent an efficient solution, but the challenge of implementing common value-added solutions would continue to be an unresolved issue.



04. INTEGRATED HOLISTIC SOLUTION

The scenario with the greatest degree of momentum for A2A payments is that in which the single rail platform and the presence of a global European solution merge. A single payments rail would provide interoperability and facilitate the integration of all stakeholders as it would representing a single point of connection. However, consolidating the European competitive scheme would increase the critical mass of users and transactions in order to create the necessary scalability in terms of volume and commercial effort. Implementation would be slow and costly, since it would have to coexist with current solutions without reusing the investments made in multiple markets in recent decades.



### 6.4. Scenarios

Combining the critical uncertainties and their opposing alternatives, four possible future scenarios regarding the evolution of A2A in Europe are obtained (Figure 23).

#### 6.4.1. Outlook

Our starting point is, unequivocally, the technological lethargy scenario, with a profusion of rails and a high level of fragmentation at international level.

From there, A2A is expected to evolve along three basic axes:

- The adaptation of the currently existing multilateral interconnection solutions.
- The generation of a common “umbrella” rail that permits transactions between markets that do not have multilateral interconnection solutions.
- The creation of a single solution or scheme that progressively defines new functionalities and common rules that must be implemented in all the solutions described above.

This evolutionary roadmap would involve rapid adoption based on high local value added and basic interoperability, which would evolve with new common value-added services and allow for competitive rails based on the future availability of a common rail and other interconnection options. This would be aligned with a “SEPA spirit” where different processing solutions can coexist in a single scheme. In addition, it would make it possible to coexist with specific solutions for each local market, avoiding a loss of value for customers.

### 6.5. Implications

The various different scenarios described above represent alternative pathways for the development of A2A in Europe in the coming years depending on the technological infrastructure used and the competitive landscape. For each, different implications can be projected at market level between the different types of entities involved.

Figure 24: Scenario planning implications

	01. TECHNOLOGICAL LETHARGY	02. COMPETITIVE INTEROPERABILITY	03. GLOBAL FRONT/BRAND	04. INTEGRATED HOLISTIC SOLUTION
<b>REGULATORS</b> (E.G. BCE, CE)	<ul style="list-style-type: none"> <li>• Operational and regulatory complexity</li> <li>• Dependence on foreign players</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in visibility of operations</li> </ul>	<ul style="list-style-type: none"> <li>• Simplicity of operational and regulatory management</li> </ul>	<ul style="list-style-type: none"> <li>• Simplification of the European regulatory scenario</li> <li>• Strengthening of position vis-à-vis foreign players</li> </ul>
<b>BANKS</b>	<ul style="list-style-type: none"> <li>• Limitation of potential for capturing market share</li> <li>• Robustness in the local environment</li> </ul>	<ul style="list-style-type: none"> <li>• Pressure on innovation and prices</li> <li>• Difficulty involved in international integration</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of loss of market share vs. current domestic solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunity for exiting current solutions</li> </ul>
<b>SCHEMES AND BRANDS</b>	<ul style="list-style-type: none"> <li>• Robustness and retention of competitive advantages</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity for entry through acquisition of local solutions and intermediary providers(e.g., AISPs)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased competitive intensity between rails</li> </ul>	<ul style="list-style-type: none"> <li>• Need to pivot the business model</li> </ul>
<b>PAYMENT SERVICE PROVIDERS</b> (E.G., GATEWAYS, ORIGINATORS)	<ul style="list-style-type: none"> <li>• High costs derived from the integration of various different solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunity in new use cases and entry of new players</li> </ul>	<ul style="list-style-type: none"> <li>• IT integration complexity</li> <li>• Pressure for differentiation through</li> </ul>	<ul style="list-style-type: none"> <li>• New alternatives in use cases and global interoperability</li> </ul>
<b>USERS</b> (E.G. PRIVATE INDIVIDUALS, COMPANIES, MERCHANTS, CORPORATES)	<ul style="list-style-type: none"> <li>• Dependence on international solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Price reduction benefits</li> <li>• New use case in international transactions</li> </ul>	<ul style="list-style-type: none"> <li>• Simplicity in the use case due to greater acceptance</li> </ul>	<ul style="list-style-type: none"> <li>• New alternatives in use cases and global interoperability</li> </ul>



# 07.

## Impact of means of payment on the sector and the future outlook





**7.1. Expected trend in the payment instrument mix**

As indicated in Section 4.4.3, A2A in Spain has experienced exponential growth since its launch in 2017, primarily driven by Bizum. With a CAGR of 140% until 2022 (Figure 11), instant payment transfers already account for 30% of all fund transfers in Spain. However, it is also important to analyse the penetration of A2A as a retail payment system Instant A2A payments have gained in relative importance in the area of e-commerce in various countries in the European Union. For this reason, an analysis has been carried out of the mix of online payment instruments in Spain and comparable countries to determine their impact on the payment methods sector.

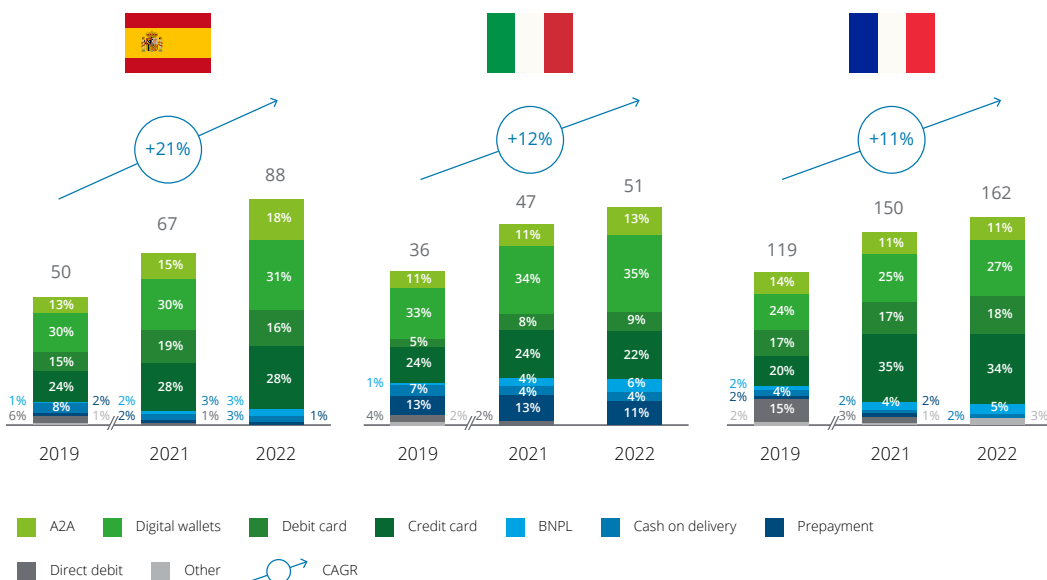
Instant A2A payment methods at POS are a relatively new concept thanks to proximity payment technologies such as NFC, pay-by-link and QR codes, although their use is still at a very early stage.

Therefore, this document does not analyse the impact of instant A2A on the mix of POS payments. However, this method has been considered in the future outlook for the sector.

**7.1.1. Evolution of the payment instrument mix in e-commerce in Spain and comparable economies**

Since their launch in 2019, instant A2A payments in Spain have grown to account for 18% of total e-commerce payments. Although instant A2A payments in comparable economies such as Italy and France represent a similar percentage, their growth has been more modest in comparison with Spain. In both Spain and France the importance of cards in online payments has grown significantly, and no cannibalisation effect has been observed with the entry of instant A2A payments and other alternative means of payment, such as BNPL. However, their growth has led to a decrease in the market share of cash-on-delivery and pre-payment and direct debit cards.

**Figure 25: Evolution of the e-commerce payment mix in the economies of Southern Europe (total e-commerce revenue, billions of US dollars; % of means of payment market share by volume; 2019 - 2023) (WorldPay from FIS, 2020) (WorldPay from FIS, 2022) (WorldPay from FIS, 2023)**





Digital wallets (e.g., PayPal) also play an important role in e-commerce in Southern Europe. In all the countries analysed, this means of payment has ranked first or second in terms its share of e-commerce volume. Wallets have also shown moderate growth in all three countries which would suggest that instant A2A solutions do not pose significant competition, possibly due to similarities in user experience (immediacy, security and ease of use).

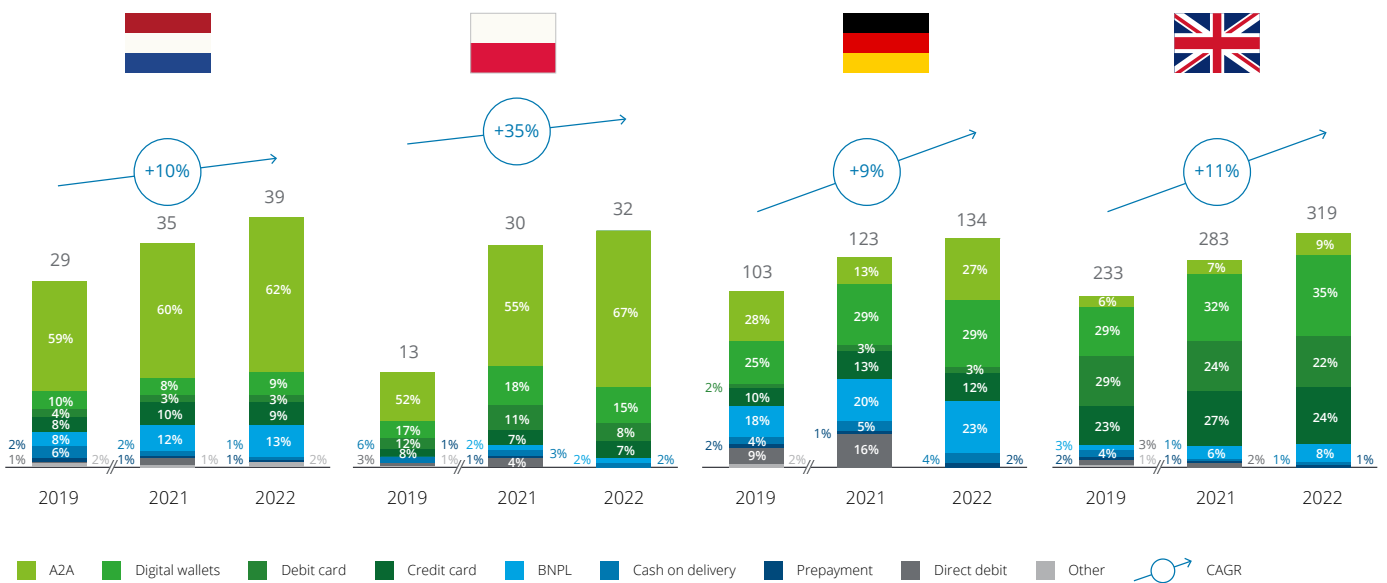
In contrast, in Northern Europe the e-commerce payment mix is significantly different. With the exception of the United Kingdom, debit and credit card market shares are much less significant, with a share of 12%, 15% and 15% in the Netherlands, Poland and Germany, respectively, in 2022. This situation may perhaps be due more to historical and cultural reasons than economic, technological or regulatory ones. However, notwithstanding this situation, BNPL has enjoyed great success in Germany and the Netherlands, while it is starting to gain traction in Poland thanks to the entry of BLIK

Pay Later, the BNPL solution offered by the country's leading A2A service provider.

When analysing the payment mix in these countries in the context of A2A it is important to consider the year in which their respective solutions were launched.

- The Netherlands and Germany became the first countries to have access to instant A2A in 2005, thanks to the launch of iDeal and Sofort, respectively. In both countries, instant A2A has captured a significant share of the e-commerce payments, although the share is considerably higher in the Netherlands due to the dominance of iDeal.
- The United Kingdom has also had access to instant A2A since 2008 thanks to FPS<sup>10</sup>, although it has not been widely adopted.
- BLIK was launched in Poland in 2015 and has grown to account for almost 70% of the country's e-commerce payment transactions.

**Figure 26: Evolution of the e-commerce payment mix in the economies of Northern Europe (total e-commerce revenue; billions of US dollars; % of means of payment market share by volume; 2019 - 2023) (WorldPay from FIS, 2020) (WorldPay from FIS, 2022) (WorldPay from FIS, 2023)**



10. Faster Payments Service.

Historically, Nordic consumers and businesses have been familiar with the technology. In fact, the Nordic region is usually among the regions with the highest level of digitalisation. This, combined with a high Internet penetration, and the large number of smartphones in the population, has enabled them to become one of the most mature e-commerce markets in the world. For this reason, the use of the alternative payment methods (A2A, wallets and BNPL) is common in Nordic online business transactions with a cumulative market share of 71%, 65% and 48% in Finland, Sweden and Denmark, respectively. However, despite access to MobilePay, A2A has not been widely adopted in Denmark. In fact, its use of e-commerce has reduced in recent years. The Danish example may indicate that a population that is familiar with the technology and with a tendency to use alternative means of payment does not guarantee the adoption of instant A2A.



**Figure 27: Evolution of the e-commerce payment mix in the Nordic economies (total e-commerce revenue; billions of US dollars; % of means of payment market share by volume; 2019 - 2023) (WorldPay from FIS, 2020) (WorldPay from FIS, 2022) (WorldPay from FIS, 2023)**

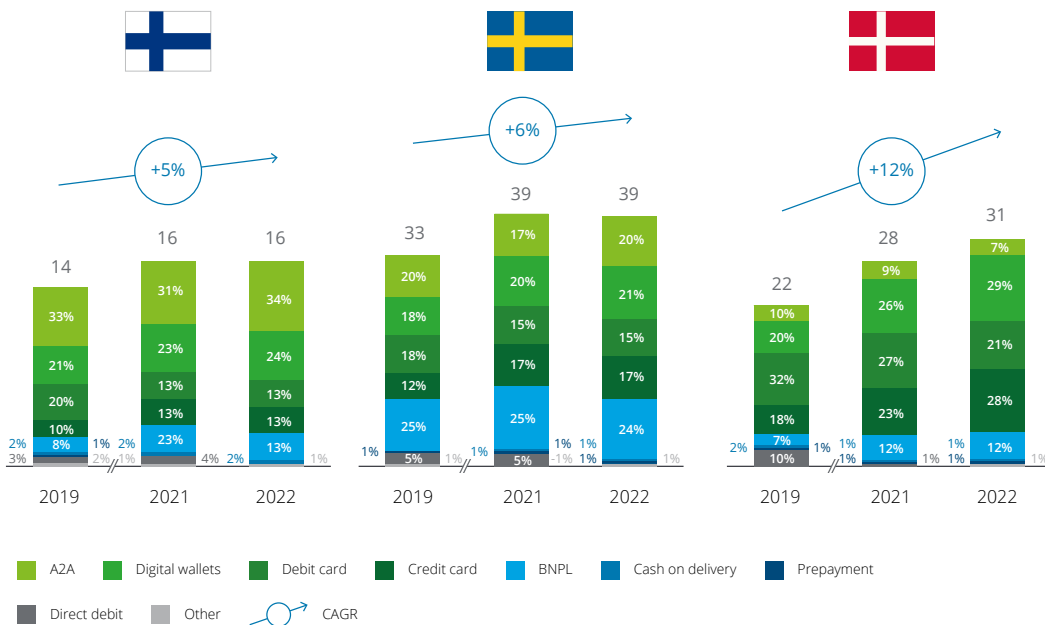
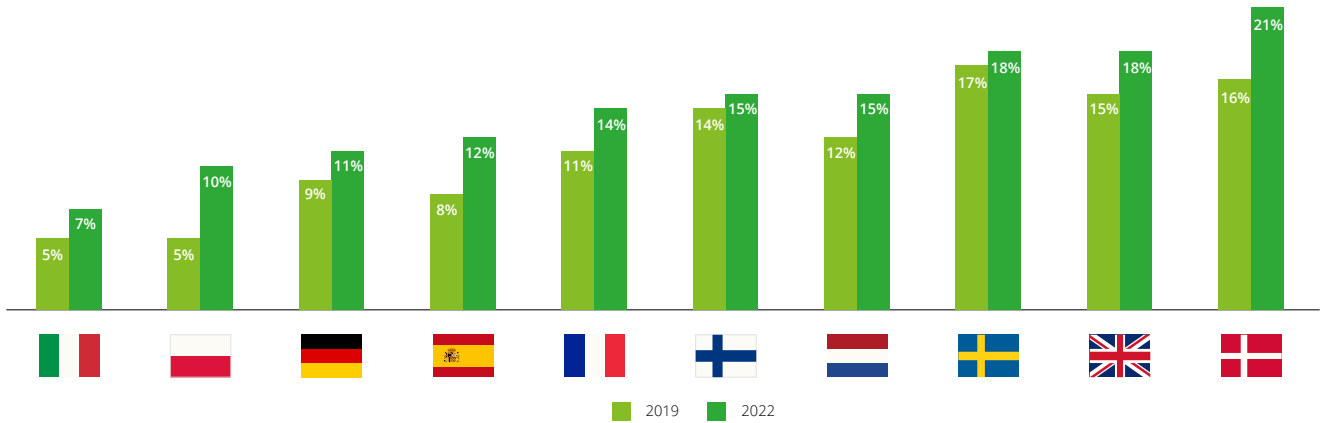




Figure 28: e-commerce as a percentage of the total volume of business revenue (%; 2019 - 2022)



Although the market share of cards has grown in Spain and Italy, it has remained stable or reduced in the other countries analysed. This may be due to the rapid growth of e-commerce and the relatively low proportion of total business sales it represents in these countries. This growth has mainly been due to the impact of the covid-19 pandemic, which boosted online trade in the countries where the sector was less developed (Figure 28).

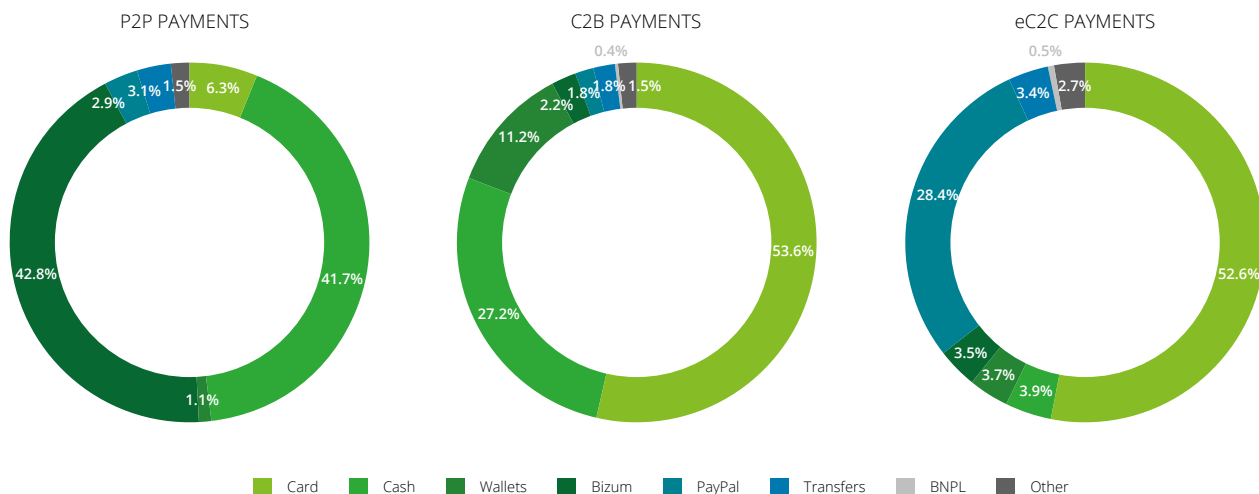
**7.1.2. Preferences by use case in Spain**

In July 2023 Monitor Deloitte conducted a survey of 1,100 Spanish citizens with the aim of identifying the preferred means of payment methods by use case

of the national population and understanding the positioning of instant A2A as one of these methods.

In the area of P2P, consumer preferences are led by cash or Bizum, with around 85% of Spanish citizens stating that these are their favourite means of payment. When it comes to cash, the population that prefers this method is mainly found in the oldest segment, with 54% of Spanish citizens over 54 years of age. Therefore, instant A2A is firmly rooted in the Spanish population in the area of P2P and as its main competition (cash) is used mostly by the older population, it is expected to grow in importance in the future. Spanish citizens also tend to prefer

Figure 29: Means of payment preferred by Spanish population by use case (% of population; 2023)





cash for P2P payments of smaller amounts (<EUR 5), although once the amount exceeds EUR 5, the population opts for Bizum rather than cash.

However, although instant A2A is the primary solution in Spain, there is still a residual preference for C2B and eC2B, with a share of 2.2% in physical stores and 3.5% in online trade. For physical stores, debit and credit cards, cash and smartphone wallets dominate, whereas in online business transactions, Spaniards tend to use cards and PayPal. The population segment that shows the greatest preference for Bizum in these areas is the segment that has a financial education or is employed in a finance-related activity. It may be concluded that instant A2A has room for growth in payments to businesses in Spain, but this will depend on its value proposition and consumers' reluctance to change payment methods.

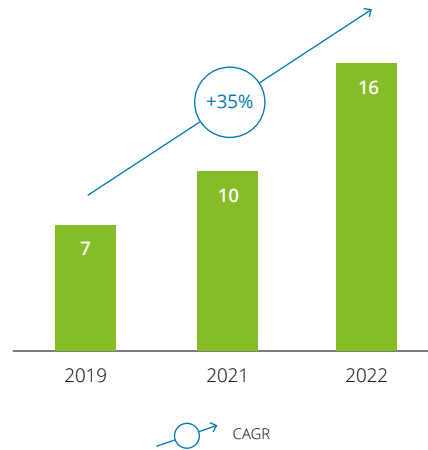
**7.1.3. Future outlook of instant A2A in Spain**

Of all the countries analysed, Spain is one of the most important countries, second only to Poland, in terms of volume of e-commerce revenue growth, with a CAGR of 21% (Figure 25). In addition, the growth of instant A2A payments increased at a CAGR of 35% from 2019 to 2022 (Figure 30).

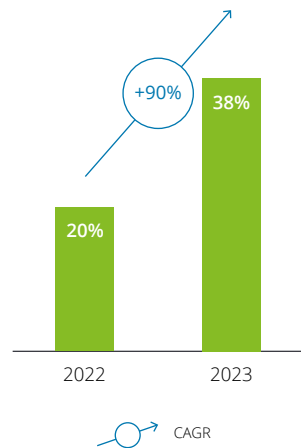
At the same time the acceptance of instant A2A payments in online sales has increased significantly due to the deployment of the Bizum solution for businesses.

However, in order for these two factors to translate into the widespread adoption of instant A2A as the benchmark e-commerce payment method a number of other factors also need to converge. As analysed in Section 7.1.1, the factors that drive the adoption and use of instant A2A are diverse. For example, adoption and use may be independent of the age of the solution, as is the case in the United Kingdom, or of the population's digital trends, as in Poland and Denmark. However, if there is a common factor in the countries in which instant A2A solutions have been a resounding success, it is the cooperation between banks and the institutional actions that have allowed:

**Figure 30: Volume of instant A2A payments in Spain in e-commerce (billions of US dollars; 2019 - 2022)**



**Figure 31: Percentage of online businesses in Spain that accept Bizum as means of payment (%; 2022 - 2023) (Adyen, 2023)**



- Accessibility to the greatest number of people.
- A low cost for the end user.
- A good user experience based on ease of use.
- A unified value proposition.





In Spain, Bizum meets several of these criteria in the P2P user case, but still has room for improvement in terms of value proposition in C2B and eC2B. It is also important to bear in mind that Bizum is not the only instant A2A in Spain. Spanish banks also offer instant SEPA A2A transfers, although they are usually quite costly and vary from bank to bank. An example of an instant A2A solution that has been driven by a central player is Brazil's highly successful PIX, which has grown to account for a higher percentage of the payment transactions than credit and debit cards combined (IMF, 2023).

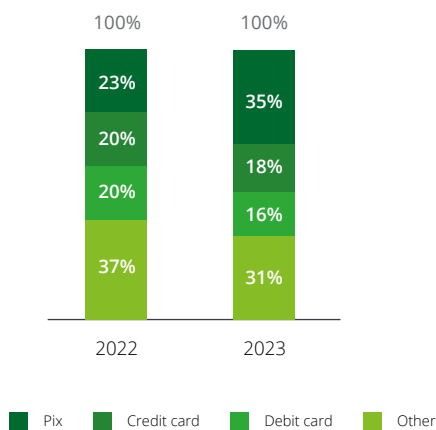
Faced with this situation, traditional operators are preparing for a scenario in which instant A2A becomes widespread. Visa's acquisition of Tink and MasterCard's and Discover's collaborations with Depi and Buy It Mobility Services (see Section 5.4.2) provide further evidence of the change that A2A payments pose to the payment methods landscape.

## 7.2. Impact on key players

### 7.2.1. Brands and schemes

In recent years, the role of international brands has benefited from the decline in the use of cash and the growth of online trading. However, businesses are beginning to explore alternative payment systems with attractive value propositions in terms of added value. In fact, many businesses are adopting instant A2A payment systems and promoting them to their customers. These promotions can take the form of loyalty plans, as in the case of Buy It Mobility, whose users receive a 25 cent per gallon discount on fuel purchases using their method of instant A2A payment (The Financial Brand, 2022).

**Figure 32: Payment method market share of transactions in Brazil (%; 2022 - 2023) (Finextra, 2023)**





**7.2.2. Other digital players**

Other players that could be affected by the growth of instant A2A are digital wallets such as PayPal or the Big Techs that are trying to enter the payments and financial services ecosystem.

The payments business has been identified as one of the priority business areas for certain Big Techs as a way to enter the financial services business. Big Techs have developed proprietary payment solutions around their core business lines with the aim of enhancing their value proposition and strengthening their relationship with the end user.

For example, Apple began to launch payment products through Apple Pay, its digital wallet preloaded in its electronic devices. Apple has developed new products based on this solution, such as the issuance of a credit card or savings accounts through a long-term agreement with Goldman Sachs. It also launched Apple Cash (Apple, 2017) in 2017, a prepaid digital card stored in its wallet to make physical or online C2B payments and P2P payments using its proprietary messaging solution (iMessage). This solution allows its users to transfer money between individuals without having to leave the Apple environment.

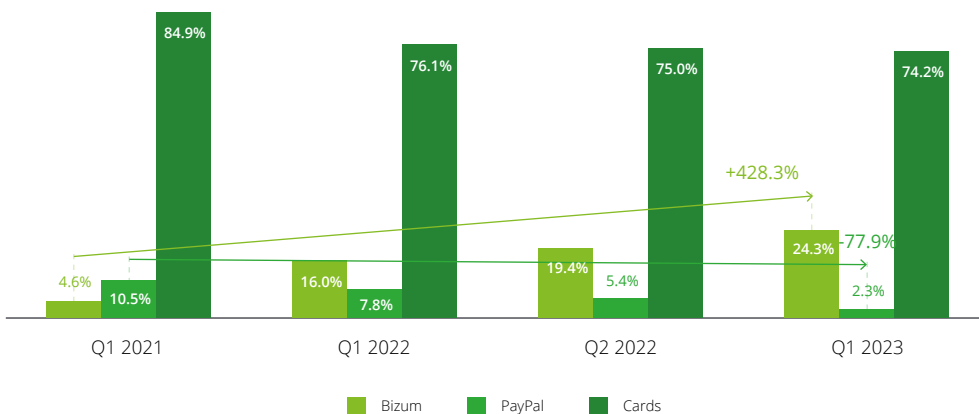
Like Apple, Google also launched a digital wallet through its Google Pay app in 2011. This app was enhanced with Google Pay Balance and Google Pay Card in 2021, enabling instant P2P payments (albeit solely through the app balance).

In turn, Amazon launched its own proprietary digital wallet to improve the online experience for users by leveraging a value proposition based on the sale of insurance or enhanced protection against fraud. In India in 2019 Amazon also launched an additional solution through its wallet, allowing users to make instant payments between bank accounts.

In short, Google, Apple and Amazon have developed their own digital wallets, although only Amazon actually offers a direct instant payment solution via bank transfer.

In Spain wallets such as PayPal or those offered by the Big Techs could be threatened by instant A2A. For example, since the introduction of Bizum as a means of payment in Monei in Q1 of 2021, its market share in terms of volume traded via the PSP has increased by more than 400%, while PayPal's share has fallen by around 80% over the same period.

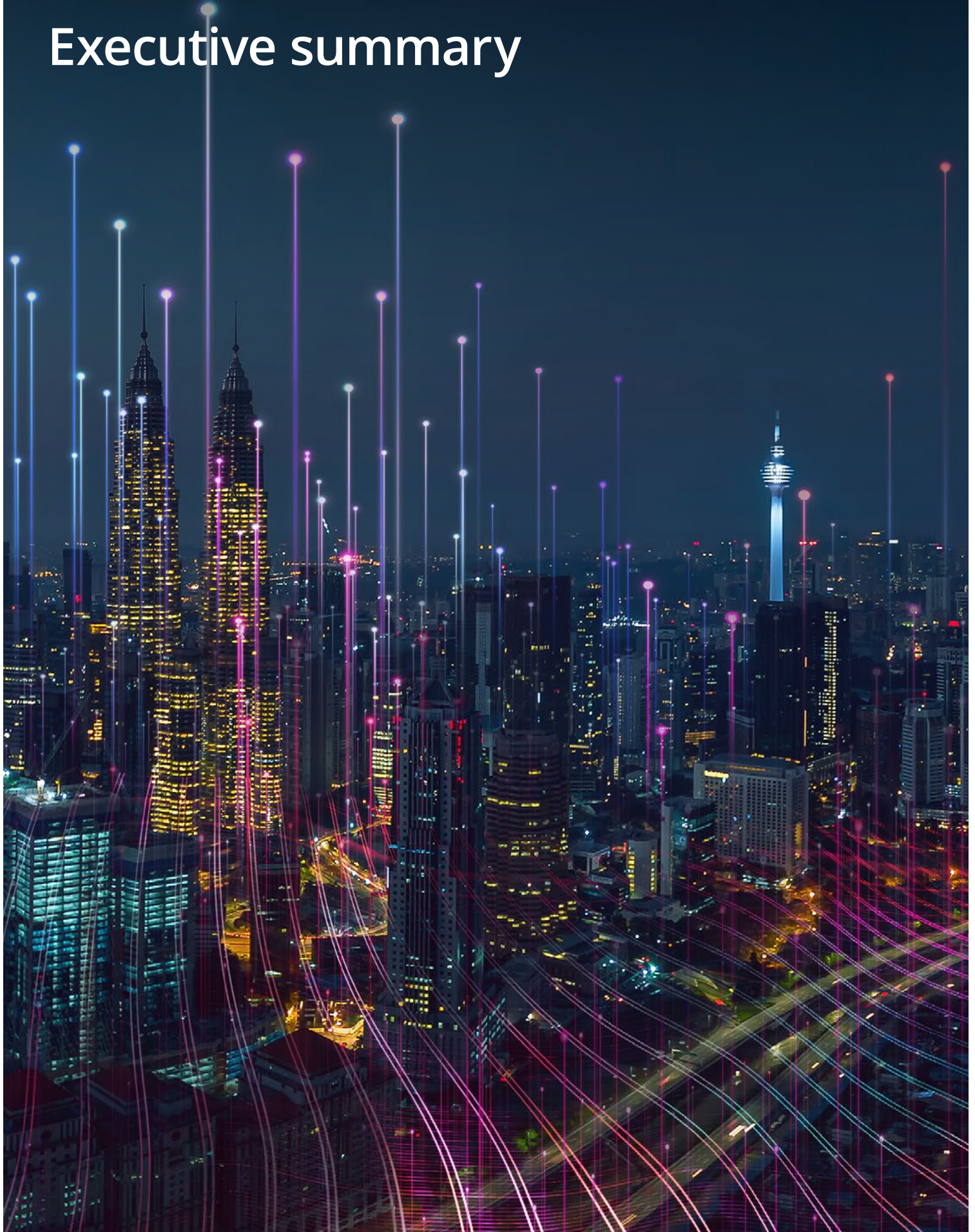
**Figure 33: Payment method market share of businesses using Monei in Spain (%; 2021 - 2023) (Monei, 2023)**





# 08.

## Executive summary



As analysed in this report, instant A2A transfers are one of the payment solutions with the highest level of innovation and potential for adoption in Europe. Firstly, this situation has arisen because instant A2A strengthens one of the three pillars of the European retail payments strategy, which is to achieve sovereignty in means of payment. For this reason, this method of payment has been promoted by the EU regulatory framework. Its potential also lies in the improvements it offers in the overall execution time of payment transactions, its interconnectivity with proximity payment technologies and the possibility of making payments without the presence of the user. These features could enhance user experience and widen the range of possible use cases compared to traditional means of payment.

The value proposition offered by instant A2A payments compared to other payment solutions lies in the disintermediation resulting from the way they function since they are carried out directly between financial institutions through a clearing house. In this way, they offer neutrality and openness as they are not tied to brands and are available to third parties, particularly in the context of open banking deployment. This reality does however hinder innovation and evolution of common added values.

Part of the growth in A2A payments in Europe has been driven by the favourable regulatory environment following the entry into force of PSD2. This regulatory framework has favoured the emergence and rise of new fintechs such as the PISPs, whose core business is the initiation of this type of transaction. In addition, several regulatory standards (DMA, DSA, PSD3 and FIDA) related to digital payments and information usage are under development, as well as the European Commission's proposal on instant payments, which is expected to give an even greater boost to this means of payment. However, certain initiatives, such as anti money laundering initiatives, can slow down the growth of A2A entities. Accordingly, the European regulator's objective in the digital payments sector is to promote innovation and competitiveness, while laying the foundations to support financial stability and consumer protection.

From a competitive standpoint, there are currently a host of domestic solutions in Europe driven by banking groups and start-ups. The domestic

solutions with the longest track record have led to high e-commerce market shares for instant A2A payments in countries such as the Netherlands (62%), Poland (67%) and Germany (27%), while more recent initiatives, for example, in Spain (18%) show potential for growth (+7 p.p. vs 2019). The most successful solutions in terms of consumer adoption share internal factors such as the payment experience and universal accessibility, and also require high levels of digitalisation and banking penetration.

On the other hand, while it is true that these solutions have achieved significant levels of adoption in their field, they have yet to address the main operational barriers to scale up their scope and make their use universal beyond their national borders. In order to achieve this objective, interconnected or shared payment rails that guarantee their interoperability between the different countries or a single rail in Europe are required. Once an interconnected or shared infrastructure is achieved, the competitive pan-European framework would need to be unified. Despite the success of the current solutions in their respective jurisdictions, there is no significant European-wide operator. EPI's new proposal as a pan-European A2A solution could be the first step towards this scenario.

If A2A payments continue to proliferate and gain market share in the payment mix, this could have a significant impact on the current ecosystem and the different players comprising it. Both the traditional card operators and the newcomers (fintechs and Big Techs) are developing solutions to compete in this new means of payment, anticipating a highly competitive market.

Lastly, the potential implementation of a possible Digital Euro or other CBDCs in the coming years could give rise to a new scenario for analysis, as the use cases for both means of payment are completely interchangeable.

In summary, the world of payment services is currently immersed in a period of maximum uncertainty, in which traditional operators and newcomers, service providers and users will have to constantly monitor the evolution of the main variables in order to take advantage of the opportunities and mitigate the risks that arise in the future scenario.

# 09.

## Appendix

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# Glossary

**Account-to-account (A2A):** payment made directly between bank accounts without the need for additional intermediaries.

**Account Information Service Provider (AISP):** approved provider of account information services

**Application Programming Interface (API):** intermediary software component that enables two different applications to connect to one another and exchange data.

**Business-to-Business (B2B):** payments made between businesses.

**Business-to-Consumer (B2C):** payments made between a company and a consumer.

**Business-to-Government (B2G):** a payment from a business to the government.

**Buy Now Pay Later (BNPL):** a method for financing payments that splits payments into short-term interest-free instalments and involves fewer formalities thereby enabling instant financing and an enhanced user experience.

**Bluetooth Low Energy (BLE):** payment process carried out on a business' app using Bluetooth. In this process the business detects the customer's presence via Bluetooth and allows the customer to access their account and, after authentication, make a payment from their account.

**Consumer-to-Business (C2B):** payments made by a consumer to a business.

**Compound Annual Growth Rate (CAGR):** compound annual growth rate

**Central Bank Digital Currency (CBDC):** a digital asset for general use issued by a central bank for circulation among the population and businesses.

**Clearing:** refers to the activities carried out during the payment process prior to settlement of the payment which include data transmission, payment order confirmation and establishment of the final positions of the transaction.

**QR codes:** a payment method used by businesses for physical payment by scanning a customer's smartphone screen.

**EBA Clearing System:** one of the payment networks available in the SEPA ICT scheme to transfer funds from one bank account to another.

**Embedded finance:** the integration of financial services in businesses outside retail banking to provide an enhanced user experience.

**European Payments Council (EPC):** an organisation created for the purpose of promoting the use of payment instruments in euros, which is currently in charge of managing the Single Euro Payments Area (SEPA) and aims to contribute to the development of an efficient, convenient and sustainable payment system.

**European Payments Initiative (EPI):** initiative backed by the European Central Bank to create a joint pan-European payment solution (which achieved significant success at its launch with the support of 15 major financial institutions, including Deutsche Bank, Rabobank and ING).

**Messaging scheme:** a common platform based on a messaging standard to exchange financial information among systems, institutions and regions. It offers a means of communication between major financial institutions that engage in instant transactions.

**FIDA Regulation:** regulatory framework for access to financial data which introduced the concept of Open Finance.

**Faster Payments System (FPS):** a system enabling same-day digital payments to be made in the United Kingdom which is valid for both low and high value transactions.

**Government-to-Person (G2P):** a type of payment in which the government makes a payment to a specific user.

**Payment Initiators:** external service providers that facilitate bank transfers between payers and businesses through payment gateway systems.

**Geographical interoperability:** ability to share data and perform transactions with other geographies.

**ISO 20022:** a basic standard for message exchange between financial institutions used by SEPA iCT.

**Know Your Customer (KYC):** process used by financial institutions to verify their customers' identity.

**Near Field Communication (NFC):** technology enabling payments in close proximity either by means of a contactless card or a digital wallet, but without the need for physical contact with the reading device.

**One-Leg Out (OLO):** scheme led by Iberpay and Swift for the development of geographical interoperability which came into force on 28 September 2023 to facilitate international payments.

**Open Banking:** a new step in banking digitalisation which opens up users' banking data to third parties.



**Open Finance:** principle of financial data exchange in which customer data is shared by several entities. Open Finance will extend the sharing of payment data to any financial institution, covering such areas as savings, investment and insurance.

**Peer-to-Peer (P2P):** instant payment transaction between two people in which one makes a payment and the other receives it (e.g., transfer to a friend using Bizum).

**Multi-currency payments:** a type of payment solution that allows customers to pay for their transactions in their native country's currency and the business continues to receive the payment in the destination country's currency (i.e., in euros in Europe).

**Push:** manual or automatic payments initiated by the payment issuer (the consumer in a B2C context).

**Pull:** payments initiated by the payment recipient (the business in a B2C context) with the explicit consent and prior authentication of the issuer.

**SEPA payments:** these refer to any payment made in euros by means of the Eurosystem payment systems without foreign intermediaries (EPC, s.d.).

**PISP (Payment Initiation Service Provider):** provider that initiates payment by withdrawing money from the payer's account without the need for a bank card.

**POS payments (Point of Sale):** payments that take place at the physical point of sale.

**Payment processor:** an entity that transfers the transaction data between the customer's issuing bank and the acquiring bank.

**End-to-end process:** refers to the complete payment process from the beginning of the transaction to the completion of the payment.

**Second revised Payment Services Directive (PSD2):** European directive on electronic payment services that aims to drive transparency, competition and innovation in payment services in the finance sector.

**Third revised Payment Services Directive (PSD3):** European Union payment directive which is expected to improve the security and transparency of payments made through the development of Open Finance. The first draft of this legislation was published in June 2023.

**Payment Service Providers (PSPs):** a general term to define payment service providers.

**Payment rails:** the infrastructure that supports transactions by connecting all the parties to the payment transaction and enabling its appropriate processing.

**Real Time Gross Settlement (RTGS) payment system:** a system which facilitates the transfer of funds from one bank account to another. Known as the clearing and settlement system, it ensures that each transfer is settled, securely and accurately, in gross terms in compliance with the rules imposed by the RTP channel.

**Request to Pay (RTP):** a communication system that enables the payee to make a request to the payer to pay a bill.

**SEPA Instant Credit Transfer (SCT Inst or SEPA iCT):** Single credit transfer (SCT) payments made instantly.

**SEPA Payment Account Access Scheme (SPAA):** a scheme that allows the exchange of payment account-related data among payment service providers acting as asset holders and TPPs.

**Settlement:** process of discharging the payment obligations between the payer and the payee which is completed with the transfer of funds to the payee's account.

**Real Time Payment System (RTPS):** a payment system enabling instant credit transfer. It creates the rules and standards used for processing and clearing, and provides banks with the messaging structure for the communication of transactions.

**Study on the payment attitudes of the consumers in the euro area (SPACE):** a study carried out by the ECB to understand consumer demand and trends in the payment market.

**SEPA Request to Pay (SRTP):** a SEPA Request to Pay scheme created by the European Payments Council.

**Target Instant Payments (TIPS):** a payment service infrastructure that enables the performance of real-time payments used for the vast majority of instant payments in Europe.

**Third Party Providers (TPPs):** third party providers in charge of performing any of the payment services, such as accepting payments made by credit card, online payment or other alternative means of payment.

**POS terminal:** a point of sale terminal is a device used by businesses to manage sales in a unified manner.

**Traditional transfers:** these are transfers in which the payment is received by the payee one or two business days after the transfer is made.

**Wallet:** a digital wallet that allows storage of card payment information to enable payment using a smartphone.

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