Key Players in the EU Payments Landscape



Deloitte.





Thank you note



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BUREAU VAN DIJK



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All the financial data in the tables have been retrieved from the Orbis database for the year 2022, except where noted as 'last year available'.

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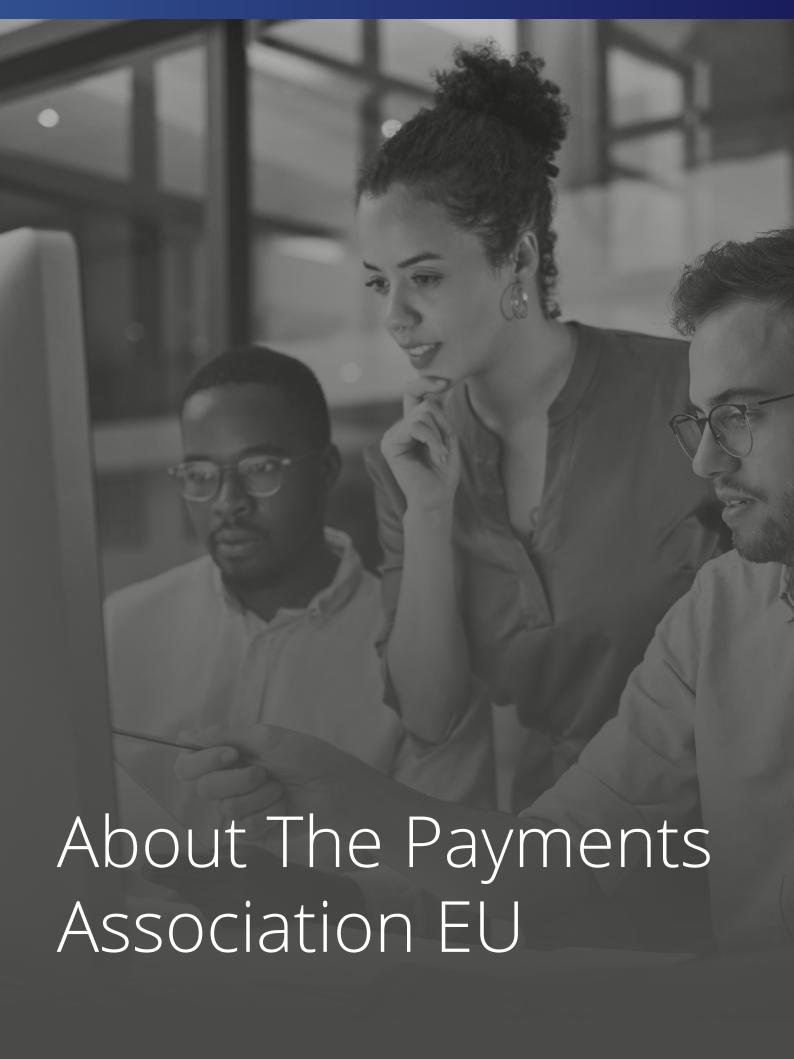
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Making Payments Work

The Payments Association EU is a business club of decision makers in the payments industry. Our members are the enterprises forming all the components of the payments value chain in the 27 countries of the European Union.

Our circle is established as a non-profit association registered in Luxembourg. Our offices are hosted at the Luxembourg House of Financial Technology (LHoFT).

The Purpose of the Association is to facilitate business for its members. PA EU seeks to achieve its objectives by organizing events, managing projects defending the interests of its members, publishing research documents and providing training. You will find more details in our brochure.

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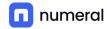
















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Executive Summary



The European payments landscape has transformed significantly in recent years, driven by multiple factors. Amongst the most notable drivers are the changes in consumer behaviour, as they moved from cash transactions – causing their decline in regions such as the Nordics, which are highly digitised – to a more prevalent usage of cards and digital payment methods. With this came a rise in ecommerce, creating the opportunity for the emergence of new players and services, especially those such as digital wallets and contactless payments – all of which led to increased regulatory oversight.

Digital payments growth (especially mobile and contactless payment solutions, which are user-friendly and convenient) has been supported by numerous investments in payment infrastructure – from developing new payment networks to rolling out faster payment systems. Such investments help create an increasingly simplified and efficient payment environment for businesses and consumers alike.

Concomitantly, the European payments industry is subject to stringent regulatory supervision, and in 2024, we expect to see multiple changes in this sector. In 2023, the European Commission introduced a three-proposal package to improve the payment services market and make financial data more accessible. The package includes proposals for a new Payment Services Directive 3 (PSD3), a Payment Services Regulation (PSR), and a Financial Data Access Regulation (FIDA).

Whilst PSD2 achieved multiple of its objectives, PSD3 comes as a continuation that seeks to tackle consumers' fraud risk and their lack of confidence in payment systems by further addressing Strong Customer Authentication (SCA) and Open Banking standards. Moreover, PSD3 and PSR aim to create a unified regulatory framework to overcome the fragmented approaches adopted by EU member states. They will support the EU's Retail Payment Strategy goal of facilitating cheaper international payments, adopting global messaging standards, and fostering connections between PSPs. Once the European Parliament and Council's review of the PSD3 and PSR is finalised, they are expected to enter into force by 2024/2025, with Member States implementing PSD3 and firms complying within 24 months.

FIDA comes as a proposal of the Open Finance Regulation, part of the Digital Finance Strategy, and looks to modernise the financial sector by facilitating secure sharing and customer data access. Working with PSD3, FIDA is set to drive Europe's transition to Open Finance, with the two initiatives complementing each other by fostering the onset of choice and control over customers' data.

Another driver attributed to the change in the European payment landscape is the emergence of fintech companies. These players challenge traditional banks and payment providers due to their offerings that include more convenient and cost-effective solutions – thus leading to increased competition and industry innovation. Whilst the introduction of new technologies and creative solutions contributes to the growth and competition within the sector, it comes with obstacles attributed to security concerns and adherence to regulatory requirements, all of which impact its future progress. Nonetheless, further innovation and upheaval are expected in the region. Both traditional players and disruptors are presented with opportunities to attract customers, develop novel solutions, and capture extensive portions of the market.

This whitepaper seeks to offer a better understanding of the multifaceted payments industry, providing a comprehensive overview of the ecosystem, along with a regional breakdown, highlighting specifics of each country and their domestic payment representatives.

The first part of the research categorises non-EU players activating in Europe, identifying and offering insights into the main traits of foreign international players operating in the region, and EU players that have expanded internationally. It includes an analysis of the most prominent companies, alongside their market share and revenue, whilst differentiating between seven categories, with some participants deemed to fit more than one. More specifically, the categories are as follows: card payment schemes, alternative payment methods (e-wallets, peer-to-peer and cross-border, BNPL, cryptocurrency), banks (issuers and acquirers), non-banking issuers, payment processing and gateways providers, Open Banking enablers, and lastly, infrastructure providers (Banking-as-a-Service and core banking providers). The classification delves into the specifics of payment industry participants, differentiating between their solutions and exemplifying companies activating in each space.

Contextualising this, the second part of the whitepaper sets out to offer a regional perspective delineating Benelux, South-Western Europe, South-Eastern Europe, Central and Eastern Europe, the Baltics, and the Nordics – each of these sections containing targeted insights related to their respective countries, and domestic actors in individual countries within the EU – as well as case studies for France, Germany, and Ireland. The section tackles the main players in these regions, with specific insights into their activity, alongside how this is impacted by the economic climate of each area and by consumer behaviour. Acting as a summary of the payment representatives in the countries analysed and offering country-specific observations, the paper aims to provide readers with an all-encompassing overview of the payment industry.

Conclusions

Each country within Europe has its distinct payment landscape, resulting in a highly varied European one. Whilst the EU mandates its members to comply with specific regulatory frameworks, individual countries and regions contribute to the most innovation.

Whereas the PSD2 intended to drive payment advancement, a disparity in adoption is seen throughout the continent. The UK still dominates the Open Banking market, as it did in 2023, with the rest of Europe lagging due to fragmentation – related to technical standards and interfaces or banks' reluctance to adopt account-to-account payment infrastructures. However, strides are being made in this direction, and initiatives such as the PSD3 and PSR are expected to encourage further development in this sector. Despite the disruption of socio-economic factors preventing regulation harmonisation, the new directives seek to assist in this direction and help level the playing field for all participants in the industry.

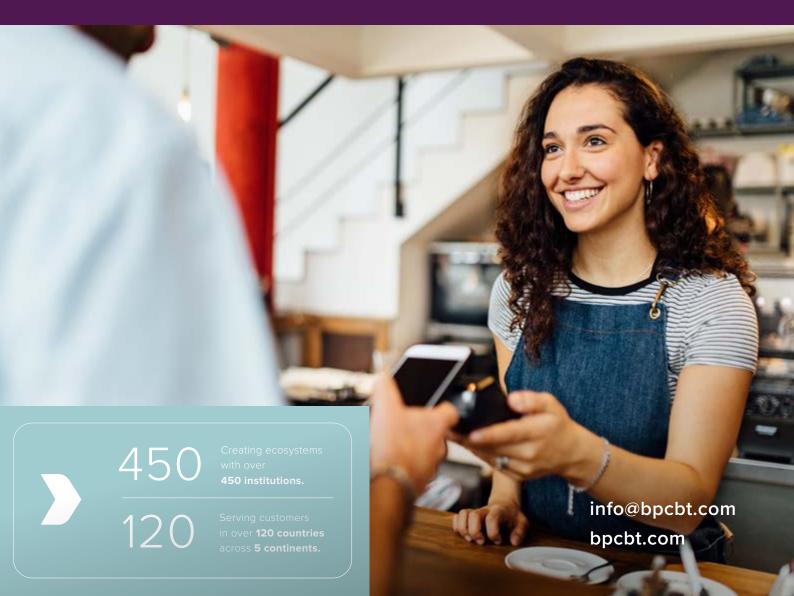
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European payment trends in 2024: regulatory shifts and technological advances

Another year of significant regulatory and market shakeups for the payment industry

Deloitte

The past few years have seen a flurry of new and proposed regulations directly impacting the payments sector. While the **Instant Payments Regulation**, newly adopted in March 2024, aims to enhance transactional efficiency and consumer experiences, the **Central Electronic System of Payment information (CESOP) legislation** has created additional recording and reporting duties for Payment Service Providers (PSPs). Since 1 January 2024, all PSPs offering payment services in the EU must keep records of cross-border payment data in electronic registers, and share these with the EU Member States' tax authorities.

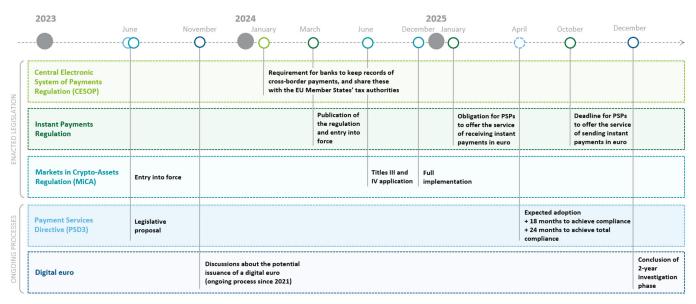
The crypto-asset landscape has also been transformed, with the EU adopting the **Markets in Crypto-Assets** (**MiCA**) Regulation in 2023, the first harmonized regulatory framework for the crypto-asset market. These new rules apply to both traditional financial institutions and new players that issue crypto-assets, offer them to the public and admit them into trading, or provide services related to crypto-assets in the EU. MiCA's Titles III and IV (rules on asset-referenced tokens and e-money tokens) are scheduled to apply from 30 June 2024, and the rest of the provisions provided by the regulation by December 2024.

It's also worth highlighting the ongoing **digital euro** discussions as Europe progresses towards embracing digital currencies. The European Central Bank (ECB) has been collaborating with the EU's national central banks to explore the potential issuance of a digital euro since November 2023. The preparation phase is expected to last two years, with the next steps planned for 2025.

In parallel, the Eurosystem continues its efforts to modernize its settlement infrastructure. The go-live of the **Eurosystem Collateral Management System (ECMS)**, a single, unified system for managing assets used as collateral in Eurosystem credit operations, was initially scheduled for April 2024 but pushed to November 2024. This will complete the ECB's ambitious program to modernize and adapt its TARGET Services to changing user needs.

Finally, on 28 June 2023, the European Commission unveiled a proposal for the third **Payment Services Directive (PSD3)** complemented by a **Payment Service Regulation (PSR)**. To ensure one coherent regime for payment institutions (PIs) and electronic money institutions (EMIs), the European Commission has also proposed to merge the second EU E-Money Directive (EMD2) with the proposed PSD3 and PSR texts.

EU payments landscape



PSD3 and PSR represent a pivotal advancement in European payment regulation, enhancing consumer protection, fostering innovation, and ensuring market efficiency

The European Commission's new legislative proposals, aimed at ushering in the digital era for payments and the broader financial sector, include:

- PSD3, an updated directive on payment and electronic money services, specifically covers the PI authorization process that now also includes EMIs, as well as the related prudential regime; and
- PSR, a proposed regulation that applies to all Member States without local transposition, sets out rules and penalties for PSPs and users to harmonize treatment across the various EU Member States.

Enhanced customer protection and security

Fraud mitigation has always been a major concern of the payment sector. The PSD2's introduction of strong customer authentication (SCA) marked a pivotal step in addressing this challenge. PSD3 will widen the scope of PSD2 without challenging the latter's main "acquis".

According to the European Banking Authority (EBA), payments authenticated through SCA show a significantly lower fraud rate of 70-80% compared to those without SCA.¹ However, the existing regulatory framework falls short in effectively combating emerging sophisticated fraud methodologies.

Considering these limitations, the European Commission's PSD3 proposals enhance customer protection rules, boosting the payment ecosystem's resilience against evolving fraud tactics. This includes clarifying SCA requirements and extending the upcoming mandatory verification of payee checks to regular credit transfers.

Fostering open banking with PSD3 and PSR

PSD2's open banking principles, aimed at unlocking new avenues of financial innovation, will not be changed by PSD3 and PSR. Instead, they will address a range of issues, from regulatory ambiguities to interoperability challenges.

To tackle these hurdles, PSD3 and PSR delineate clear regulatory guidelines and empower consumers to manage their payment data permissions effectively.

By fostering an enabling regulatory environment, these initiatives aim to stimulate the proliferation of open banking services, enhancing market dynamism.

Open finance with FIDA

The Financial Data Access Directive (FIDA) was also published to introduce new obligations regarding financial services and accounts that are outside of PSD2's scope. The two frameworks share many similar provisions.

Enhancing EU Member States' enforcement capabilities

Harmonized regulatory enforcement across EU Member States is essential for fostering a cohesive and resilient payment ecosystem. Therefore, the PSR **standardizes this enforcement framework and clarifies regulatory provisions.**

Under the PSR, each EU Member State will need to adhere to uniform regulatory standards and be subject to equivalent penalty provisions. By promoting consistency and accountability, PSR seeks to engender trust and confidence in the regulatory framework, thereby fortifying the resilience of the European payment ecosystem.

Broader impact on additional existing texts

Among the provisions, the European Commission has proposed amendments to the Settlement Finality Directive (SFD) to enable non-banks to access payment systems. The aim is to rectify regulatory asymmetries and level the playing field for all payment market players, **promoting market competition and innovation.**

Although the expected timeline of these legislative proposals has not yet been defined, it is not foreseen before Q2 2025.

Member States are expected to have 18 months to implement PSD3 at the national level. Market participants should also have 18 months to comply with the PSR, apart from the "payee/matching service" rule, for which they would be given 24 months.

These changes have underscored the need for the payments sector to continue adapting and innovating.

Keep reading to discover more about our view on payments.

¹ EBA, Discussion Paper on the EBA's preliminary observations on selected payment fraud data under PSD2, as reported by the industry, 17 January 2022.

Market view from Régis Folbaum, CEO of STET



Régis FolbaumChief Executive Officer

In this interview, Deloitte engages in conversations with Régis Folbaum, appointed as CEO of STET in September 2023. Prior to taking this role, he was the Head of Payments and a member of the management committee at La Banque Postale in France. As part of his role, Régis is a member of the French Banking Federation Payments Committee, the Observatory for Payment Security and the Payments National Council at the Banque de France. Régis was also a member of the European Central Bank Market Advisory Group on the digital euro.

STET plays a crucial role in banking and serves as a bulk payment clearing system operator for the French and Belgian markets. Handling over 35 billion transactions processed annually, with a daily average exceeding EUR25 billion, STET operates as a Systemically Important Payment System (SIPS), prioritizing security, precision, and transparency. With a forward-looking approach, STET continually innovates to meet evolving market needs, ranging from implementing an instant payment platform to new Al-based scoring. Through strategic alliances and advanced solutions, including clearing systems and routing networks, STET positions itself as a reliable partner driving European payment market consolidation and efficiency.

What are the main effects of the evolving regulation in payments on STET services?

STET is used to dealing with multiple regulations, firstly as a critical infrastructure but also as a payment processor handling sensitive information.

Therefore, STET's compliance covers a very broad spectrum, from the application of scheme rules (e.g., domestic and international card schemes, European Payments Council [EPC] rulebooks, etc.) to the application of transversal payment regulations (e.g., PSD2) as well as corporate regulations (e.g., the General Data Protection Regulation).

In the past few years, the emergence of the digital age in payments has profoundly transformed the payment industry, bringing new technologies, new use cases and new players into the ecosystem. In the meantime,

regulators have had to work out how to guarantee security (which is essential when it comes to payments) while encouraging competition and innovation.

There are two ways to act when faced with new regulations: either treat them simply as an additional burden or cost or make them an integral part of your strategy. At STET, we are keen to explore the latter way while supporting our clients, the banking community, in this journey.

For example, when PSD2 came out in 2019, STET launched an authentication card scoring service that drastically reduced e-commerce fraud while avoiding friction in the payment checkout kinematics. We also normalized an interbank application programming interface (API) to enable payment initiation and aggregation compliant with PSD2. With the PSD3 coming soon, we will continue to provide our expertise to the market and support the banking community in finding the most relevant response to the regulation, as it is part of our DNA to help our clients achieve full compliance in due time.

Regarding the recent Instant Payments Regulation, which promotes and mandates the usage of the Single Euro Payments Area (SEPA) Instant Credit Transfer (SCT Inst) scheme and came into force in April 2024, STET's platform (live since end-2018) will support its banking communities to seamlessly migrate to SCT Inst thanks to its scaling capabilities. STET is also working with its newly acquired subsidiary SEPAmail.eu in order to leverage its current IBAN Name Check French solution and upgrade it to a suitable real-time and pan-European context.

Many other regulations are still under discussion and may directly and indirectly impact STET. Among them is the Settlement Finality Directive or the pending ECB-issued digital euro. We are obviously doing our best to prepare for these changes. We are also advocating that, in a context of significant cyber risks and innovation challenges, it is good practice to assess existing regulations and potential conflicts, view overlaps or even pause—so as to weigh the pros and cons of adding another regulation layer in an ecosystem that depends on high volumes, economies of scale, and where the second-factor effect may create more harm than good.

STET has decided to implement a new platform for the SEPA SCT Inst scheme. Why did you make this choice? What role is STET playing in the expansion of instant payments?

As the largest payment infrastructure in Europe, STET has been supporting the expansion of instant payments since its inception. Hence, it was only "natural" for STET to launch an SCT Inst platform, as our mission from the very beginning has been to facilitate SEPA integration. When STET was founded in 2004 as the French automated clearing house (ACH), its main objective was to support SEPA migration—which we duly did with the launch of our CORE platform. So, when the EPC took the decision to create a new real-time-based SEPA scheme, STET combined its extensive expertise in settlement with its real-time state-of-the-art architecture and capabilities from its card authorization platform (inherited from the merger with SR2S in 2015).

The SCT Inst service was first launched in early 2019 for the Belgian banking community and then extended to the French participants. In Belgium, the use of instant payments has developed more rapidly than in France, representing currently 22% of the total credit transfers versus only 11% in France. In any case, volumes are growing with a solid momentum, and in 2023, we processed 418 million domestic instant payment transactions versus 275 million in 2022 (+ 52% year on year).

On top of providing domestic instant payment services, STET's platform is also connected with other European instant payment schemes, namely TARGET Instant Payment Settlement (TIPS) and RT1, hence providing full pan-European reachability and interoperability to our members thanks to ACI. In the last 12 months, STET processed more than 50 million cross-border real-time transactions.

With the upcoming Instant Payments Regulation, we believe that we may be at a tipping point. Volumes could increase dramatically but, as always when it comes to payments, it will depend on the mix of customers' adoption, promotion by banks and by the whole ecosystem. SCT Inst volumes could indeed benefit both from the shift from "traditional" credit transfers or even from checks and cash, but also from the rise of new payment means, such as WERO.

How do you perceive the market readiness toward instant payments? What are the most painful provisions of the regulation and how can you help your members to comply?

As of October 2023, there were 2,274 registered SCT Inst scheme participants, representing a share of 61.7% of all 3,684 SCT adherents in all SEPA countries (69% for the EU and 72% for the euro area). SCT Inst transaction volumes exceeded 15% of the total credit transfer volume (i.e., SCT and SCT Inst), with wide differences among players and countries (see above for Belgium and France).

The regulation will gradually ensure greater accessibility and coverage of the SCT Inst scheme within the SEPA zone. An increase in volumes is also expected over the coming months with the combined effect of the regulation kicking in, induced reduced fees and higher customer adoption. At the time of writing, STET has witnessed a healthy and strong momentum of instant payments in the first months of 2024!

For PSPs that have yet to connect, there is obviously a technical challenge, but they will certainly be able to capitalize on existing market experience to overcome this.

In my opinion, two provisions in the regulation turned out to be particularly painful:

 The introduction, in a very short timeframe, of a systematic Verification of Payee (VoP) for each sent SCT raises questions and the complexity of the task at hand: how to implement these new messages to guarantee interoperability in the context of crossborder transactions, and how to ensure scheme service level agreements (SLAs) with these new messages in the kinematics. The requirement to align SCT Inst prices with classical credit transfers, as this triggers an economic challenge besides blatant price fixing and interventionism. As real-time payment systems, SCT Inst platforms are indeed costly, not only from a build but also from a run perspective, as they must operate 24x7x365 with high levels of availability, security and resilience.

How do you measure the success of the STET clearing and settlement mechanism (CSM) for instant payments?

At STET, we measure our success through our customers' satisfaction. Twenty major PSPs from France and Belgium are currently connected to our instant payment CSM, offering SCT Inst coverage to an estimated 85% of accounts in these two countries. The renewal of our partnership with the Centre for Exchange and Clearing (UCV/CEC) last December is for us the best feedback we can get from the market on the quality and competitiveness of our services, as the Belgian banking community was our first SCT Inst client.

Obviously, we also pay significant attention to our platform's resiliency and security and, as mentioned previously, we are committed to offering a high level of SLAs 24x7x365. Our platform has a proven track record in robustness, which will be a key asset to support the forthcoming rise of SCT Inst in the next few years.

What's next in STET's roadmap?

Besides being up and running (with the Paris 2024 Olympic and Paralympic Games challenges), preparing for the next technological disruption waves (Generative artificial intelligence, sovereign Cloud and quantum computing), meeting our supervisors' requirements, and working with Cartes Bancaires on their 2026 strategy along with the French and European payments agendas, we have three main product and solution items on our roadmap:

- Help our clients comply with the Instant Payments Regulation in due time. To that end, we are currently working with our subsidiary SEPAmail.eu to leverage its Diamond asset, the current French IBAN Name Check solution, to make it suitable in a real-time context, aligned with the VoP scheme, and compliant with all the regulatory requirements.
- Leverage our instant payments service by adding scoring capabilities, achieved through STET's extensive experience in providing efficient, effective and innovative solutions to financial institutions to help them fight payment fraud in real-time thanks to Feedzai.
- Extend our cross-border capabilities by developing our real-time interoperability with non-euro zone countries

Navigating the new Instant Payments Regulation: insights from Deloitte experts



Alexandre Havard

Partner at Deloitte Luxembourg Banking Consulting

Alexandre joined Deloitte in 2015, and currently serves as Partner in Consulting for the Banking sector. He is in charge of the Payments capabilities of Deloitte in Luxembourg and has led many projects in Luxembourg, France and Monaco. Alexandre has in-depth knowledge of payments regulations, market infrastructure initiatives, and also specializes in operational topics. Alexandre is the Chair of the Digital Economy and Open Finance working group at the Association of Bankers and Banks of Luxembourg (ABBL) and Vice-Chair of the Payments Cluster.



Christiane Neumueller

Director at Deloitte Germany Banking Transformation Consulting

Christiane is Director in Consulting and responsible for payments and cards along the entire value chain. She has many years of experience in the financial sector, both nationally and internationally. She has held various management positions in IT departments of multinational banks and led large integration, transformation and rollout programs with a focus on payments, cards and banking. She also honed her professional and technological expertise while working for the paytech company SIA (NEXI Group), where she was responsible for strategic business development in Germany, among other things. Christiane sees great and exciting growth potential in the dynamic payments industry and supports clients in taking advantage of the resulting opportunities.



Daniel HellmannDirector at Deloitte Germany
Risk Advisory

Daniel is a Director in Risk Advisory and is responsible for consulting and audit projects in the payments environment at Deloitte Germany. He has 15 years of professional experience at the interface of payments, IT and regulation. During his professional career, Daniel

has carried out numerous large-scale consulting and audit projects for companies in the FSI environment and advised them on the optimization of their business processes and IT infrastructures in payment transactions. He also focuses on the implementation of internal control systems, regulatory compliance checks and the implementation of legal and regulatory requirements in the payments environment.

Instant payments aim to make funds available in a payee's account within 10 seconds of a payment order being made. The newly published Instant Payments Regulation aims to unlock the full-scale network effects by connecting all payment service providers to instant payments technology, addressing high prices and frictions.

Currently, two systems allow PSP to execute instant payments in euros. **RT1** is a pan-European instant payments system developed by EBA Clearing, a private entity, to facilitate real-time payment processing across the SEPA. **TIPS** is a service provided by the Eurosystem expressly tailored for instant payments processing denominated in euros, offering direct access to the ECB and integrated within the broader TARGET system. Within the EU, all instant credit transfers in euros operate under the EPC's SEPA SCT Inst scheme, initiated in November 2017. This scheme enables pan-European credit transfers, at any time, in an area that will progressively span over 36 European countries.

In Luxembourg and Germany, where do we stand in terms of markets and client expectations for instant payments?

Client expectations of instant payments are increasing in Luxembourg and Germany. Banks and PSPs are working on improving the payment experience in terms of availability, affordability, trustworthiness, and seamlessness. However, as of 2022, **only one in three EU service providers offered euro instant payments, while instant payments made up merely 11% of all euro money transfers.** ¹

Contributing to this slow progress are the numerous rejections of cross-border instant payments due to inefficient or outdated sanction screening methods and comparatively higher costs. In addition, disparities in adoption rates across SEPA countries still exist. For instance, as of October 2023, the percentage of SCT Inst scheme participants (versus SCT scheme participants)

European Parliament, <u>Instant payments in euro</u>, February 2024.

was significantly higher in Germany, at 88%, compared to Luxembourg, at only 12%.²

To address these issues, the European Council, as part of the Eurosystem Retail Payments Strategy, introduced the Instant Payments Regulation on 26 February 2024, to improve the accessibility and broader usage of instant payments across the EU.

What are your insights on the previous, current and upcoming milestones related to the implementation of instant payments? How do you perceive their influence on PSPs and the broader payments industry?

In October 2022, the European Commission published a **legislative proposal on instant payments**, while the EPC released version 1.1 of the 2023 SEPA Instant Credit Transfer rulebook, replacing the previous one. In **March 2024**, the regulation was officially published in the Official Journal of the European Union, and the new rules will come into force after a transition period.

Looking ahead, there are upcoming milestones that will greatly impact PSPs in euro-member states. From January 2025, PSPs in euro-area Member States must offer a service to receive euro instant payments and adhere to harmonized procedures for sanctions compliance. By October 2025, these PSPs will also be obligated to send euro instant payments. VoP (i.e., notifying any discrepancies between the name and IBAN of the beneficiary) will also be mandatory at that point.

Although they may not be the primary focus of the forthcoming milestones of the Instant Payments Regulation, non-EU countries are anticipated to make advancements. Sweden's inclusion in TIPS in February 2024 lays the groundwork for other non-euro area nations like Denmark and Norway, which have shown interest in joining TIPS.³

These milestones will have a significant influence on PSPs and the broader payments industry, ensuring a more standardized and efficient instant payments ecosystem.

Who would you identify as key stakeholders involved in Luxembourg and Germany, and which new opportunities will be offered?

PSPs and CSM will be directly involved.

Opportunities lie in improved data and risk management, with the potential to gain consumer insights from transaction data and enhanced fraud monitoring. Efficiency is increased via reduced manual processes, lower refund management costs due to SCT Inst's irrevocability, and quicker payment collections improving cash flow.

The situation will also lead to new use cases, as we can see with the end-2023 completion of the first account-to-account instant payment transactions with wero, EPI's

newly developed instant payment solution, from a French account to a German account. The first pilot users should be extended to member banks in three countries in 2024, including Germany.

The national central banks, **Banque Centrale du Luxembourg and Deutsche Bundesbank**, are also compliant with the SCT Inst scheme through TIPS. Overall, the Eurosystem is supporting the implementation of instant payments, as set in the Eurosystem retail payments strategy, expecting instant payments to become the new normal.

Instant payments also have many advantages, and a solution for retailers has been under development for years—the so-called Request to Pay (RtP)—which also enables customers in bricks-and-mortar retail to offer real-time payment. This type of payment is particularly interesting from a retailer's point of view. On the one hand, a real-time transfer initiated by the customer means there is no longer any risk of objection, as with a card payment or direct debit and, on the other hand, there are lower costs as fewer parties are involved in the processing.

In the future, instant payments will apply not only to the euro, but also to foreign currencies—an important step towards enabling transparent and fast payments across all borders. However, this means that other systems, such as exchange rates, must also be available in real time around the clock, 365 days a year.

But it is not only other currencies that will be relevant; the digital euro also relies on real-time transfer mechanisms. Real-time transfer is also a mandatory prerequisite for the so-called waterfall principle to replenish the digital euro.

To summarize, despite all the technical challenges that this regulation entails, it is nevertheless a correct and necessary step to establish real-time credit transfers as the standard in Germany, Luxembourg and across Europe. This gives everyone involved the opportunity to utilize the advantages and the innovation boost that this function brings.

What would be PSPs' main challenges linked to the recently voted Instant Payments Regulation?

While fostering new opportunities, the regulation also brings various challenges for PSPs. PSPs need to upgrade their legacy payment infrastructure to receive and send instant payments in their channels, implement a VoP service to increase customer protection, adjust sanction screening processes to accommodate instant payments, limit instant payments charges, and fulfill additional reporting requirements.

These technological enhancements and additional compliance requirements come along with increased costs, while also limiting the monetization of instant payments.

Next to this, all these changes are set against a tight timeline, with penalties for non-compliance expected from 2025 onwards.

² EPC, Status Update on SCT Inst Scheme, November 2023 ERPB Meeting, 31 October 2023.

³ ECB, Sweden joins TIPS – Eurosystem instant payments platform also settles in kronor, 27 February 2024.

Considering the opportunities and challenges mentioned above, how is Deloitte supporting stakeholders in their implementation of instant payments?

As the industry adapts to these regulatory shifts, PSPs must prepare for the evolving landscape and ensure compliance to meet the demands of an increasingly digital payments ecosystem.

To stay competitive in the rapidly changing payments landscape, we believe that payment players need to be agile, innovative, and customer-centric. This means continually adapting to emerging use cases and technologies.

Deloitte's global team, specifically dedicated to payments, offers solutions to banks and PSPs to support instant payments. We can help you to:

- Assess the impact of the Instant Payments Regulation on your business;
- Study different scenarios to comply with the regulation; and
- · Choose the most appropriate scenario and deploy it.

Our experienced payments team recognize the importance of innovation, efficiency, and security in the payments landscape and leverage their deep industry knowledge to provide customized solutions that help our clients transform their payments operations.

By providing our clients innovative products and advice borne of experience with a wide range of clients, our consultants ensure our clients maintain a strong foothold in this quickly evolving industry.



International Players

Non-EU International Players

This section provides details on payments players headquartered outside the EU but with payments operations or subsidiaries within the EU. Players that are headquartered in the EU but have payments operations or subsidiaries outside of the EU are described in the "European International Players" section.

Introduction

Europe is an attractive playground for non-European actors. The population is relatively wealthy, the free trade area is one of the largest trading zones in the world and European purchasing power is significant. Moreover, EU laws are open to international players, and efforts to accelerate digitization within the EU mainly benefit a few non-European players who currently dominate the payments landscape across Europe.

It turns out that national communities have often chosen to preserve existing investments instead of collaborating and sharing resources to develop pan-European payment solutions¹. As a result, European options for point-of-sale payments, whether physical, mobile, or online, are mainly limited to national borders. In fact, there is no European digital solution for person-toperson (P2P) payments covering the entire eurozone². Consequently, eurozone citizens who live, work, travel, or shop online in other countries find themselves in most cases limited to non-European solutions.

This difficulty for European payment solutions to move beyond their national markets has resulted in limited competition, leading to the fact that European players in segments such as e-commerce, mobile payments, and P2P payments, are sometimes unable to compete with global players such as PayPal, Apple Pay, Alipay, and Google Pay. The traditional banking sector, however, is still dominated by European institutions.

This section attempts to identify and provide the main characteristics of foreign international players operating in the European market.

Card payment schemes

When it comes to card schemes, American-based companies like Visa, Mastercard, and American Express dominate the European market, with card payments being the most prevalent and rapidly expanding electronic payment method across Europe³.

Visa and MasterCard are the two biggest non-European players in Europe with their networks accounting for more than 80%⁴ of the cards in circulation worldwide. While Visa outpaces Mastercard in terms of cards in circulation, net revenue, and market share based on purchase transactions, Mastercard's stock has outperformed Visa's over the past 5 years⁵. In addition, Mastercard has made substantial progress in catching up to its major competitor, acquiring issuing portfolios from notable banks such as NatWest, Santander, and Deutsche Bank. Europe now accounts for 29% of Mastercard's global volume compared to 20%⁷ for Visa.

For its part, American Express company reached 12,2 million8 new proprietary cards in 2023, bringing the total number of cards issued on their global network to over 140 million⁹ and growing their revenue by more than 40%¹⁰ from 2022 to 2023.

In addition, Diners Club, part of the Discover network, is an independent credit card network with a unique identity in payment solutions, providing multipurpose charge cards. Diners Club has less than 1% market share in Europe¹¹.

Other payment schemes like JCB and UnionPay International (UPI), based in Japan and China respectively, are expanding their European presence with wider coverage and acceptance. France and Germany are among the countries with widespread UnionPay acceptance¹². JCB has several offices in Europe, including in France, Germany, Italy, Austria, and Spain¹³.

- https://www.ecb.europa.eu/press/key/date/2024/html/ecb.sp240424~12ecb60e1b.en.html https://www.ecb.europa.eu/press/key/date/2024/html/ecb.sp240424~12ecb60e1b.en.html
- https://www.mordorintelligence.com/industry-reports/europe-credit-cards-market https://www.nasdaq.com/articles/visa-or-mastercard;-which-is-the-better-buy-right-now
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- https://businessofpayments.com/2023/02/01/mastercard-europe-closing-the-gap-with-visa/ https://www.americanexpress.com/en-us/newsroom/articles/financial-news/american-express-announces-record-full-year-2023-revenue.html
- https://www.americanexpress.com/en-us/newsroom/articles/financial-news/american-express-announces-record-full-year-2023-revenue.html and the support of thhttps://www.americanexpress.com/en-us/newsroom/articles/financial-news/american-express-announces-record-full-year-2023-revenue.html
- https://stripe.com/en-nl/resources/more/diners-club-an-in-depth-guide
- https://m.unionpayintl.com/wap/en/mediaCenter/newsCenter/companyNews/3015457.shtml
- https://www.jcbeurope.eu/en-eu/about-us/offices/index.html

One Card. Total Security.

Stand Out in Metal - offer your customers a memorable, branded experience with simple security for payments, authentication, and crypto - one card that does it all.



Secure Authentication: MFA and Biometric technology

Secure Payments: Fiat and Crypto

Cold Storage: 10K+ coins and tokens











Arculus by CompoSecure (Nasdag: CMPO) offers premium metal card technology that transforms the customer experience by reducing fraud, reinforcing your brand and increasing customer acquisition with top of wallet success. CompoSecure is the global leader in manufacturing secure payment technology for over 20 years, working with market leaders, fintechs and leading financial institutions.

Card payment schemes	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
American Express Co	American Express Co	74.620	54.665,13	7.494,11	<u>Link</u>
<u>Visa Inc</u>	Visa Inc	28.800	30.822,18	16.304,52	<u>Link</u>
<u>Mastercard</u>	Mastercard	33.400	22.379,18	10.131,22	<u>Link</u>

Source: Orbis | Last Year Available Financials



Alternative payment methods

The segment most likely to be affected by market fragmentation is the alternative payment methods. In this area, non-European global players dominate the market share in Europe. With players such as PayPal, Apple Pay, Google Pay and Alipay, European competitors have limited space on a pan-European scale.

To highlight its importance, in 2022 PayPal was used in more than 80%14 of online point-of-sales in 1315 different European countries. In Germany 93%¹⁶ of online merchants accept PayPal for checkout, followed by Italy with 91%¹⁷ and Portuguese and Austrian eCommerce stores with shares of 83%¹⁸ each.

Additionally, Western Union plays a major role in Europe by offering a reliable money transfer application, with a global network of agents that allows sending money to over 20019 countries and territories worldwide.

Skrill and Wise are two British companies offering an online banking and payment service that enables to send and receive money in many different currencies.

European alternative methods are generally more focused on the domestic market and are spread across a few EU countries, without being present everywhere.

https://www.statista.com/statistics/1264955/global-paypal-adoption/

https://www.statista.com/statistics/1264955/global-paypal-adoption/

https://ecommercedb.com/insights/paypal-usage-worldwide-which-countries-lead-in-online-stores-offering-this-service/3410

https://ecommercedb.com/insights/paypal-usage-worldwide-which-countries-lead-in-online-stores-offering-this-service/3410

https://ecommercedb.com/insights/paypal-usage-worldwide-which-countries-lead-in-online-stores-offering-this-service/3410

https://www.westernunion.com/blog/en/gb/top-reasons-why-you-should-be-using-western-union-in-2024.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Paypal Holdings, Inc.	Paypal Holdings, Inc.	27.200	26.942,07	3.842,53	<u>Link</u>
Alipay.com Co Ltd	Hanzhou Yun Bo Investment Consulting Co. Ltd.	n.a.	10.130,91	209,75	Link
Western Union	Western Union Co. (The)	9.000	3.942,98	566,52	<u>Link</u>
<u>Skrill</u>	Skrill limited	78,00	155,60	45,95	Link
Apple Pay	Apple	6	0,31	n.a.	Link
Google Pay	Google	n.a.	n.a.	n.a.	Link

Source: Orbis | Last Year Available Financials

Banks

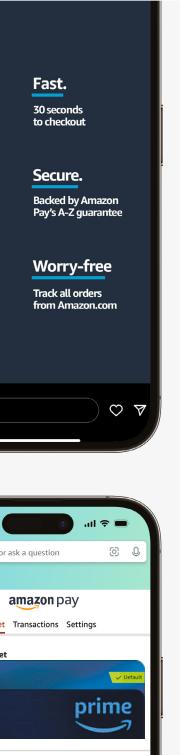


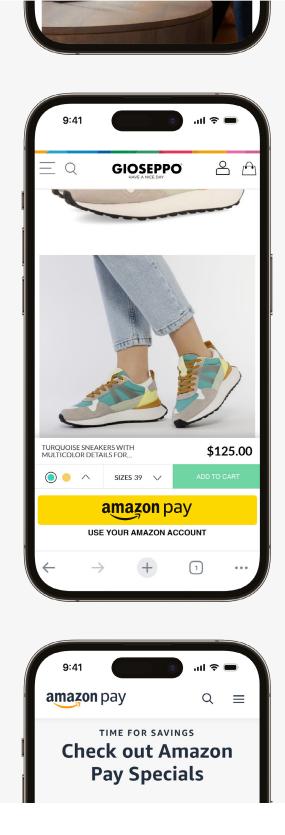
Illustrative - The visual represents the full coverage by the banks, including entities not directly involved in payment services, such as HSBC Asset Management.

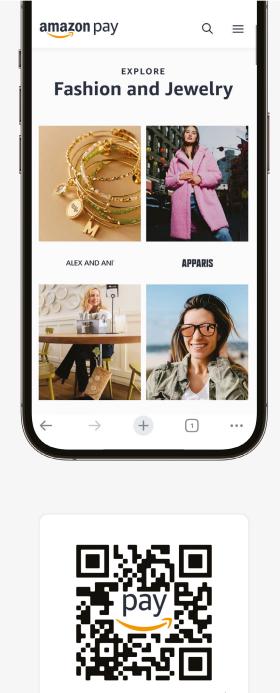
With a presence in America, Europe, and Asia²⁰, JPMorgan Chase & Co is the largest bank in the United States and one of the largest in the world, operating in over 6021 countries. The firm is a leader in investment banking, personal and commercial financial services, and corporate finance.

After Brexit, British banks ceased to fall under EU jurisdiction. Nevertheless, they persist in maintaining and extending their presence in the EU market by establishing strategic "hubs" such as those in Ireland or Luxembourg. Among these, HSBC Bank, Barclays Bank, and Revolut stand out as particularly significant.

https://privatebank.jpmorgan.com/eur/en/locations https://fr.wikipedia.org/wiki/JPMorgan_Chase







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Grow your business

Amazon Pay helps sellers of all sizes grow beyond Amazon.com through higher-converting checkout experiences from a brand customer trust.

Increase conversions

by 35% compared to native checkout by streamlining the checkout.¹

Accept payment options that **300M+ active customers worldwide** know and trust.

 Comscore custom study for Amazon Pay comparing conversion rates between Amazon Pay and native merchant checkouts in the U.S. over a 6-month period from October 2021 – March 2022, n=40 The British bank HSBC is the largest Bank in Europe in terms of total assets²². The multinational investment bank and financial services holding company has about 42 million²³ customers worldwide through a network that covers 62²⁴ countries.

Barclays Bank, the second largest British bank in Europe in terms of total assets²⁵, supports the European needs of global corporates with; a cutting-edge unified banking platform, harmonized transaction and reporting formats, unified pricing and servicing models across Europe, and support across standard and regional electronic channels²⁶.

Additionally, the multinational bank Citigroup has operated in Europe since 1988 through its headquarters in Ireland. The Bank provides banking and credit, corporate and investment banking, securities brokerage, transaction services, and wealth management to approximately 200 million²⁷ customers from 160²⁸ countries. Citi is the only EU-passported bank, with branches in 22²⁹ countries, and is therefore regulated by the European Central Bank.

Revolut is present in 10³⁰ European countries and continues to operate in Europe through its subsidiary in Lithuania. The global neobank offers daily banking, saving, and investment solutions. In 2024, it reached 40 million³¹ customers and continues its expansion in several regions, notably New Zealand, Mexico, and India.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
JP Morgan Chase & Co	JP Morgan Chase & Co	305.471	143.542,02	44.822,60	<u>Link</u>
<u>Citibank NA</u>	Citigroup Inc.	186.600	57.126,67	10.240,72	<u>Link</u>
HSBC Holdings PLC	HSBC Holdings PLC	221.000	62.185,49	22.225,33	<u>Link</u>
Barclays PLC	Barclays PLC	92.400	29.238,61	6.134,93	<u>Link</u>
Revolut	Revolut Group Holdings Ltd.	4.655	754,62	31,24	Link

Source: Orbis | Last Year Available Financials

Non-banking issuers

EML payments issues cards for businesses that final customers can use wherever Mastercard/Visa is accepted, as well as Eftpos (in Australia) and Discover (in the USA)32.

The Canadian fintech company Nuvei launched its card issuing service in 2023³³.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
EML payments ltd	EML Payments Limited	n.a.	135,41	-173,79	<u>Link</u>
<u>Nuvei</u>	Nuvei Corporation	n.a.	n.a.	n.a.	<u>Link</u>

 $https://www.emarketer.com/insights/largest-banks-europe-list/\#; \sim: text=HSBC\%20 is \%20 the \%20 largest \%20 bank, to \%20 S\%26 P\%20 Global \%20 Market \%20 Intelligence. The substitution of the first of$

²³ https://www.hsbc.com/who-we-are/businesses-and-customers https://www.hsbc.com/who-we-are/businesses-and-customers

 $https://www.emarketer.com/insights/largest-banks-europe-list/\#:~:text=HSBC\%20is\%20the\%20largest\%20bank, to\%205\%26P\%20Global\%20Market\%20Intelligence. \\ https://www.barclayscorporate.com/international-corporate-banking/$

https://publichealth.jhu.edu/sites/default/files/2023-06/citi.pdf https://publichealth.jhu.edu/sites/default/files/2023-06/citi.pdf

https://www.citigroup.com/citi/about/countries-and-jurisdictions/ireland.html

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https://www.emlpayments.com/payment-solutions/products/card-payments/https://nuvei.com/licenses-and-certification



Simpilfy your risk screening and open up a world of possibilities

Meet your KYC and third-party due diligence obligations confidentally with World-Check's trusted, accurate and structured information.

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Payment processing and gateways providers

Some of Europe's top payment players are from outside Europe like Fiserv, Global Payments, Paysafe, Verifone, Stripe, PayCEC, QuadraPay, Nuvei and Worldpay (FIS).

Fiserv is an American provider of payment technologies and financial services. The company offers account processing systems and electronic payment products and services for banks, credit unions, financial institutions, small businesses, and merchants. The company operates in North America, Europe, the Middle East, Africa, Latin America and Asia-Pacific³⁴.

The American company Global Payments is a leading worldwide provider of payment technology and ware solutions. It provides payment services directly to merchants and indirectly through other financial organizations. Their technology-enabled services also support integrated payments, e-commerce, and omnichannel services.

Verifone is another American company that sells payment systems to the financial, retail, hospitality, petroleum, government, and healthcare industries³⁵. The company is one of the world's largest POS terminal vendors and a leading provider of payment and commerce solutions with 46%36 of the world's non-cash transactions being processed on its systems. Currently, Verifone has customers in more than 165³⁷ countries and processes over 12 billion³⁸ transactions each year.

Co-founded by two Irish brothers, the US company Stripe is a payment processor that allows businesses to accept and manage online payments by providing tools for payments, subscriptions, fraud prevention, and more. Stripe's relevance in the EU payments market has grown significantly, primarily because of its user-friendly interface and seamless integration capabilities with various e-commerce platforms and third-party services.

QuadraPay offers international merchant processing solutions in the US, Canada, EU, UK³⁹ and PayCEC is an American company offering merchant processing solutions in multiple currencies and over 20 cryptocurrencies worldwide⁴⁰.

Nuvei's technology enables businesses to accept next-generation payments and offer all payment options. It currently allows companies to connect with their customers in over 200 markets, in 150 currencies, and with 700 alternative payment methods⁴¹.

- https://www.globaldata.com/company-profile/fiserv-inc/
- https://en.wikipedia.org/wiki/Verifone https://www.verifone.com/sites/default/files/legal/store_and_forward_saf_whitepaper_072021.pdf
- https://www.magestore.com/blog/verifone-pos/
- https://www.magestore.com/blog/verifone-pos/
- https://uk.LinkedIn.com/company/quadrapay
- https://paycly.com/international-payment-gateway-to-accept-overseas-payment.php
- https://ca.linkedin.com/company/nuvei

Finally, Worldpay is also a leading payment processing company in the European Union. The company operates in 146⁴² countries and offers a wide range of payment solutions, including card payments, mobile payments, and online payments. Their offerings are extended to a wide range of sectors including retail, healthcare, and gaming.



Payment processing & gateways providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Fiserv</u>	Fiserv Inc.	42.000	17.278,73	2.776,47	<u>Link</u>
Global Payments	Global Payments Inc.	27.000	8.737,03	892,52	Link
<u>Verifone</u>	Francisco Partners Feeder L.P.	5.600	1.607,64	-149,36	Link
Worldpay from FIS	Fidelity National Information Services Inc.	3.971	1.383,37	-1.290,34	Link
Paysafe Group	Foley Trasimene Acquisition II Corp	3.200	1.496,1	-273,76	Link
Stripe Payments Europe	Stripe INC	7.000	13.460	0,09	Link
<u>QuadraPay</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
PayCEC	PayCEC Group	n.a.	n.a.	n.a.	<u>Link</u>
<u>Nuvei</u>	Nuvei Corporation	n.a.	n.a.	n.a.	Link

⁴² https://corporate.worldpay.com/#:::text=Whether%20online%2C%20in%20store%20or,more%20secure%20and%20more%20successful.



Open banking enablers

Founded in 2003, Nuapay is a leader in digital payments in the UK and Europe. Nuapay's account-to-account platform facilitates instant payments, direct debits, authenticated mandates, inbound and outbound credit transfers, and embedded accounts for businesses through open banking technology⁴³. Owned by EML payments since 2022, Nuapay was acquired by GoCardless in 2024⁴⁴.

Open Banking Enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Nuapay	EML Payments Limited	n.a.	n.a.	n.a.	<u>Link</u>

https://www.fintechfutures.com/2024/03/gocardless-signs-deal-with-eml-payments-to-acquire-nuapay/ https://www.fintechfutures.com/2024/03/gocardless-signs-deal-with-eml-payments-to-acquire-nuapay/

Infrastructure providers

EML Payments' acquisition of Irish fintech Prepaid Financial Services in 2019 propelled the company into the field of banking as a service⁴⁵. Indeed, the acquisition has given rise to digital banking services, such as the ability to provide e-wallets, payment programs, and software for transactional banking. The company operates in several regions, including Australia, the UK, Europe, and the USA and its portfolio also offers innovative payment technology solutions for pay-outs, gifts, incentives, rewards, and supplier payments.

Western Union (WU) is an American payment company that specializes in facilitating international money transfers for individuals and businesses. The company also offers a wide range of banking and financial services that enable banks to provide cross-border payment services to their retail customers.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Western Union	Western Union Co.	9.000	3.942,98	566,52	Link
EML payments	EML Payments Limited	n.a.	135,41	-173,79	<u>Link</u>



https://www.afr.com/technology/eml-payments-pushes-into-banking-as-a-service-with-423m-deal-20191111-p539d7

EU International Players

This section only covers those European players headquartered in the EU with a presence both inside and outside the EU. Details on payment players headquartered outside the EU but with payment operations or subsidiaries within this block are provided in the "Non-EU International Players" section above. The domestic actors present in individual countries in the EU are outlined in the separate individual country sections of the report, which you can find below.

Introduction

Many European players have ventured beyond the continent and have emerged as significant international players. Among the 100 largest banks globally in terms of assets, over 25% are EU institutions. France, in particular, holds strong representation with BNP Paribas and Crédit Agricole ranking in the top 10⁴⁶. Apart from banks, several European fintech companies have also gained international prominence in recent years. The Dutch company Adyen ranks among the most valuable fintech firms globally and is already the preferred platform for numerous businesses. Its recent launch in Mexico, offering its complete endto-end solution in the country, underscores the company's ambition for ongoing international expansion⁴⁷. Similarly, Klarna, the Swedish leader in Buy Now, Pay Later (BNPL) services, exemplifies the EU's influence abroad.

Card payment schemes

International players like Visa, Mastercard, and American Express predominantly control card payment schemes, occasionally in collaboration with national schemes. Their European headquarters are based in UK (Visa) and Belgium (Mastercard). Consequently, there is currently no European entity operating across multiple countries in this sector. Over time, the number of national card schemes has decreased, indicating the dominance of international schemes over both national markets and the European cross-border card market⁴⁸.

Alternative payment methods

Bank transfers remain a popular method of payment in Europe, comprising approximately 14%49 of online transactions. Sofort, which means 'immediate' in German, is headquartered in Germany, and facilitates these bank transfers by redirecting customers to their online banking portals to authorize payments. One advantage of using Sofort is that merchants receive immediate confirmation of the purchase, which accelerates shipping and enhances the overall customer experience⁵⁰. The company was acquired by Klarna in 2014. During the payment process, Klarna first confirms that the customer's account has sufficient funds and then processes the payment with the company.

On the other hand, Klarna was founded in Stockholm, Sweden, and is a pioneer and giant in the Buy Now Pay Later (BNPL) industry. It offers products and services to consumers and retailers in the areas of payments, social shopping and personal finance. The company was awarded as the world's second and Europe's highest-valued private fintech in 2021 after it had raised 639 million US\$, reaching a market value of 45,6 billion US\$⁵¹. Although Klarna was expected to continue its growth, the company, together with other fintechs, faced a massive downturn in 2022, causing its value to plummet to 6,7 billion US\$, a far cry from the 60 billion US\$ expected the year before. Fortunately, the company managed to close a major financing round of 800 million US\$52 in that same period through new and pre-existing investors. Despite its success in Europe, the company is attempting to penetrate the US market for Buy Now, Pay Later (BNPL) services with the aim of potentially replacing traditional credit card payments in the future⁵³.

Trustly is a Swedish company that facilitates direct account-to-account payments through its digital platform. It is a preferred payment method in various industries including e-commerce, financial services, iGaming, and travel. The company collaborates with well-known companies in the financial landscape such as Ingenico and Multisafepay. Trustly's services cater to over 525 million customers across Europe, Australia, and North and South America⁵⁴. In line with the Buy Now, Pay Later (BNPL) trend, Trustly launched FlexPay in 2022. This product allows merchants to configure deferred payment settlements, providing customers with the option to defer their payments⁵⁵.

Another major player in the field is the French company Edenred, which is present in 45 countries worldwide and specialises in providing payment solutions for specific uses such as meal vouchers, gift cards and mobility cards⁵⁶.

- https://www.spglobal.com/marketintelligence/en/news-insights/research/the-worlds-largest-banks-by-assets-2024 https://www.adyen.com/press-and-media/adyen-brings-unified-commerce-offering-and-local-acquiring-to-mexico
- https://www.ecb.europa.eu/press/intro/mip-online/2019/html/1904_card_payments_europe.en.html https://en.komoju.com/blog/payment-method/europe/
- https://stripe.com/fr-be/resources/more/sofort-payments
- https://sifted.eu/articles/klarna-second-valuable-fintech/
- https://www.altfi.com/article/9520_klarna-to-bag-800m-funding-at-58bn-value-as-value-drops-nearly-eight-fold
- https://www.fintechfutures.com/2024/04/klarna-to-launch-credit-card-offering-in-the-us-over-the-next-few-months/
- https://www.trustly.net/about-us
- https://www.trustly.net/press/2022/02/trustly-introduces-flexpay-by-trustly--a-deferred-settlement-product-for-flexible-payments
- https://www.edenred.com/fr/groupe/edenred-en-bref

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Edenred</u>	Parent company	11.233	2.514	267	<u>Link</u>
Klarna	Klarna Holding AB	4.972	1.835,99	-234,86	<u>Link</u>
Trustly	Parent company	398	106,23	1,66	Link
Sofort	Klarna Holding AB	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials Last year available

Banks



Europe remains a stronghold in the field of banking, and this is reflected internationally. The largest bank in the EU with an international presence is BNP Paribas, with total assets of 2,867 trillion US\$57. This French multinational banking group is the second largest in Europe (behind HSBC), operating in 65 countries on five continents⁵⁸. It is considered a systemically important bank by the Financial Stability Board and is one of the ten largest banks in the world⁵⁹. After the sale of Bank of the West to BMO Financial Group in 2021, it is said that the French group might be interested in buying ABN Amro, one of the Netherlands' largest banks. Insiders report that the idea was suggested during a meeting between BNP executives and Dutch government officials in 2022. However, it seems that no detailed talks emerged from this discussion⁶⁰, even in 2023.

Crédit Agricole Group, also based in Paris, is the world's largest cooperative financial institution⁶¹ and tenth largest bank with total assets of 2,736 trillion US\$. It consists of a network of 2512 local banks, 39 regional banks and a central institute⁶². In January 2024, the bank acquired a minority stake in Worldline, holding 7% of its shares, to facilitate its strategy of becoming a "leading European player in the payments market"63. They also formed a joint venture, CAWL is a relational and proximity brand, with a strong innovative and technological focus⁶⁴.

Spain's largest bank, Banco Santander S.A., operates under the trade name Santander Group. It is largely known for its banking operations, particularly across Europe, but is a multinational financial services company. Banco Santander is among the 20 largest banks in the world⁶⁵ and, like many of the giants on this list, it is considered a systemically important

- https://www.spglobal.com/marketintelligence/en/news-insights/research/the-worlds-largest-banks-by-assets-2024
- https://finance.yahoo.com/news/16-biggest-banks-world-140941624.html https://www.fsb.org/2022/11/2022-list-of-global-systemically-important-banks-g-sibs/

- https://www.ft.com/content/6a1b4500-bc09-4dcb-a7ac-a5fbb58242b9 https://www.statista.com/statistics/870187/largest-financial-cooperatives-worldwide-total-assets/
- https://www.credit-agricole.com/en/group/group-structure
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- https://worldline.com/en/home/top-navigation/media-relations/press-release/a-new-payment-services-brand-for-merchants-in-france-credit-agricole-and-worldline-unveil-
- https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/the-world-s-100-largest-banks-2022-69651785

bank by the Financial Stability Board⁶⁶. On its website, the bank emphasises its willingness to offer its services in a sustainable and inclusive way and to fight climate change by financing ecological projects and decarbonising its portfolio. In 2022, the Dow Jones Sustainability Index ranked it in the top 2% of the most sustainable banks in the world and in the top 3 in Europe⁶⁷.

Société Générale is a multinational investment bank and financial services company. It is the fourth largest French bank by balance sheet with 1,7 trillion US\$ in total assets68. On 1 January 2023, the group announced the creation of its new retail bank "SG", the result of the merger of retail banks Société Générale and Groupe Crédit du Nord. The project, which started in 2020, aims to improve customer satisfaction and become a benchmark for the French market. All branches should be unified under the same banner by the end of 2025, starting with 1.000 points of sale in 2023. Around 10 million customers should benefit from this merger. 69

Deutsche Bank, founded in 1870, is a multinational investment bank and financial services company with a network that spans 56 countries through 1572 branches. It is a universal bank with four major divisions: Investment Bank, Corporate Bank, Private Bank and Asset Management⁷⁰ 71.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Banco Santander	Parent company	212 764	60 250	12 183	<u>Link</u>
BNP Paribas	Groupe BNP Paribas	182 656	46 467	11 406	Link
Societe Generale	Parent company	126 822	25 121	3 449	Link
<u>Deutsche Bank</u>	Deutsche Bank Group	90 130	28 880	4 892	<u>Link</u>
Credit Agricole	Groupe Crédit du Nord	75 125	25 361	7 343	Link

Source: Orbis | Financials Last year available

Non-banking issuers

AirPlus is a licensed payment institution that provides business travel payment services in over 56 countries. Its services are designed to streamline business travel planning. For instance, the company issues virtual credit cards (Mastercard) that enable employees to make payments for various travel-related services such as hotel rooms, flights, and rental cars. Additionally, AirPlus offers business accounts to assist companies in managing travel expenses and debit accounts for paying for flights without incurring additional credit card fees. With approximately 49,000 business customers, AirPlus serves a significant segment of the corporate travel market⁷². In 2023, SEB Kort Bank AB, a subsidiary of SEB Group bought all shares of Lufthansa AirPlus Service Karten Gmbh⁷³.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Lufthansa AirPlus</u>	Deutsche Lufthansa AG	1 032	n.a.	n.a.	Link

Source: Orbis | Financials Last year available

https://www.fsb.org/2022/11/2022-list-of-global-systemically-important-banks-g-sibs/

https://www.santander.com/en/press-room/press-releases/2022/12/santander-among-the-worlds-most-sustainable-banks-in-the-dowjones-sustainability-index-2022 https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/the-world-s-100-largest-banks-2022-69651785

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Payment processing & gateway providers

In this highly competitive market, certain European players have achieved significant global prominence, particularly in the realm of payment processing. Adyen, Worldline, and Nexi are prominent international players and are widely recognized as leaders in Europe.

Adyen is a Dutch company founded in Amsterdam in 2006. The company provides an all-in-one financial platform with end-to-end payment solutions and works with large companies around the globe such as H&M, Uber, McDonald's and Microsoft⁷⁴. In 2022, the company launched some new embedded financial products "Capital", "Accounts" and "Issuing". The suite allows companies to manage their cash advances, bank accounts and card issuing as a single ecosystem. These new financial management tools are essentially aimed at SMBs looking for customisable, practical solutions for the management of their financials⁷⁵. After a decline in turnover and market capitalization in 2023, their results appeared to exceed expectations at the beginning of this year, which reassured investors⁷⁶.

One of the largest payment service providers, the French company Worldline operates in over 50 countries worldwide and serves various industries including retail, energy, financial institutions, manufacturing, mobility, and digital business, among others. It is the leading European payment processor, the foremost merchant acquirer in continental Europe, and the fourth-largest payment player globally⁷⁷. Following its acquisition of Ingenico in 2020, the company divested its Terminals business to sharpen its focus on core payment services⁷⁸.

Nexi is the 6th largest merchant acquirer worldwide according to the Nilon report. The company processed more than 16,3 billion transactions in 2022⁷⁹. It operates in strong partnership with around 150 partner banks, serving around 900.000 merchants and managing more than 43 million payment cards. In March 2022, a merger and integration took place between Nexi, Nets and Sia, leading to the strengthening of the Nexi Group. The principal reasons behind the shareholders' agreement with Sia were growth in terms of scale and an international dimension. This deal marks a step towards digitalising payments, as Italy is more reliant on cash than any other European country. Moreover, Italy presents massive levels of tax evasion in Europe and digital payments could be a way to reduce this. Furthermore, Nexi was able to increase in size as online purchases intensified during the pandemic and consumers moved away from using physical cash. The new group will be the largest group in Europe by number of merchants served (2 million), number of cards (120 million) and number of transactions executed each year (21 billion)80. In March 2024, Nexi partnered with Mastercard to advance open-banking payments across Europe. By collaborating, Mastercard Open Banking will enable e-commerce transactions through Nexi's gateways, benefiting merchants throughout Europe⁸¹.

Viva Wallet is another growing player in payment processing in Europe. With over 20 years dedicated to research & development of disruptive technologies, Viva Wallet responded to the fragmented European payments landscape with an ever-growing portfolio of innovative services through their own infrastructure entirely based for the first time on Microsoft Azure cloud. In December 2022 Viva Wallet and J.P. Morgan announced closing on a 48,5% ownership stake in Viva Wallet Holdings Software Development S.A. However, in 2024, Viva Wallet's founder accused J.P. Morgan of attempting to devalue the company and impede its growth in Europe, as well as its entry into the US market. J.P. Morgan's alleged intention to do so may stem from a contractual clause stating that the bank can assume full control of the company if its valuation falls below 5 billion euros by 202582.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Adyen	Parent company	4 196	2 148,43	698,32	<u>Link</u>
Worldline	Parent company	18 402	4 611,80	-817,30	<u>Link</u>
<u>Nexi</u>	Parent company	10 580	3 272,39	-1 003,76	<u>Link</u>
<u>Viva Wallet</u>	JP Morgan	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials Last year available

https://www.adyen.com/customers

https://thepaypers.com/payments-general/adyen-launches-embedded-financial-products

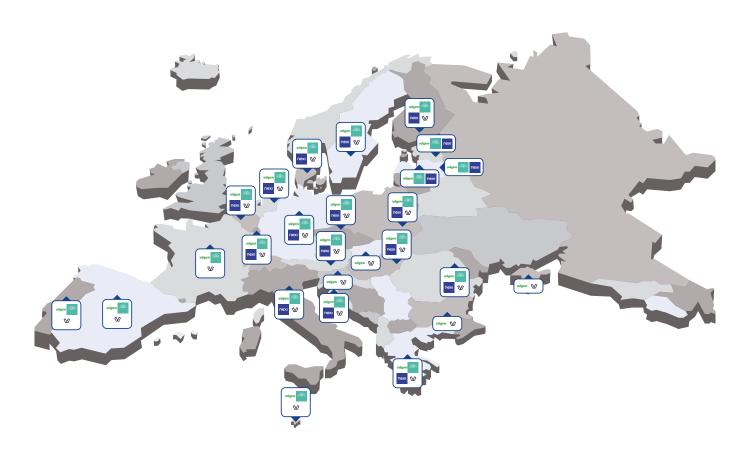
https://www.morningstar.fr/fr/news/245930/adyen-bondit-en-bourse-gr%C3%A2ce-%C3%A0-une-forte-croissance-au-second-semestre.aspx

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https://worldline.com/en/home/top-navigation/about-worldline/who-we-are.html

https://www.nexigroup.com/content/dam/corp/downloads/investors/financial-press-releases/2023/2023-03-07-nexi-fy2022-pr-financial-results.pdf https://www.bscapitalmarkets.com/nexi-ndash-sia-a-crucial-merger-for-a-new-european-leader-in-the-paytech-industry.html

https://www.mastercard.com/news/europe/en/newsroom/press-releases/en/2024/mastercard-and-nexi-team-up-to-advance-open-banking-payments-across-europe/https://www.pymnts.com/legal/2024/viva-wallet-ceo-accuses-jpmorgan-of-stunting-company-growth/



Open banking enablers

Open banking was mandated in Europe in 2018 with the introduction of the PSD2 (Payment Services Directive 2) initiative, which reshaped how financial data is shared. This spurred the development of various European open banking enablers, as presented below.

Tink is a Swedish company founded in 2012. Its data aggregation services are available in 18 European countries and the UK, with connections to 6.000* banks and financial institutions. The company was acquired by the global brand Visa in 2022. In April 2024, Visa launched open banking in the US through Tink and signed data access agreements with banks and fintechs on the merchant side, including Capital One, Fisery, Jack Henry, Dwolla and Max rewards⁸³. In Europe, Visa/ Tink concluded deals with major companies such as Adyen and Revolut.

Headquartered in Paris, Powens connects over 1.800 * institutions across 12 European countries, offering an open-banking platform to its clients. Additionally, they provide card issuing services, wealth management, and daily banking services.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Tink</u>	Visa	n.a.	n.a.	n.a.	Link
<u>Powens</u>	MEHPSG L.L.C.	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials Last year available

Infrastructure providers

Sopra Banking Software, present in 80 countries worldwide, has an efficient core banking system that allows its 1500 customers, including Santander, Société Générale, KCB Bank, and more, to run their banking operations.

Solaris is a technology company holding a banking licence. It has built an API-based white-label Banking-as-a-Service (BaaS) platform to power startups in the digital economy⁸⁴. Following the acquisition of Contis in July 2021, Solaris has been working to integrate Contis' platform into its own embedded finance offering and to combine the teams of the previously separate businesses. Through the merger, Solaris gained an e-money licence in the UK to add to its EU licences in Germany and Lithuania⁸⁵. The company has recently raised 96 million euros in funding to onboard the ADAC (Allgemeiner Deutscher Automobil-Club) credit card programme and further invest "in the resilience of its platform"86.

https://www.finextra.com/newsarticle/44051/visa-launches-open-banking-with-tink-in-the-us

https://www.pynnts.com/emea/2022/contis-brand-retires-following-embedded-finance-merger-with-solaris/https://www.fintechfutures.com/2024/03/germanys-solaris-bags-e96m-in-series-f-funding-round/

Headquartered in Luxembourg, Banking Circle is an important BaaS company, serving over 250 financial institutions and focusing on B2B global banking services. It is a fully licensed bank and offers services to payment and e-money businesses and banks of any size for them to seize opportunities in the payments industry.

Treezor is a subsidiary of the Société Générale Group and acts as a banking-as-a-service platform. It is a Principal Member of the Mastercard network⁸⁷. In 2022, the company continued its partnership with Mastercard with a view to extending its development across Europe. This collaboration gives Treezor access to Mastercard's whole infrastructure and new services such as Open Banking and credit services⁸⁸. With over 50 million transactions processed every year, the company is an expert in payments and risk management⁸⁹.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Solarisbank</u>	Parent company	834	108,37	-57,80	<u>Link</u>
Banking Circle	Banking Circle S.A.	505	46,68	-25,35	Link
Treezor	Société Générale Groupe	227	0,22	-0,54	Link
Sopra banking Software	Sopra Steria Group SA	n.a	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials Last year available



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https://www.treezor.com/company/

⁸⁸ https://thepaypers.com/online-mobile-banking/mastercard-treezor-extend-partnership

https://ibsintelligence.com/ibsi-news/5-banking-as-a-service-providers-accelerating-digitisation-in-europe/

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EU Players

Benelux

Introduction

Benelux is a densely populated and economically thriving region. It represents almost 15% of the total population of Western Europe⁹⁰ and 17% in terms of nominal GDP⁹¹, which makes it an important market for financial institutions.

Each country of this region has its specificities. In 2022, more than half the banks in Belgium, Luxembourg and the Netherlands were foreign banks⁹². These international actors come essentially from neighboring countries such as France, Germany or Great Britain. The Netherlands are characterized by their highly concentrated banking sector, as the 3 largest banks in the country (ING, Rabobank, ABN Amro) hold 87% of the total assets. Luxembourg, on the other hand, is one of the largest fund industries in Europe as well as an international finance center, thanks to its openness to foreign actors. Comparably to Luxembourg, Belgium hosts branches of several large foreign banks such as BNP Paribas Fortis, ING Belgium and Deutsche Bank AG.⁹³

The region is nonetheless also influenced by local players essentially active in their own countries such as Payconiq Bancontact in Belgium or Bung and iDeal in the Netherlands. These local players are described in detail in their respective sections.

There is a movement towards enhancing digital banking capabilities and expanding mobile payment options to cater to a tech-savvy population. Each country has made significant strides in integrating digital payments at the POS and online, reflecting a broader European trend towards cashless societies. Belgium and the Netherlands, for instance, have seen a decline in cash usage, with Belgium experiencing a dramatic drop nearly to half between 2015 and 2023 and the Netherlands maintaining a steady rate of cash use despite expectations. Luxembourg, while still valuing cash transactions, notes a decline in ATM cash withdrawals.

Each country supports a blend of local and international payment systems. iDEAL dominates in the Netherlands, while Bancontact remains a staple in Belgium. Luxembourg, being a global financial hub, supports various international payment schemes, aligning with its role as a gateway for fintech companies into the EU.

Card payment schemes

Across the Benelux, there is a prominent trend towards embracing digital payment methods. In Luxembourg and the Netherlands, Visa and Mastercard dominate the card issuance spectrum, though Luxembourg shows a stronger preference for Visa, while in the Netherlands, a recent shift to standardize payment schemes has led to increased issuance of both Visa and Mastercard products. Belgium leans heavily on its local scheme, Bancontact, which not only serves as the backbone for card and mobile payments but also incorporates innovative features like QR code payments.

All three countries are moving away from traditional systems like Maestro. The Netherlands, for example, is phasing out Maestro in favor of more globally accepted payment options like Mastercard Debit and Visa Debit. Similarly, Belgium is replacing Maestro with Mastercard debit in its co-branded card offerings. This shift reflects a broader European trend towards standardization and greater international compatibility in payment systems.

Mobile payment adoption is accelerating across the region. The Netherlands' Tikkie and Belgium's Bancontact app exemplify the successful integration of mobile technology into everyday transactions, facilitating easy and secure peer-to-peer transfers. Similarly, the adoption of mobile payments at POS terminals has seen a significant rise in Belgium, indicating a robust growth trajectory that is likely mirrored in its neighbors.

The local online payment system, iDEAL, remains critically important, facilitating secure online transactions directly from bank accounts. Its success is a distinctive feature of the Dutch market, underscoring a strong preference for bank-based digital payment solutions over traditional card payments.

Bancontact presents significant features that appeal to business owners such as reduced risks of chargebacks. This aspect, coupled with Bancontact's dominance in the local market, underscores its role in shaping Belgium's payment landscape.

https://www.worldometers.info/population/countries-in-europe-by-population/

https://countryeconomy.com/countries/groups/european-union

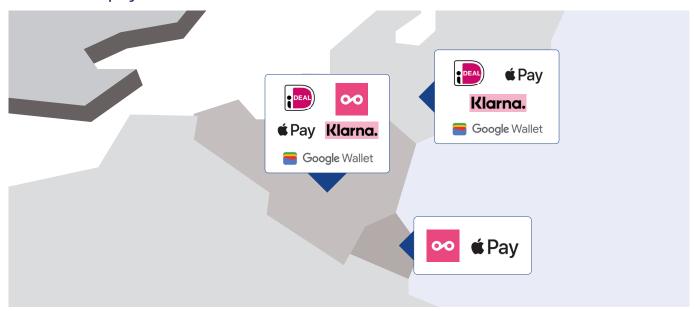
https://www.statista.com/statistics/706377/share-of-foreign-banks-in-the-benelux-by-country/

https://www.statista.com/statistics/737276/leading-banks-with-domestic-origins-in-the-benelux-by-total-assets/

Card payment schemes	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Mastercard Europe	Mastercard	500	6.708,43	1.385,82	<u>Link</u>
Bancontact Payconiq Company	Bancontact	36	32,52	4,69	<u>Link</u>

Source: Orbis | Financials 2022

Alternative payment methods



Across Belgium, the Netherlands, and Luxembourg, there is a pronounced shift towards digitalization in banking and payments, driven by consumer preferences for convenience and speed. While each country has developed distinct systems tailored to their specific market (e.g., Bancontact in Belgium, iDEAL in the Netherlands), there is a collective movement towards integrating more flexible and diverse payment solutions, including digital wallets and BNPL services. This adaptability not only enhances consumer experiences but also positions the Benelux region as a leader in the European financial landscape, ready to embrace future innovations and changes in the global economy.

Payconiq is a Luxembourg-based company specialized in account-to-account mobile payments and payment processing. Registered as an authorized payment institution in Luxembourg, the company is also active in Belgium and the Netherlands. It is worth mentioning that although very popular in Belgium, the Payconiq app was discontinued in 2022 in the Netherlands. The company will nonetheless stay active in the country and focus on its payment processing activities⁹⁴. In 2021, the Dutch company Currence announced a new collaboration with Payconiq as a technological partner for the launch of "iDEAL 2.0", an improved version of The Netherlands' most popular online payment scheme iDEAL, scheduled in early 202295.

Luxembourg's payment landscape is distinguished by a strong inclination towards mobile and peer-to-peer payment solutions. Payconiq leads this sector, supported by major local banks and offering comprehensive services from mobile payments at POS to bill payments via QR codes. Luxembourg also serves as a European hub for significant e-payment players like PayPal and Amazon Payments, benefiting from the country's regulatory environment conducive to financial innovation. The presence of PingPong, a solution for cross-border payments, and PPRO, which simplifies access to local payment methods for businesses, highlights Luxembourg's role as a key player in facilitating international commerce and finance.

Belgium's payment environment is led by Bancontact Payconiq, which is the preferred payment method for various transactions, including in-store, mobile, and online. In 2022, mobile payments via Bancontact or Payconiq saw a significant increase, accounting for 82% of online payments⁹⁶. This platform's popularity is due to its speed, security, and user-friendly interface. Belgium also sees a significant use of digital wallets like PayPal, Apple Pay, and Google Wallet, with predictions indicating that wallet usage at POS will grow from 7% in 2021 to 15% by 2026⁹⁷. Despite a cultural aversion to debt, alternative payment methods like Klarna's Buy Now Pay Later (BNPL) continue to grow, complemented by offerings from Paypal and Riverty, highlighting an expanding e-commerce penetration.

https://siliconcanals.com/news/startups/payconiq-discontinue-netherlands/

https://www.currence.nl/en/nieuws/payconiq-technology-partner-ideal/https://www.bancontact.com/en/news/payments-with-bancontact-and-payconiq-increase-by-54-5-in-five-years#:~:text=In%202022%2C%20there%20were%20over,bank%20 card%20and%20card%20reader

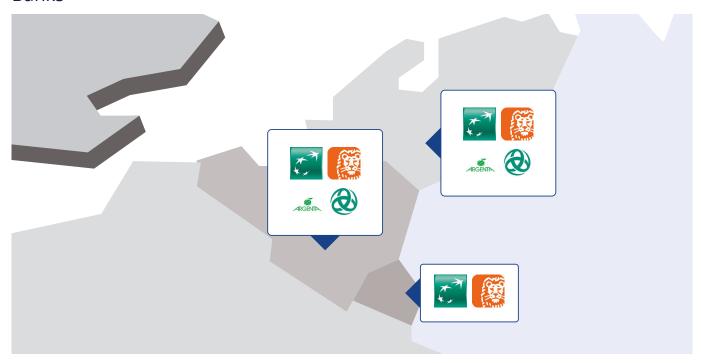
https://www.fisglobal.com/en/-/media/fisglobal/files/campaigns/global-payments-report/FIS_TheGlobalPaymentsReport2023_May_2023.pdf

The Netherlands showcases a robust digital payment system with iDEAL leading as the primary method, handling transactions worth 107 billion € in 2022⁹⁸. iDEAL's market share in e-commerce has stabilized at about 70%, emphasizing its pivotal role in the Dutch payment ecosystem⁹⁹. The system's integration across Dutch banks, which act as both acquirers and issuers, further cements its utility. Additionally, the Tikkie app, which utilizes iDEAL for processing payment requests via social media, underscores the country's innovative approach to integrating technology with everyday financial transactions. Buy Now Pay Later (BNPL) options like Klarna, Tinka, and Spraypay also reflect the growing diversity in payment methods, catering to varied consumer needs.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Payconiq</u> <u>International</u>	Independent company	n.a.	12,74	-14,83	<u>Link</u>
Apple Pay	Apple	n.a.	n.a.	n.a.	<u>Link</u>
Google Wallet	Google	n.a.	n.a.	n.a.	<u>Link</u>
Klarna	Parent company	n.a.	n.a.	n.a.	Link
ideal	Parent company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Banks



The banking sectors in Luxembourg, the Netherlands, and Belgium each reflect distinctive characteristics shaped by their unique economic environments, regulatory frameworks, and market demands. Despite these differences, there is a common regional trend towards digitalization and integration of innovative financial services.

Luxembourg stands out as a major financial hub in Europe, home to over 120 banks with a combined asset total of approximately 930 billion €.¹⁰⁰ The country's banks, primarily subsidiaries of foreign institutions, offer a range of sophisticated services tailored to an international clientele. Key players include Spuerkeess, BGL BNP Paribas, Banque Internationale Luxembourg, ING Luxembourg.

https://stripe.com/en-nl/resources/more/ideal-an-in-depth-guide

⁹ https://www.ideal.nl/en/latest

https://www.statista.com/statistics/683391/number-of-banks-in-luxembourg/

The Dutch banking sector is characterized by its high concentration, with three major banks—ING, Rabobank, and ABN AMRO—dominating the market, holding 87% of total assets. ¹⁰¹ This consolidation has facilitated digital banking services such as the widespread adoption of mobile and online banking. The sector's focus on sustainability is exemplified by Triodos, a leader in green banking. The Dutch banks are predominantly issuers of Maestro and Vpay debit cards, though there's a transition towards integrating more universally accepted payment schemes like Mastercard and Visa.

Belgium's banking landscape is diverse and highly international, with significant foreign bank presence and a range of specialized financial products targeting various consumer segments. The leading banks, such as BNP Paribas Fortis, KBC, Belfius, and ING Belgium, offer extensive digital banking services, including mobile banking apps ranked highly for their functionality and user-friendliness. Bancontact is the most widely used payment system, reflecting a preference for local solutions, although there is also substantial use of international payment systems.

To conclude, BNP Paribas and ING are the two banks that dominate the Benelux region.

The largest bank in the Netherlands, ING operates in over 40 countries in the world and is particularly well implemented in Belgium and Luxembourg. The fourth largest bank in Belgium¹⁰² and seventh largest in Luxembourg in terms of assets¹⁰³, the bank offers services in retail banking, business banking, private banking, wholesale banking, financial leasing and assets management¹⁰⁴.

BNP Paribas Fortis is the Belgian branch of French group BNP Paribas and results of the sale of Fortis Bank to BNP Paribas after the financial crisis of 2008. It is the major bank in Belgium, representing 19% of total assets in. the Belgian banking industry and provides all classic services from retail & business banking to asset management.¹⁰⁵ The bank is also active in Luxembourg through its branch BGL BNP Paribas (previously Fortis Banque Luxembourg) which is Luxembourg's thirds' largest bank in assets.¹⁰⁶

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
BNP Paribas Fortis	BNP Paribas	n.a.	21.301,00	3.542,00	<u>Link</u>
<u>ING Bank</u>	ING Groep NV	57.569	19.106,00	7.392,00	Link
Argenta Spaarbank	Investar SA	837	710,95	242,60	Link
<u>Triodos Bank</u>	Triodos Bank N.V.	1.679	375,11	77,18	Link

Source: Orbis | Financials 2022

Non-banking issuers

Across Luxembourg, the Netherlands, and Belgium, non-banking issuers contribute significantly to the financial ecosystem by offering specialized services that address niche markets and broader consumer needs. These institutions not only complement traditional banking but also drive innovation in the financial sector, adapting to and shaping the evolving demands of modern consumers and businesses in the Benelux region. These issuers often target specific niche markets, providing tailored services that traditional banks may overlook. For instance, Belgium's non-banking issuers focus significantly on the food industry with meal vouchers, while Luxembourg's iBAN-X offers specialized payment services for global transactions, underscoring a strategic approach to meeting the unique needs of diverse customer bases.

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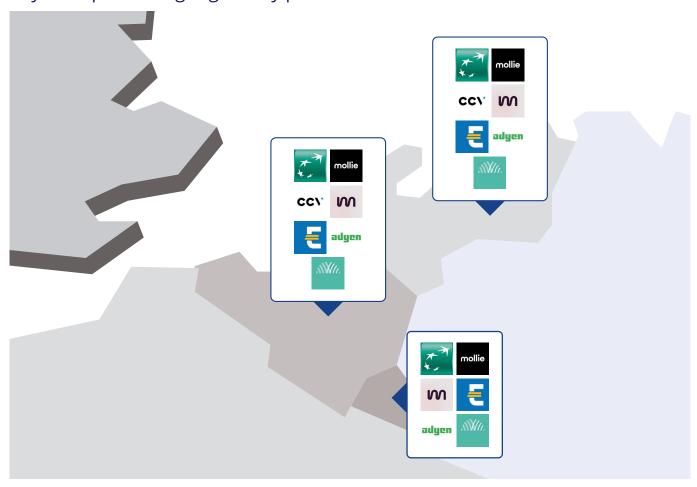
https://thebanks.eu/countries/Belgium/major_banks

https://thebanks.eu/countries/Luxembourg/major_banks https://www.ing.com/About-us/Profile/ING-at-a-glance.htm

⁰⁵ https://thebanks.eu/banks/10665

https://thebanks.eu/countries/Luxembourg/major_banks

Payment processing & gateway providers



Across Belgium, the Netherlands, and Luxembourg, there is a pronounced emphasis on integrating advanced technological solutions to streamline payment processes and enhance security. The region's commitment to supporting both local businesses and international operations through efficient payment systems is evident in the substantial investments in digital infrastructure and partnerships.

While Belgium and the Netherlands feature a mix of local giants and innovative startups pushing the envelope in payment technologies, Luxembourg focuses on serving as a hub for global financial services with a strong emphasis on cross-border transactions and digital innovation.

In Belgium, Worldline dominates the payment processing landscape, handling a vast majority of transactions ranging from in-store card swipes to online payments. This comprehensive coverage ensures high efficiency and security across payment channels. Axepta BNP Paribas Benelux, another major player, expanded its capabilities by acquiring part of Ingenico's in-store activities, thereby strengthening its position as the second leading payment service provider in Belgium.

Isabel, a significant fintech entity created by Belgium's banks, simplifies corporate and SME financial operations by consolidating payments and account information across 27 partner banks. This integration is particularly beneficial for treasury operations in corporate settings, promoting efficiency through digital solutions like the ItsMe app.

Luxembourg's payment processing scene is significantly influenced by Worldline, which acts as the primary processor. The country also hosts innovative companies like Mangopay, which specializes in payment solutions for online platforms and marketplaces, supported by substantial investment to bolster its global presence.

Mangopay is a payment gateway for platforms headquartered in Luxembourg. Some of its customers include Vinted, Chrono24 and Vestiaire Collective. In 2022, Mangopay announced the arrival of Advent International as their new majority shareholder. The private equity company pledged 75 million € to help Mangopay become a global leader for platforms and marketplaces.

The Netherlands boasts a robust array of payment processors known for innovation and growth. Adyen, a standout in the sector, processes a considerable volume of transactions nationally and globally, with significant contributions from major companies like Meta and Uber. Its recent development of an all-in-one Android POS terminal underscores its commitment to enhancing merchant services.

Mollie, another fast-growing processor, has enhanced its service offerings through partnerships, such as with BigCommerce, solidifying its role in the e-commerce sector. EquensWorldline, part of the Worldline group, leads in instant payment processing across the Eurozone, highlighting the Netherlands' pivotal role in European payment processing.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Adyen	Parent company	3.332	8.999,52	698,32	<u>Link</u>
Mollie Holding	Parent company	723	65,70	-113,88	Link
<u>Isabel</u>	Parent company	219	89,71	4,94	Link
Worldline Financial Solutions	Parent company	21	44,27	7,48	Link
Mangopay	Advent International	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Open banking enablers

In Belgium, the Netherlands, and Luxembourg, open banking is shaping up as a significant force in financial services, driven by both regulatory changes and the evolving needs of businesses and consumers. Each country, however, faces its unique challenges and opportunities in embracing this transformative trend.

While the trajectory of open banking in the Benelux region is marked by considerable enthusiasm and strategic investments, the pace and penetration of open banking services vary. Belgium and the Netherlands appear more advanced in their implementation, driven by a combination of regulatory support and proactive industry movements. Luxembourg, while slower, is laying down significant infrastructure to support open banking, which could transform its financial services landscape in the coming years. These developments indicate a strong future for open banking in the Benelux, promising more innovative, efficient, and customer-centric banking solutions.

In Belgium, optimism among bank executives about open banking is high, with a majority viewing it as a positive development. This is evidenced by a survey conducted by Tink, which showed that over 87% of Belgian bank executives are enthusiastic about the prospects of open banking ¹⁰⁷. Despite this, the practical implementation faces hurdles as fintech companies report difficulties in accessing banking data due to stringent security claims by banks, which can stall third-party agreements. Ibanity, a member of the Isabel Group, stands out as a key player in this sector, providing APIs that allow other companies to create enhanced banking experiences. Ibanity's services are utilized by major Belgian banks like BNP Paribas Fortis, Belfius, ING, and KBC, reflecting a growing integration of open banking solutions in the financial landscape.

The Netherlands shows a robust engagement with open banking, supported by investments in innovative platforms like Cobase by major institutions such as ING Group, in collaboration with Nordea and Crédit Agricole SA. Cobase operates as a multi-bank platform that simplifies payment and treasury services for corporates, reflecting the advanced state of open banking in the country. The Netherlands currently hosts a diverse ecosystem of banks, account providers, third-party providers (TPPs), APIs, and aggregators, underscoring a comprehensive and mature open banking environment. The survey conducted by Tink showed that over 85% of bank executives in the Netherlands are enthusiastic about the prospects of open banking (compared to 87% in Belgium)¹⁰⁸.

In Luxembourg, open banking adoption is progressing, albeit more slowly. Spuerkeess has been proactive, offering customers the ability to access their accounts across major retail banks not only in Luxembourg but also in neighboring countries. However, active utilization rates remain low, with less than 5% of customers using it actively¹⁰⁹. LuxHub, created by major players like BCEE, BGL BNP Paribas, POST Luxembourg, and Banque Raiffeisen, is pivotal as it operates LuxHub, a common API platform, and holds a Payment Institution license, making it a central figure in Luxembourg's open banking landscape. Finologee also contributes significantly, providing compliant platforms and APIs that cater to a range of banking needs from KYC/AML compliance to professional payments.

https://resources.tink.com/hubfs/05%20Resources/Reports/2021%20reports/The%20open%20banking%20revolution%20-%20Tink%20survey%20report.pdf

https://resources.tink.com/hubfs/05%20Resources/Reports/2021%20reports/The%20open%20banking%20revolution%20-%20Tink%20survey%20report.pdf

https://delano.lu/article/open-banking-is-here-to-stay

Infrastructure providers

In the Benelux region, Luxembourg, the Netherlands, and Belgium each boast a robust set of infrastructure providers that drive innovation and efficiency in the financial services sector. Luxembourg serves as a pivotal hub for global financial services, highlighted by Banking Circle, which processes a significant portion of Europe's B2C e-commerce flow and serves major clients like Stripe and Paysafe. Dock Financial and iBAN-X by COMO enhance the region's capabilities with advanced API-driven platforms that support diverse banking services, including cloud-based Banking-as-a-Service and global payment solutions.

In the Netherlands, Five Degrees and Currencycloud push the envelope in digital banking transformation and cross-border payment solutions, helping local and international businesses streamline operations and expand globally. Meanwhile, Belgium focuses on optimizing its financial infrastructure through initiatives like Batopin and Jofico, which aim to reduce ATM operational costs and improve banking access across the country. ATM pooling projects are also implemented or ongoing in the Netherlands and Luxembourg (Geldmaat and Bancomat). This is complemented by the rise of Banking-as-a-Service, as seen with Aion and Vodeno, which integrate modern payment solutions into everyday banking apps.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Aion</u>	Parent Company	163	17,96	-24,03	<u>Link</u>
Five Degrees Holding	Parent Company	110	n.a.	-4,71	Link
Currencycloud	Parent Company	10	n.a.	n.a.	Link
<u>Vodeno</u>	Parent Company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022



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Belgium

Introduction

Home of EU's headquarters and capital of Europe, it comes as no surprise that Belgium is home to international players regarding the payment industry. Fuelled by the COVID-19 crisis and new emerging technologies, Belgium is pursuing its shift towards a cashless society. The number of digital transactions is expected to reach €36,97bn in 2024, and with a CAGR of 7,61%, is projected to a total amount of €49,56bn in 2028.¹¹⁰

While the annual value of card transactions was €143,26bn in 2023 with a CAGR of 3% until 2028, cash withdrawals are plummeting.¹¹¹ Indeed, a decrease in cash usage of almost 50% between 2015 and 2028, with only 13% to 16% of Belgians prefer to make payments in cash was recorded in recent years.¹¹² It is no surprise that the pandemic was the major driver of this trend. In 2019, only 30% of Belgians had experienced contactless payment. This number increased to 70% in 2022.

The cashless transition is also accelerated by the increasing availability of instant payments, as well as the obligation in Belgium to offer electronic means of payment. Indeed, businesses must offer their customers at least one electronic means of payment. Companies are, nonetheless, free to choose the solution that best fits their economic situation and clientele.¹¹³ In order to maintain some cash usage in the country, the ECB is defending the availability of cash withdrawal and usage within Belgium, which has led to a recent and ongoing optimization of the ATM's network.



https://www.statista.com/outlook/dmo/fintech/digital-payments/belgium

https://www.globaldata.com/store/report/belgium-cards-and-payments-market-analysis/

https://www.sia-partners.com/en/insights/publications/evolution-a-cashless-society-belgium-0 https://economie.fgov.be/en/themes/sales/payments/obligation-offer-electronic

Card payment schemes

Bancontact is the most popular payment method, with millions of cards in circulation and more than 150.000 average daily transactions, more Bancontact cards exist than Belgian residents. Bancontact is linked to and owned by the major Belgian banks. Users can pay online or in person through contactless and chip-and-pin payment terminals. They can also use the Bancontact app and send payments with a custom generated QR code. Business owners appreciate the fact that Bancontact payments are irreversible once confirmed, which reduces the number of chargebacks. If you're hoping to accept payments from Belgian customers, you'll benefit from Bancontact's national popularity and its robust fraud protection measures.

As will be discussed in the section on local and alternative payment methods, Bancontact Payconiq is the preferred online payment method, followed by Visa on the rise, Mastercard, and American Express. ¹¹⁴ Visa and Mastercard are fighting for the 2nd place while American Express is far less used. Bancontact cards are often co-branded with Mastercard's debit card, Maestro. As from July 2023, Maestro debit is progressively being replaced by Mastercard debit. ¹¹⁵ Co-branded cards are important for Belgium with lots of international travelers as there is a need to allow consumers to use their card abroad. Once holding the top spot, credit cards are now Belgium's second most common payment method. The most popular credit card brands among Belgian customers are Visa, Mastercard, and American Express. Belgians tend to make higher-value average purchases with credit cards than with Bancontact. While Bancontact is preferred for smaller purchases, Belgians tend to use credit cards for higher value purchases.

Bancontact is by far the leader on the Belgian market. Bancontact Payconiq reached more than 2,4 billion payments in 2023. The payment scheme is connected to 20 of the country's banks, and increasing adoption of its recurring payment solution, we expect to see Bancontact's popularity sustain as most interestingly, mobile payments at POS rose by 133% compared to previous year.¹¹⁶

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https://www.statista.com/statistics/816436/leading-brands-in-payment-cards-in-belgium/

https://www.vrt.be/vrtnws/en/2023/05/23/maestro-debit-card-will-become-debit-mastercard-from-1-july/

https://www.bancontactpayconiq.com/en/news/mobile-payments-with-bancontact-and-payconiq-increase-tenfold-in-five-years.

Card payment schemes	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Mastercard Europe	Mastercard International	500	6.708,43	1.385,82	<u>Link</u>
Bancontact Payconiq Company	Belfius, BNP, KBC & AXA	36	32,52	4,69	<u>Link</u>
Alpha Card Merchant Services	American Express Company	12	9,34	0,47	<u>Link</u>

Source: Orbis | Financials 2022



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Alternative payment methods

Bancontact Payconiq is the preferred payment method among Belgians. This method allows all types of payments to be made, from in-store transactions using a bank card to smartphone payments using contactless technology (NFC), as well as online transactions via the Bancontact application. In October 2022, 82% of online payments by mobile were made using Bancontact or Payconiq, an increase of almost 50% compared to 2019.

The popularity of Payconiq comes from its ability to meet the expectations of Belgian consumers as a fast, secure means of payment via a user-friendly app. Payconiq by Bancontact app was used by 2 million Belgians in 2023 to make a mobile payment, and if we add those who used a banking app integrating Bancontact and/or Payconiq, we are talking about several million Belgians.¹¹⁷

Belgium is home to a few cross-border payment and peer-to-peer services, including Wise, Worldremit, Moneygram and MoneyTrans. As the capital of Europe, it should come as no surprise that Belgians are open to embracing all things cross-border.

Digital wallets are on the rise. PayPal is among the leaders in Belgium's digital wallet market, alongside other international companies such as Apple Pay and Google Wallet. According to the FIS Report on Global Payments, wallets' share of POS transaction value is expected to double between 2021 (7%) and 2026 (15%).¹¹⁸

Other European payment methods are also in use in Belgium such as Klarna's Buy Now Pay Later (BNPL). Even though there is a debt aversion, and a Bancontact culture in Belgium, it is worth mentioning that the BNPL market continues to grow, along with an increasing e-commerce penetration. Other actors present in the BNPL sector in Belgium include Paypal and Riverty. In 2022, BNPL accounted for 14% of e-commerce share in value transactions.¹¹⁹

We also have to take into consideration the acquisition of Payconiq International (PQI) by the European Payments Initiative (EPI), along with the acquisition of iDEAL, represents a significant consolidation in the European payments industry, aiming to create a unified payment platform for Europe that supports direct account-to-account transactions. This platform aims to serve as an all-in-one solution for digital wallets and payment methods, enhancing the payment experience for consumers and businesses alike. This new P2P digital wallet is set to be deployed by the end of the year in Belgium, France, and Germany.¹²⁰

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Wise Europe	Wise Payments Limitted	18	258,87	2,29	<u>Link</u>
Paypal Europe	Parent company	2.402	239,24	4,23	<u>Link</u>
Moneygram International	MoneyGram International, Inc	25	230,48	0,96	Link
Bancontact Payconiq Company	Belfius, BNP, KBC & AXA	36	32,52	4,69	<u>Link</u>
Worldremit Belgium	WorldRemit	5	17,80	0,07	<u>Link</u>
Moneytrans Payment Services	FSA Holding	73	17,07	-2,39	Link
Google Pay	Parent company	n.a.	n.a.	n.a.	Link
Apple Pay	Parent company	n.a.	n.a.	n.a.	Link
European Payments Initiative	European Payments Initiatives	n.a.	n.a.	n.a.	Link
Klarna	Parent company	n.a.	n.a.	n.a.	Link
Riverty	Parent company	n.a.	n.a.	n.a.	Link

https://www.payconig.be/en/news/mobile-payments-with-bancontact-and-payconig-increase-tenfold-in-five-years

FIS Global Payments Report 2023

FIS Global Payments Report 2023

https://www.payconiq.com/payconiq-international-announces-acquisition-by-epi-company/



Banks

The banking sector in Belgium is characterised by a variety of players active in different market segments with a focus on retail. Another feature of the sector is its high degree of international openness. As a matter of fact, out of the 78 banks established in Belgium, more than half of them are branches and subsidiaries of foreign companies.

The four leading Belgian banks are BNP Paribas Fortis, KBC, Belfius and ING Belgium.

BNP Paribas Fortis, daughter of the French banking group BNP Paribas, holds 19 % of the Belgian market in terms of total assets. 121 The bank has its own mobile bank called Hello Bank! In early 2021, in collaboration with Visa, it released the Visa Debit Card, supposedly more widely accepted than Maestro, Mastercard's debit card. BNP Paribas was also the first bank to include ApplePay, Google Pay and Garmin Pay.

On top of this BNP bought and integrated Bpost Bank this year. This aims to enhance BNP Paribas Fortis's customer relationships by offering more convenient access to banking services. 122 Bpost Bank was the banking segment of the National Post Bpost.

The second largest bank is KBC, with an 8% increase compared to last year in total assets, representing 19% of the market. KBC is an acronym for Kredietbank ABB Insurance CERA Bank. With 3,9 million local customers, the bank mainly targets individuals and SMEs.¹²³ KBC was the first major Belgian bank to offer the Instant Card Service. This service allows customers who apply for a new debit card to receive their new digital card in KBC Mobile. It is also a leader in mobile banking. According to an international study conducted by Sia Partners on 155 mobile applications in 22 countries, the KBC mobile application is in third position in terms of service, innovation, and user-friendliness, just behind the British neobank Revolut and Intesa Sanpaolo, Italia's largest bank. It outperformed Belfius' app which fell from second to seventh place.

Belfius is the third largest Belgian bank, with a market share of 13%. Owned by the Belgian government since 2015, Belfius is still a leader in mobile. In 2022, together with Proximus, Belfius announced the launch of Banx, a new banking app which allows customers to measure the impact of their transactions on the environment. Through Doconomy, a Swedish company providing tools to businesses in order to fight climate change, users can access a dashboard showing their CO2 production based on their transactions and obtain rewards in partner companies.

ING Belgium, which is a subsidiary of Dutch banking group ING Group, is in fourth position. The bank's total assets rose by 6% during the last year, representing a market share at 12%.

https://thebanks.eu/countries/Belgium/major_banks

Euroclear Bank is a recent key player in Belgium and being the exception of not being a retail bank. With a growth of 366% in assets, and its 10% market share. Headquartered in Belgium, this bank provides settlement and related securities services for cross-border transactions, essentially acting as a central securities depository for international and national securities.

Alongside these four leaders are a multitude of smaller local players such as Argenta, VDK Bank, Crelan, EuropaBank, AXA, Beobank, Triodos etc. It is worth nothing that Groupe Crelan bought AXA Bank and double in size during 2022.¹²⁴

And in terms of payment, is well known for International payments with companies such as SWIFT who is connected with more than 11.000 institutions in more than 200 territories. 125

In addition, the use of neobanks is an ongoing trend. Between 2020 and 2022, the number of neobank users almost doubled, going from 170.000 to 320.000 and might double again by 2027.126 Transaction value, for its part, has already quadrupled since 2019. Neobanks in use in Belgium include Revolut, N26, the Dutch Bung as well as Aion Bank, which is headquartered in Brussels. Aion bank already had more than 30,000 customers in March 2021¹²⁷ and was recognised as one of the top competitors in digital value creation in Europe in 2022, the second in Belgium. 128

Finally, it is worth mentioning that Nickel made its debut in Belgium in 2022. The company, bought by BNP Paribas in 2017, aims to provide bank accounts to underbanked citizens by working with bookshops and tobacconists across the country.

Regarding Neobanking, their transaction value within the sector is forecasted to hit €18,73 billion in 2024. From 2024 to 2028, it's anticipated to grow at an annual rate of 13,57%, culminating in a total value of €31,16 billion by the end of 2028.¹²⁹

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
BNP Paribas Fortis	BNP Paribas	n.a.	21.301,00	3.598,00	<u>Link</u>
KBC Bank	KBC Groep NV/ KBC Group SA	28.741	7.383,00	2.197,00	Link
Belfius Banque	Etat Belge	6.715	3.169,27	932,95	<u>Link</u>
ING Belgium	ING Groep NV	n.a.	2.972,03	330,60	<u>Link</u>
Euroclear Bank	Parent company	1.856	2.255,68	1.147,61	<u>Link</u>
SWIFT	Parent company	3.279	947,52	38,08	<u>Link</u>
Crelan	Crelanco SCRL	2.199	755,22	158,20	Link
Argenta Spaarbank	Investar SA	837	710,95	196,08	Link
AXA Bank Belgium	AXA SA	n.a.	383,53	81,27	Link
Beobank	Caisse Fédérale De Crédit Mutuel	1.020	282,42	30,16	Link
Bpost Banque	Bpost Banque SA	311	185,59	20,08	<u>Link</u>
<u>Europabank</u>	Crelanco SCRL	361	109,46	31,92	<u>Link</u>
<u>Vdk Bank</u>	VDK bank	276	80,09	17,76	Link
<u>Aion</u>	Warburg Pincus LLC	163	17,96	-24,03	Link
Bunq	Parent company	n.a.	n.a.	n.a.	Link
Revolut	Parent company	n.a.	n.a.	n.a.	Link
<u>N26</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
<u>Nickel</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
<u>Triodos Bank</u>	Triodos Bank NV.	n.a.	n.a.	n.a.	<u>Link</u>

https://www.crelan.be/fr/particuliers/newsroom/crelan-et-axa-bank-belgium-unissent-leurs-forces

¹²⁵ https://www.swift.com/about-us

¹²⁶ https://www.statista.com/outlook/dmo/fintech/neobanking/belgium?currency=EUR

https://www.rtbf.be/article/la-banque-en-ligne-aion-bank-a-deja-convaincu-plus-de-30-000-clients-10722022 https://aion.eu/be-en/news/aion-bank-recognised-as-benelux-second-best-in-digital-value-creation 127 128

https://www.statista.com/outlook/dmo/fintech/neobnking/belgium?currency=EUR

Non-banking Issuers

Non-banking issuers in Belgium include the meal-vouchers Sodexo, Edenred, and Monizze, but also companies such as Buy Way Personal Finance and Fimaser. Most of these players are active in the food industry.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Sodexo Belgium	Sodexo	2.483	319,06	41,65	<u>Link</u>
Edenred Belgium	Edenred	171	135,83	55,27	Link
Buy Way Personal Finance	Buy Way Consumer Finance	165	48,23	-2,84	Link
<u>Fimaser Plc</u>	Carrefour	65	24,62	2,35	Link
<u>Monizze</u>	Cooperateurs Salaries	58	22,74	7,35	Link

Source: Orbis | Financials 2022



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Payment processing & gateway providers

Worldline, a major French company, practically runs the payment scene in Belgium, managing almost every transaction there. They handle everything from swiping cards at stores to clicking 'pay' online, making sure all these payments go through smoothly and securely.

Axepta BNP Paribas Benelux, a subsidiary of BNP Paribas, took over a part of Ingenico's in-store activities in Belgium, which made it the number two payment service provider in Belgium. This acquisition only concerns the acquiring activities (card payment acceptance) and terminals on the Luxembourgish and Belgian markets. Ingenico's disposal of part of its Belgium business is the result of a decision by the European Commission based on the European Union merger regulation, following Worldline's acquisition of Ingenico in recent years. 130

Isabel is one of the leading fintechs in Belgium. Belgium's banks have created Isabel to allow corporate and SME to manage all their payment in a single platform rather than using all the banks online portals, this helps the development of Treasury centre for corporate. The group offers a wide range of payment solutions for companies. For instance, Isabel 6 brings together payments and account information from 27 partner banks in a single overview and, since 2022, it is now possible for users to log in using the ItsMe app. Ponto, a solution of Isabel group, allows professionals to create a personalised banking experience using European PSD2 bank account information and payment initiation. Ibanity is its open banking enabler.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Worldline	Worldline	672	687,66	156,38	<u>Link</u>
<u>lsabel</u>	Parent company	219	89,71	4,94	Link
Axepta BNP Paribas Benelux	BNB Paribas	74	23,08	-7,98	Link

Source: Orbis | Financials 2022

Open banking enablers

Belgian bank executives are amongst the most optimistic in Europe about Open Banking, with over 87% of those surveyed by Tink seeing it as a "positive development". Nonetheless, fintech companies still consider it as "mainly theoretical" as the access to banking data is still tricky. Non-financial companies need to be granted a licence by the National Bank of Belgium and some banks try to avoid the agreement by claiming a lack of security in third-party providers.¹³¹

Ibanity is a financial services integration platform. It is part of Isabel Group, a leading Belgian fintech. Ibanity enables other companies to create banking experiences with their APIs. It offers its services to the leading Belgian banks (BNP Paribas Fortis, Belfius, ING and KBC).

Open Banking Enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
lbanity	Isabel Group	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Infrastructure providers

While cash usage is decreasing, bank costs are increasing, but cash still remains an important part of the society, especially in more remote areas. To address this challenge, initiatives have been created to balance the costs for banks while ensuring the population retains access to cash.

Major banks, including KBC, Belfius, ING Belgium, and BNP Paribas Fortis, initiated Batopin (Belgian ATM Optimization Initiative) to optimize ATM-related activities under a neutral brand. These major banks recognized the potential for financial benefits through cooperation and established Batopin as a competitive initiative. 132 Batopin concluded an agreement with the federal government in which it undertakes to maintain some 4.000 distributors accessible by 2027, but with a better geographical distribution than today.

https://ingenico.com/en/newsroom/press-releases/worldline-welcomes-ingenico-creating-new-world-class-leader-payment https://www.taleo-consulting.com/future-of-open-banking-in-europe-belgium/

https://www.lavenir.net/actu/conso/2024/03/11/distributeurs-dargent-voici-ou-se-trouvent-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-deploiement-carte-les-points-cash-du-reseau-batopin-a-mi-chemin-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leur-de-leinteractive-CYZLOG47KVAPNMT5MOHZ6KB7UI/

On the other hand, Jofico, a Belgian joint venture formed by smaller banks including Crelan, AXA Bank, Argenta Group, vdk bank, and Bpost, aims to manage ATMs to reduce costs and optimize its network.

Banking-as-a-Service is growing as a megatrend as financial institutions pursue their digital transition, and Belgian companies are no exception. Aion and Vodeno collaborated with Mastercard to integrate in-app payment methods into Tricount. Additionally, Dutch neobank Bung announced its wish to acquire the company in 2022.

With 11 billion transactions and 250+ banking customers across 50 countries Sopra regroups in one place what is needed for seamless payments. With Request-to-Pay they enable customers to send and receive. They also offer payment execution for A2A payments, International Payments, SDD, Standing Order, Forex operations. They also leverage AI to combat payment fraud, money laundering and terrorist financing (AML/LAT). 133

Infrastructure Providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Sopra Banking Software Belgium	Sopra Steria Group SA	314	79,12	12,47	<u>Link</u>
Batopin	Belfius Banque and KBC Bank	12	8,18	-10,65	Link
<u>Jofico</u>	Main BE banks	n.a.	n.a.	n.a.	Link
<u>Vodeno</u>	Vodeno	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Expert Opinion

"The Belgian payment landscape is rapidly moving towards a cashless society supported, among other by a regulatory requirement that every merchant must accept electronic payments.

Nonetheless, cash remains an impact factor of society and the banks have organized to ensure access to cash to the population through the implementation of an ATM Pooling solution that can follow the consumers' behaviour.

European Payment Initiative performed first transactions and is due to go live with its wallet-based solution. Many of the Belgian banks are currently undergoing or will soon start core banking and payments hub transformations due to the aging of the existing infrastructure but also a need for modernization accelerated by ISO20022 and instant payments among others. This brings an opportunity to innovate and further develop."

Michal Zavodny | Director - Deloitte Belgium and Yannick Putzeys | Senior Manager - Monitor Deloitte Belgium

https://www.soprabanking.com/fr/paiements-cartes/#learn-more

Netherlands

Introduction

The Dutch payment system, known for its efficiency, is the home of a strong culture of C2C microtransactions, supported by a well-banked population that embraces electronic, contactless, and even cardless technologies. In 2023, POS transactions in the Netherlands amounted to 7,04 billion €, with 79,7% made by debit card (+0,6%) and 19,9% by cash (unchanged); credit cards accounted for the remaining 0,4% of transactions (-0,01%). Contrary to expectations, cash usage has not decreased, and credit cards remain unpopular due to Dutch residents' aversion to fees.

Contactless payments have become the norm, as nearly all payment terminals now accept them, and every bank cardholder can request a contactless card. However, the growth of contactless payments is reaching a plateau, with their share hitting 91% in 2023. Of these, cardless payments continue to rise, reaching 37% in 2023 (+7%), driven by a customer shift towards POS payments via NFC-equipped mobile phones instead of physical cards.¹³⁴

Maestro and Vpay debit cards, along with local payment methods such as iDEAL and the Tikkie app, are the most widely used and accepted, with iDEAL being the dominant force in the Dutch payment landscape. Almost nine out of ten Dutch bank customers use mobile devices (smartphones and tablets) or internet banking (on desktops and laptops) for banking services. In 2023, there were 347 million e-commerce transactions in the Netherlands, valued at €34,7 billion.¹³⁵ Interestingly, while the number of transactions decreased by 7% compared to the previous year, their total value increased from 30,6 billion € in 2021 to 33,3 billion € in 2022. Among these transactions, 51% were executed on computers, 33% on smartphones, and 14% on tablets, clearly showing a shift from computer to mobile banking.¹³⁵

Card payment schemes

As a result of the Dutch Payment Association's project to standardize the payment scheme landscape, Mastercard and Visa are now the standard card schemes for all major banks. Mastercard and Visa respectively having Maestro and Vpay debit cards. They were traditionally the most widely used and accepted forms of payment in the Netherlands, and the local online payment system iDEAL played a significant role in enabling consumers to make secure transactions directly from their bank accounts for online purchases and bill payments, the Tikkie app developed by ABN AMRO facilitated peer-to-peer payments by allowing users to request money through social media or messaging apps via a payment link. Previously, international cards like Mastercard and Visa were widely accepted online, but were rarely accepted at POS, making the Netherlands somewhat of an exception within the EU. To address this, the Dutch Payment Association initiated a project to integrate Mastercard and Visa more thoroughly into the local market, prompting major banks to start issuing these cards throughout 2023. This shift coincided with Mastercard's announcement that Maestro cards would be phased out by mid-2023, prompting customers to transition to new debit cards during the year.

The rollout of Mastercard debit and Visa Debit cards is a market-wide initiative led by the Payments Association Netherlands ('Betaalvereniging Nederland'), coordinating a central program to ensure the timely upgrade of the entire payment landscape in the Netherlands. As previously mentioned in the introduction, the most commonly used debit cards in the Netherlands are Mastercard's Maestro and Visa's V PAY. However, over the next two years, more issuing banks will be offering Debit Mastercard and Visa Debit cards, already widely used in the rest of Europe. As a result, an increasing number of customers will be using them, as Maestro card will be completely phased out in the coming years. However, not all POS terminals have the necessary software to accept these cards yet, so some will need an upgrade during 2024.¹³⁷

Card payment schemes	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Currence iDEAL	ABN Amro Bank NV	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Alternative payment methods

iDEAL is the number one online payment method in the Netherlands and has been increasing steadily for the last 5 years. It reached 124 billion € in transactions in 2023, which is 16% higher than the previous year. iDEAL's market share in e-commerce has stabilized at 70% market share in 2022. ¹³⁸ The use of iDEAL makes the Dutch online payment market unique. Unlike card payments, iDEAL transactions are direct transfers from the customer's bank account to the merchant's account, offering immediate confirmation and eliminating the need for card details. While in most European countries Mastercard, Visa, and PayPal are the most widely used payment methods, here over 53% of customers preferred to use iDEAL in 2022 rather than other means of payment. ¹³⁹ Additionally, the majority of banks in the Netherlands servicing retail clients with payment accounts

https://factsheet.betaalvereniging.nl/en/, https://www.dnb.nl/media/t3ehwo3s/20230622_pwc-strategy_ticket_summary-en.pdf

https://factsheet.betaalvereniging.nl/en/

https://dutchreview.com/news/mastercard-to-stop-issuing-maestro-debit-cards-in-2023/ https://www.statista.com/topics/4909/e-commerce-in-the-netherlands/#topicOverview https://factsheet.betaalvereniging.nl/en/

https://www.ingwb.com/en/service/corporate-cards/debit-mastercard-and-visa-debit-card-to-be-rolled-out-in-the-netherlands

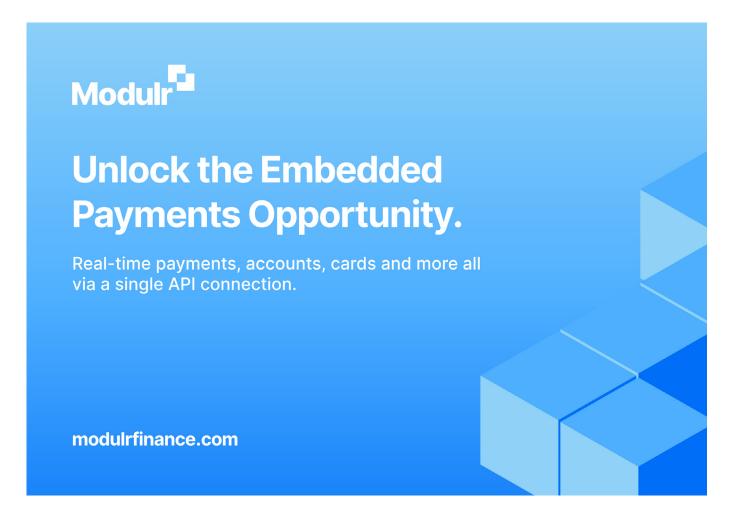
https://finxp.com/blog/10-top-payments-methods-in-europe-for-2022 *compared to 2022

act as both acquirers and issuers for iDEAL, further integrating it into the national payment infrastructure.

The Tikkie app developed by ABN Amro is a very popular local means of payment, which is based on the use of iDEAL. Used by over 7 million people in the country in 2024, representing 40% of the population, its popularity is partly due to the widespread use of WhatsApp, one of the country's most popular social communication platforms, because the payment requests are sent via this application. 140 141

Besides these payment methods, Buy Now Pay Later, or commonly written "BNPL" methods such as Klarna¹⁴², Tinka¹⁴³, Spraypay¹⁴⁴ and Riverty (previously called AfterPay) are also common. Each one of these offering a different time limit; Klarna has a 30-day limit, Tinka has a 14-day limit for free with a +12months limit with 14,9% interests, and Spraypay has 1 to 60 months ranging from 250€ to 10k€.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Tinka</u>	APAX	103	20,30	-6,18	<u>Link</u>
Klarna	Klarna Holding BV	n.a.	n.a.	n.a.	Link
Currence iDEAL	ABN Amro Bank NV	n.a.	n.a.	n.a.	Link
Spraypay	Parent company	n.a.	n.a.	n.a.	Link
Riverty	Parent company	n.a.	n.a.	n.a.	Link



https://www.statista.com/statistics/917381/number-of-users-of-tikkie-in-the-netherlands/

https://www.abnamro.nl/en/personal/internet-and-mobile/apps/Tikkie/index.html

https://www.klarna.com/nl/

https://www.tinka.nl/ https://www.spraypay.nl/

Banks

Following massive consolidation after the financial crisis, the Dutch banking sector is one of the most concentrated in Europe. The sector is dominated by three banks: ING is the largest, followed by Rabobank and ABN AMRO, representing 87% of the Dutch market in terms of total assets. The remaining 13% includes smaller banks such as the de Volksbank and the sustainable bank Triodos. 145

With a balance sheet of 976 billion € in 2023 (43% of the market share), ING is by far the largest bank in the Netherlands and is an iDEAL issuer and acquirer. Like all major banks in the Netherlands, ING issues mainly Maestro and Vpay debit cards, and also issues Mastercard credit cards.

Rabobank is in second place, with its total assets reaching 614 billion € (27% of the market share). The bank offers payment accounts and online banking services. Since August 2022, Rabobank's cardless payment system "Rabo Wallet" has been replaced by Google Pay, and Apple Pay. The other features will be managed by the Rabo App. 146

Finally, ABN Amro is in third place, with the bank having a balance sheet total of 378 billion € (17% of the market share) in 2023. ABN Amro has developed the mobile application Tikkie that allows users to send an online payment request (a 'tikkie') via WhatsApp or email, for instance. The receivers of a "tikkie" can then pay via iDEAL by clicking on the link provided. Due to the widespread use of the brand name, 'tikkie' is now also used in the Netherlands as a generic name for any form of online payment request.

Alongside the three major banks, smaller local players such as Volksbank also operate within the market, with specialized subsidiaries including SNS Bank, ASN Bank, and Regio Bank. Like ING and ABN AMRO in the past, the Volksbank has recently faced issues related to anti-money laundering (AML) litigation. Additionally, Triodos, a sustainable bank, has reported strong earnings. It's important to note that Aegon, a multinational company known primarily for its life insurance, pensions, and asset management, also owns Knab, a Dutch online bank operating as one of its subsidiaries. Knab, developed by Aegon Bank Group, offers business and private payment accounts, as well as online payment requests, and was acquired by BAWAG Group AG for 510 million €.

The presence of foreign banks is relatively small to non-existent in comparison to other European countries. In 2023, no major bank in the Netherlands is a foreign bank, compared to 81,5% foreign bank presence in Belgium and 92% in Luxembourg. 14' Foreign banks include Deutsche Bank and Handelsbanken, but are limited to a simple presence in the Netherlands.

In addition to traditional banking entities, several Dutch challenger banks including Bunq and Knab have significantly impacted the payments landscape. Bung, which operates a mobile application with a banking license, was the first in the Netherlands to receive such a license in over 35 years. In 2021, Bung announced it had amassed 1 billion € in user deposits, more than a tenfold increase since 2017. The neobank has successfully implemented a strategy focused on environmental protection and building a travel community. Notably, it is the first Al-powered bank in Europe, which has drawn ECB scrutiny, particularly concerning AML regulations. 148 Foreign challenger banks such as Revolut and N26 also enjoy popularity in the Netherlands. 149 Additionally, Bitfury, a European company valued at 444 million €, specializes in developing hardware and software solutions for secure asset transfers across the blockchain.

Several banks (ABN AMRO, ING and Rabobank) are transferring their ATMs to a new operator, Geldmaat. Geldmaat is a joint venture between the banks ensuring availability and accessibility of ATMs in the Netherlands. 150

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>ING Bank</u>	ING Groep NV	57.569	19.106,00	3.769,00	<u>Link</u>
<u>Cooperatieve</u> <u>Rabobank</u>	parent company	46.959	12.664,00	2.403,00	Link
ABN AMRO Bank	Parent company	20.038	7.820,00	1.867,00	<u>Link</u>
<u>De Volksbank</u>	the state of the Netherlands	3.887	965,00	191,00	Link
<u>Triodos Bank</u>	Stichting Administratiekantoor Aandelen Triodos Bank	1.679	375,11	49,79	Link
<u>N26</u>	Parent company	616	47,72	-201,46	<u>Link</u>
<u>Knab</u>	BAWAG Group	n.a.	1,24	0,00	Link
Revolut Bank	Revolut Bank	73	n.a.	n.a.	<u>Link</u>
Bunq	Pollen Street Capital Limited	n.a.	n.a.	n.a.	Link
<u>Deutsche Bank</u>	Deutsche Bank AG	n.a.	n.a.	n.a.	<u>Link</u>

Orbis Europe

 $[\]underline{\text{https://www.iamexpat.nl/expat-info/dutch-expat-news/mastercard-and-visa-debit-replace-maestro-and-v-pay-netherlands}$ 147

https://www.statista.com/statistics/706377/share-of-foreign-banks-in-the-benelux-by-country/_https://press.bunq.com/233077-bunq-becomes-the-first-ai-powered-bank-in-europe-as-it-unveils-its-own-genai-platform

https://www.asrnl.com/news-and-press/press-releases/20240102-asr-verkoopt-knab-aan-bawag-group-aghttps://www.abnamro.nl/en/personal/payments/geldmaat.html

Non-banking issuers

Modulr Finance offers a platform that automates payment flows, streamlines financial processes like payroll, and supports the development of new payment products across various sectors. Their services are enhanced by robust API support, crucial for integrating seamless payment systems in diverse industries.

Franx caters to multinational small and medium-sized enterprises (SMEs) by offering a streamlined platform for foreign exchange and international payments. They improve financial management for businesses dealing in multiple currencies by providing a single multi-currency account.

Part of the larger WEX Inc., WEX Europe Services specializes in tailored payment solutions for the automotive and travel industries. Their offerings, including fleet card programs and virtual card solutions, are designed to optimize how businesses manage and report their expenditures, providing clear benefits in cost management and operational efficiency.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
WEX Europe Services	WEX Inc	69	n.a.	1,65	<u>Link</u>
<u>Franx</u>	ABN Amro Bank NV	34	n.a.	-1,81	<u>Link</u>
Modulr Finance	Modulr Holdings Limited	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Payment processing & gateway providers

Adyen a rapidly growing processor and acquirer with an increase of 26% year-on-year of processed volume, representing a total of €970 billion in 2023.151 Despite being an international player, the Netherlands based payment processor has about 79% of its income within the country. 152 With offices around the world, it collaborates with companies like Meta, Uber, H&M, eBay, and Microsoft. Since 2022, Adven has its own all-in-one Android POS terminal. The terminal comes with a customisable app management system, which allows merchants to upload and manage their favourite apps. Their processed volume was €970 billion, up 26% year-on-year. Of these volumes, POS volumes were €160 billion, up 42% for the full year, and net revenue was €1.626 million, up 22% year-on-year. On top of this, online shops, and marketplaces on Adyen's fintech platform can now implement Billie's B2B BNPL payment method thanks to their new partnership. 153

Mollie, a Dutch payment processor renowned for its rapid processing capabilities, currently serves over 130.000* businesses across Europe. As an acquiring-focused provider, Mollie supports a diverse range of payment methods, including those from payment-enabling providers such as PayPal, iDEAL, and Klarna, as well as Visa and Maestro cards, Apple Pay, and Sofort. In May 2022, Mollie was designated as a Preferred Technology Partner of BigCommerce, significantly enhancing its integration capabilities within BigCommerce's e-commerce platform. Throughout 2023, Mollie significantly expanded its market presence through a series of strategic new partnerships.

EquensWorldline, a subsidiary of Worldline, is a payment processor headquartered in Utrecht. With its launch in the Netherlands and being chosen the instant payment processor for the largest Dutch banks, it also became the largest instant payment processor in the euro area in 2019.

European Merchant Service is a gateway operating at European level offering online and offline payment solutions. EMS was a joint venture created by ABN Amro and Fiserv. However, ABN AMRO sold its minority stake in EMS to Fiserv in 2023. As of now, Fisery, which previously held 51% of the shares, has acquired the remaining 49% stake from ABN AMRO, making EMS a wholly owned subsidiary of Fiserv. 154

International Card Services (ICS), an independent subsidiary of ABN Amro Group, offers outsourcing services for issuing Visa and Mastercard credit cards.

PAY, is an independent company providing all-in-one payment solutions including online in-store and omnichannel payments for businesses. Its solutions support all classic methods such as iDEAL, Visa and Mastercard as well as some more specific methods such as Alipay and WeChat.

CCV provides end-to-end payment solutions from fixed and mobile terminals to payment methods acceptance. The company serves online and brick-and-mortar shops mostly in Europe and counts more than 750.000 terminals for more than 120.000 clients.

CM.com is initially a mobile services company which also provides financial services. It is a reference in Conversational Commerce and offers a suite of products and solutions aimed at businesses to facilitate their everyday financial management: OR code creation, subscription fees collection, payment acceptance, etc.

Founded in 1999, Multisafepay is an independent company which offers tailor-made payment services to more than 18.000 small and medium businesses. In 2023 Multisafepay has released Click to Pay, a solution aimed at boosting conversion rates and reducing cart abandonment rates. 155

https://www.adyen.com/press-and-media/adyen-publishes-h2-2023-financial-results

¹⁵² https://investors.adyen.com/financials/2023#summary

¹⁵³ https://www.adyen.com/press-and-media/adyen-and-billie-partner-up-to-bring-buy-now-pay-later-to-businesses-across-europe

https://www.abnamro.com/nl/nieuws/abn-amro-verkoopt-minderheidsbelang-in-ems-aan-fiserv_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-with-click-to-pay_https://www.multisafepay.com/blog/enable-one-click-payments-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-increase-conversions-and-incre

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Adyen	Parent company	3.332	8.999,52	564,14	Link
<u>equensWorldline</u>	Worldline	4.601	751,95	46,37	Link
Cm.Com	Parent company	930	283,23	-44,74	Link
CCV Group	Stichting Temper Holding	953	215,50	5,17	Link
Mollie Holding	Parent company	723	65,70	-113,88	Link
European Merchant Services	Fiserv Inc	118	29,34	-2,00	Link
<u>MultiSafepay</u>	Parent company	55	n.a.	1,28	Link
PAY.	Parent company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Open banking enablers

ING Group has invested in other scale-ups, such as Cobase, in partnership with Nordea and Crédit Agricole SA. Cobase is a trade name of Financial Transaction Services BV and operates as a multibank platform offering payment and treasury services for corporates. As for now, the Netherlands accounts for 23 Banks & Account Providers, 22 TPPs, 52 APIs, and 21 aggregators.156

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Cobase	Financial Transaction Services BV	20	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Infrastructure providers

Five Degrees offers digital banking technology solutions. Their platform, Matrix, integrates banking services and supports banks in their digital transformation by providing banking architecture that can adapt to future innovations and regulatory changes.157

Currencycloud specializes in providing B2B cross-border payments solutions, facilitating international transactions. Based in the Netherlands, Currencycloud supports businesses to integrate global payment functionalities, enhancing the capabilities of banks and fintech firms to manage foreign exchange, payments, and wallet services. 158

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Five Degrees Holding	Parent company	110	n.a.	-4,71	<u>Link</u>
Currencycloud	The Currency Cloud Limited	10	n.a.	n.a.	<u>Link</u>

https://www.openbankingtracker.com/country/netherlands

https://www.fivedegrees.com/ https://www.currencycloud.com/fr/who-we-serve/





Expert Opinion

"The Netherlands' payment landscape is recognized for its efficiency and robust C2C microtransaction culture, fueled by a tech-savvy, well-banked population. In 2023, debit cards dominated POS transactions with 79.7% of payments, while cash usage held steady at 19.9%. Notably, NFC mobile payments surged in popularity, making up 37% of all contactless transactions, reflecting the nation's embrace of electronic, contactless, and cardless payment technologies. The adoption of iDEAL, an e-commerce payment system, further exemplifies the Netherlands' embrace of electronic, contactless, and cardless payment technologies, making it a leader in seamless digital transactions."

Gizem Saydan | Senior Manager - Deloitte Netherlands and Tom van Roij | Senior Manager - Deloitte Netherlands



Luxembourg

Introduction

Located in the heart of Europe and hosting more than 120 banking institutions from all over the world with approximately € 1 trillion in assets, Luxembourg stands as a major player in the payment industry in the EU and has become an international financial and banking hub, making the financial industry one of the key industries supporting the country's economy. 159

In terms of payment methods, cards are the most frequently used method at point-of-sale (POS), accounting for 52% of the number of total transactions, and 63% in terms of value of transactions. Although cash use is declining, with a 7% decrease in cash withdrawals from ATMs in 2022, the population still considers the option to pay in cash important. Six Luxembourg banks have joined forces to create a joint network of ATMs to be deployed throughout the country under Bancomat.¹⁶⁰

At the POS, cash accounted for 39% of the number of total transactions, and 26% in terms of value of transactions.¹⁶¹ Mobile payments are also gaining traction, especially for peer-to-peer transactions. Payconiq, previously known as Digicash, is the most common mobile payment method. Payconig is now part of the European Payments Initiative (EPI) since its acquisition on October 31, 2023.162

Luxembourg is an internationally recognised innovation centre. 163 The Grand Duchy is internationally recognised for its modern legal and regulatory framework designed to foster business development in the field of digital technology and the use of distributed ledger technology (DLT). The Commission de Surveillance du Secteur Financier (CSSF), the public institution which supervises the professionals and products of the financial industry in Luxembourg, was the first European regulator to adopt a clear legal position on virtual currencies. 164 At the same time, Luxembourg's prominent position in the global Asset Management industry indeed provides a solid foundation for exploring the potential of asset tokenisation. In March 2023, following the Blockchain Law II which provided a solid foundation for exploring the potential of asset tokenisation, the Blockchain Law III came into force in the context of Luxembourg's implementation of the EU DLT Pilot Regime. 165

Finally, Luxembourg is a gateway to the EU for international Fintechs. It offers an ideal environment for Fintech with an engaged and accessible ecosystem, a multilingual workforce fluent in French, German and English, and a truly international orientation. Major payment players, including PayPal, Airbnb Payments, Amazon Pay, Rakuten, and more have chosen Luxembourg for their EU headquarters.

The country has its own national FinTech platform, the Luxembourg House of Financial Technology (the LHoFT) connecting the financial industry and over 220 FinTech innovators operating out of Luxembourg, as well as research, academia, and public authorities.

Card payment schemes

The main payment schemes in Luxembourg include Visa, Mastercard, and American Express.

Main cards issued by Luxembourgish banks are branded Visa, rather than Mastercard. Indeed, out of the six main issuers in the country, five of them only issue Visa-branded cards; either debit (V Pay) or credit. Nevertheless, Mastercard cards are issued by main non-banking issuers (see below sections for more details).

Luxembourg For Finance, www.luxembourgforfinance.com

Delano (Nov 2023), Six Luxembourg banks announce shared ATM network, https://delano.lu/article/bancomat-the-future-atm-networ

ECB (2022), Study on the payment attitudes of consumers in the EU, https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212-783ffdf46e.en.html. Payconiq (Oct, 2023), EPI successfully completes acquisition of iDEAL and Payconiq International, https://www.payconiq.com/epi-successfully-completes-acquisition-of-ideal-

European Innovation Scoreboard (Sept 2022), Luxembourg remains a strong innovator. https://www.luxinnovation.lu/news/luxembourg-remains-a-strong-innovator/ Luxembourg for Finance, Pushing Innovation. https://www.luxembourgforfinance.com/en/publication-article/pushing-innovation/

Deloitte (March 2023), Luxembourg completes its DLT framework with Blockchain III Law. https://www2.deloitte.com/lu/en/pages/investment-management/articles/luxembourg-completes-its-dlt-framework-with-blockchain-III-law.html



Connecting the world of mobility

CarPay-Diem is a digital marketing platform designed for the mobility world. We connect drivers with energy suppliers at the ideal moment, thus creating the perfect conditions for marketing interactions. Our service integrates into existing mobility apps or connected vehicles and orchestrate payment resulting into customer acquisition and retention.

Alternative payment methods

Luxembourg stands out among European countries with a significant proportion of mobile payments in peer-to-peer transactions, accounting for approximately 25% in volume and reaching 34% in terms of value. Despite the recent growth in payments with mobile apps, their share in POS payments was still quite small. The share of mobile payments (by number of transactions) was just over 5% of the total transactions, while the percentage of residents who own cryptocurrency assets and utilise them for transactions and investments was 8%. ¹⁶⁶ Nevertheless, it is worth highlighting that Luxembourg is among the European countries with comparatively higher percentages in these categories.

Payconiq, followed by Mpulse, are the most important alternative payment methods used the country.

Payconiq (authorised Payment Institution, previously known under the name Digicash) is the leading mobile payment solution in the Grand Duchy. The company partners with six Luxembourgish banks: BCEE, BGL BNP Paribas, BIL, POST, ING and Raiffeisen. Each bank issues the Payconiq supported app to their customer base. It enables its users to transfer money to anyone with a mobile phone number, to pay their bills by scanning a QR code, as well as to pay online and in-store. Payconiq is activated on Worldline payment terminals. Hence when payments are made, the consumer automatically sees the QR displayed on the payment terminal. Payconiq was the first Luxembourg-headquartered payment company to obtain a Payment Initiation Service (PIS) licence.¹⁶⁷

Mpulse, operating as a regulated Luxembourg telecommunications operator, offers mobile payment (Premium SMS, WAP billing, direct debit) and SMS connectivity. It handles more than 90% of Luxembourg's professional SMS routing and telecom mobile payments since 2006. In 2010, the company founders launched a R&D project with the help of the Luxembourg Government, aiming at creating a universal mobile payments platform. This development was brought into the Digicash project. The project was spun off Mpulse in 2012, and Digicash was later acquired by Payconiq in 2017. ¹⁶⁸

As stated in the introduction, a few important e-payment players have established their European headquarters in the country. This is notably the case of PayPal, which holds a banking licence registered and authorised by the CSSF. Amazon Payments and Alipay have also established their European headquarters in Luxembourg in order to reach the EU market. Satispay

ECB (2022), Study on the payment attitudes of consumers in the EU, https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html

¹⁶⁷ Chronicle LU (Sept., 2019), Payconiq International Receives First PIS Licence in Luxembourg, https://chronicle.lu/category/finance-1/30285-payconiq-international-receives-first-pis-licence-in-luxembourg

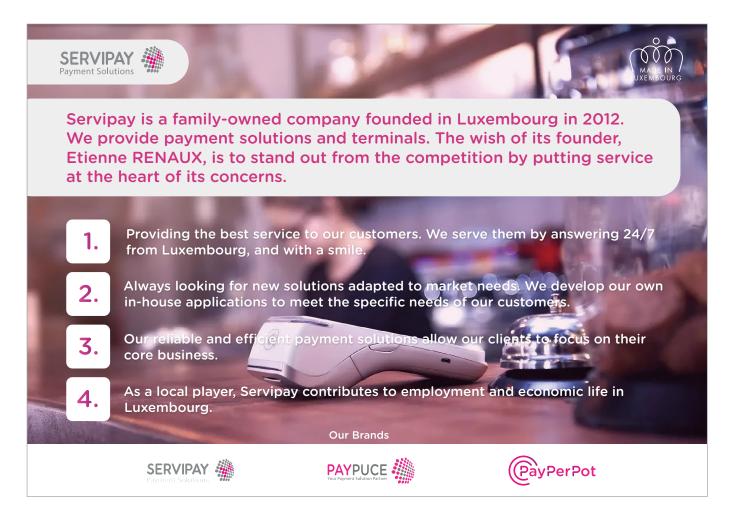
⁶⁸ https://mpulse.eu/about/

(authorised electronic money institution) also holds its e-money licence in the Grand Duchy. The mobile app allows its users to pay in physical and online stores and exchange money between friends. However, the company is better known and used in Italy rather than in Luxembourg.

On the B2B side, PPRO (Payment Institution) provides digital payment solutions to businesses and banks, to simplify access to local payment methods. PPRO received its European Payment Institution license in November 2020.

PingPong, a cross-border payments platform founded in 2015, offers a solution to pay international suppliers, service providers, tax authorities, freelancers and contractors. It became in 2017 the first Chinese fintech company to secure a Payment Institution (PI) Licence in Luxembourg, upgraded to an EMI licence in 2020.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Paypal Europe</u>	PayPal Inc	102	1.965,12	n.a.	<u>Link</u>
Amazon Payments Europe	Amazon.com, Inc.	109	364,12	11,00	Link
Alipay Europe Limited	Hangzhou Yun Bo Investment Consulting Co. Ltd.	n.a.	186,16	8,16	Link
Payconiq International	Parent company	n.a.	12,74	-14,83	Link
Satispay Europe	Satispay S.p.A.	n.a.	n.a.	-18,50	Link
<u>Mpulse</u>	Parent company	n.a.	n.a.	n.a.	Link
PPRO Payment Services	PPro	n.a.	n.a.	n.a.	Link





Banks

The Luxembourg banking industry continues to run a strong and dynamic banking ecosystem, characterised by sustained asset growth and developing business models that are heavily client centric. There are 120 authorised banks in the country, and total banking assets reach around 930 billion €, demonstrating the strong performance of the sector. Most banks are subsidiaries of foreign banks.¹⁶⁹

The main retail banks are Spuerkeess, BGL BNP Paribas (BGL), Banque Internationale à Luxembourg (BIL), ING Luxembourg (ING), Banque Raiffeisen, as well as the telecommunication operator POST Luxembourg which markets current account offers to individuals with POST Finance. These five banks and POST Luxembourg (with POST Finance) are the main issuers.

Spuerkeess is a state-owned bank and is the biggest retail bank in Luxembourg. Spuerkeess holds 57 billion € in total assets¹⁷⁰, which represents about 6% of the market. Its web-banking solution, S-Net Mobile, has integrated the local payment method Payconiq as well as Apple Pay. In addition to its Zebra package (basic account for everyday banking) and Zebra Premium package, Spuerkeess has designed specific offers for school students aged from 12 to 18 (Axxess Start), students aged from 18 to 30 (Axxess Study), as well as active young people up to 30 years of age (Axxess Job). Spuerkeess issues a range of Visa credit cards (Visa Debit, Visa Classic, Visa Premier, Visa Business and Visa Platinum).

BGL BNP Paribas, part of the French group BNP Paribas, has also designed specific offers for the younger generations (high school students, students and young professionals), as well as a package for civil servants. Payments can be made via Apple, Payconiq, Garmin and Fitbit smart devices. Concerning payment cards, BGL issues both Mastercard and Visa credit cards.

Regarding the issuing of credit and debit cards, it is important to note that BGL BNP Paribas is the only bank in Luxembourg that still issues Mastercard cards, as they have their own licence. Europay has been put on hold for the time being. Conversely, all the other banks issue Visa cards thanks to their shared Visa licence within Visalux.

Banque Internationale à Luxembourg, better known under its acronym BIL, issues Visa debit and credit cards. Similarly, Raffeisen and ING both also issue Visa debit (V Pay) and credit cards. Note that Banque Raiffeisen commits to planting 1 tree for every 200 transactions made using any of their new sustainable Visa credit cards.

In late 2023, Spuerkeess, BIL, BGL BNP Paribas, Raiffeisen, POST and ING joined forces to create a joint national network of ATMs under the name Bancomat. By 2025, all the ATMs from the six main issuers will be integrated into a single network known as Bancomat. The aim of the partnership is to improve coverage of the country. The new ATMs will be more modern

Statista, Total number of banks in Luxembourg from 1994 to 2023, https://www.statista.com/statistics/683391/number-of-banks-in-luxembourg/ https://delano.lu/article/spuerkeess-2023-annual-results#:~:text=Spuerkeess%20has%20announced%20its%20annual,to%20reach%20€400.8m

and inclusive and with a higher level of security than the current ones.¹⁷¹

The digital bank Advanzia is also worth highlighting. The bank specialises in credit cards and payment solutions and is one of Europe's leading credit card providers. Advanzia acts as an issuer for private banks based in Luxembourg. By providing this intermediary service, Advanzia allows private banks to offer credit card services to their customers more efficiently and cost-effectively.

Concerning the neobanking segment, its transaction value in Luxembourg is expected to grow at an annual growth rate of 15% (from 2023 to 2027) resulting in a projected total amount of 11,6 billion € by 2027. The user penetration rate is expected to reach 35,4% by that time.172

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Banque et Caisse d'Epargne de l'Etat Luxembourg (Spuerkeess)	Government of Luxembourg	1.860	716,88	n.a.	<u>Link</u>
Banque Internationale à Luxembourg (BIL)	Legend Holdings Limited	1.969	683,55	152,93	Link
Advanzia Bank	Parent company	n.a.	n.a.	n.a.	Link
Banque Raiffeisen	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
ING Luxembourg	ING Groep N.V.	n.a.	n.a.	n.a.	<u>Link</u>
BGL BNP Paribas	BNP Paribas	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Non-banking issuers

Sogexia (authorised Payment Institution) offers individuals and professionals Mastercard payment accounts with dual Luxembourg and French IBANs. This neobank holds a Payment Institution license in the Grand Duchy.

The company J.P. Morgan Mobility Payments Solution (authorised Electronic Money Institution) is the result of the acquisition of Volkswagen Payments by J.P. Morgan in 2021. The platform covers initial purchase and lease payments, in-vehicle payments, refuelling and recharging of electric vehicles, parking, and subscription-based services such as vehicle insurance. Its aim is to accelerate the change in mobility.

Olky (authorised Payment Institution) also offers accounts to professionals. Interestingly, the company is also present in the web3 ecosystem as it enables its users to hold and spend cryptocurrencies as well.

Vivid Money (previously loompay Europe SA - authorised Electronic Money Institution and virtual asset service providers) offers B2C Visa cards that come in both virtual and plastic options to help its users with shopping online and in stores. The mobile application has a strong focus on Gen Z. In January 2024, the mobile finance platform Vivid (based in Germany) announced the acquisition of Joompay. Vivid also took over Joom's E-Money Licence in Luxembourg¹⁷³.

Finally, note that the British company 3S Money (authorised Electronic Money Institution) also holds an Electronic Money Institution licence in Luxembourg. The company issues local IBAN accounts in order to ease international business globally.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Sogexia</u>	Sogexia SARL	n.a.	11,11	1,75	<u>Link</u>
J.P. Morgan Mobility Payments Solutions	J.P. Morgan	23	3,77	-15,64	Link
Olky Payment Service Provider	Olky Payment Service Provider SA	n.a.	n.a.	n.a.	<u>Link</u>
<u>Vivid Money</u> (Joompay) Europe	Vivid Money	n.a.	n.a.	n.a.	<u>Link</u>
3S Money Luxembourg	3S Money Club Limited	n.a.	n.a.	n.a.	<u>Link</u>

Delano (Nov 2023), Six Luxembourg banks announce shared ATM network, https://delano.lu/article/bancomat-the-future-atm-networ

Statista, Neobanking in Luxembourg, https://www.statista.com/outlook/dmo/fintech/neobanking/luxembourg?currency=EUR.https://press.vivid.money/press-releases-feed/licence-team-and-technology-platform-vivid-acquires-joompay.

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Payment processing & gateway providers

Worldline, the French leader in payments solutions, is the main (and unique) processor in Luxembourg, operating under a payment institution licence. Satispay (see section Local & Alternative Payment Methods) also plays the role of a technical provider but offers only payment terminals.

Mangopay (authorised Electronic Money Institution) is a payment gateway for platforms. Some of its customers include Vinted, Chrono24 and Vestiaire Collective. In 2022, Mangopay announced the arrival of Advent International as their new majority shareholder. The private equity company pledged 75 million € to help Mangopay become a global leader for platforms and marketplaces.

Finologee's product LINKS, which follows its predecessor ENPAY, is a modern centralised banks and accounts management platform. It provides financial industry professionals, corporates and institutions with a single gateway to all their banks and accounts, streamlining processes such as payment initiation, validation, and reporting. Finologee is operating as a regulated financial services professional under a 'Support PFS' licence granted by the Ministry of Finance.

Convera is a smart payment solution. Their focus is to provide international transactions with seamless currency transactions. In 2023, they represented 26.000 clients with 155 billion € of transaction volume in more than 200 countries.¹⁷⁴

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Worldline Financial Services (Europe) S.A.	Worldline	n.a.	n.a.	n.a.	<u>Link</u>
Mangopay S.A.	Advent International	n.a.	n.a.	n.a.	<u>Link</u>
Finologee S.A.	NGFS PARTNERS S.a R.L.	n.a.	n.a.	n.a.	<u>Link</u>
Convera Europe S.A	Convera Holdings LLC	n.a.	n.a.	n.a.	Link

https://convera.com/fr-fr/solutions/global-payments/



Open banking enablers

Open banking has been slow to take off in Luxembourg. For instance, Spuerkeess offers its customers access to their accounts at all the major retail banks in Luxembourg and many banks in France, Germany and Belgium. But only 20% of customers use this option, and less than 5% do so actively. Nevertheless, the trend is evolving in a positive direction.¹⁷⁵

LuxHub is the main open banking enabler in the country. Founded in 2018, BCEE, BGL BNP Paribas, POST Luxembourg and Banque Raiffeisen joined forces to create the company LuxHub, a leading European open banking platform. LuxHub hosts and operates a common API platform LuxHub holds a Payment Institution licence which makes it the only 360-degree open banking enabler in Luxembourg.

Finologee aims to foster open banking with its compliant platforms and APIs for bank compliance (PSD2 for Banks & CEDRS), mobile payments and telecom routing (Digicash & Mpulse), KYC/AML (KYC Manager & Digital Onboarding), and professional payments (LYNKS)¹⁷⁶.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Luxhub</u>	Parent company	n.a.	7,26	-0,76	<u>Link</u>

Source: Orbis | Financials 2022

Finologee Homepage - Finologee

Paperjam (Feb, 2023), "Les services d'open banking sont là pour rester", https://paperjam.lu/article/services-open-banking-sont-res

Take control of your business finances with everest Open a business account instantly Get multiple Mastercard credit cards Finjoy 100% online expense management tools Access exclusive community deals Powered by SnapSwap International SA 9 Rue du Laboratoire, 1911 Care Luxembourg

Infrastructure providers

Headquartered in Luxembourg, Banking Circle is an important infrastructure provider focusing on B2B global banking services. Holding a credit institution license, the company offers services to payment and e-money businesses as well as banks of any size for them to seize opportunities in the payments industry. Banking Circle serves over 250 financial institutions, including Stripe, Nuvei, Paysafe and PPRO. According to Worldpay's 2022 Global Payments Report, Banking Circle processes more than 10% of Europe's B2C e-commerce flow.

Dock Financial (authorised Electronic Money Institution) offers a cloud native Banking-as-a-Service platform. It holds an e-money licence, and the company is a principal member of Mastercard. Crosscard, VIABUY and Fleetmoney are some of its customers.

Additionally, iBAN-X, now part of the Singapore-based payments processing services company COMO Group, offers global payment transaction services on an API-driven Payment-as-a-Service platform¹⁷⁷. In December 2020, COMO acquired ONPEX S.A. and renamed it iBAN-X S.A. under the brand "iBAN-X by COMO". Via this partnership, the companies will offer clients omnichannel payments and multi-currency capabilities.

Several Core Banking Providers have chosen Luxembourg as the location to establish their subsidiaries.

Avaloq is a global leader in digital banking solutions, core banking software and wealth management technology, with a branch in Luxembourg (Avaloq Luxembourg SARL).

Temenos Luxembourg S.A. and Temenos Software Luxembourg S.A. are direct subsidiaries of the company Temenos, one of the leading providers of software solutions to financial institutions offering core banking, payments, fund management, and wealth management software products.

ERI (ERI Bancaire Luxembourg SA) serves private, retail, corporate banks as well as wealth managers, custodians and fund administrators with the OLYMPIC Banking System. ERI is a market leader in many countries, including Luxembourg.

https://thepaypers.com/ecommerce/como-group-acquires-luxembourg-payment-institution-onpex-1246386

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Banking Circle	Banking Circle S.A.	505	45,68	-25,35	<u>Link</u>
<u>Temenos</u>	Temenos	n.a.	34,88	38,01	Link
<u>iBAN-X</u>	COMO Group S.A.	n.a.	n.a.	n.a.	Link
<u>Dock Financial</u>	Parent company	n.a.	n.a.	n.a.	Link
ERI Bancaire Luxembourg	ERI (ERI Bancaire Luxembourg SA)	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022



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Expert Opinion

"Luxembourg, hosting more than 120 international banks from 25 different countries, has become a major player in the payment industry in the EU. As a leading European financial hub, Luxembourg attracts numerous fintech companies and payment service providers. The payment industry in Luxembourg is a dynamic and rapidly evolving sector, characterized by its integration of advanced financial technologies and strong regulatory framework. With the new MiCA regulatory framework, Luxembourg aims to attract new cryptocurrency players"

Alexandre Havard | Partner - Deloitte Luxembourg and Ménaïs Bruant-Solska | Consultant - Deloitte Luxembourg



France

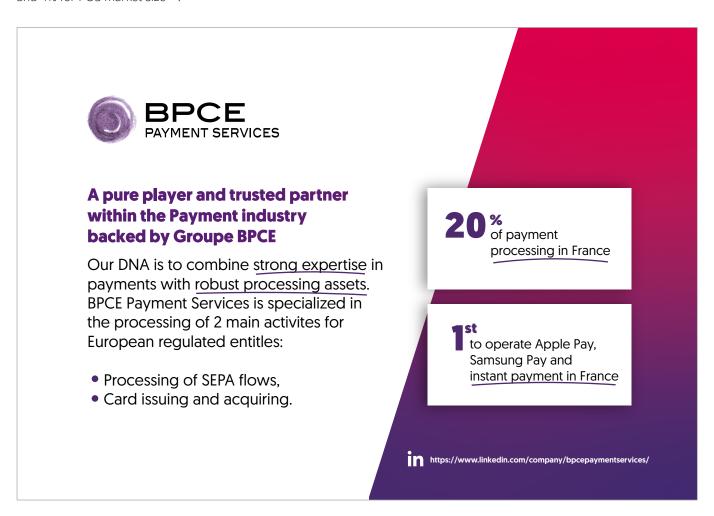
Introduction

France, with its population of 67 million, has a well-established and steadily evolving cashless payment system. Innovation and technology have enhanced the efficiency of card payments, leading to increased acceptance by merchants, even for small amounts. This method was further supported since the pandemic when the contactless payment limit was increased to 50€. 178

Cash usage continues to decline, representing only 10% of POS transactions in 2022.¹⁷⁹ Driven by the rise in e-commerce and new purchasing habits, payment methods are increasingly becoming dematerialized, whether through card, contactless, mobile, or apps. 180 The French payment industry remains dynamic, with a sizable and growing market and a high readiness and receptiveness toward cashless methods. With an aggregated Merchant Sales Value (MSV) of 700 billion €, it is one of the largest payment market in Continental Europe. 181

Despite cash still accounting for 40% of payment volumes, the French market offers attractive growth opportunities driven by the secular shift from cash to card and continued demand for innovation. 182 A large majority of POS payments in France in 2021 involved debit or credit cards, accounting for over 80% of transactions in physical stores, largely due to increased credit card usage. Debit cards, commonly referred to as CB or 'carte bancaire,' have long been a popular domestic payment scheme in France, leading to a gradual decline in cash usage. 183

The shift toward online commerce is significant. The e-commerce market in France is projected to reach a market size of 205 billion € in 2026, up from 150 billion € in 2022. To put into perspective, POS market size is expected to reach 1.081 billion € in 2026, up from 932 billion € in 2022. In terms of growth, this would respectively demonstrate a CAGR of 8% for e-commerce and 4% for POS market size¹⁸⁴.



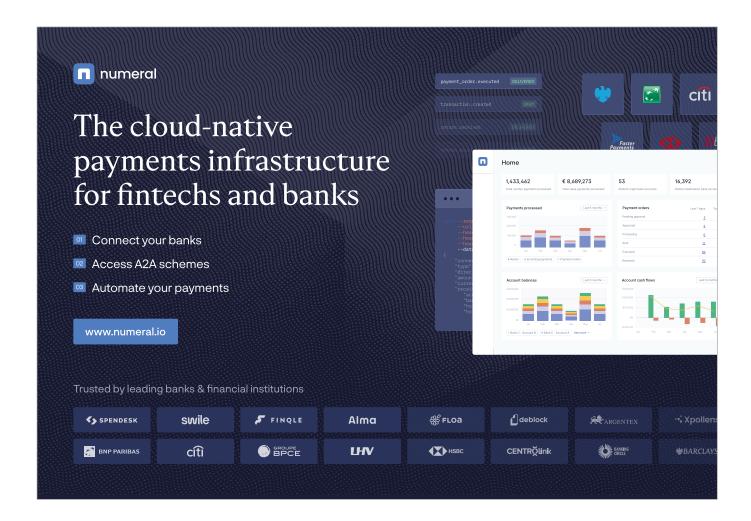
https://www.banque-france.fr/fr/publications-et-statistiques/publications

FIS Global Payments Report 2023

https://www.francenum.gouv.fr/guides-et-conseils/developpement-commercial/solutions-de-paiement https://worldline.com/en/home/top-navigation/media-relations/press-release/credit-agricole-and-worldline-enter-into-exclusive-discussions-to-create-a-major-player-inmerchant-services-in-france#:~:text=services%20in%20France-,Cr%C3%A9dit%20Agricole%20and%20Worldline%20enter%20into%20exclusive%20discussions%20to%20create,Value%20(%E2%80%9CMSV%E2%80%9D)

https://worldline.com/en/home/top-navigation/media-relations/press-release/credit-agricole-and-worldline-enter-into-exclusive-discussions-to-create-a-major-player-in-depth and the properties of the propertiesmerchant-services-in-france.html#:-:text=services%20in%20France.Cr%C3%A9dit%20Agricole%20and%20Worldline%20enter%20into%20exclusive%20discussions%20to%20 create, Value %20 (%E2 %80 %9 CMS V %E2 %80 %9D).

https://www.statista.com/statistics/1296684/preferred-payment-methods-france/https://www.fisglobal.com/en/-/media/fisglobal/files/campaigns/global-payments-report/FIS_TheGlobalPaymentsReport2023_May_2023.pdf



Card payment schemes

The convenience, familiarity, and security features provided by local and international card networks make card payments a preferred choice among French online shoppers. Notable local actors in the card payment area include CB (Carte Bancaire), a domestic card scheme, alongside international giants like Visa and Mastercard. 185

Carte Bancaire is the preferred local card scheme with more than 65% of everyday consumption being paid with a CB card, making CB a market leader. 186 It issues the payment card called 'Carte Bleue' which can be both debit and credit. Carte Bancaire has created a payment network which has spread across the country, and all the banks operating in France have partnered with the group.

More than 95% of French cards are Carte Bancaire co-branded with Visa or Mastercard. Visa announced their deployment of click to pay in France, a method of improving user experience in e-commerce. Since March 2024, users can pay online in just a few clicks using their VISA card. It is worth noting that VISA and MasterCard charge higher fees compared to the CB network. Indeed, CB charges an average fee of 0.9% on each payment, while international networks like Visa and MasterCard can apply commissions of up to 1.2% per transaction. Additionally, some banks have stopped including the CB logo on their bank cards.¹⁸⁸

JP Morgan has become the first American bank to obtain CB primary member status, officially named on the 15th of February 2024. By the end of 2024, JP Morgan will offer its merchant clients CB card and mobile payment services. This new status allows IP Morgan's merchant clients to access the range of services provided by the Groupement des Cartes Bancaires CB network.¹⁸⁹

Card payment schemes	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Groupement des cartes bancaires	Membres du GIE	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

- https://norbr.com/library/payworldtour/payment-methods-in-france/
- https://www.cartes-bancaires.com/cb/chiffres/
- https://www.banque-france.fr/fr/publications-et-statistiques/publications/en-2022-la-carte-bancaire-est-restee-le-moyen-de-paiement-central-dans-les-depenses-du-quotidien-
- https://www.20minutes.fr/economie/4077976-20240223-cartes-bancaires-logo-cb-rarefie-consequences-consommateur

https://www.cartes-bancaires.com/actualites/j-p-morgan-devient-membre-principal-de-cb/

Alternative payment methods

The e-wallet landscape is made up of a mix of local players such as PayLib, Lydia and Lyf, and global brands such as PayPal, Apple Pay, Google Pay and Amazon Pay. This payment method was significant as it amounted to 27% of e-commerce transaction value in 2022. 190 Wallets are predicted to become the dominant payment method in the future, thanks to the widespread use of mobile phones, wallets are considered by 65% of respondents to be the future of financial transactions according to Lyra Group's study. 191

DOM wallet integrates QR code payment standards so that the user can pay with cryptocurrency in stores or in e-commerce without the need for a bank account. 192

The European Payments initiative (EPI), an initiative backed by 16 European banks and financial services companies to progressively build a payment solution tailored for Europe, has benefited from the support of the Banque de France and of the Eurosystem. 193 The EPI announced in 2023 the selection of "wero" as the commercial name for its ground-breaking digital wallet solution. This strategic initiative aims to deliver a European digital payment solution built to meet evolving payment needs and to provide a seamless and user-friendly payment experience to consumers and merchants across Europe. 194 France will be among the first countries where the digital wallet solution 'wero' will be deployed, starting in mid-2024.

Lydia's original aim was to ease reimbursements between friends. The app quickly gained in popularity and claims to have reached 5,87 million users in 2022 in France, Portugal, and Spain after 10 years on the market. 195

The company estimates that one in three French 18-35 year olds uses Lydia. It now includes an exhaustive list of functionalities such as raising funds online, investing on the stock market or creating a current account. It also gives access, through subscription, to a Visa debit card compatible with Apple Pay, Google Pay and Samsung Pay. Lydia will now offer its P2P service separately from its digital banking proposition via the Lydia Accounts app, while the original Lydia app is being rebranded as Sumeria. 196

Buy Now, Pay Later (BNPL) has seen significant transaction volume growth in recent years. However, there are obstacles, particularly at the legislative level, that need to be addressed. In 2023, BNPL's market was worth around 4,5 billion € annually, with a projected growth rate of up to 40% in the country. 197 Significant BNPL players include offerings from local banks such as Oney (Groupe BPCE) and FLOA (BNP Paribas), local startups such as Alma and Pledg, and global players such as Klarna and Scalapay.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Paypal Europe	Parent company	2.402	239,24	4,23	Link
<u>Paylib</u>	Parent company	n.a.	17,28	0,33	<u>Link</u>
Alma	Independent company	n.a.	n.a.	n.a.	Link
Google Pay	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
Apple Pay	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
Samsung Pay	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
Amazon Pay	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
DOM	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
European Payments Initiative	Parent company	n.a.	n.a.	n.a.	Link
Klarna	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
<u>Scalapay</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
Pledg	Independent company	n.a.	n.a.	n.a.	Link
<u>Lydia Solutions</u>	Independent company	n.a.	n.a.	n.a.	Link
<u>LYF</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>

https://www.francenum.gouv.fr/magazine-du-numerique/commerces-quelles-sont-les-tendances-du-paiement-en-2023

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https://www.epicompany.eu/european-payments-initiative-selects-wero-as-commercial-name-for-its-innovative-digital-wallet/

https://www.bpifrance.com/2022/02/04/lydia-the-fast-growing-fintech-unicorn-that-puts-users-first/

 $https://thepaypers.com/online-mobile-banking/lydia-launches-mobile-banking-app-sumeria--1268136. \\ https://norbr.com/library/payworldtour/payment-methods-in-france/$

Banks

The French banking sector is the largest in the EU in terms of assets and represented by six major main banks: BNP Paribas, BPCE (Banque Populaire - Caisse d'Epargne), Crédit Agricole (including LCL), Crédit Mutuel (including CIC), La Banque Postale and Société Générale.

BNP Paribas owned 28% of total assets in French banks in 2023, amounting to 2.591 billion €¹⁹⁸. BNP is present in 65 countries with around 180.000 employees. The group offers support to individuals, associations, SMEs, and institutions. In France, BNP Paribas issues the classic Visa cards (some being co-branded with CB) and offers its customers different payment methods such as Apple Pay, Paylib, Lyf Pay, Fitbit Pay and Garmin Pay.

Crédit Agricole (CA) is one of the leading banking groups in France, with more than 75.000 employees, 54 million users, and presence in 46 countries. The bank owns 24% of total assets, amounting to 2.189 billion €. CA is the biggest financer of the French economy as well as being the European' biggest asset manager in 2023. The bank allows Crédit Agricole e-transactions which allow merchants to accept and manage online payments such as the French CB cards (Visa and Mastercard), but also Paylib payments. In May 2020, the group acquired Linxo Group, which is a French fintech leader in payment initiation. 199 Additionally, Crédit Agricole fosters partnerships with other payment players to expand their footprint in terms of payments, such as their recent collaboration with Worldline.²⁰⁰ Indeed, Crédit Agricole and Worldline are currently in discussions to create a major new player in merchant services in France, expected to be fully operational by 2025. This partnership aims to combine Crédit Agricole's market reach and distribution power with Worldline's innovation and global infrastructure.

Crédit Mutuel Alliance Fédérale is made up of 14 Crédit Mutuel Federations and owns the regional banks of Crédit Industriel et Commercial (CIC), the Cofidis Group, the Targobank networks in Germany and Spain.²⁰¹

Société Générale Groupe is an international group present in 66 countries, with 127.000 employees around the world, representing 1.554 billion €, a 17% market share. 202 The bank issues both Visa and Mastercard CB cards but also allows access to Apple Pay and Paylib. In 2022, Société Générale announced the acquisition of a major participation in PayXpert, a fintech company specialised in securitised payment services²⁰³. The aim of this acquisition is to become a reference in the field of payment acceptance in Europe. In 2023, Société Générale and Crédit du Nord merged, resulting in the creation of a new retail bank in France, SG.²⁰⁴ Additionally, Société Générale will sell Shine, its neobank for entrepreneurs, amid a broader trend of banks divesting from fintech ventures due to the ongoing financing crisis in the tech sector. This decision mirrors similar moves by other banks, such as Orange seeking to divest from Anytime and Banque Postale halting fees for its mobile bank, Ma French Bank.²⁰⁵

BPCE is placing innovation as one of the three key principles underlying the objectives of 2024. Groupe BPCE's new strategic plan, through which the group has strengthened its ambition to work with new innovative partners, particularly in the field of open banking and cyber security.

In France, the card issuing market is dominated by the top French banks listed above, namely Groupe BNP Paribas, Societe Generale, Groupe Crédit Agricole and BPCE. This can be explained by the fact that they all issue Carte Bancaire, which is a highly recognised and national interbank payment system in France.

La Banque Postale, with its 738,15 billion € of total assets, amounting to 8% market share, is an historic local player. The bank issues Visa debit and credit cards, which are unsurprisingly co-branded CB. La Banque Postale has announced the planned closure of Ma French Bank (MFB), its online bank. The closure process is expected for at latest 2026.²⁰⁶

When it comes to neobanks, they continue to thrive in the French payment landscape. There are around 7 million neobank users in France and this number is expected to continue its growth with 14 million expected users by 2028. The transaction value is expected to show a CAGR of 15% between 2024 and 2028, with 340 billion € projected in 2024, and reaching 590 billion € by 2028. 207 This makes France the fourth largest neobanking market in the world. International actors such as Bunq, Revolut and N26, are still the leaders in terms of customer experience in France. While these digital-only solutions still lack more complex products, they have already started to constitute a threat to more traditional banks and first-generation digital banks such as Boursorama and ING Direct, which lacks digital efficiency. 208

A significant partnership between several major French banks was established at the end of 2023. BNP Paribas, Crédit Mutuel Alliance Fédérale and Societe Generale launched Cash Services, a comprehensive range of local banking services shared by the four banking brands: BNP Paribas, Crédit Mutuel, CIC and SG. This project aims to modernize and pool ATMs at the national level under a common brand: Cash Services. These ATMs will be operated by 2SF (Société des Services Fiduciaires), the new joint company of these banking groups.²⁰⁹

- file:///Users/maxim/Downloads/CASA Depliant ChiffresCles 23 FR PAP.pdf
- 200 https://worldline.com/en/home/top-navigation/media-relations/press-release/credit-agricole-and-worldline-enter-into-exclusive-discussions-to-create-a-major-player-inmerchant-services-in-france#:~:text=services%20in%20France-,Cr%C3%A9dit%20Agricole%20and%20Worldline%20enter%20into%20exclusive%20discussions%20to%20 create, Value%20(%E2%80%9CMSV%E2%80%9D).
- https://www.creditmutuel.fr/fr/groupe/banque-solide.html https://www.societegenerale.it/en/about/societe-generale-group/ 202
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- https://group.bnpparibas/communique-de-presse/cash-services-la-nouvelle-marque-de-services-des-automates-bancaires

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
BNP Paribas	Parent company	193.122	46.085,00	10.248,00	<u>Link</u>
Societe Generale	Parent company	117.576	27.170,00	2.756,00	<u>Link</u>
<u>Credit Agricole</u>	SAS Rue La Boetie	72.758	22.864,00	6.186,00	<u>Link</u>
BPCE	Parent company	n.a.	10.949,00	1.206,00	<u>Link</u>
CIC	Caisse Federale de Credit Mutuel	19.290	6.367,00	2.293,00	Link
<u>La Banque Postale</u>	Government of France	32.025	6.111,00	988,00	<u>Link</u>
Caisse Federale De Credit Mutuel	Parent company	20.907	4.008,34	1.068,62	Link
HSBC Continental Europe	HSBC Holdings PLC	7.451	2.002,00	-1.090,00	<u>Link</u>
<u>Boursorama</u>	Societe Generale	887	123,36	-165,14	<u>Link</u>
Bunq	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
<u>Revolut</u>	Parent company	n.a.	n.a.	n.a.	Link
<u>N26</u>	Parent company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Non-banking issuers

Edenred is the issuer of "Ticket-Restaurant", one of the main meal vouchers in France with 1,8 million active cards on the market and 220.000 partner businesses. It also issues other solutions essentially aimed at professionals such as dry-cleaning cards, mobility cards and gift cards. As from October 2022, the daily limit for meal vouchers was raised from 19€ to 25€ as part of the French government's strategy to improve citizens' purchasing power. The company holds an e-money licence through its subsidiary Edenred Paiement. Additionally, Edenred is fostering new payment solutions through partnerships such as the recent collaboration with Mollie in e-commerce. This partnership integrates Edenred's meal, eco, and gift vouchers into Mollie's payment platform, allowing merchants to boost their sales and providing customers with more payment options.²¹⁰

The unicorn Swile offers employee benefits through an app and cards. Its solutions include meal vouchers, mobility, business travel and gift vouchers.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Swile</u>	Parent company	n.a.	54,14	-43,67	Link
Edenred Paiement	Parent company	n.a.	1,93	0,37	Link



Payment processing & gateway providers

The principal regulated Payment Institutions in France are Lyra, HiPay and PayPlug.

Lyra is a major actor in the payment processing market. In 2022, the company made an agreement with NPCI International (the international branch of National Payments Corporation of India) in order to launch the UPI, a system merging several bank accounts onto one single app, and Rupay, an Indian card payment network. This makes France the first European country to accept this technology. The same year, the company introduced transfer initiation in Europe, a system allowing merchants to bypass the classic card networks and avoid interchange fees.

HiPay is a global payment platform. Beyond transactions, HiPay enables merchants to leverage their payment data, improve their conversion rate, increase their revenue, and create new shopping paths. Its customers include Veepee, Promod, The Kooples, Auchan and Hachette Book Group.

PayPlug, created in 2012, is an omnichannel payment solution designed for SMEs. More than 15.000 merchants have already opted for this solution from the BPCE group's subsidiary. Recently, PayPlug absorbed Dalenys as part of BPCE's strategy to merge its fintech subsidiaries. This merger integrates the strengths of both companies under the PayPlug brand, creating an entity with almost 400 employees, 20.000 customers, and handling a transaction volume of nearly 10 billion € annually. The new entity will fall under BPCE's Digital & Payments division, aiming to become the reference partner for merchants, e-merchants, SMEs, and large groups in France and Europe. According to Antoine Grimaud, CEO of PayPlug, the goal is to enhance their offerings with complementary expertise, combining Dalenys' infrastructure focus with PayPlug's user experience emphasis. Pierre-Antoine Vacheron, Chief Payments Officer of BPCE, emphasized that this step is crucial in BPCE's strategy to offer a leading French alternative for the digitalization of commerce through the Banque Populaire and Caisse d'Epargne networks.²¹¹

Lemonway offers payment services for product and service marketplaces (B2B, B2C or C2C) and financial marketplaces (crowdlending, crowdequity, donations, invoice trading). SNCF Connect&Tech, Decathlon and Credit.fr are among Lemonway's loyal customers.

Market Pay offers payment solutions online and in-store. Its products are "Pay by Bank" to accept payments by bank transfers in-store and online, "Pay On Site" to equip stores with vending terminals, "Pay online" to accept payments online and "PayWish" to transform Android devices into payment terminals. The company manages more than 160.000 terminals and 2,4 billion transactions. Its customers include Carrefour, Tabesto, Orange Bank and Crédit Agricole.

https://thepaypers.com/payments-general/bpce-merges-payplug-and-dalenys--1258387

Other major players in the country include Checkout.com, Adyen and MangoPay. While these players do not hold their licences in France, they are highly active in the country.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Hipay Group</u>	Parent company	250	58,93	-7,78	<u>Link</u>
Lemonway	Independent company	127	19,05	-11,08	Link
<u>Adyen</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
MangoPay	Parent company	n.a.	n.a.	n.a.	Link
Checkout	Independent company	n.a.	n.a.	n.a.	Link
<u>PayPlug</u>	BPCE SA	n.a.	n.a.	n.a.	<u>Link</u>
<u>Lyra Network</u>	Financiere Lyra	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Open banking enablers

Open Banking and Open Finance are gaining popularity more broadly in France. Powens, Bridge, Linxo, Greenly, and Fintecture are five companies enabling open banking and open finance.

Powens offers an open banking platform that provides account aggregation, payment initiation, and data enrichment services. Their solutions help financial institutions and fintechs create innovative financial products by leveraging customer data securely.

Bridge, a subsidiary of Bankin', specializes in API-based solutions that allow businesses to connect with customers' bank accounts for seamless data access and payment initiation. Their platform supports various financial services, including budgeting, credit scoring, and personal finance management.

Linxo, acquired by Crédit Agricole in 2020, specialise in financial data aggregation and management. They provide tools for account aggregation, budgeting, and financial planning, enabling users to have a holistic view of their finances. Linxo's platform also supports payment initiation services, making it easier for users to manage their finances.

Greenly focuses on sustainability in finance by offering tools that help users track and reduce their carbon footprint based on their financial transactions. Their platform aggregates data from various sources to provide insights into the environmental impact of spending habits, promoting more sustainable financial decisions.

Fintecture has developed its own Open Banking payment infrastructure called Immediate Transfer. This infrastructure ensures a smooth and secure payment process without intermediaries. Fintecture's Immediate Transfer, based on payment initiation services (PIS) enabled by the European Payment Services Directive (PSD2), allows for seamless account-to-account transfers without needing to enter a beneficiary and IBAN beforehand. This innovation makes paying by transfer as easy as paying by card. Fintecture's solution incorporates years of R&D and banking expertise, offering instant transfer prioritization, standard SEPA credit transfers when preferable, and real-time payment confirmation via a secure connection to over 3,000 banking APIs in France and Europe.²¹²

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Linxo	Linxo Group	n.a.	5,82	-7,84	<u>Link</u>
Bridge	Independent company	n.a.	n.a.	n.a.	Link
Greenly	Independent company	n.a.	n.a.	n.a.	Link
<u>Fintecture</u>	Société Générale, Samaipata Ventures, Target Germanium	n.a.	n.a.	n.a.	<u>Link</u>
Budget Insight (Powens)	Credit Mutuel Arkea	n.a.	n.a.	n.a.	Link

https://www.fintecture.com/en/virement-immediat/



Infrastructure providers

France is home to five leading Banking-as-a-Service providers: Treezor, Xpollens, Okali, eZyness, and Swan. Each of them holds an e-money licence.

Treezor is a subsidiary of the Société Générale Group. It was the first French e-money institution to provide access to the entirety of the payment chain and is a Principal Member of the Mastercard network. This collaboration gives Treezor access to Mastercard's whole infrastructure and new services such as Open Banking and credit services.

Xpollens is part of BPCE Group and is the result of a collaboration between Visa and Natixis Payments, continental Europe's largest Visa card issuer. Xpollens, acting as a Banking-as-a-Service platform, is part of BPCE Group and is the result of a collaboration between Visa and Natixis Payments, continental Europe's largest Visa card issuer. Xpollens also provides a comprehensive range of services, including card issuing, payment processing, and digital wallet solutions.²¹³

Swan, issued by the eFounders start-up studio, is an emerging BaaS platform that was launched in Paris in 2019. In 2022, the company has 50 partners including French retail group Carrefour, is processing 200 million € per month and is pursuing its international expansion by opening a new office in Berlin, Germany.

Resulting from the Moneo activity launched in 1999, Okali serves customers such as Lydia, Unilend and Thunes (formerly Limonetik). In 2021, the BaaS activity was spun off and then sold in early 2022 to the Crédit Agricole Group and its start-up studio La Fabrique by CA. In October 2022, the company became Okali to better express its strong international ambitions.

Finally, eZyness is La Banque Postale's BaaS. It offers a collection solution for third-party accounts covering all functional requirements and issues payment cards to its customers.

Sopra Banking Software (SBS) and Skaleet are both core banking providers present in France. Founded in 2012, SBS provides technological solutions to 1.500 financial institutions worldwide. In 2022, the company was ranked 43rd in the IDC FinTech Rankings, a renowned ranking that rates the best international players in the sector of financial technology, placing it in the top 10 European actors. Late in 2023, SBS announced the launch of its next-gen, modular, real-time, fully cloud-native Al-enabled core banking platform in Software-as-a-Service (SaaS). This fully redeveloped platform supports a comprehensive range of banking services, including deposits, payments, lending, compliance, and regulatory reporting. It integrates seamlessly with SBS's Digital Engagement Platform, offering a cost-effective, quick time-to-market solution for banks seeking a full end-to-end banking platform.²¹⁴

Similarly, Skaleet provides a cloud-based SaaS core banking platform and has more than 40 clients worldwide.²¹⁵ Additionally, several other core banking solution providers have offices in France, such as Temenos, which has over 62 offices in 39 countries, and ERI, known for its OLYMPIC Banking System.²¹⁶

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Sopra Banking Software	Sopra Steria Group	49.690	5.119,60	247,80	<u>Link</u>
Skaleet	Lac Partners (MGMTCO), LP	n.a.	6,38	-5,94	Link
Swan	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
<u>Okali</u>	Fcpr Blackfin Financial Services Fund	n.a.	n.a.	n.a.	Link
Treezor	Société Générale Groupe	166	n.a.	n.a.	<u>Link</u>
<u>eZyness</u>	La Banque Postale	n.a.	n.a.	n.a.	Link
<u>Xpollens</u>	BPCE SA	n.a.	n.a.	n.a.	<u>Link</u>

https://www.xpollens.com/ 214

https://www.olympicbankingsystem.com/en/eri-offices/

https://skaleet.com/en/use-case/switching-core-banking.https://www.temenos.com/contact-us/find-an-office/

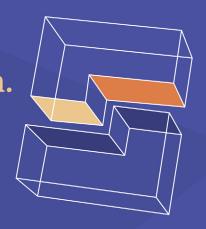
Expert Opinion

"France is among the largest payment markets in Continental Europe. Its payment landscape is notably characterized by a well-established cashless system and a vibrant e-commerce sector, alongside a dynamic fintech market that fosters innovation. The shift from traditional cash to card payments, especially contactless, is rapidly advancing, supported by various initiatives following a national strategy aiming modernise payments by businesses."

Alexandre Havard | Partner - Deloitte Luxembourg and Ménaïs Bruant-Solska | Consultant - Deloitte Luxembourg

Pioneering simplicity in complex banking tech. Skaleet Core Banking Platform.

Skaleet SaaS Core Banking Platform has been designed with a logic of perpetual evolution to meet the needs of any Financial Institution. Cloud-based, modular, and 100% API, we power your technology while you focus on what matters: your customers.



Fast and easy to implement and integrate

Reliable

Evolutive

Skaleet

Germany

Introduction

Having the largest economic output in Europe with a GDP of 4,6 trillion € in 2024, Germany's highly industrialized and diversified economy is characterized by one of the most fragmented markets when talking about payments.²¹⁷

Stationary retail generated gross sales of 465 billion € in 2022. Almost 80% of these were paid with the Girocard (42%) or cash (38%). These two payment methods are rarely used in e-commerce.

Germany is Europe's second largest e-commerce market. It is worth 136 billion € a year and is projected to rise to 184 billion € by 2027. Indeed, the average German consumer spends 1.690€ online every year, forecasted to 2.290€ in 2027. Indeed, market, PayPal holds 30% and purchase on account holds 24%. Together they lead the popularity of payment methods with a total of 54%.²¹⁹

The pandemic has played a significant role in accelerating the transition towards cashless transactions. Even though Germany remains a big cash user compared to some of its neighbors, we do not observe a boomerang effect or backward development in the post-pandemic landscape. Indeed, the trend continues to non-cash, as even more senior people tend to use modern payment methods at POS. Overall, card-based methods have further outpaced cash by one percent in 2022. The EHI Retail Institute states: "After the pandemic years, there are no signs of a trend reversal back to cash." 220

Within cashless payment, there are trends towards more user-friendly methods such as paying with smartphone apps such as Google Wallet or Apple Pay. Sales via this so-called mobile payment have roughly doubled in 2023. According to the results of Postbank's representative "Digital Study 2023", 79% of people aged 18 to 39 use modern payment methods, while among those over 40 the figure is 58%.²²¹

Girocard, a local and well-established payment method, remains the most popular means of payment in Germany, accounting for approximately 7,5 billion transactions in 2023.²²² Since July 2023, girocards with Maestro co-branding are no longer being issued; however, existing cards remain valid. To facilitate international use in the future, alternatives such as V-Pay and Mastercard/Visa Debit cards are now being offered. It is still unclear whether VISA will also terminate its V-Pay co-branding, which could further impact the availability of these cards abroad.

Regarding credit transfers, over 75% of people can make instant transfers, and a third can utilize this service without paying fees. While 92% of respondents said they trust their home bank or savings institution to handle personal payment information properly, only 15% and 13% of respondents, respectively express confidence in large tech corporations and start-ups/fintech organizations when it comes to data protection.

Cryptocurrencies raise a lot of curiosity, but only a small percentage of people, about 4%, bought or plan to buy them. Moreover, only 8% of individuals who have bought cryptocurrency perceive it primarily as a means of payment, while 85% of those who have do it as an investment.

Cash withdrawals at the checkout, often referred to as 'cash out' services, are becoming a popular alternative to using ATMs. This service is especially prevalent in the food trade industry, where 9 out of 10 companies already offer it. In total, retailers have disbursed more than 10 billion € in cash to their customers, with an average withdrawal amount of 97 €.²²³

Card payment schemes

The card payment scheme landscape in Germany is dominated by Girocard, which accounted for up to 88% of debit card payments. The remaining 12% of card payments were conducted using standard Mastercard and Visa cards. This indicates a strong preference among German shoppers for using debit cards, particularly Girocard, over other card payment methods.

International debit cards like Visa and Mastercard, also known as "New Debits", account for a 2,3% of sales. Some direct banks such as ING, DKB or Consorsbank issue the Visa Debit and Debit Mastercard as current account connection cards as standard.²²⁴

Whereas Girocard hasn't shown much growth, Visa experienced great growth as the combined debit and credit sales jump by 25%, compared to Girocard by just under 7% (mostly due to inflation) in 2023. This is explained by Visa benefiting from the e-commerce payment volumes, as Girocard does exclusively focus on stationary payments.²²⁵

The number of debit cards increased by 33% to around 16 million, and for the first time Visa is accepted at more terminals than traditional bank cards.²²⁶ Visa is pushing ahead with the introduction of Click to Pay. Click to Pay is an upgrade for card payments at online retailers, simplifying the payment process by allowing consumers to identify themselves with their email address after registering once. There is no need to manually enter card details every time you make a purchase.

- https://statisticstimes.com/economy/european-countries-by-gdp.php
- 218 https://www.ppro.com/countries/germany/
- 219 https://www.ehi.org/presse/mehr-kanaele-sichern-erfolg/
 - https://www.vr-payment.de/paymentpower-magazin-beitrag/items/wie-deutschland-zahlt
- 220 221 https://www.postbank.de/unternehmen/medien/meldungen/2024/maerz/studie-zwei-drittel-zahlen-kontaktlos-mit-karte-oder-smartphone.html https://www.girocard.eu/presse-mediathek/pressemitteilungen/2024/girocard-jahreszahlen-2023/
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- 225 https://paymentandbanking.com/wackelt-die-krone-der-girocard-in-deutschland/
- https://www.visa.de/uber-visa/newsroom/press-releases.3303823.html#:-:text=Gemessen%20an%20der%20Zahl%20der, Prozent%20gegen%C3%BCber%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20Ende%20EndeSeptember%202022

Token technology in Germany made significant progress as every third transaction with Visa cards issued in Germany was "tokenized". This is an increase of 10% compared to the previous year.

Card payment schemes	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Girocard	Parent company	n/a	n/a	n/a	Link

Source: Orbis | Financials 2022



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Alternative payment methods

Visa, Mastercard and Girocard are the main payment card brands issued in Germany. The Deutsche Kreditwirtschaft's Girocard is the domestic debit card system and most Girocards are co-badged Maestro, V Pay, Cirrus or Plus.

As said, Girocard is the most widely used debit card in Germany. With the integration of the digital girocard into the payment procedure, a modern and alternative German payment procedure enriches the market. This also means a degree of national independence in the global competition for payment services.

In 2023, they reported 7,5 billion transactions. Retailers are also increasingly accepting Girocard payments: For the first time, amounting to 1.132.000 active terminals available.²²⁷

Online payments with Digital Girocard, operating under the Giropay brand, debuted in the second half of 2022. The strategic objective is to position Giropay as a competitor to major payment platforms like PayPal, Klarna, and Apple Pay. Reflecting this alignment, Giropay GmbH was taken over by Paydirekt GmbH on 1 December 2020. Following this, on 18 May 2021, the online payment methods of Giropay and Paydirekt were consolidated under the name Giropay, integrating previously isolated payment solutions including Kwitt.²²⁸

Mobile wallets such as Google Pay, Apple Pay, and PayPal represent only 9% of POS transactions but are leading the e-commerce with 29% in share of transaction volume.²²⁹ To put into perspective, debit and credit cards represent 21% and 12% of e-commerce

https://www.girocard.eu/presse-mediathek/pressemitteilungen/: EHI figures: girocard continues to grow in retail in 2023

https://www.ehi.org/wp-content/uploads/Downloads/Leseproben/2023_Online-Payment_Leseprobe.pdf FIS The Global Payments Report 2023_

transactions respectively.²³⁰ Other mobile payment options chosen by Germans are Payback Pay, Barclays bPay, and Bitpay.

While mobile payments are becoming increasingly common, Google Pay maintains a slight lead over Apple Pay, with 40% of German customers who use it when shopping ²³¹. In June 2022, Samsung debuted in the German market with Samsung wallet, which combines the capabilities of Samsung Pay and Samsung Pass. Samsung Wallet allows to make payments using credit or debit cards, manage access to membership cards, boarding passes, and even cryptocurrency wallets²³².

Payback Pay is available in a few other European countries, but is most prevalent in Germany, where 23% of survey participants chose it as their favorite method.²³³ Payback Pay works as a connection between the customer and the mobile wallets such as Google Pay and Amazon Pay.

Furthermore, Mondu, a B2B payment fintech company, has introduced Split Payments, a Buy Now, Pay Later solution to its online B2B merchants and marketplaces. This solution helps merchants to increasing sales, cashflows, customer retention by offering risk-free installments²³⁴.

Viva Wallet, a cloud-based neobank, partnered with Klarna to offer "Pay with Klarna" on Viva Wallet payment platforms. This will allow users to pay in 3 or 30 days, pay now or opt for financing to pay over 3-36 months. The service will be released in selected European markets, among which is Germany²³⁵.

Computop has partnered with Token, a platform for Open Banking payments, to offer account-to-account payments. Additionally, it's noteworthy that in 2023, NEXI acquired 30% stake in Token, marking a significant investment in the expanding field of Open Banking.²³⁶

In April 2023, the EPI Interims Company, now called EPI Company, took over the Belgian payment processor Payconiq and the Dutch A2A scheme iDeal, as announced. At the same time, EPI announced the creation of an "all-in-one digital wallet solution" as well as its own Europe-wide payment scheme. The first pilot started in Germany and France at the end of 2023 and the final go-live in Germany, Belgium, and France (the three countries responsible for half of cashless retail payments in the euro area) is planned for mid-2024.237

We observe a growing trend regarding Buy Now Pay Later. A survey by Statista shows that almost a third of German online shoppers used BNPL services in 2021. Interest in cryptocurrencies is also increasing, as 2% of the German population is already using it and 19% are interested in it.238

REWE's contracts with Payback's repay model will end at the end of 2024. REWE will then offer its own loyalty system and from January 2025 at the latest, collecting points with "Payback" at Rewe checkouts will no longer be possible. The whole thing is then called "Rewe Pay", and the payment process itself should also work via this app.²³⁹

Users of the Kaufland app can now pay by scanning a QR code at the checkout and at the same time use the advantages of the digital Kaufland Card, thanks to the Bluecode payment system is directly linked to the checking account. Users can pay quickly and securely directly from their checking account and retailers receive a payment guarantee, even if the user's smartphone does not have an internet connection at the time of payment.²⁴⁰

Mollie offers a payment system for POS. The FinTech initially started with card readers, QR codes and payment links. A tap-topay solution will also follow later this year. The offer is aimed at SaaS partners whose solutions are designed for omnichannel and multichannel retailers (companies that have both online and offline sales channels). The stationary POS payment systems are integrated into the respective customer's platform via an API interface. This means that online and offline payment information would flow directly and uniformly into a central platform and be accessible to retailers on a dashboard.²⁴¹ Paymix SoftPOS and Computop PhonePOS are both players enabling smartphones to be used as POS terminals.

The German payment expert Airplus International made its company account available on Uber for Business in order to ease trip payments. Business travelers who want to use Uber for Business and pay using AirPlus can do so by requesting a ride through the Uber app; AirPlus handles payment and billing in the background. The same holds true for other Uber for Business features like the ability to order meals or get other deliveries.²⁴²

The German flag carrier Lufthansa is developing a strong payment infrastructure that will provide its Group with all the required payment solutions, allowing all members to take advantage of the readily available and excellent services. The aviation company has chosen Worldline to be its partner and payment processor in order to achieve this²⁴³.

Funanga's CashtoCode payment API service is focused on speed and simplicity for both online merchants and their customers. Its main product connects online merchants with real-world retail locations to enable cash payments for everyone. CashtoCode allows online merchants to issue their own cash barcodes that customers take to any of the retail locations to make a cash payment for their online purchase. POS networks become the checkout and payment partners for online merchants.²⁴⁴

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- 231 232
- https://thepaypers.com/mobile-payments/samsung-to-launch-samsung-wallet-in-13-new-markets
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- 237 https://moneytransfers.com/news/2023/09/25/epi-chooses-wero-as-brand-name-for-its-digital-wallet-solution
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- $https://thepaypers.com/online-payments/lufthansa-chooses-worldline-as-global-payments-provider \\ https://cashtocode.de/$



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Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>PAYBACK</u>	Parent company	718	390,27	n/a	<u>Link</u>
Paypal Europe	Parent company	2.402	239,00	4,00	Link
SOFORT	Klarna Holding	140	n/a	n/a	<u>Link</u>
Mondu	Parent company	95	n/a	n/a	<u>Link</u>
Girocard	Parent company	n/a	n/a	n/a	<u>Link</u>
Google Pay	Parent company	n/a	n/a	n/a	<u>Link</u>
Apple Pay	Parent company	n/a	n/a	n/a	Link
Barclays bPay	Parent company	n/a	n/a	n/a	Link
Bitpay	Parent company	n/a	n/a	n/a	Link
Samsung Pay	Parent company	n/a	n/a	n/a	<u>Link</u>
Amazon Pay	Parent company	n/a	n/a	n/a	<u>Link</u>
<u>Mollie</u>	Parent company	n/a	n/a	n/a	Link
<u>Paymix</u>	Parent company	n/a	n/a	n/a	Link
<u>Airplus</u>	Parent company	n/a	n/a	n/a	<u>Link</u>

we drive the payment journey





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Banks

Germany has one of the most fragmented retail banking markets in Europe. The banking sector comprises three main groups, considering the ones in the payment business: commercial banks, savings banks, and cooperative banks²⁴⁵. The three largest banks: Deutsche Bank, DZ Bank, and Commerzbank represent 66% of total assets in German banks.

The largest German bank is Deutsche Bank (DB) with 1.312 billion € of total assets representing 35% market share in 2023. The bank offers financial services globally. Through its private and business client division (PBC), DB is the only German bank which has developed a significant retail presence in the rest of Europe. Historically, it has been present in Italy, where it is a major player in credit cards and consumer finance, and in Spain, Belgium, and Portugal. DB is multiplying partnerships and acquisitions to reinforce its offer in payments: it acquired Better Payments (September 2021), established a joint venture with Fiserv (June 2021), established a strategic partnership with Mastercard (Issuing & Acquiring), and of course is one of the historical players behind the German Girocard debit card network.

In 2022, DB continued its strategy of establishing itself as a comprehensive financial service provider for digital marketplaces. Together with the automotive company Smart, the bank is offering tailor-made payment options to customers that want to buy a Smart on the company's ecommerce platform²⁴⁶. DB joined forces with Fiserv, a global leader in payments and financial services technology, to develop Vert, the newest German payment acceptance and processing company²⁴⁷. The bank also partnered with Visa to prevent merchants from online retail fraud. In fact, merchants who accept e-commerce payments through DB can now use "Decision Manager," an automatic fraud detection system. The fraud system works similarly to a risk management system, calculating a risk value for each individual transaction based on artificial intelligence and predefined rules. The objective is to speed up good transactions and stop suspected fraudulent transactions and involves small, medium, and big businesses²⁴⁸. It is worth noting that whereas most banks are only issuers, DB and CoBa have re-entered the acquiring business.

The cooperative DZ Bank, the second largest German bank by assets with a total of 645 billion € and a 17% market share, is actively driving the development of the European Payments Initiative (EPI). The banks from Belgium, France, the Netherlands, and Germany participating in EPI plan to soon launch a digital wallet named Wero. It is deemed crucial for the success of EPI that the Wero payment method becomes well-established before the rollout of the digital euro. Notably, Wero is set to introduce peer-to-peer (P2P) payment functions by around June 2024.²⁴⁹

https://www.ebf.eu/germany/

https://thepaypers.com/online-payments/deutsche-bank-and-smart-work-on-online-payment-for-the-new-smart-1 https://www.db.com/news/detail/20221012-deutsche-bank-and-fisery-launch-vert-germany-s-newest-payments-co

https://www.db.com/news/detail/20221012-deutsche-bank-and-fisery-launch-vert-germany-s-newest-payments-company https://www.db.com/news/detail/20220922-deutsche-bank-partners-with-visa-to-prevent-fraud-in-online-retail

https://www.handelsblatt.com/finanzen/maerkte/devisen-rohstoffe/european-payments-initiative-neues-bezahlsystem-wero-muss-sich-laut-dz-bank-rasch-durchsetzen/100008325.html

Commerzbank, a major bank in Germany, holds 517 billion € in total assets, representing a 14% market share in 2023. Its digital banking arm, Comdirect, serves over 2,8 million customers. ²⁵⁰ In 2021, Commerzbank, Evonik, and BASF conducted a joint project, achieving a significant milestone by successfully completing the first test of blockchain technology and programmable money to manage supply chain processes between companies. During this test, payments between Evonik and BASF were made in a fully automated and digital manner using a programmed payment process. The initiative involved the creation of 'digital euros' based on e-money for payment purposes. ²⁵¹ By 2022, Commerzbank aimed to influence emerging digital ecosystems, focusing on the custody and trading of non-physical assets. Notably, Commerzbank has already secured a license from the Federal Financial Supervisory Authority (BaFin) to operate a crypto custody business. ²⁵²

At the end of 2021, both Germany-based Commerzbank and Deutsche Bank have announced that customers will be able to use the Giropay method to pay for online shopping²⁵³.

The commercial category also includes subsidiaries of foreign banks, which are leading banks in Germany in terms of total assets. These include UniCredit (Italy), through its subsidiary HypoVereinsbank (UniCredit Bank AG), ING (The Netherlands) through ING DiBa and Crédit Mutuel (France) through TargoBank.



Savings banks are represented by the Sparkassen-Finanzgruppe (DSGV). There are currently around 376 savings banks in Germany and 5 Landesbanken: Landesbank Saar (SaarLB), Landesbank Baden-Württemberg (LBBW), Bayerische Landesbank (BayernLB), Norddeutsche Landesbank Girozentrale (Nord/LB) and Landesbank Hessen-Thüringen Girozentrale (Helaba).

These banks are part of the German public banking system, where banks are controlled by state actors, though they are not fully publicly owned. Historically, they served as central banks for the savings banks in their respective regions, but their roles have gradually evolved. BayernLB, for instance, offers financial services to corporates, financial institutions, and real-estate customers, besides its role as central bank for the Bavarian Savings banks. Helaba provides financial services to companies, banks, and institutions, and plays the role of central bank for the savings banks of Hessen, Thüringen, Nordrhein-Westfalen, and Brandenburg.

Savings banks issue Girocards along with Mastercard and Visa cards and have integrated Girocard into Apple Pay to enhance their digital payment offerings. Customers can now pay with the digital Girocard via Giropay, which includes existing services such as Paydirekt and Kwitt, along with the functionality of the former Giropay.

https://www.comdirect.de/cms/ueberuns/en/unternehmen/index.html

https://www.commerzbank.com/en/hauptnavigation/presse/pressemitteilungen/archiv1/2021/2_quartal/presse_archiv_detail_21_02_97290.html

https://www.commerzbank.de/group/newsroom/press-releases/crypto-custody-licence.html. https://thepaypers.com/online-mobile-banking/commerzbank-and-deutsche-bank-enables-giropay-for-online-shopping

StoneX[®] Payments



It is worth noting that G+D and Netcetera have joined forces to create a holistic portfolio of modern payment and banking services. Payment cards made of recycled plastic, such as recycled ocean plastic, and other recyclable materials allow consumers to demonstrate their sustainable lifestyle through their choice of payment card. And in this instance, UniCredit's HypoVereinsbank in Germany issue sustainable cards from the Convego series to their customers.



In 2022, Sparkassen-Finanzgruppe greatly enhanced its "S-POS" application. Retailers and service providers are now able to accept Girocard payments of any amount with PIN entry on their smartphones, eliminating the need for additional acceptance devices. This allows Sparkassen-Finanzgruppe to take a significant step toward further opening the payment market up²⁵⁴.

According to Börsen-Zeitung²⁵⁵, in July 2022 Sparkassen-Finanzgruppe confirmed to continue its commitment to the European Payment Initiative following the difficult start that EPI had. Instead, other important banks, such as Commerzbank and DZ Bank, opted out from the project as no European scope of the project was foreseeable for them.

Sparkasse will also expand its credit card offer in 2023 with the "FlexiGeld card" which will allow customers to make installment payments instead of having to pay at the end of the month in one shot²⁵⁶.

The association of cooperative banks in Germany, known as the 'Bundesverband der Deutschen Volksbanken und Raiffeisenbanken' (BVR), focuses on defending the interests of its more than 840 members and developing a unified strategy within the group. The BVR provides support on legal, commercial, or financial matters, and its membership includes the 11 Sparda banks, Volksbanken and Raiffeisenbanken, and DZ Bank AG, which is the largest cooperative bank and also acts as a central bank for the cooperative VR Banks.

However, the German banking sector is diverse, featuring several significant associations. Among these, 'Die Deutsche Kreditwirtschaft' (German Banking Industry Committee) stands out as a cooperative body that encompasses other key organizations such as 'Bankenverband' (Association of German Banks), 'Deutscher Sparkassen- und Giroverband' (German Savings Banks Association), 'Bundesverband Öffentlicher Banken Deutschlands' (Association of German Public Sector Banks), and 'Verband deutscher Pfandbriefbanken' (Association of German Pfandbrief Banks), each playing a crucial role in shaping banking policies and practices.

Sparkassen and VR-banks, which are part of these associations, issue the majority of debit cards in Germany, with Sparkassen responsible for almost half and VR-banks for a quarter of all cards issued. The total assets of local cooperative banks amount to 1.175 billion €, serving a customer base of 17,8 million people.²⁵⁷

https://uk.finance.yahoo.com/news/rubean-ag-german-sparkassen-pos-141106463.html

https://www.boersen-zeitung.de/die-sparkassen-halten-epi-die-treue-3fb4eee4-7632-11ed-8b29-0271f386d4c9

 $https://www.derwesten.de/panorama/vermischtes/sparkasse-kreditkarte-flexigeld-ratenzahlung-schulden-geld-id 300346867.html \\ https://www.bvr.de/Press/Facts_and_figures.$

According to the CEO Andrea Orcel, UniCredit Bank is aiming at increasing its market share through acquisitions in Germany as part of plans to become a fully developed European bank²⁵⁸.

As of December 2022, Bitcoin Group SE has agreed to acquire 100% of the company from Dietrich von Boetticher, the owner of Germany-based Bankhaus von der Heydt. Bankhaus von der Heydt is a full-service bank in Germany that provides custody and tokenization of digital assets²⁵⁹.

Trade Republic launches debit cards for 4 million users and was profitable in 2023. After the former neobroker has turned into a neobank with a full banking license, users can now order a Visa debit card from the Berlin fintech unicorn in order to be able to pay on the go or online. While Trade Republic was previously known as a digital broker for stocks, ETFs and crypto assets, the company is increasingly turning into an N26 challenger, with accounts, savings interests, and now a bank card. 260 N26 is struggling with their losses increasing and customer growth slowing down. On top of that BaFin's new customer caps are hurting neobanks because AML regulations.

IPMorgan Chase is launching an online bank in Germany by 2025. This is the bank's second foreign branch for end customers after the British Chase UK, which launched just over a year ago. The division will be located in Berlin and will also become the basis for further expansion in Europe.²⁶¹

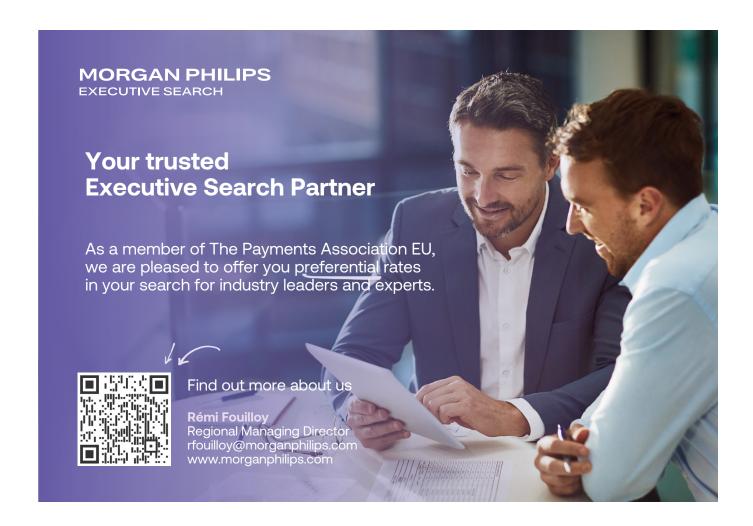
C24 Bank has announced that it will provide its users up to 8 virtual cards in addition to the physical Mastercard. After placing an order in the app, these are immediately operational online and can also be used in stores with Apple Pay or Google Pay²⁶².

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Deutsche Bank</u>	Parent company	84.930	27.361,00	5.659,00	Link
Commerzbank	Parent company	42.378	10.539,00	1.393,00	Link
DZ BANK	Parent company	32.985	7.053,00	1.341,00	Link
<u>UniCredit Bank</u>	UniCredit	10.866	5.052,00	1.301,00	Link
Landesbank Hessen-Thüringen Girozentrale	Parent company	3.412	4.887,00	n/a	Link
<u>Landesbank Baden-</u> <u>Wuerttemberg</u>	Parent company	10.384	4.320,00	1.510,00	<u>Link</u>
Sparkassen- Finanzgruppe	Parent company	22.775	4.309,00	-16,00	Link
<u>ING-DiBa</u>	ING Group	4.383	3.439,00	706,00	Link
Bayerische Landesbank	State of Bavaria	8.491	2.666,00	1.058,00	Link
Landesbank Saar	Parent company	493	158,27	32,08	<u>Link</u>
<u>N26</u>	Parent company	616	47,72	-201,46	<u>Link</u>
C24 Bank	Parent company	146	0,89	n/a	<u>Link</u>
Norddeutsche Landesbank Girozentrale	State of Lower Saxony	3.500	n/a	n/a	Link
Targobank	Caisse Federale de Credit Mutuel	4.000	n/a	n/a	Link
Trade Republic	Parent company	700	n/a	n/a	<u>Link</u>
<u>DKB</u>	Bayerische Landesbank	1.757	281,407	n/a	Link

https://money.usnews.com/investing/news/articles/2022-09-20/unicredit-ceo-eyes-acquisitions-in-germany-handelsblatted and the statement of t

²⁵⁹ https://thepaypers.com/cryptocurrencies/bitcoin-group-signs-deal-to-acquire-bankhaus-von-der-heydt https://www.trendingtopics.eu/trade-republic-startet-debitkarte-fuer-4-mio-user-war-2023-profitabel/ 260

 $https://www.boersen-zeitung.de/banken-finanzen/jp-morgan-plant-bis-2025-in-berlin-mit-online-bank \\ https://thepaypers.com/online-payments/c24-bank-introduces-virtual-mastercard$



Payment processing & gateways providers

Computop, one of the original payment service providers, offers local and cutting-edge omnichannel solutions for processing payments and preventing fraud. The in-house created payment platform Computop Paygate makes integrated payment procedures possible for mobile devices, POS terminals, and e-commerce to all have seamless integrated payment procedures. Retailers and service providers can customize their payment options for each country by selecting different payment options. Technologies like self-learning algorithms and biometric authentication increase security and convenience for both customers and shops²⁶³. In other words, Computop has a Cloud POS Interface that makes card payments easier. This solution allows retailers to operate card terminals from any web-based ERP, store, or POS system through the Computop Paygate²⁶⁴. In 2022, Computop and EVO Payments expanded their collaboration by creating a joint solution, which allows businesses to employ unified POS terminals and connect them to their e-commerce operations via a single payment platform²⁶⁵. Furthermore, online merchants who process their payments via Computop can now offer their customers a faster checkout via Amazon Pay. The new interface differs from the previous connection in that it is easier to integrate into the online store, offers improved user guidance, and has a higher order conversion rate as a result²⁶⁶.

AEVI instead enables merchants to manage their operations more intelligently by giving them easy access to any payment technology and business solution for the best in-store customer experience. This platform is provided to businesses that deal with merchants. They may upgrade to more agile and data-driven offers with the help of AEVI's Platform for Smart Merchant Enablement, which promotes higher efficiency, more innovation, and an enhanced consumer experience across all channels²⁶⁷.

EVO Payments is a payment institution licensed in Germany. As a payment institution and a principal member of Visa and Mastercard, EVO Payments is the exclusive provider of card acceptance solutions for Global Transaction Banking (GTB) for Deutsche Bank in Europe, a branch of DB Privat- und Firmenkundenbank AG²⁶⁸.

As mentioned earlier, Vert was born in 2022 thanks to the collaboration between Deutsche Bank and Fiserv. Vert is a provider that offers full-service payment acceptance solutions for merchants via mobile devices, apps and at the checkout. The new provider also offers next-banking-day pay-outs, allowing merchants with faster access to their funds²⁶⁹.

https://computop.com/de/

https://computop.com/us/about-us/press/press-releases/computop-delivers-traditional-pos-alternative-with-cloud-pos-interface

https://computop.com/us/about-us/press/press-releases/computop-and-evo-certify-terminals-for-international-card-acceptance

ttps://computop.com/us/about-us/press-releases/computop-integrates-new-amazon-pay-interface-for-express-checkout

https://www.aevi.com

https://www.evopayments.eu

https://www.db.com/news/detail/20221012-deutsche-bank-and-fisery-launch-vert-germany-s-newest-payments-company

Noteworthy, Worldline and the DSV Group have prevailed in the tender procedure of Transgourmet Germany for the acceptance and processing of the debit and credit card business as a payment service provider. Hence, starting from the 1st of January 2022, Payone is totally responsible for all cashless payment services in Germany's 38 Selgros Cash & Carry markets²⁷⁰.

Stripe and Sides, a German provider of hospitality software, joined forces together in September 2022. Sides intentions are to expand the functionality of its software by integrating a safe payment platform. Cashless payment processing is provided by the all-in-one catering software in eateries, online stores, and the app²⁷¹.

Unzer, a company specialized in payment processing, has introduced POS Go, a mobile POS system that enables SMBs to accept contactless and cashless payments. Small and medium-sized businesses who want to take mobile payments are the target market for Unzer's POS Go, which, according to company spokespeople, aims to assist merchants in making the switch from cash to card payments²⁷².

Zalando Payments, the payment arm of the famous online apparel retailer Zalando provides a full payments solution to the Zalando Group, ranging from risk assessment and fraud screening, offering payment methods at the checkout and processing, to the collection and reconciliation of funds. It is on the way to becoming the preferred payment solution for the fashion world²⁷³.

NEXI Germany (previously Concardis) offers a wide range of payment services to financial institutions and acquirers. They help more than 1000 partner Banks and Financial Institutions across Europe to manage their customers' payment cards through modular and made-to-measure services such as Processing, Card Management, dispute resolution, security services, fraud prevention and Customer Value Management. In 2022, NEXI Germany partnered with Ixopay, a payment service provider that offers a full range of cashless and digital payment options. This will allow merchants to access NEXI Germany offering while providing them with support and access to more complex setups with Ixopay²⁷⁴. In early 2024, Nexi formed a strategic alliance with Alipay+, a global mobile payment and marketing platform operated by Ant International. This partnership aims to enhance cross-border payment solutions for businesses throughout Germany. Nexi is updating its point-of-sale terminals to incorporate Alipay+, enabling local merchants to accept e-wallet and digital payments from more than 25 Asian payment partners. This collaboration marks a significant advancement in international mobile payments for merchants and presents substantial opportunities for retailers, restaurants, hotels, and other service providers, especially in anticipation of the influx of Asian tourists during UEFA EURO 2024. As the official payment partner of this summer's football tournament, Alipay+ will boost its visibility and provide convenient payment options for Asian visitors in Europe.²⁷⁵

Payone provides POS and e-commerce payment gateways, among others. Payone's joint venture Worldline, operating in the field of payment transactions and transaction services, has formed a strategic alliance with DSV Group, Sparkassen-Competence Finanzgruppe's Center Payment, and Berlin fintech Banxware, a provider of corporate financing and lending technology. In the future, the new collaboration seeks to give Payone users in Germany rapid, easy, and convenient access to liquidity: on average, merchant financing is approved and paid within 15 minutes after submitting an online application through the Payone dealer portal.²⁷⁶

The German-British fintech start-up founded in 2012 by five German entrepreneurs in London and Berlin Sumup primarily sells mobile readers for paying by bank and with credit cards. The range of products and services now also includes business accounts, online shops as well as solutions for invoicing and integration into cash register systems. The payment service provider. In 2023, Sumup has completed a financial injection of 285 million euros in order to be able to grow internationally.²⁷⁷

With more than 31 billion transaction every year, RS2 empowers some of the world's leading banks, financial institutions, ISOs, ISVs, PayFacs, fintechs, and merchants to deliver digital payments across the entire payments value chain.

Regarding acquisitions, they enable to process payments from anywhere in the world via a multi-channel, cloud-native platform to design and manage payments ecosystem; add new currencies, payment types, language support, merchant reporting, mitigate your chargeback risk, and control your costs - with one API integration. From virtual pre-paid to credit, debit, and corporate card their Issuing Processing Solutions provides a wide range of issuing products and services.²⁷⁸

https://www.payone.com/DE-de/ueber-uns/presse/transgourmetausschreibung-fuer-payone-entschieden

https://thepaypers.com/mobile-payments/sides-and-stripe-launch-payment-solution-for-hospitality-industry.https://thepaypers.com/payments-general/unzer-launches-mobile-pos-system-pos-go

²⁷² 273 https://thebanks.eu/emis/zalando-payments-354939

²⁷⁴ https://www.concardis.com/de-en/company/press-media/articles/ixopay-partners-with-concardis-nets

²⁷⁵ https://www.nexi.de/de/insights/presse/2024/nexi-kooperiert-mit-alipayplus#:~:text=Eschborn%2C%2029.%20Februar%202024%20%E2%80%93,in%20deutsche%20 Unternehmen%20zu%20integrieren

²⁷⁶ 277 https://www.payone.com/DE-de/ueber-uns/presse/payone-und-banxware-gehen-strategische-partnerschaft-ein

https://www.rnd.de/wirtschaft/sumup-deusches-startup-erhaelt-285-millionen-euro-von-investoren-4KLXJWKICVPSHO4UFJNUJR7IRY.html

https://www.rs2.com/who-we-serve/fintechs/

VR Payment and Smoothr have introduced a new payment concept for the drive-in at fast food restaurants such as Burger King: Ordering and cashless payment are now to be brought together directly at the intercom. This eliminates the need for the traditional drive-up and personal payment at the service window - an enormous gain in convenience and time for guests and a significant increase in efficiency for restaurant owners and franchisees.²⁷⁹

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>PAYONE</u>	Worldline	1.354	793,02	n/a	<u>Link</u>
<u>First Data</u>	Fiserv	459	373,01	n/a	<u>Link</u>
Nexi Germany	Nexi	n/a	n/a	n/a	Link
Verifone Payment	Francisco Partners Feeder	150	n/a	n/a	Link
<u>VR Payment</u>	DZ Bank Group	n/a	n/a	n/a	<u>Link</u>
<u>Unzer GmbH</u>	Unzer Group	266	57,56	-139,69	<u>Link</u>
AEVI International	Diebold Nixdorf	20	25,62	-26,33	<u>Link</u>
Orderbird	Nexi	111	n/a	-15,26	Link
EVO Payments International	Global payments	234	n/a	n/a	Link
RS2 Zahlungssysteme	Parent company	12	n/a	n/a	Link
Computop Paygate	Parent company	n/a	n/a	n/a	<u>Link</u>
Paydirekt	Independent company	n/a	n/a	n/a	Link
<u>Vert</u>	DB	n/a	n/a	n/a	Link
Stripe	Parent company	n/a	n/a	n/a	Link
Sumup	Parent company	n/a	n/a	n/a	Link
Zalando Payments	Zalando	n/a	n/a	n/a	Link

https://www.it-finanzmagazin.de/drive-in-payment-loesung-vr-payment-207651/



Open banking enablers

Banks such as Commerzbank, Volksbanken und Raiffeisenbanken, and Deutsche Bank are among those that offer Open Banking in Germany, though they are not the only ones²⁸⁰.

In Germany, the roll-out of open banking following PSD2 is still growing rapidly. The global pandemic intensified digitization, and since 2020, usage of open banking has been rising steadily in the area. In fact, Germany now has 147 Third-Party Providers (TPPs), making it the country with the most TPPs in continental Europe²⁸¹.

Recent open banking technologies target SMEs rather than major corporations. In fact, companies in this sector look for services that are specifically suited to their needs, whether it be embedded finance, payments, or insurance, as they have less money to spend on unique integrations with banks²⁸².

The German banking sector recognizes API technology as a key driver for the development of new digital services. In response, it has launched the "giroAPI" initiative, which focuses on creating a robust technical and organizational framework that will bring API-based value-added services to full market readiness. These giroAPI services offer additional functionality beyond mere payment transactions, allowing third parties to optimize their existing services more effectively. This initiative relies technically on the Berlin Group's openFinance API Framework.²⁸³

Sparkassen-Finanzgruppe is considered an example of open banking innovation. The German Savings Bank Finance Group created Wallis, a central API site that facilitates collaborative creation of novel services and new business models for partners and fintechs discovered in the bank's ecosystem. The portal has also received a BaFin license, which legalizes its operations and maintains compliance with the law.²⁸⁴

https://www.wallis.de/en/about

https://www.yapily.com/blog/open-banking-in-germany. https://thepaypers.com/interviews/open-banking-in-germany-deutsches-perspective 282

https://die-dk.de/zahlungsverkehr/dk-initiative-giroapi/

https://www.wallis.de/en/about

Infrastructure providers

The top five players in the German Banking-as-Service market are Deutsche Bank, Commerzbank, KFW Bankgruppe, DZ Bank, and HypoVereinsbank. Besides them, there are players such as Solaris, Fidor Bank, and many others²⁸⁵.

Solaris is a technology company holding a banking license. It has built an API-based white-label banking-as-a-service platform to power startups in the digital economy²⁸⁶. Following the acquisition of Contis in July 2021, Solaris has been working to integrate Contis' platform into its own embedded finance offering and combine teams from the previously separate businesses. Thanks to the merger, Solaris gained an e-money license in the U.K. to add to its EU licenses in Germany and Lithuania²⁸⁷. It is worth noting that Solaris has been imposed a fine of 6.500.000 € by the financial regulator BaFin, the reason being that BaFin had discovered that the institute had systematically submitted suspected money laundering reports late.²⁸⁸ Catering for the specific requirements of a BaaS model, Solaris is running a modular core banking infrastructure and has migrated all of its services to the cloud. This involves multiple providers of standard solutions for different purposes, such as general ledger, regulatory reporting, loan ledgers, clearing and settlement mechanisms connectivity. Solaris turned to Mambu as it offers an API-enabled solution hosted on Amazon Web Services (AWS), which matched the BaaS platform's setup. 289

Raisin Bank is another Banking-as-a-Service company. In June 2022, Raisin Bank expanded its business by acquiring the Payment Services division from Bankhaus August Lenz & Co., which allows to also cover cash solutions²⁹⁰.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Raisin Bank</u>	Parent company	98	20,05	-0,86	Link
<u>Solaris</u>	Parent company	834	108,37	-57,80	Link
<u>Fidor Bank</u>	Parent company	108	17,63	-44,04	<u>Link</u>

Source: Orbis | Financials 2022

Expert Opinion

"Germany's payment landscape is distinguished by a strong preference for the Girocard, which recorded approximately 7.5 billion transactions in 2023, alongside a robust shift toward cashless payments as evidenced by the widespread adoption of mobile payment apps like Google Wallet and Apple Pay. Despite a longstanding cultural affinity for cash, the post-pandemic era shows no signs of a return to previous habits, with an increasing number of consumers, including seniors, embracing card and mobile payment methods at points of sale."

Daniel Scheuermann | Manager - Deloitte Germany

paymentcardyearbooks.com (Germany – statistical report)

https://www.mordorintelligence.com/industry-reports/germany-banking-as-a-service-market

https://www.pymnts.com/emea/2022/contis-brand-retires-following-embedded-finance-merger-with-solaris/ https://www.bafin.de/SharedDocs/Veroeffentlichungen/DE/Massnahmen/60b_KWG_84_WplG_und_57_GwG/meldung_2024_03_07_Solaris_SE.html?cms_expanded=true

https://mambu.com/customer/solaris

https://thepaypers.com/online-mobile-banking/raisin-bank-acquires-the-payments-division-of-bankhaus-august-lenz

Ireland

Introduction

Ireland stands out as a technologically mature market within the euro area. With over 5 million inhabitants, Ireland showcases an excellent financial inclusion rate, with 99.66% of the population over 14 years of age having access to a bank account²⁹¹. Additionally, 95% of the population has access to the internet²⁹².

The Irish population makes high use of cash, both point-of-sale and peer-to-peer transactions are mostly settled with this method. In fact, 54% of the transactions at point-of-sale and 72% of peer-to-peer transactions are settled with cash²⁹³. Card payments represent a significant portion of transactions, accounting for 37% at POS and 60% for online purchases²⁹⁴, the third highest rate of online card usage in the EU. Moreover, approximately 91% of consumers have access to cards²⁹⁵, with a noted preference for debit cards over credit cards. The high use of card payments indicates a mature market that values the convenience and security offered by this payment method. Furthermore, the rise in popularity of alternative payment methods, signifies the evolving nature of Ireland's payment preferences, emphasizing the shift towards digital solutions.

Ireland's payments landscape is more digital than ever. As in most countries, the pandemic changed consumer's habits, but also helped in accelerating businesses' digital transformation and pushing users to conduct their transactions online. It is worth noting that digital wallets, such as PayPal or Apple Pay, have emerged as the most popular payment method after cards. The widespread adoption of Revolut, to the extent that 'to Revolut' has become a commonly used verb, underscores the country's quick adaptation to innovative payment solutions.

As Ireland is a technologically mature market, consumer behavior shifted towards more accessible, frictionless, convenient, and faster digital payment methods. Irish consumers are enthusiastic adopters of new technologies when presented with the opportunity of new services. The country has some of the fastest consumer adoption rates of contactless and mobile payments, mobile banking, and adoption of online commerce by SMEs.²⁹⁶ The country's legal framework for the payment industry is partly shaped by the European Directives and regulations. PSD3, CESOP, and the instant payment regulation will shape the way that banks and other players adapt their services.

Moreover, the country's adaptation to Brexit by becoming the EU headquarters for numerous paytech companies highlights its attractiveness as a fintech hub. This is further supported by significant investments from global players like Mastercard, PayPal, Elavon, Stripe, Fiserv and Coinbase. The legal framework, characterized by a 'Common Law' structure similar to the UK, alongside the availability of quality talents, positions Ireland as a global leader in fintech innovation. Notable investments in recent years include Mastercard's plans to create 1.500 jobs and expand its new European technology center in Dublin, and Stripe's creation of 1.000 new jobs in Ireland to grow its European user base and launch new global products.²⁹⁷

Card payment schemes

There are two key players in the card payment schemes in Ireland: Visa and Mastercard.

Both card schemes are universally accepted with Visa being the leader in the market. All the Irish banks issue cards with one of the two schemes.

Alternative payment methods

Alternative payment methods in Ireland encompass both major international services and innovative local initiatives. Recognized e-wallets like PayPal, Apple Pay along with services for cross-border payments such as Western Union Payment Services, Google Payment, and Skrill, play significant roles in the Irish market.

Recently, Revolut announced a mobile wallet allowing for faster cross-border money transfers²⁹⁸.

Western Union Payment Services has expanded its offer by partnering with Paysend, a card-to-card and international payments platform allowing the company to provide seamless and efficient cross-border money transfer capabilities²⁹⁹. An additional partnership with VISA ensured that Western Union can now issue prepaid cards and send payments to users with qualified VISA cards³⁰⁰.

Among other players in the cross-border payments we can find TransferMate, a cross-border payments solution for businesses, which allows to make and receive payments in 30 different currencies. The company, partly held by Allied Irish Banks (AIB), recently partnered with Xtransfer which allows the company to provide new services aimed at importers and exporters³⁰¹.

- 291 https://www.theglobaleconomy.com/Ireland/percent_people_bank_accounts.
- 292 https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=IE
- 293 https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc18
- https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc18 https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc18
- 295 296
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- https://www.revolut.com/en-IE/news/revolut_launches_mobile_wallets_allowing_for_faster_transfers_across_the_world/
- https://www.pymnts.com/news/cross-border-commerce/cross-border-payments/2023/paysend-and-western-union-partner-on-cross-border-money-transfer-services/https://www.tradefinanceglobal.com/posts/visa-and-western-union-announce-cross-border-payment-partnership/
- https://www.prnewswire.com/apac/news-releases/xtransfer-and-transfermate-jointly-announces-strategic-partnership-empowering-importersexporters-with-new-market-pointly-announces-strategic-partnership-empowering-importersexporters-with-new-market-pointly-announces-strategic-partnership-empowering-importersexporters-with-new-market-pointly-announces-strategic-partnership-empowering-importersexporters-with-new-market-pointly-announces-strategic-partnership-empowering-importersexporters-with-new-market-pointly-announces-strategic-partnership-empowering-importersexporters-with-new-market-pointly-announces-strategic-partnership-empowering-importersexporters-with-new-market-pointly-announces-strategic-partnership-empowering-importersexporters-with-new-market-pointly-announces-strategic-partnership-empowering-importers-with-new-market-pointly-announces-strategic-partnership-empowering-importers-with-new-market-pointly-announces-strategic-partnership-empowering-importers-with-new-market-pointly-announces-partnership-empowering-importers-with-new-market-pointly-announces-partnership-empowering-importers-with-new-market-pointly-announces-partnership-empowering-importer-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowering-partnership-empowopportunities-301997633.html

Companies such as Payoneer are oriented towards helping users to make and receive cross-border payments by using a simple platform. Similarly, Moneycorp, provides seamless, secure and straightforward international payments for both private users and business users. Both companies issue multi-currency IBAN accounts facilitating cross-border transactions.

The US-based company Ripple recently settled in Ireland with the intention to capture part of the European market. The B2Boriented company provides solutions to enable cryptocurrency cross-border payments as well as crypto-asset management services for businesses.

Until 2023, leading Irish banks including Bank of Ireland, AlB, PTSB and KBC were at the forefront of launching Synch Payments, a simple and open instant mobile payments service. The new company aimed to transform digital payments through the introduction of a new mobile phone-based payments application. As of recently, Synch announced that it had to stop its activities, partly due to the pushback by the Competition and Consumer Protection Commission (CCPC) in late January 2021³⁰². The block elongated the launching time of the payment solution which prevented the company from entering the market early leading to a loss of competitive edge in the current payment landscape.

Alternative payment methods	Group	Employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Revolut	Revolut	1.446	869	19	Link
Western Union Payment Services	The Western Union CO	269	581	19	Link
<u>Skrill</u>	Paysafe Group	35	124	5	<u>Link</u>
<u>Payoneer</u>	Payoneer Global Limited	9	93	1	Link
<u>Transfermate</u>	Fintech Investments Limited	442	28	-18	Link
Moneycorp Technologies	Regent Acquisitions (Holdings) Limited	60	22	3	<u>Link</u>
Ripple Payments	Parent company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Banks

There are currently 53 credit institutions operating in Ireland, of which 21 hold a credit institution license authorized in Ireland, 30 are branches licensed in other EEA countries and 2 are branches in a non-EEA country³⁰³. Many of these banks are international banks with operations in Ireland. One of the features of Financial Services in Ireland is that the largest part of that sector is made up of investment funds, money market funds and special purpose entities. Ireland has the third largest funds sector in the world.

Talking about the retail banking sector, it has an enormous impact on Ireland's economy. In fact, it employs approximately 22.000 people and contributes €11,64 billion to the economy each year representing a GDP contribution of 3,3% compared to a Eurozone average of 2,6% of GDP³⁰⁴. Irish retail banks are also responsible for the functioning of the payments system, representing its main actor. They process around 5 million transactions worth €3,7 billion every day, which consists of card payments made by consumers, direct debits, cheques, and credit transfers such as salary payments, social welfare payments and payments between businesses³⁰⁵.

The Irish banking sector has different challenges to face, such as profitability, digitalization and competition. In fact, Irish retail banks profitability is among the lowest in Europe, with a ROE of circa 2.6%, against the European average of circa 7,6% for Q1-21. To further shake the market, two major players, KBC Bank and Ulster Bank, announced in 2021 their intention to leave Ireland³⁰⁶ leaving one million customers behind³⁰⁷.

Regarding digitalization, shifts in customer behavior and Covid-19 have changed the way payments are conducted, with overthe-counter transactions in Irish retail bank branches down by over 45% in the past four years, against an increase in digital payments by 65% during the same period³⁰⁸. To answer this challenge, banks have collectively invested more than 3 billion € in the last five years in order to be able to provide new digital services and innovate their business. Ireland's government is pushing citizens towards card or online payment methods. In addition, the use of neo-banks is increasing and hence contributing to banking and debit card adoption³⁰⁹.

- https://www.paymentscardsandmobile.com/irish-central-bank-demands-payments-innovation-after-shutting-down-synch/
- 303
- https://euclid.eba.europa.eu/register/ https://bpfi.ie/wp-content/uploads/2021/09/BPFI-Future-of-Retail-Banking-in-Ireland-Report.pdf 304
- https://bpfi.ie/publications/bpfi-ey-the-future-of-retail-banking-in-ireland-report/
- $\underline{https://www.centralbank.ie/consumer-hub/kbc-ulster-bank-withdrawal-from-ireland-consumer-faque (a) with the properties of the properti$
- 307 https://www.ft.com/content/c11421ff-5f85-48d4-b93d-1b6b0dc48185

The three major retail banks in Ireland are Bank of Ireland, Allied Irish Banks (AIB), and PTSB (originally Permanent TSB).

With a total amount of assets equal to 150 billion € in 2022, Bank of Ireland is the largest bank in terms of total assets in Ireland. The bank provides both Visa credit cards and Mastercard debit cards. Following their successful marketing partnership, Bank of Ireland Group and EVO Payments extended their alliance under the BOI Payment Acceptance (BOIPA) at the end of 2021 - increasing the adoption of contactless payments all over the country³¹⁰.

Allied Irish Banks (AIB) has a total amount of 129 billion € in assets as of 2022. AIB offers different financial products and services to personal, business and corporate customers. Unlike Bank of Ireland, AIB works with Visa both for their credit and debit cards. In the last years, AIB had around 2,9 million daily digital interactions compared with 35.000 customer branch visits. Furthermore, the bank registered a 36% decline in cash withdrawals from ATMs and a 50% fall in cheque usage over the past five years. Branch over-the-counter teller transactions declined by almost 50%, while mobile and online payments have increased by 85% over the same time span³¹¹.

Permanent TSB who rebranded to PTSB has assets that amount to 25 billion €. In 2023, PTSB completed the acquisition of 6,75 billion € of Ulster Bank assets³¹².

It should be noted that the Irish government had 71% stake in Allied Irish Banks and 75% in PTSB and a 14% in Bank of Ireland³¹³ in 2020. This situation changed in 2021, when the finance minister said that taxpayers' funds used to save the banks during the financial crisis between 2009 and 2011 will be recovered in order to use them for more productive purposes³¹⁴. Consequently, the Irish government started selling its stake in Bank of Ireland, with the last shares in Bank of Ireland sold in September 2022³¹⁵. As of November 2022, the government sold its stakes also in AIB Group and Permanent TSB Group Holdings, now holding respectively 57% and 62%³¹⁶.

Neo-banks in Ireland are putting pressure on traditional banks by capturing market with their innovative products and services. The push towards innovation is creating a much more competitive landscape. As mentioned earlier Revolut thrives in Ireland where it has reached over two million users³¹⁷. Other Neobanks such as N26 and Bung are also established in the country.

N26 issues accounts for individuals and for businesses with traditional financial products as well as more innovative ones such as Cryptocurrency accounts furthermore it is compatible with most e-wallets and issues Mastercard branded cards.

Bung has similar offerings as traditional banks such as savings accounts, virtual and physical credit cards, access to most e-wallets. The company has a focus on sustainability supporting projects such as reforestation.

Banks	Group	Employees	Revenue (Million)	Net Income (Million €)	LinkedIn
Bank Of Ireland	Parent company	10.153	3.199	858	<u>Link</u>
Allied Irish Banks	Government of Ireland	9.590	2.951	766	Link
<u>PTSB</u>	Government of Ireland	2.614	774	222	<u>Link</u>
Revolut	Revolut	1.446	869	19	Link
Bunq	Parent Company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Non-banking issuers

Among the various non-banking issuers in Ireland the key players are Skrill from the Paysafe Group which in addition to its e-wallet service offers Mastercard cards.

The prepaid card PFS Card services is currently being liquidated since the 13th of February of this year.

The B2B company Soldo cards in collaboration with Mastercard, this service allows companies to centralize their expenses through their platform. To give better oversight of expenses in an organization.

Non-banking issuers	Group	Employees	Revenue (Million)	Net income (Million €)	LinkedIn
<u>Skrill</u>	Paysafe Group	35	124	5	<u>Link</u>
Soldo Financial Services	Soldo Software Limited	15	13	5	<u>Link</u>

https://www.thinkbusiness.ie/articles/changing-payments-landscape-ireland-cash-digital-boipa/

³¹¹

https://www.irishmirror.ie/news/irish-news/aib-abandons-plans-go-cashless-27550422 https://www.ptsb.ie/about-us/notices/2023/july2/permanent-tsb-completes-acquisition-of-6.75-billion-of-ulster-bank-assets-and-launches-permanent-tsb-asset-finance/ 312

³¹³ https://www.ebf.eu/ireland/

https://www.bloomberg.com/news/articles/2022-09-23/dublin-exits-bank-of-ireland-13-years-after-crisis-era-bailout

³¹⁵ https://www.reuters.com/markets/deals/ireland-sell-8-its-majority-stake-aib-one-go-2022-11-07/

https://www.reuters.com/markets/deals/ireland-sell-8-its-majority-stake-aib-one-go-2022-11-07/

https://www.irishexaminer.com/business/technology/arid-41168683.html

Payment processing & gateways providers

Multiple actors are available in the PSP business in Ireland.

Stripe Payments Europe is one of the most renowned payments service providers. It holds an e-money license; but acts as a PSP. Stripe focuses on payment solutions for e-commerce by offering payment acceptance, payment processing, payment acquiring and unified pay-outs to businesses³¹⁸. Current, more than 3,1 million websites use Stripe's solutions³¹⁹.

SumUp is another key player in Ireland providing a wide variety of acquiring services to merchants such as e-commerce gateways and physical POS terminals. The company currently works with over 4 million businesses³²⁰.

Elavon is a PSP Gateway/Processor which offers secure services for merchants, including a product called 'Converge', a gateway for processing payments in-person, online or on-the-go. Another big player is PayZone Ireland which is a payment service provider for retailers and small businesses across fixed, mobile and virtual terminals.³²¹

SquareUp provides multiple acquiring services for merchants all around the world. The company provides physical POS terminals as well as SoftPos support. The company also sells gateway services for merchants wishing to sell online. The company works with over 4 million merchants and has processed over 4 billion transactions worldwide.

Payment processing & gateway providers	Group	Employees	Revenue (Million)	Net income (Million €)	LinkedIn
Elavon Financial Services	US Bancorp	2.427	419	5	Link
<u>Sumup</u>	Sumup Holdings	1.139	361	-39	<u>Link</u>
Squareup International	Squareup Limited	205	45	-96	<u>Link</u>
Stripe Payments	Stripe INC	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Open banking enablers

The core players in banking enablers are the established banks within the country, including major institutions like Bank of Ireland, Allied Irish Banks, and Permanent TSB. These banks are key open banking enablers, providing diverse APIs and a developer sandbox. Additionally, it is important to note that modern financial platforms like Revolut also play a significant role in this ecosystem by offering open banking access.

Open banking enablers	Group	Employees	Revenue (Million)	Net Income (Million €)	LinkedIn (HL)
Bank Of Ireland	Parent company	10.153	3.199	858	<u>Link</u>
Allied Irish Banks	Government of Ireland	9.590	2.951	766	<u>Link</u>
<u>PTSB</u>	Government of Ireland	2.614	774	222	<u>Link</u>
Revolut	Revolut Ltd.	1.446	869	18,5	Link

https://thebanks.eu/emis/stripe-technology-europe-354889

³¹⁹ https://backlinko.com/stripe-users

https://www.sumup.com/en-ie/

https://www.payzone.ie/

Infrastructure providers

The fintech Tribe uses its white-label app allowing banks to provide mobile Banking services to SME customers. Additionally, the company provides a social aspect allowing SMEs to be discoverable through their own platform.

Infrastructure providers	Group	Employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Tribe Fintech Limited	Independent Company	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Expert Opinion

"Payment ecosystem in Ireland continues to evolve as Ireland remains a hot destination for European Paytechs, Digital only banks and International banks. Ireland's young demographic has adopted digital payments at a rapid pace and will continue to embrace new emerging payment methods as and when they land. However challenges around uptake of openbanking services, fraud concerns remain. With SEPA Credit Transfer Instant being mandate and will be available to all the Irish customers by October 2025; we should see uptake of A2A based payments and Openbanking services. There is an opportunity for PSPs to offer innovative payment methods leveraging the instant payments rails. The recent National Payments Strategy consultation carried out by Government of Ireland reinforced the need of a Payments ecosystem which provides access and choice to customers; is secure and resilient; fosters innovation and inclusion and is sustainable and efficient. »

Jaydeep Thumar | Director of Payments and Financial services - Deloitte Ireland



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South-Western Europe

Introduction

South-Western Europe is composed of Italy, Spain and Portugal. The number of cash transactions in these countries is decreasing, following the trend of the last few years. There has been an important increase in non-recurrent online transactions in the region. In fact, online payment methods have come to fruition with debit and credit cards³²². However, there is some variation in online payment usage and preference across the countries. In particular, debit cards account for the highest total transaction value in these South-Western European countries, traditionally dominant as they are usually initially attached to a bank account, in contrast to other payment cards. Merchants have turned towards digital payments to offer e-commerce services to their customers.

Although the region is still lagging behind other European regions, there has been some advancement in the payments ecosystem with players such as banks and local payment alternatives increasing collaboration in the region. In fact, many cross-border banks acquisitions and partnerships have taken place.

There has been a rise in the use of alternative payment methods such as mobiles and e-wallets. These countries are distinguished by increasing digitalisation, emphasising the distinction between traditional banks and pure digital banks. As a result, banks must reposition themselves by providing digital solutions to their customers. The rise of contactless payments in this region has been very successful in these countries. In fact, banks have developed their own digital wallets. Worthy of note is the trend of Open Banking, especially for Italy and Spain. By leveraging PSD2, the Italian and Portuguese banking ecosystems are gradually but steadily progressing toward an Open Banking reality centred on the customer's digital experience.

Alternative payment methods



In terms of local and alternative payment methods, each country has its own preferred payment method: Satispay in Italy, Bizum in Spain and Multibanco in Portugal.

The mobile app Satispay is the most popular means of payment in Italy. The app allows users to pay in physical and online stores and exchange money between friends and offers a range of other services such as phone top-ups, bill payments, pagoPA and vehicle tax stamps, donations, gift envelopes and savings.

In Spain, Bizum (launched by several Spanish banks) is the most popular local payment method. It allows users to conduct person-to-person payments through a smartphone. Bizum's goal is to make payments between people easy by linking their phone numbers and email addresses to their bank accounts.

Finally, Multibanco is Portugal's leading payment method. Developed by the payment company SIBS, it is a post-pay option where a reference is generated at the checkout and then paid via an ATM with a debit card or via online banking.

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5

In terms of mobile payments, MB WAY emerges as the leader on the market in Portugal. It enables online and in-app purchases, immediate transfers, cardless cash withdrawals and even the generation of MB NET virtual cards, via a smartphone or tablet.

The BNPL segment has grown in the whole region with new companies appearing in the market and existing companies such as banks integrating the service into their various offerings. Klarna, Scalapay and Clearpay used to operate in the region but as of recently Clearpay closed operations in Europe leaving Klarna and Scalapay as the key BNPL providers. The Italian Unicorn Scalapay has continued growing in Italy and now has operations both in Spain and Portugal.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Aplazame</u>	WiZink Bank	n.a.	409,65	-96,04	<u>Link</u>
Sibs Pagamentos	SIBS - SGPS SA	3	57,87	23,45	<u>Link</u>
<u>Bancomat</u>	Independent company	75	48,45	8,47	<u>Link</u>
<u>Bizum</u>	Owned by 15 Spanish banks	8	43,84	2,35	<u>Link</u>
Oney Servicios Financieros	BPCE SA	270	39,96	-0,39	Link
Sequra Worldwide	Parent company	194	36,04	-0,54	Link
Scalapay	Scalapay Limited	113	13,53	-24,47	Link
<u>Payshop</u>	Banco CTT	54	11,23	1,63	Link
<u>Parcela JA</u>	Parcela Ja	2	0,30	0,09	Link

Source: Orbis | Financials 2022

Banks



Banks in South-Western Europe usually include few big entities that capture a large part of the market and multiple smaller banks that capture the remaining market share. It should be noted that despite this market structure, banks tend to collaborate as a way to improve customer experience. Each country in the region has a collaborative solution for account-to-account payments.

Over the years the larger banks in the region have acquired smaller players. In fact, larger banks tend to acquire smaller players in the other countries of the region as a way to inorganically earn market share for their business.

Santander has been a leader in the Spanish banking market for decades, with the launch of innovative products (such as the "Supercuenta Santander") and with successive acquisitions such as Banesto (1994), the merger with Banco Central Hispano (1999), and the integration of Banco Popular (2017). In Portugal, Santander began its activity in 1990 when it acquired a significant stake in Banco de Comércio e Indústria, but it was not fully consolidated until 1999, when it bought a significant stake of the Totta e Açores financial group and Crédito Predial Português. The merger of the Group's three commercial banks (Totta, Crédito Predial and Santander Portugal) gave rise to Banco Santander Totta. Subsequently, Banco Popular's business in Portugal was integrated in 2017. In the EU, Santander is also present in Poland.

The Spanish Caixabank is present in all three countries of the region. It is the third largest bank in Spain. In Portugal, the bank is present through its 100% owned subsidiary Banco BPI.

BBVA has a strong presence in Spain, Mexico, South America and Turkey. However, the bank is also present in Italy and Spain. In late 2021, BBVA entered the Italian market with a 100% online banking offer, with the goal of being the "zero commission everyday mobile bank" of reference³²³.

In 2023, Abanca Corporación Bancaria acquired the Portuguese bank EuroBIC allowing the bank to become the eighth largest bank in Portugal.

Note that the two dominant Italian banks, UniCredit and Intesa Sanpaolo, are very present in their home country but have a smaller presence in the region as a whole. In fact, both banks are present in Spain, but do not have a strong footprint there.

UniCredit's core markets include Italy, Germany and Central and Eastern Europe. Similarly, Intesa Sanpaolo has a strong presence in Central and Eastern Europe and the Mediterranean basin.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Banco Santander	Parent company	206.462	54.920,00	10.764,00	Link
Banco Bilbao Vizcaya Argentaria (BBVA)	Parent company	115.675	28.329,00	6.827,00	Link
Intesa Sanpaolo	Parent company	95.574	22.264,00	4.402,00	Link
<u>UniCredit</u>	Parent company	82.995	21.507,00	6.473,00	Link
Caixabank	Parent company	44.625	12.994,00	3.149,00	Link
ICCREA Banca	Parent company	22.144	5.735,48	1.796,11	Link
Banco Comercial Portugues	Parent company	15.743	3.146,20	129,68	Link
Banco Santander Totta	Banco Santander	3.137	1.333,90	586,56	Link
Banco BPI	Caixabank	4.404	1.065,57	365,05	<u>Link</u>

https://www.finextra.com/newsarticle/39073/bbva-launches-digital-retail-bank-in-italy

Payment processing & gateway providers



The French leader Worldline is present in the three countries of the region. PagoNxt, a Santander company, is active in Spain and Portugal, serving Santander's customers. Redsys is a highly important player in the Spanish market. Axerve, a smaller Italian gateway and processor, is present in Italy and Spain. Finally, Nexi holds a strong presence in its home market Italy. Similarly, SIBS plays an important role in its home market, Portugal.

It should be noted that other smaller players are also present in the region.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Nexi Payments	Nexi SPA	2.971	1.922,98	400,68	Link
<u>SumUp</u>	SumUp LTD	1139	360,93	-39,47	<u>Link</u>
Comercia Global Payments	Caixabank SA	147	325,40	84,96	Link
Redsys Servicios de Procesamiento	Parent company	665	158,21	4,63	Link
Worldline Merchant Services Italia – (formerly Axepta Italy)	BNP Paribas	118	122,21	2,39	Link
UNICRE	Parent company	224	98,71	22,15	Link
Sibs Pagamentos	SIBS - SGPS SA	3	57,87	23,45	<u>Link</u>
<u>Pagopa</u>	Republic of Italy	222	56,92	5,21	<u>Link</u>
Eupago	Independent company	16	6,20	0,23	Link
Axerve	Fabrick SPA	89	1,79	1,51	Link
Pagonxt	Banco Santander	n.a.	n.a.	n.a.	Link

Open banking enablers

The PSD2 directive has heavily influenced the way that banks conduct business in the region. Most major banks offer some form of support for developers as well as APIs. Furthermore, there is a growing number of players in this segment with many international players and some regional players.

The multi-bank company SIBS has developed SIBS API which is having a significant impact in the Portuguese banking landscape.

Many international developer-friendly APIs are available in the region, but none are particularly dominant in the region.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Banco Bilbao Vizcaya Argentaria (BBVA)	Parent Company	115.675	28.329	6.827	Link
Banco Comercial Portugues	Parent company	15.743	3.146,20	129,68	Link
<u>Nexi Payments</u>	Nexi SPA	2.971	1.922,98	400,68	Link
Abanca Corporación Bancaria	Parent company	6156	1.251,40	216,95	Link
Novo Banco	Nani Holdings	4.090	1.128,28	585,94	<u>Link</u>
Sibs Pagamentos	SIBS - SGPS SA	3	57,87	23,45	Link
Flowpay	Independent company	7	0,54	-0,19	<u>Link</u>
<u>Fabrick</u>	Banca Sella SPA	216	0,23	-1,56	<u>Link</u>
<u>Eurobits</u> <u>Technologies (Tink)</u>	Tink	25	2	-3	Link
Finnovating	Independent Company	17	0	-1	Link
<u>Powens</u>	Independent Company	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Infrastructure providers

The Infrastructure Providers segment's potential of the region remains untapped. Only few companies provide BaaS and Core Banking System services. Striga and the German fintech Swan are some of the players active in that segment. SIBS and the Spanish Minsait provide infrastructure services.

Infrastructure providers	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
Sibs Pagamentos	SIBS - SGPS SA	3	57,87	23,45	<u>Link</u>
Minsait Payment Systems	Indra Sistemas SA	765	66	-1	Link
<u>Solaris</u>	Solaris SE	n.a.	n.a.	n.a.	<u>Link</u>
Swan	Independent Company	n.a.	n.a.	n.a.	Link
<u>Striga</u>	Striga Technology	n.a.	n.a.	n.a.	Link

Italy

Introduction

The popularity of digital payment methods in Europe has been on the rise. Italy is not an exception to this rule. Nevertheless, it remains a country that relies heavily on traditional payment methods.

Cash and cards are the most used payment methods for the general public in Italy. In fact, the country remains among the European countries with one of the highest use-rate of cash at POS with 69% of transactions being settled with this method. The second most used method at POS are cards, in fact, 26% of transactions are paid by card³²⁴. For P2P payments, cash is also the preferred payment method.

The Italians' payment habits have changed slowly in recent years and will continue evolving towards digital payment. This evolution can be attributed to multiple factors such as COVID-19, European directives such as the PSD2 and PSD3 and the dynamic nature of the payment space which fosters innovation and partnerships between local and international players. Although POS and P2P payments remain mostly cash-based, the Italian online space offers wider payment diversity with 50% of the transactions being settled with alternative payment methods such as apps, e-money solutions, or local payment solutions³²⁵.

BNPL is an attractive industry with an estimated value of USD 6,1 Billion in 2023, the market is expected to grow to USD 11 Billion by 2028³²⁶. Currently three main players operate in the industry with one of them being the Italian unicorn Scalapay.

The Italian payment ecosystem has a good balance between local and international players. The most notable local players are Bancomat SPA which is the parent company for three Italian payment methods. First, Bancomat, the interbank network for cash withdrawals and interbank payments. Secondly, PagoBancomat, a card scheme that uses the Bancomat network for POS card transactions. Cards issued by Italian banks are co-branded with PagoBancomat & Visa or PagoBancomat & Mastercard. Finally, BancomatPay, an app intended for online and peer-to-peer payment transactions. It should be noted that the whole payment ecosystem will be challenged by the new European directives on instant payments and by the growth in popularity of Al.

Other notable local players are Nexi, the payment service provider, Satispay, the independent mobile payment app, and Scalapay, the Italian BNPL solution. Such players have grown in size and have a large user-base among merchants and younger generations.

International players like PayPal, Klarna and Apple Pay can also be found in the payment ecosystem.

Card payment schemes

The card payment scene in Italy has three key players: the local card scheme PagoBancomat, Visa and Mastercard. PagoBancomat is an exclusively debit card scheme and has 45% of the Italian market share, the rest of the market is divided between Visa (34% of market share) and Mastercard (20% of market share)³²⁷.

Similarly to other European interbank networks. Bancomat is owned by the local banks in Italy. This network has the most popular withdrawal and payment circuits in the country. Bancomat SPA englobes the three payment related products Bancomat (the interbank network), PagoBancomat (the card scheme) and Bancomat Pay (the online payment solution). The company has 32 million active cards and approximately 225 billion euros in transactions are done per year which makes it the third largest domestic circuit by number of cards in Europe³²⁸.

Mastercard and Visa both issue credit and debit cards in the Italian market.

Card payment schemes	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	Year	LinkedIn
<u>PagoBancomat</u>	Independent company	75	48,45	8,47	2022	Link

Source: Orbis | Financials 2022

Alternative payment methods

As mentioned earlier, Bancomat has the largest part of market share in Italy with a large majority of the cards being issued with the PagoBancomat card scheme. Additionally, the Bancomat interbank network is used for bank transfers and cash withdrawals in Italy. Finally, BancomatPay is Bancomat' solution for P2P and online payments, the solution allows to send money or request money from a telephone contact, it allows to pay at stores with the App or a QR code and finally it allows to do payments for the public administration with simplicity. In recent news Bancomat has agreed to collaborate with Spain's Bizum and Portugal's SIBS to develop a unified European payments market³²⁹.

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5 325

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5

³²⁶ 327

https://finance.yahoo.com/news/italy-buy-now-pay-later-110100014.html https://www.statista.com/statistics/1116580/payment-card-scheme-market-share-in-europe-by-country/

https://www.fondofsi.it/en/press-releases/bancomat-and-fsi-to-form-strategic-partnership-for-european-growth-project/https://www.reuters.com/markets/europe/spains-bizum-mobile-payments-deal-with-italys-bancomat-portugals-sibs-2023-12-14/

Following Bancomat's wide array of solutions, the most popular alternative payment method among Italians is the mobile app Satispay. The company has over 4.4 million customers and 330,000 merchants across Italy³³⁰. The Satispay app allows users to pay in physical and online stores and exchange money between friends. The solution offers many services such as phone topups, bill payments, vehicle tax stamps, donations, gift envelopes and savings. Recently, the company entered an agreement with the Italian government to provide a discount on bills when such bills are paid with the public administration payment platform, PagoPA and Satispay.

In terms of digital wallets in Italy, PayPal remains the most common with more than 90% of market share. Other e-wallets such as Apple Pay, Google Pay, Amazon Pay and Skrill are available. It should be mentioned that due to its large presence in the Italian market, PayPal, has access to partnerships with many local players, for instance the collaboration with the local company Mooney allows Paypal users to conduct payments for the public administration through PagoPA. Thanks to collaboration with LisPay, users have access to Paypal prepaid cards.

One more interesting player in the alternative payment methods is Tinaba. The company offers banking services but also provides solutions for money sharing, charity and crowndfunding to its users. This player recently partnered with AntGroup allowing Tinaba's users to make payments through Alipay+, giving their users access to over 2.5 million merchants in Asia331.

MyBank is a popular online payment method in Italy. It's an e-authorization solution which enables safe digital payments and identity authentication through a consumer's own online banking portal or mobile application.

The payment solution Telepass addresses the niche of transportation payments whether it is to pay highway tolls or insurance Telepass allows for "hassle-free" mobility in Italy and across Europe.

The French player Edenred is also available in Italy and provides restaurant tickets that can be used with 27.000 merchants around Italy³³².

Last but not least, multiple BNPL alternatives exist in Italy. Among the international players the most notable are Klarna who recently added a subscription plan allowing to reduce processing fees, and the UK based player Clearpay. The local solution Scalapay is the largest Italian BNPL dedicated solution. Scalapay entered multiple partnerships during the second half of 2023 partnering with the US based card issuing platform Marqueta, and with VISA in order to expand the availability of Scalapay services.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Bancomat	Independent company	75	48,45	8,47	<u>Link</u>
Klarna	Klarna Holding AB	189	21,09	0,62	<u>Link</u>
<u>Scalapay</u>	Scalapay Limited	113	13,53	-24,47	<u>Link</u>
Satispay	Parent company	183	10,21	-42,04	Link
<u>Tinaba</u>	Banca Profilo	18	3,54	-4,73	Link
<u>Preta</u>	Independent company	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Banks

Italy has 357 Credit Institutions among which 70 are EEA branches and 9 are non-EEA branches. The country banking sector has relatively low concentration with the top 7 banks capturing 66.6% of the bank market share³³³.

The three leading banks are Intesa Sanpaolo, UniCredit, and Cassa Depositi e Prestiti (CDP) holding 22.69% and 13.87% and 12.78% of total assets respectively³³⁴.

Offering its services to 13.6 million customers, Intesa Sanpaolo is the banking leader in the country offering retail, corporate and wealth management services³³⁵. The bank's card offering consists of credit, debit and prepaid cards co-branded with the Mastercard and the PagoBancomat card schemes. Aside from the classic offerings the bank also provides online banking and a mobile app that was recognized as the "Overall Digital Experience Leader in the EMEA region" in 2022 by Forrester³³⁶. More recently, the bank has partnered with Nexi to launch a SoftPOS solution allowing merchants to receive contactless payment with only an Android Device³³⁷.

https://www.satispay.com/it-it/

³³¹ https://www.businesswire.com/news/home/20230702217705/en/Tinaba-and-Ant-Group-Expand-Their-Partnership-to-Allow-Italians-to-Pay-in-Asia-Directly-With-Their-App-via-Alipay-Solutions

https://www.edenred.it/prodotti/buoni-acquisto-edenred-shopping/ 333

https://thebanks.eu/countries/ltaly/major_banks 334 https://thebanks.eu/countries/Italy/major_banks

³³⁵ https://group.intesasanpaolo.com/

https://www.reply.com/iriscube-reply/en/reply-intesa-sanpaolo-isp-mobile-overall-digital-experience-leader-area-emea.https://ibsintelligence.com/ibsi-news/intesa-sanpaolo-and-nexi-launch-softpos-solution-in-italy/

The second largest bank in Italy is Unicredit. It is worth mentioning that Unicredit has launched its own neobank called Buddybank with an offer mostly aimed towards younger customers. Currently buddybank serves over 410.000 customers³³⁸. Its services are available online via a mobile application. Buddybank issues Mastercard debit and credit cards, and its services are available 24/7 which makes it much more convenient than a traditional bank. On the other hand the traditional branch of Unicredit has online banking, a mobile app and traditional banking services. Furthermore, the bank issues some Visa Debit cards but mostly Mastercard and PagoBancomat.

The third largest player in the banking sector is Cassa Depositi e Prestiti which is an investment bank that finances structural projects in Italy.

During 2023, the Italian Banking sector had multiple changes with important players collaborating and other selling parts of their business. ICCREA Banca had its local paying agent business Banca Corrispondente and Banca Agente purchased by the English group Allfunds, allowing the company to consolidate its position in the Italian market³³⁹. Banco BPM, Gruppo BCC Iccrea and FSI entered into a binding agreement with the goal to create a "new and independent Italian reality in the digital payments sectors" the deal is valuated at more than 2 billion Euros³⁴⁰. The banking player Banca Sella partnered with the payment giant PayPal to allow its customers to access BNPL³⁴¹.

Aside from Buddybank (Unicredit's neo-bank) N26, Revolut, and Hype bank can be found in the fully digital banking landscape.

The key challenge that banks and financial institutions are facing is the instant payments directive. This directive poses digitalisation challenges to the players in this industry and may lead to an overhaul of the entire internal IT payment systems of certain institutions.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Cassa Depositi e</u> <u>Prestiti</u>	Republic of Italy	41.639	24.323,25	6.827,92	<u>Link</u>
Intesa Sanpaolo	Parent company	95.574	22.264,00	4.402,00	Link
<u>UniCredit</u>	Parent company	82.995	21.507,00	6.473,00	Link
ICCREA Banca	Parent company	22.144	5.735,48	1.796,11	Link
Banco BPM	Parent company	20.157	4.778,00	684,26	Link
Нуре	Fabrick SPA & Illimity Bank SPA	136	18,92	-14,68	<u>Link</u>

Source: Orbis | Financials 2022

Non-banking issuers

Many Italians use Postepay, electronic prepaid cards co-branded as either Mastercard or Visa. These cards generally work wherever Visa or Mastercard are accepted.

PostePay is one of the most relevant non-banking issuers in the Italian market. The e-money institution integrates the telecommunications services offered by PosteMobile with its electronic money and payment systems, becoming a digital service provider for consumers, businesses, and the public administration. The payment company can count on a strong customer base with more than 4 million PosteMobile SIM cards, 26,2 million payment cards (including 19 million prepaid cards) and 2,2 million digital wallets³⁴². In September 2022, Poste Italiane, through its subsidiary PostePay, received approval to acquire 100% of the share capital of LIS Pay. LIS is available through a network of 54.000 points of sale and offers services such as bill payments, prepaid payment cards, e-voucher top-ups and merchant solutions. This acquisition will strengthen PostePay's leading position in the payment industry³⁴³.

The key player Mooney is the first company to offer proximity banking and payment solutions in Italy. The results from the merger of SisalPay and Bianca5. Mooney issues Visa prepaid cards³⁴⁴.

https://www.unicreditgroup.eu/en/one-unicredit/articles/2023/october/buddy.html

³³⁹

https://fundspeople.com/es/allfunds-compra-el-negocio-de-agente-de-pagos-en-italia-de-iccrea-banca/ https://www.gruppobcciccrea.it/Documenti_GBI/ComunicatoStampa/2023_07_14-Banco-BPM-BCC-lccrea-Group-FSI--Italys-second-largest-pole-in-the-Payments-business-is-340

https://www.pagamentidigitali.it/news/pagamenti-bnpl-banca-sella-adotta-il-servizio-paypal/ https://www.ipc.be/news-portal/operations-logistics/2018/10/02/07/45/postepay-spa-launched-italys-digital-payments-leader

https://tgposte.poste.it/en/2022/09/15/poste-italiane-completes-lis-acquisition/ https://www.reuters.com/markets/deals/enel-teams-up-with-intesa-sanpaolo-italy-payments-firm-mooney-2021-12-23/

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Postepay	Republic of Italy	285	1.315,96	261,22	<u>Link</u>
Mooney	Mooney Group SPA	434	322,16	-8,87	Link

Source: Orbis | Financials 2022

Payment processing & gateway providers

As the third largest economy in Europe with a cash penetration rate that is still high, Italy is a strategic and very attractive market for payment service providers, driven by the shift from cash to cards and the adoption of electronic payments. The market is also supported by a strong acceptance network and one of the highest POS densities per capita in Europe. A trend can be seen where fewer players are capturing larger parts of the acquiring and processing market. The major PSPs in Italy are Nexi, Worldline and Axerve.

Nexi is the leading PayTech company in Italy and the country's reference point for digital payments, as well as the 6th largest merchant acquirer worldwide, according to the Nilon report. The company processed more than 18 billion transactions in 2021. It operates in strong partnership with around 150 partner banks, serving around 900.000 merchants and managing more than 43 million payment cards. In March 2022, a merger and integration took place between Nexi, Nets and Sia, leading to the strengthening of the Nexi group. The principal reasons behind the shareholders' agreement with Sia were growth in terms of scale and an international dimension. This deal marks a step towards digitalising payments, as Italy is more reliant on cash than any other European country. Moreover, Italy presents massive levels of tax evasion in Europe and digital payments could be a way to reduce this. Furthermore, Nexi was able to increase in size as online purchases intensified during the pandemic and consumers moved away from using physical cash. The new group will be the largest group in Europe by number of merchants served (2,2 million) and number of cards (170 million)³⁴⁵. Finally, in a new partnership with Microsoft, Nexi aims to integrate its digital payment solutions into Microsoft products allowing independent software vendors to create omnichannel payment acceptance in their platforms³⁴⁶.

The French company Worldline also holds a strong position in Italy. In January 2022, it completed the acquisition of 80% of Axepta Italy as part of its European consolidation strategy. Axepta Italy is one of the major bank acquirers in the country, with nearly 200 million transactions acquired per year (about 5% MSV market share) from an acceptance network of about 220.000 POS. In November 2022, Worldline announced the acquisition of the merchant acquiring activities of Banco Desio. The deal is expected to close in the first quarter of 2023 and to bring extra revenue of 15 million € within the first year.

PagoPA is the public administration payments solution, the platform allows users to make easy payments in a simple way, the solution allows users to make payments at banks, post offices, affiliated merchants or private post offices as well as online through the online banking, the app and websites. Finally, PagoPA also has the IO solution which provides a single access point for everything related to the public administration. This solution also has an e-wallet feature that allows to make payments to all the PagoPA partners by scanning a QR code.

Finally, Axerve offers a platform to accept all types of payments, from all channels through POS, e-commerce solutions, cash-in machines and omnichannel solutions. They have over 100.000 customers.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Nexi Payments</u>	Nexi SPA	2.971	1.922,98	400,68	Link
Worldline Merchant Services Italia – (formerly Axepta Italy)	BNP Paribas	118	122,21	2,39	Link
<u>Pagopa</u>	Republic of Italy	222	56,92	5,21	<u>Link</u>
Axerve	Fabrick SPA	89	1,79	1,51	Link

Source: Orbis | Financials 2022

Open banking enablers

Fabrick is a new open financial ecosystem which enables and fosters a fruitful exchange between players that discover, collaborate and create innovative solutions for end customers through an API platform. Recently partnered with Mastercard the company aims to develop Embedded Finance Solutions³⁴⁷.

https://www.nexigroup.com/en/investor-relations/overview/

https://www.pymnts.com/partnerships/2023/nexi-integrate-payment-solutions-into-microsoft-products-europe/ https://www.mastercard.com/news/europe/en/newsroom/press-releases/en/2023/mastercard-and-fabrick-sign-strategic-partnership-to-speed-up-embedded-finance/

In Italy, FlowPay is the first PSD2 (AISP & PISP) authorised start-up. Account information and aggregation, payments and e-invoice services are all part of the Open Banking solution. On account of the electronic invoicing obligation, Flowpay has established a strong position in the Italian market and is moving toward Europe, benefiting from the continent's regulatory unification and from collaborations with the most prestigious national fintech players.

Additionally, Nexi, as a technological partner, developed the CBI Open Banking System, to which the main Italian banks have already adhered.

Since June 2023 the company Powens provides its services and APIs in the Italian market, the company provides open banking APIs among other services³⁴⁸.

Yapily offers both payment and data products as well as tools allowing for developers to create their own Open Banking APIs.

SaltEdge offers an open banking gateway allowing developers to create APIs allowing to aggregate account information, initiate payments and make data analysis with the user's data.

Ibanity gives developers the necessary tools to aggregate account information, generate insights from transaction data and create custom banking experiences for their clients' customers.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Nexi Payments	Nexi SPA	2.971	1.922,98	400,68	<u>Link</u>
Flowpay	Independent company	7	0,54	-0,19	<u>Link</u>
<u>Fabrick</u>	Banca Sella SPA	216	0,23	-1,56	<u>Link</u>

Source: Orbis | Financials 2022

Infrastructure providers

The company Striga provides a BaaS platform allowing companies to provide IBANs, SEPA Payments and banking features to its users. Additionally, the company provides similar BaaS services for cryptocurrencies.

Infrastructure providers	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
<u>Striga</u>	Striga Technology	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Expert Opinion

"Local payment solutions (such as Bancomat, Satispay) remain highly popular and the preferred payment methods. Due to the high cash usage in the country, Italy is an attractive market for new players and innovative solutions. Similarly to other countries in the European Union, instant payments have become one of the key challenges and will force players to adapt their technical capabilities."

Massimo Tonassi | Partner - Deloitte Italy

https://www.powens.com/about-us/

Spain

Introduction

The diversity of payment methods in Spain is a unique characteristic of the country. Local payment methods, cash, cards, and e-wallets are a few of the available payment methods in the market. Spain's payment ecosystem is characterized by high degree of innovation from large players such as banks, PSPs but also smaller players such as fintechs and startups.

According to the Bank of Spain, cash continues to be the most common mean of payment for in-person purchases and it is still widely used in day-to-day life³⁴⁹. In 2023, 65% of the population used cash daily, compared to 32% for cards, and 10% for mobile apps³⁵⁰.

Cards are the most popular non-cash payment method for POS and online transactions. On average, Spanish consumers have more than two cards per individual³⁵¹ but display a clear preference for debit over credit with more Spaniards having a debit card rather than a credit card³⁵² (49 million debit cards and 42 million debit cards)³⁵³. Despite cash being among the most popular payment methods, there is a shift in preference towards contactless with 52% of Spaniards preferring that method over cash³⁵⁴. Moreover, the popularity of these payment methods is reflected on the PSPs' offerings such as the development of technologies such as SoftPOS which allows merchants to receive payments without requiring a POS terminal.

Consumers' expectations have slowly shifted in recent years. Virtual cards, digital wallets and BNPL payment methods are gaining popularity and winning market share over traditional payment methods³⁵⁵. Additionally, account-to-account payment methods are becoming a trend, and the legislations and European directives on instant payments are accelerating the adoptions of these solutions since players in the payment ecosystem will be forced to comply and adapt their offerings if they wish to remain competitive in Spain. Other European initiatives such as the Digital Euro are being talked about with young "finance" people showing some interest and likelihood to adopt the currency.

Spain is the leading country in instant payments adoption (A2A), in fact 53% of the total transfers processed in Spain are immediate³⁵⁶. The number is three times the European average of 15% of the total transfers. The development of Bizum, the instant payment solution created by the banks in Spain, is one of the multiple key success factors of A2A payments in Spain.

Spain stands out as a proactive actor for the development and adoption of the Digital Euro. Large actors in the payments industry such as Caixabank, Banco Sabadell, Unicaja, and Bankinter have made or are currently conducting pilot programs for the Digital Euro. Additionally, Spain is one of the pioneers in Digital Euro-based B2B-transaction processing and settlement. Which was the result of collective efforts between Adhara, Cecabank, and Abanca.

Card payment schemes

STMP (Sistema de Tarjetas y Medios de Pago) is the core payment system in Spain which resulted from the merger of Servired, 4B and Euro6000. STMP oversees the Spanish card payments ecosystem ensuring the correct flow of transactions. STMP sets the standards for settlement, interoperability, security, and fraud prevention. Furthermore, it monitors the compliance of the entities with the current legislation. Although STMP does not provide payment applications, member entities forge partnerships with leading payment brands, primarily Visa and Mastercard, the key players present in the market, to offer robust payment solutions to consumers. It should be noted that American Express is also present in the market but holds a niche position.

Since Spaniards have multiple cards per person when compared to other European countries and Spain has a higher credit card usage compared to debit cards, at around half of all card transactions³⁵⁷. Spain constitutes an interesting market opportunity for those players that manage to capture the market.

Visa is the dominant card scheme with a market share of 59%. Mastercard comes in second place, with 39% of the market share. Finally, American Express has a small presence in the market with a 2% share³⁵⁸.

Card payment schemes	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
Sistema de Tarjetas Y Medios de Pago	Independent Company	33	9	0	<u>Link</u>

https://www.bde.es/f/webbe/SES/Secciones/Publicaciones/InformesBoletinesRevistas/BoletinEconomico/24/T1/Fich/be2401-art01.pdf

 $https://www.bde.es/f/webbe/SES/Secciones/Publicaciones/InformesBoletinesRevistas/BoletinEconomico/24/T1/Fich/be2401-art01.pdf \\ https://www.adyen.com/payment-methods-guides/europe/spain$

³⁵¹ 352

 $[\]underline{https://cms.minsaitpayments.com/wp-content/uploads/2024/02/XIIIInformedeMediosdePago2024.pdf}$ 353

https://www.bde.es/webbe/es/estadisticas/compartido/datos/pdf/tarietas4.pdf

https://www.atalayar.com/en/articulo/economy-and-business/72-of-the-spanish-population-already-pay-contactless/20240223060000197141.html.

³⁵⁵ https://www.atalayar.com/en/articulo/economy-and-business/72-of-the-spanish-population-already-pay-contactless/20240223060000197141.html 356

https://www.lavanguardia.com/economia/20240319/9571705/espana-triplica-media-ue-pagos-inmediatos-dinero-gracias-bizum.html

https://pay.com/blog/top-payment-methods-in-spain.https://www.ppro.com/countries/spain/

Alternative payment methods

Similarly to other European countries, Spain has multiple alternative payment methods. International e-wallet providers such as Paypal, Apple Pay, Samsung Pay, and Google Pay are present in the market. Private banking reports state that Apple Pay is the leading entity among mobile wallets with over three quarters of the market by volume. Wallets have a higher penetration in-store but are growing rapidly in the online channel because of their seamless experience. Aside from those well-known players many cross-border payments and BNPL solutions as well as local solutions to payments can be found.

The most popular local payment solution is the mobile payment solution: Bizum. With over 26 million users the solution is the result of the collaboration between 23 Spanish banks³⁵⁹. Bizum works as a day-to-day payment solution as well as for peer-to-peer payments. Payments with Bizum are instant account-to-account payments. The money can be easily transferred by introducing a user phone number in the app which allows users to send money conveniently from one bank account to another. This payment method can also be used for online shopping by using the associated phone number and the user's code. The number of businesses accepting Bizum has grown steadily and currently over 63.500 e-shops accept the solution as a payment method³⁶⁰. In physical stores, Bizum's acceptance in physical stores is gradually increasing with Loterias y Apuestas del Estado, the Spanish lottery, accepting it as a payment method. The solution is aiming to be accepted in other physical stores in the following years.

Spain is also pioneer in other A2A solutions such as Request to Pay, where Caixabank and Iberpay launched the first solution in Europe.

The current regulatory landscape is expected to transform the account-to-account payments market in Spain, especially led by the European Commission proposal on Instant Payments which dictates that the merchants that offer Instant Transfers must offer the payment at a lower or equal price to traditional transfers. This proposal is expected to lead to the growth of Bizum, instant bank transfers and Request to Pay payments in Spain.

BNPL services are becoming increasingly popular - especially among the younger generations. The top contenders for BNPL services in Spain include international players Klarna, Oney and Scalapay and national players Sequra and Aplazame which have experienced relevant growth in the last 2 years. Clearpay announced in 2023 that they would wind down their activities in Spain as well as in other European countries leaving a gap for other players. Klarna introduced a feature allowing users to log-in with their Klarna account as a way to make the user shopping experience more seamless³⁶¹. Moreover, large banks such as Santander and BBVA offer BNPL along with their product offerings.

Spain is also home to many cross-border payment companies, including Ria Money Transfer, Small World Financial Services, and Monty Global Payments.

Alternative payment methods	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
<u>Aplazame</u>	WiZink Bank	n.a.	409,65	-96,04	Link
Small World Financial Services Spain	LCC Trans-sending LTD	243	49,23	-2,88	Link
<u>Bizum</u>	Owned by 15 Spanish banks	8	43,84	2,35	Link
Oney Servicios Financieros	BPCE SA	270	39,96	-0,39	<u>Link</u>
<u>Sequra Worldwide</u>	Parent company	194	36,04	-0,54	Link
<u>Iberpay</u>	Independent company	45	15,36	1,29	Link
Klarna Spain SL	Klarna Holding AB [SE]	139	13,54	0,33	<u>Link</u>
Money Exchange SA	Independent company	83	2,82	0,14	<u>Link</u>
Moneytrans World Entidad de Pago SA	Moneytrans	30	2,66	0,06	Link
<u>Topii</u>	Fide BPC	n.a.	0,32	-0,55	<u>Link</u>
RIA Payment Institution EP SA	Euronet Worldwide Inc	n.a.	n.a.	n.a.	Link
Scalapay	Independent company	n.a.	n.a.	n.a.	Link
<u>ViaBill</u>	Independent company	n.a.	n.a.	n.a.	<u>Link</u>

https://bizum.es/

https://bizum.es/datos

https://thepaypers.com/payments-general/klarna-launches-new-sign-in-with-klarna-product--1266812

Banks

The Spanish banking sector is quite concentrated with the four largest banks capturing over 70% of the market 362. There are 189 Credit institutions out of which 74 EEA branches and 4 non-EEA branches. The three largest banks of the country are Banco Santander, Caixabank, and Banco Bilbao Vizcaya Argentaria (BBVA).

Banco Santander, the largest bank in Spain, has 31.8% of the market share with total assets of 750 billion euros. Santander is a universal bank offering a variety of services such as retail banking, private banking, wealth management, business banking and corporate banking. In-person, online and mobile banking are services that are available for the bank's customers. Additionally, the bank issues debit and credit cards with the Mastercard card scheme. All of which are compatible with mobile e-wallets such as Apple pay, Samsung Pay, Google Pay, Garmin and Fitbit. The company was awarded the "Most innovative bank in the world" award by TheBanker in 2023 for the successful deployment of Gravity, Santander's in-house cloud core banking system³⁶³. The system should allow the bank to improve customer experience and reduce time-to-market for new products deployments.

Caixabank has 21.1% of the market share with total assets of 497,7 billion euros. The bank is a universal bank which offers a wide array of banking services ranging from retail banking to enterprise banking. In-person, online and mobile banking are available for Caixabank' customers. The bank issues almost exclusively Visa debit and credit cards except for the debit card "Teens" which is branded with Mastercard. Thanks to the bank's ability to gain and retain customers, Caixabank received Euromoney's award for excellence in 2022. It has also been ranked as the neobank with the best quality service in Spain by AQMatrix. The company has launched the neobank Imagin, Spain's leading mobile-only bank for young people. Unlike other banks, Imagin does not require users to register as banking customers. It aims to encourage growth and loyalty among younger customers as well as to create financial literacy. Today, the fully digital bank Imagin, has reached 4,2 million users and has a market penetration of almost 60% between the population of 18 and 34 years old³⁶⁴.

BBVA is the third largest bank in Spain with 19.5% of the market share and total assets accounting for 458 billion euros. The universal bank offers multiple services for individuals and businesses. Similarly to its competitors the bank provides in-person, online and mobile banking services. Additionally, the bank issues debit, credit and prepaid cards with Visa. The cards are compatible with Google Pay, Samsung Pay and Apple pay. BBVA also offers the credit card "Aqua" which gives its users BNPL capabilities. BBVA is known for being one of the most innovative banks in Spain with a leading presence in open banking (API Market) and in A2A functionalities. In fact, the bank has exclusive partners with Bizum for services such as Bizum BNPL.

Other banks can be found in the Spanish market such as Banco Sabadell, which recently partnered with the ATM network NCR Atleos to increase access to cash in the market. Some other players are Bankinter, Abanca, etc.

In the neobanking segment Imagin is not the only neobank gaining traction. In fact, the neobanking segment is growing in the country³⁶⁵. Local players such as EVO Banco (Bankinter) and Open Bank (Banco Santander) can be found as well. Other international neobanks such as the UK-based Revolut, the German N26, and the Dutch Bung are gaining relevance in Spain. Recently, Revolut surpassed 3 million customers³⁶⁶ in Spain and N26 surpassed 1 million³⁶⁷. N26 has expanded its offering towards stock and crypto trading as well as ETF trading.

Banks	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
Banco Santander	Parent company	206.462	54.920,00	10.764,00	Link
Banco Bilbao Vizcaya Argentaria (BBVA)	Parent company	115.675	28.329,00	6.827,00	<u>Link</u>
Caixabank	Parent company	44.625	12.994,00	3.149,00	Link
Banco de Sabadell	Parent company	18.895	5.638,91	869,39	Link
Bankinter	Parent company	6.419	2.298,90	560,20	Link
Abanca Corporacion Bancaria	Parent company	6.156	1.251,40	216,95	Link
<u>Wizink Bank</u>	Teide LTD [SG]	n.a.	409,65	-96,04	Link
<u>Cajasur Banco</u>	Bilbao Bizkaia Kutxa, BBK, Fundacion Bancaria	n.a.	256,67	24,58	Link
<u>Open Bank</u>	Banco Santander SA	n.a.	172,68	15,16	Link

https://thebanks.eu/countries/Spain/major_banks (visited the 16/04/2024)

³⁶³ https://www.fundssociety.com/en/news/business/santander-nombrado-banco-mas-innovador-del-mundo-por-la-revista-the-banker/

 $[\]underline{\text{https://www.elperiodico.com/es/economia/20240412/imagin-caixabank-permitira-menores-14-anos-utilizar-bizum-100934699}.$

³⁶⁶

Non-banking issuers

There are multiple non-banking issuers in the Spanish market.

One of the largest players in the payment ecosystem overall is Redsys which offers multiple services, one of those services is the card issuing branch which fully responds to the contracting company's issuing needs.

Bnext offers alternative banking solutions. The startup has reached more than 500.000 customers in Spain and is currently the leading payment fintech in Spain with B2C services. In September 2022, Bnext launched its utility token (B3X token), With over 10,5 million €, it takes second place in Spain's ICO ranking.

Bip & Drive is the most complete digital platform of payment services for drivers in Spain. The app provides users with all mobility services in one place, from electronic tolling to ITV test reservations and payment, as well as refueling at petrol stations. With over 1,1 million users and over 29.000 affiliated businesses, it currently has 100% coverage of tolls in Spain, France, and Portugal.

The Spanish company Pleo and the British company PayHawk provide an expense management platform for businesses with the possibility to issue Visa branded cards with multi-currency accounts.

Other non-banking issuers in Spain include the prepaid services card company MoneyToPay and Up Aganea which is part of the French group Up Coop.

Non-banking issuers	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
BIP & Drive	Abertis & others	23	212,54	3,72	<u>Link</u>
Global Payments Moneytopay	Caixabank SA	11	18,45	5,04	Link
<u>Pecunia Cards</u>	Normax SL	34	10,28	-2,40	<u>Link</u>
Moneytrans World Entidad de Pago	Moneytrans	30	2,66	0,06	Link
<u>UP Aganea</u>	Cooperateurs Salaries	10	0,86	-1,15	<u>Link</u>
<u>Sefide</u>	Adoquin Inversiones SL	10	0,43	-0,31	<u>Link</u>
Bnext Electronic Issuer	Marcandita SL	3	0,03	-3,69	Link
Pleo	Pleo Holdings APS	n.a.	n.a.	n.a.	Link
PayHawk	Independent company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Payment processing & gateway providers

In Spain, there are many different companies offering payment processing and gateway services. Some of the most popular solutions are the ones offered by commercial banks.

Launched by Santander Group, PagoNxt is a global payments platform that brings together all its payment solutions under one umbrella. This platform builds on the already established Getnet franchise and aims to innovate the payment industry (Getnet was previously a Santander Brasil company). Getnet offers omnichannel merchant acquiring solutions including innovative solutions in online checkout, Tap-to-Pay or Pay by link. Getnet has a very relevant global presence, in over 1,3 million stores.

Comercia Global Payments is the result of a joint venture between CaixaBank, leader in retail banking in Spain, and Global Payments, world leader in payment transactions, with headquarters in the US and presence globally. Comercia recently acquired UniversalPay, the EVO Payments solution³⁶⁸. This acquisition should enable Comercia to earn more market share in Spain as well as to create economies of scale in the payment market. Comercia is the leading merchant acquirer, with over 30% of the market share, and is present in most relevant companies in different sectors including Mercadona, Inditex, Renfe or Repsol³⁶⁹.

Redsys is one of the largest payment service providers in the Spanish market. The company is mostly owned by major banks and savings banks in Spain and operates as a supportive company for them, offering processing services, regulatory sandbox (PSD2) and other solutions. The company provides a payment platform for payments which has the capacity for over 45 million payments per month. They offer their services to both small and large players alike. Moreover, the company also provides physical payment terminals for in-person payments. The company has large network of merchants.

https://www.alimarket.es/alimentacion/noticia/375537/comercia-global-payments-integrara-en-su-negocio-a-universalpay https://www.slideshare.net/slideshow/comercia-global-payments-253982181/253982181

Cecabank is another relevant payment processor in Spain offering a full range of payments processing solutions including card processing, instant payments processing or ATM withdrawals. Cecabank is a technological player in the payments industry that offers the payment solutions and the technological platforms demanded by the banking entities for a wide range of services (e.g. digital banking services). Cecabank processed over 1.450 million card transactions in 2023, the equivalent of 15% of the market share³⁷⁰.

Minsait Payments offers processing services specialized in the expansion of the services of Spanish banks in Latin America, where a significant portion of their business volume comes from. The company acquired Pecunpay to accelerate growth as a PSP in Spain.

The Italian PSP Nexi acquired Paycomet, the merchant acquiring solution from Banco Sabadell. Paycomet allowed merchants to receive physical, phone or online payments.

Other companies include Monei, Paynopain, Commercegate, Paymatico, Sipay, PayRetailers, SumUp, and WPS.

Payment processing & gateway providers	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
Caixabank Payments & Consumer EFC	Caixabank SA	564	961,64	378,65	Link
<u>SumUp</u>	SumUp LTD	1139	360,93	-39,47	<u>Link</u>
Cecabank	Confederacion Espanola de Cajas de Ahorro	478	328,50	65,44	Link
Comercia Global Payments	Caixabank SA	147	325,40	84,96	<u>Link</u>
Getnet Europe	Banco Santander SA	177	215,24	2,03	Link
Redsys Servicios de Procesamiento	Parent company	665	158,21	4,63	Link
PAY Retailers	Parent company	134	78,92	32,30	Link
ArcoPay - Minsait Payment Systems	Indra Sistemas SA	765	65,95	-0,75	Link
<u>Paycomet</u>	Nexi	34	5,54	0,78	<u>Link</u>
Easy Payment and Finance	Independent company	11	2,04	0,19	<u>Link</u>
Monei Digital Payments	Lion King Investments	5	0,91	0,13	Link
Pagonxt Onetrade Espana	Banco Santander	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Open banking enablers

Three open banking enablers are established in Spain: Unnax which was acquired by Powens in April 2024³⁷¹, Tink (formerly Eurobits was acquired by the open banking leader Tink in 2020), and Arcopay which partnered with the Finnovating as a way to extend the Open Banking services in its portfolio³⁷². Finally, The English company Yapily entered Spain in 2021 and already covers almost every bank account in the country.

The financial entities have adopted Open banking after PSD2 launch in 2017. BBVA is one of the key players in this segment having developed BBVA API Market, a marketplace to access the full potential of open banking which includes specific solutions for business payments or checkout financing.³⁷³

https://www.cecabank.es/documentos/memoria de negocio 2023.pdf

https://www.businesswire.com/news/home/20230402005006/en/Powens-and-Unnax-Join-Forces-to-Create-a-European-Open-Finance-Champion

https://www.europapress.es/economia/finanzas-00340/noticia-afterbanks-arcopay-indra-asocia-finnovating-expandir-soluciones-open-banking-20230530095957.html

https://www.bbvaapimarket.com/es/

Open banking enablers	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
Banco Bilbao Vizcaya Argentaria (BBVA)	Parent Company	115.675	28.329	6.827	Link
Eurobits Technologies (Tink)	Tink	25	2	-3	<u>Link</u>
Finnovating	Independent Company	17	0	-1	<u>Link</u>
<u>Powens</u>	Independent Company	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Infrastructure providers

Solarisbank, one of the worldwide leaders in Banking as a service, started its activity in Spain in 2021³⁷⁴ and is currently working with some of the top financial entities. BBVA is one of its mains stakeholders and has worked closely with Solarisbank.

Pecunia Cards, branded under the name Pecunpay, was created with the aim of improving and adding value to the payment systems in Spain and to optimize the customer experience in electronic money processes. In September 2022, Pecunpay became the first Mastercard partner in Spain to accept payments via the Mastercard Send service. The fintech provides near real-time money transfers to Mastercard cards all over the world. Additionally, the company was acquired by Minsait Payment Systems

Non-financial entities have made important developments in the field of embedded banking especially in the telecommunications industries with entities such as Telefonica Consumer Finance or Xfera Consumer Finance having made important advancements in the field. Telefonica Consumer Finance offers renting services, loans and wallets in Spain or LatAm. On the other hand, Xfera Consumer Finance offers Terminals financing services, credit cards and consumer loans.

In Early 2023, the German fintech Swan opened offices in Spain. The company specializes in Banking-as-a-Service services, allowing its customers to provide banking services to its own customers.

Infrastructure providers	Group	Number of employees	Turnover (Million €)	Net Income (Million €)	LinkedIn
Minsait Payment Systems	Indra Sistemas SA	765	66	-1	<u>Link</u>
<u>Solaris</u>	Solaris SE	n.a.	n.a.	n.a.	<u>Link</u>
Swan	Independent Company	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Expert Opinion

"Spain remains a country with a high degree of innovation and where the payment industry thrives. This year the players in the Spanish payments' ecosystem have mostly developed solutions on the A2A and instant payments fields. Furthermore, the country is playing an active role in the development of the digital euro with multiple banks deploying pilots for the development of the currency."

Carolina Braña | Senior Manager - Monitor Deloitte Spain

https://www.investinspain.org/content/icex-invest/es/noticias-main/2021/solarisbank-banco-online.html

Portugal

Introduction

With more than 10 million inhabitants (including both locals and a large population of expats), Portugal has one of the fastest growing economies in Europe, making it an attractive market for all kinds of businesses, including payment actors.

Portugal has an interesting structure in its payment ecosystem since its diversity is reflected by the wide variety of payment alternatives offered by its different players. Card penetration is high in the country due to a 30-year-old culture of chip-and-PIN³⁷⁵. It is estimated that there are over 29 million debit and credit cards in circulation in the country³⁷⁶. Despite the large number of cards issued, over 20% of the population remains cardless³⁷⁷. Which is reflected on the local solutions of the country. SIBS, owner of the Multibanco network, "MB Way", and "MB net", is a specificity to the Portuguese market and provides payment alternatives to the Portuguese population. SIBS and local payment alternatives remain the dominant players in the market. However, start-ups and FinTechs are working towards earning their place in the highly dynamic and innovative market

Portuguese consumers had a use of cash above European Union average at Point of Sale in 2022³⁷⁸. Interestingly, since 2023 the volume of electronic payment operations is roughly 5-fold the volume of cash transactions. However, the average value of cash transactions was twice the average value of card transactions³⁷⁹. Meaning that cash is still used for more expensive purchases. Similarly to other countries in the European Union, Portugal saw its share of online transactions grow significantly reaching 18% of the volume of non-recurring transactions in 2022³⁸⁰, in part due to the development of e-commerce in the country. Portugal has also seen the number and the value of cash-based transactions diminish over recent years³⁸¹ which can be attributed to the increase in popularity fast-payment methods such as contactless payments and e-wallets. This trend was accelerated by the pandemic, the high degree of innovation in the FinTech industry in the country, and finally the government's support of cashless methods with policies such as the increase from 20 euro to a 50 € limit for PIN-less transactions.

Portugal has benefited from the various European initiatives aiming to boost innovation and research such as Portugal 2030, Portugal's Recovery and Resilience Plan (RRP) and Horizon Europe. Following this idea of boosting innovation the Portuguese Central Bank published the second edition of the National Strategy for Retail Payments which provides guidelines to further innovate in the payment sector. Additionally, the Portuguese government has set up incentives and tax breaks as well as the creation of Technological Free Zones³⁸² which promote and facilitates research and development of new products, services, and technologies. Due to the attractiveness of Portugal as an innovation hub, many financial and non-financial start-ups (e.g. EasyPay, Uniksystem, Ifthenpayhave, ...), established their headquarters in the country.

The Portuguese payment ecosystem is still evolving at a fast pace and will most likely see changes due to the EU Directive on instant payments, the introduction of the Digital Euro and the introduction of Al into banking processes such as KYC/AML practices. The adaptation to these changes constitutes one of the key challenges that the players in the industry will face to remain competitive.

Card payment schemes

There are multiple key players in the card payment schemes scene in Portugal: Visa, MasterCard, UnionPay and American Express.

The main card scheme used by Portuguese banks is Visa, although some of the key banks offer MasterCard and products. Among the card-based products in Portugal Visa credit, Visa debit and Visa prepaid can be found. Also, MasterCard credit and Maestro can be found in the market. As digital wallet adoption increases in Portugal, the country's use of international card schemes will most likely increase.

The other key players in the Portuguese market are UnionPay and American Express. Despite not many banks issuing American Express nor UnionPay cards, BCP Millenium, the second largest bank in the country, issues both Debit UnionPay cards and American Express Credit cards. Furthermore, a partnership between SIBS, the Multibanco parent, and UnionPay has allowed the card scheme to be accepted at 80% of merchants and all ATMs.

Key Players in the EU Payments Landscape: 2024 EDITION

https://www.adyen.com/payment-methods-guides/europe/portugal https://www.adyen.com/payment-methods-guides/europe/portugal

³⁷⁶ 377

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html_https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5 378 379

https://www.sibsanalytics.com/en/consumption-indicators/

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5 https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5

https://iclg.com/practice-areas/fintech-laws-and-regulations/portugal#:~:text=67%2F2021%20of%2030%20July.testing%20of%20innovative%20technologies%2C%20 services%2C



Alternative payment methods

Portugal has some well-established payment methods that allows the population to make online and in-person payments despite a fifth of the population being cardless³⁸³. Multibanco and MB WAY are by far the most common ones, which have been developed and are managed by the key player SIBS. Payshop is another popular local payment method as well.

The most popular payment method is Multibanco which involves nearly 85% of the transactions³⁸⁴. The system is a national network connecting all the 27 Portuguese banks in an interbank network. The majority of bank-issued cards in Portugal have access to the interbank network which allows cash withdrawals, and to make purchases at retail establishments within the integrated network of ATMs and Point of Sale terminals. To access these services, the client simply requires a bank card with the MB feature, issued by a bank operating in Portugal that participates in the system and shares the network infrastructure. It is worth noting that although the system is not a card scheme per se, it still requires the user to have a card.

MB Way allows users to make instant payments with the use of a phone app. Users can make purchases online or instore, make instant transfers with the MB net functionality within MB way, and cardless withdrawals. The app uses both QR generation for in-person sales and MB net's virtual card generation for online payments. The product is diversifying its offering towards batteryless wearables that allow to make contactless payments without a card or phone. Note that MB Way can only be set-up if the customer has a credit card issued by one of the banks that uses the Multibanco network. PayPal is also quite common in Portugal, although not as common as the MB Way app.

Unlike Multibanco or MB Way which require a bank account, Payshop enables users to make online payments on an in-person basis. Banco CTT's subsidiary is the largest face-to-face payment network in Portugal. It is available through a network of 7000 CTT payment points, and is made of commercial establishments, such as stationery shops, tobacconists, kiosks, and supermarkets. By creating a reference at checkout, users can go to any of the physical Payshop stores to make the payment with the generated reference. Recently Payshop started offering a prepaid school card as well as a payment gateway.

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html

https://www.theportugalnews.com/news/2021-05-17/which-payment-methods-are-the-most-popular-in-the-largest-european-countries/59911

Parcela Já is a BNPL solution that allows consumers to purchase goods by adapting the paying capacities to their own needs by dividing the full amount on installments. The company partnered with UNICRE in order to increase the reach of the brand.

In terms of alternative payment methods, Portugal is home to a few solutions for cross-border payments, such as MaxPay, RealTransfer, and Unicambio.

It is worth noting that one out of twenty consumers in Portugal held cryptocurrencies, mostly for investment purposes. However, many startups that provide solutions for cryptocurrencies and blockchain are emerging in the country.

Alternative payment methods	Group	Employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Sibs Pagamentos	SIBS - SGPS SA	3	57,87	23,45	Link
<u>Payshop</u>	Banco CTT	54	11,23	1,63	Link
<u>Parcela JA</u>	Parcela Ja	2	0,30	0,09	Link
Maxpay	Independent company	n.a.	n.a.	n.a.	Link
Realtransfer	Ultra	n.a.	n.a.	n.a.	Link

Source: Orbis | 2022 Financials

Banks

The Portuguese banking system is constituted of 123 credit institutions, 31 EEA branches and 1 non-EEA branch³⁸⁵. The five main banks in Portugal in terms of total assets are CGD, Millennium BCP, Banco Santander Totta, NOVO Banco and Banco Português de Investimento (BPI). These five banks account for three quarters of the market³⁸⁶ and a total in banking assets of nearly 320 billion €387.

With over 100 billion € in assets³⁸⁸, CGD (Caixa Geral de Depósitos) is the largest Portuguese bank. The state-owned banking corporation operates in 22 countries across four continents³⁸⁹. The bank issues Visa, Mastercard and MB cards (credit, debit and prepaid). CGD offers access to MB WAY which enables online and in-app purchases, immediate transfers, cardless cash withdrawals and even the generation of MB NET virtual cards, via a smartphone or tablet.

Banco Comercial Português (BCP), branded under the name Millennium BCP, is the largest privately held bank in Portugal and the second largest bank of the country. It holds a total of 89 billion € in assets³⁹⁰. With over 900 branches nationwide, the bank has the largest banking distribution network in the country. It mainly issues Visa cards but also cards under the Mastercard, UnionPay schemes and American Express. Moreover, it offers specific options adapted for younger and older customers.

The third position is taken by Banco Santander Totta, a subsidiary of the Spanish Santander Group. The bank owns 55 billion € in total assets³⁹¹. It has 3,1 million customers and 397 branches nationwide.

Novo Banco holds the fourth position with 45 billion € in total assets³⁹². Following the bankruptcy of Banco Espirito Santo, Novo Banco was founded in 2014. The bank serves over 1,4 million customers. The digital platform Banco Best is part of the Novo Banco Group. The bank seems to be aiming to consolidate its position in the digital space through the acquisition of already existing players such as WiZink Portugal and other platforms.

Finally, Banco Português de Investimento (BPI) comes in fifth position with 38 billion € in total assets³⁹³. Serving over 1,8 million customers, BPI is the subsidiary of the Spanish CaixaBank.

Other players worth mentioning are ActivoBank, MilleniumBCP's digital brand, and Banco Finantia. Foreign banks are also relevant in the market. They include BNP Paribas, the ING and Bankinter. The Spanish financial institution Abanca Corporación Bancaria managed to secure the purchase of the portuguese bank EuroBic allowing the institution to establish itself as the eighth largest bank of the country with a total assets of over 12 billion €394.

https://euclid.eba.europa.eu/register/cir/search

https://thebanks.eu/countries/Portugal/major_banks

³⁸⁷ 388

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³⁸⁹ https://www.cgd.pt/english/international-activity-cgd/international-services/services-financial-institutions/pages/services-financial-institutions/pages/services-financial-institutions.aspx

³⁹⁰ <u>ORBIS</u> 391

ORBIS 392

https://theobjective.com/economia/2023-11-17/abanca-supera-bankinter-portugal/

Banks	Group	Employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Banco Comercial Portugues	Parent company	15.743	3.146,20	129,68	<u>Link</u>
<u>Caixa Geral de</u> <u>Depositos</u>	Government of Portugal	11.178	2.471,93	923,08	Link
Banco Santander Totta	Banco Santander	3.137	1.333,90	586,56	<u>Link</u>
Novo Banco	Nani Holdings	4.090	1.128,28	585,94	<u>Link</u>
Banco BPI	Caixabank	4.404	1.065,57	365,05	Link
<u>EuroBic</u>	Parent company	1.439	161,37	40,26	Link
Banco Ctt	CTT Correios de Portugal	499	120,34	14,72	Link

Source: Orbis | 2022 Financials

Non-banking issuers

Universo (operating under the name SFS - Financial Services IME SA) provides payment services for Sonae Group. In particular, it offers a payment card that supports all the credit advantages of Sonae stores as well as multiple payment options such as credit, debit, and instalments.

UNICRE's Unibanco provides multiple services among which a digital account with virtual and physical prepaid cards.

Non-banking issuers	Group	Employees	Revenue (Million €)	Net income (Million €)	LinkedIn
<u>UNICRE</u>	Parent company	224	98,71	22,15	<u>Link</u>
<u>Universo</u>	Sonae	n.a.	n.a.	n.a.	Link

Source: Orbis | 2022 Financials

Payment processing & gateway providers

As mentioned above SIBS plays an important role in the Portuguese payment ecosystem, with its multiple solutions Multibanco, MB Way and MB net. However, the company is also a key player in the processing of payments developing solutions for processing payments and for account-to-account payments.

UNICRE is key player on the Portuguese financial services sector, specializing in payment processing and issuing. It operates through two brands: UniBanco, which specialises in card issuance and credits market, and Reduniq (formerly Redunicre) which specialises in the payments market. UNICRE's Reduniq focuses on the merchant acquisition business, providing payment processing services to businesses. Recently they expanded their expertise to the public transport, the company partnered with Metro de Lisboa to enable contactless payments in the underground³⁹⁵. Additionally, the company collaborates to provide solutions in multiple domains such as transportation and BNPL.

Easypay and Eupago are also two important payment gateways worth highlighting. The later now offers a BNPL service in addition to various payment methods acceptance. Small local gateways and processors include Lusopay, Altice Pay, ifthenpay, Thinkpay, and Paycritical.

IvendPay, a multi-currency payment system allows businesses to accept payments through POS terminals, vending machines and mobile apps. Differentiating themselves particularly by helping merchants to increase their acceptance of cryptocurrency as a payment method.

https://www.unicre.pt/ja-foram-pagas-um-milhao-de-viagens-no-metro-de-lisboa-com-contactless/

Payment processing & gateway providers	Group	Employees	Revenue (Million €)	Net income (Million €)	LinkedIn
<u>UNICRE</u>	Parent company	224	98,71	22,15	<u>Link</u>
Sibs Pagamentos	SIBS - SGPS SA	3	57,87	23,45	Link
Eupago	Independent company	16	6,20	0,23	Link
Easypay	Parent company	19	3,92	0,55	<u>Link</u>
Ifthenpay	Independent company	n.a.	n.a.	n.a.	Link
<u>Ivendpay</u>	Independent company	n.a.	n.a.	n.a.	Link

Source: Orbis | 2022 Financials

Open banking enablers

Open Banking, powered by PSD2 has opened a whole new set of opportunities for banks and fintechs allowing them to innovate solutions but also to improve customer experience. Some examples of the applications of APIs are solutions to share account information with third parties, periodic payments and more.

This Open Banking revolution is led by key players such as Abanca Portugal, Banco Atlantico, Millennium BCP and Novo Banco, which are rapidly transforming the banking landscape in Portugal. In 2019, SIBS launched SIBS API Market, the first open banking API platform in Portugal. Portugal was the first European country to have a unique API infrastructure giving access to 95% of bank accounts (24 financial institutions), fulfilling the vision of the PSD2.

Open banking enablers	Group	Employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Banco Comercial Portugues	Parent company	15.743	3.146,20	129,68	<u>Link</u>
Novo Banco	Nani Holdings	4.090	1.128,28	585,94	Link
Abanca Corporación Bancaria	Parent company	6156	1.251,40	216,95	<u>Link</u>
Sibs Pagamentos	SIBS - SGPS SA	3	57,87	23,45	Link

Source: Orbis | 2022 Financials

Infrastructure providers

Apart from the diverse line of services that SIBS Pagamentos provides, the company also provides a wide array of core banking services such as card payments, account payments, management and treasury, security and fraud prevention, software solutions, ATM/POS installation and management, Personalization of bank cards and business process outsourcing.

The FinTech Rauva which is a B2B company provides financial services such as business accounts, expense management, e-invoice certification, and issues virtual and physical cards with the MasterCard scheme. The company recently acquired the B2B Bank Banco Empresas Montepío as a way to consolidate its position as a BaaS provider for SMEs. Rauva currently works with over 20 000 businesses.

Infrastructure providers	Group	Employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Sibs Pagamentos	SIBS - SGPS SA	3	57,87	23,45	<u>Link</u>
<u>Rauva</u>	Swan	2	0,00	-1,19	<u>Link</u>

Expert Opinion

"The Portuguese payment ecosystem is a leading hub of innovation within the European Union, characterized by a diverse array of payment solutions and services. As regulatory landscapes evolve at the EU level, it will be crucial for industry players to adapt their internal processes and service offerings to maintain competitiveness."

Alexandre Miguel Melo | Associate Partner - Deloitte Portugal

South-Eastern Europe

Introduction

South-Eastern Europe is characterized by a heterogeneous landscape. Generally speaking, the region's banked population varies significantly from one country to another, with Malta being the first, for a total of 97% population having a bank account, while Greece being the last one, with 87%.

Cash in South-Eastern Europe is still the preferred payment method. Malta remains the first in terms of both the number of payments observed (77%), and in terms of value of payments (65%) in cash at the POS³⁹⁶. Despite the high usage of cash the preference for physical money declined the most in southern European countries. Greece and Cyprus recorded respectively -18% and -23% respect to the period 2019-2022, while Malta had a decrease of -12%³⁹⁷. Such a decrease can be attributed to the introduction of regulatory changes and increase in popularity of other payment methods. The acceptance of different cashless means of payment has slowly increased although card payments remain the preferred method for online purchases.

The region has large potential for growth and innovation. Nevertheless, the payment ecosystem is bound to be disrupted by the introduction of the EU's instant payments directive as well as by the introduction of technologies such as SoftPOS or OR code payments. Furthermore, there has been a growing interest in the BNPL segment. The gap has slowly been filled by new and already established companies.

Moreover, Cyprus and Malta have become central hubs for fintechs to thrive thanks to their attractive tax regimes and directives. More precisely, Malta was one of the first EU member countries to allow standalone e-money institutions. Malta is highly attractive due to certain amendments to the domestic regulatory framework. In 2011, Malta modified its domestic EMI regulatory framework by significantly lowering the requirement initial capital from €1 million to €350.000. This provided more opportunities for smaller newcomers to access the market.

Alternative payment methods



The region's use of innovative payment methods is quite limited, nevertheless most of the banks' cards are compatible with e-wallet services. The most popular e-wallet services in the region are Paypal, Apple Pay and Google Pay.

 $https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html\#toc5_https://www.ecb.europa.eu/stats/ecb_surveys/space/shared/pdf/ecb.spacereport202212~783ffdf46e.en.pdf$

Another phenomenon that should be noted in the region is the increase in popularity of the BNPL segment which has gained traction in the three countries. A one-size-fits-all solution is yet to appear in the market but there are independent efforts towards filling the BNPL gap in the market.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
AP Global Corporation	Astropay	2	114,44	30,80	<u>Link</u>
Cosmote Payments	OTE SA	30	12,09	-2,38	<u>Link</u>
Tora Wallet	OPAP Investment Limited [CY]	16	8,68	2,69	Link
<u>Unlimit Crypto</u>	Unlimit Group LTD	n.a.	n.a.	n.a.	<u>Link</u>
<u>Sepaga</u>	Independent company	n.a.	n.a.	n.a.	Link
EMP Systems	EMP Systems Holding Limited	n.a.	n.a.	n.a.	<u>Link</u>
Finance Incorporated Limited	Finance incorporated LTD	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Banks



The region's banking system is quite concentrated with the countries having few core banks that dominate a large part of the market. Despite this high concentration of customers by bank, the region has a diverse landscape of local and foreign-controlled banks that provide a wide variety of solutions. Among them, Eurobank and Alpha bank are the only ones that operate in more than one country in the region.

Eurobank offers products and services in retail, private, business, corporate banking and wealth management to individuals, SMEs, and business entities. The bank also offers Visa and Mastercard cards³⁹⁸.

Retail and private banking, SMEs and business banking, corporate and investment banking, asset management, brokerage services, and real estate management are among the many banking and financial products and services offered by Alpha bank.³⁹⁹

Piraeus Bank SA is one of the largest banking groups present in the region. It specializes on medium and small businesses, agricultural banking, consumer and mortgage loans, green banking, capital markets and investment banking, leasing, and factoring⁴⁰⁰.

Other banks worth mentioning are Bank of Cyprus, and the National Bank of Greece SA which are the biggest banks in their respective countries.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Alpha Bank	Alpha Services and Holdings SA	8.444	2.193,05	342,16	<u>Link</u>
National Bank of Greece	Parent company	8.254	2.459,00	1.122,00	<u>Link</u>
Eurobank	Eurobank Ergasias Services and Holdings SA	9.972	3.215,00	1.353,00	Link
Bank of Cyprus	Bank of Cyprus Holdings Public Limited Company	2.889	673,71	60,32	Link
Bank of Valletta	Parent company	2.082,00	295,57	31,53	<u>Link</u>

Source: Orbis | Financials 2022

Non-banking issuers

Most of the non-banking issuers in the region do not rely only on the card-issuing business, in fact many also provide processing and gateways or alternative payment solutions.

The key players in the region are Viva Payments in Greece, ICC Payment Systems and Unlimit in Cyprus, and Dlocal and Transact Payments in Malta.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Viva Payment</u> <u>Services</u>	Viva Wallet Holdings	432	115,90	-17,90	<u>Link</u>
Transact Payments Malta	Neptune International Limited	n.a.	6,04	1,99	<u>Link</u>
<u>Unlimit EU</u>	Unlimit Group LTD	n.a.	n.a.	n.a.	Link
JCC Payment Systems	Bank of Cyprus Holdings Public Limited Company	n.a.	n.a.	n.a.	<u>Link</u>
<u>Dlocal</u>	Dlocal Limited	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Payment processing & gateway providers

There are multiple local and international PSPs in the market.

Worldline dominates the payment processing market throughout the European Union thanks to partnerships and acquisitions of local players in different regions. The Italian leader Nexi as well as Nuvei are also present in the region. The Austrian Printec Group, a leading PSP in South-Eastern and Eastern Europe Even though it is an Austrian group, operates processing and gateway activities in Greece and Cyprus through its subsidiaries.

https://thebanks.eu/banks/14655

https://thebanks.eu/banks/14651 https://thebanks.eu/banks/14653

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Trust Payments (Malta)	Trust Payments Ltd	n.a.	163,41	21,04	<u>Link</u>
<u>Viva Payment</u> <u>Services</u>	Viva Wallet Holdings	432	115,90	-17,90	<u>Link</u>
Nexi Greece Processing Services	Nexi	933	64,71	-16,66	<u>Link</u>
Worldline Merchant Acquiring Greece	Worldline	-	19,08	-1,35	<u>Link</u>
NBG PAY	NBG & EVO Payments	-	2,60	-0,87	Link
Nuvei	Nuvei Corporation	n.a.	n.a.	n.a.	Link
<u>Unlimit</u>	Unlimint Holding EU LTD	n.a.	n.a.	n.a.	Link
JCC Payment Systems	Bank of Cyprus Holdings Public Limited Company	n.a.	n.a.	n.a.	Link
Finxp Limited	FinXP Holdings Limited	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Open banking enablers

The potential of the open banking sector remains widely untapped in the region with most banks and some smaller players operating in the market. Nevertheless, there are some players in the markets.

SaltEdge for Cyprus and Nium and OpenPayd for Malta offer developer-friendly APIs for users who want to develop banking applications.

Hellenic Bank, one of the core banks in Greece, has extended its offering towards the creation of an open banking API for developers.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Eurobank	Eurobank Ergasias Services and Holdings SA	9.972	3.215,00	1.353,00	Link
National Bank of Greece	Parent company	8.254	2.459,00	1.122,00	Link
<u>Piraeus Bank</u>	Piraeus Financial Holdings SA	8.292	2.269,00	864,00	Link
Alpha Bank	Alpha Services and Holdings SA	8.444	2.193,05	342,16	Link
Bank of Cyprus	Bank of Cyprus Holdings Public Limited Company	2,889	673,71	60,32	Link
Hellenic Bank	Eurobank SA	2.398	402,45	21,81	<u>Link</u>
<u>Astrobank</u>	Parent company	465	72,26	12,18	<u>Link</u>
Nium Fintech	Independent company	28	n.a.	n.a.	Link
Openpayd Financial Services Malta	Openpayd Holding Limited	n.a.	n.a.	n.a.	<u>Link</u>

Infrastructure providers

Few players provide infrastructure for their customers in the region.

The Greek market is more developed in the BaaS segment, Finartix, Natech and Striga are BaaS providers in Greece.

For the other two countries only two players were identified: OpenPayd in Malta and Unlimit in Cyprus.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Natech</u>	NATECH SA	80	6,49	2,26	<u>Link</u>
Finartix Fintech Solutions	Independent company	65	1,60	0,31	Link
Nuvei Limited	Nuvei Corporation	n.a.	n.a.	n.a.	<u>Link</u>
<u>Unlimit EU</u>	Unlimint Holding EU LTD	n.a.	n.a.	n.a.	Link
Openpayd Financial Services Malta	Openpayd Holding Limited	n.a.	n.a.	n.a.	Link

Greece

Introduction

There are 10,3 million inhabitants in Greece. In 2022, 79% of Greek consumers had access to an account for payments and 92% of them had access to payment card⁴⁰¹.

In recent years, the Greek government has implemented measures such as capital controls in 2015 and a cap on cash withdrawals to reduce the use of cash. Such efforts have been successful as Greece has seen its cash acceptance at POS reduced by 18%⁴⁰². Nevertheless, it should be noted that cash still accounts for most transactions at point-of-sale (62%) and peer-to-peer payments (85%)⁴⁰³.

Card payments in Greece remain the most popular non-cash method, accounting for 33% of POS transactions and 65% of online payments, the second-highest card usage rate in the online space in Europe⁴⁰⁴.

Other payment methods in Greece include e-wallets, which have grown in popularity, with over one in five Greek users adopting them for transactions. The market is led by PayPal, but other players such as Google Pay and Apple Pay also have a significant presence⁴⁰⁵.

Card payment schemes

There are two key card schemes in Greece: Visa and Mastercard.

Mastercard currently dominates the card scheme market with 53% of the market share. Visa has 46% of the Greek market⁴⁰⁶.



https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc11

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc11 https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5

https://pay.com/blog/top-payment-methods-in-greece https://www.ppro.com/countries/greece/

Alternative payment methods

There are multiple international players that provide alternative payment methods in Greece. In fact, the key systemic banks in Greece are compatible with e-wallets such as Apple Pay, Google Pay and Garmin Pay among others. Additionally online payment systems such as PayPal are quite popular in Greece holding a large part of the market 407. Aside from international players there are some local alternative payment methods that can be found.

Otro Pay is a local payment method that allows consumers to pay bills and debts through their own network of partners. This company provides users with the possibility to pay bills in cash and card.

Tora is a local payment method that allows users to physically pay for day-to-day services such as water, energy, and telephone as well as insurances and others. The payment can be made with card or cash depending on the preferred method. This payment method is available at over 2,500 paying points in Greece⁴⁰⁸. The company also provides money transfer services and non-payment related services such as shipping. Finally, Tora also provides Tora Wallet.

COSMOTE Payments' response to e-wallet popularity is Payzy. This solution allows users to cover everyday purchases and bill payment needs, while also carrying out transactions with their friends and family, via their mobile phone, quickly, easily, and safely. The new app is a holistic solution that is digital, designed for all those who want flexibility and simplicity in their daily lives.

IRIS Payments is a service to which the four systemic Greek banks are subscribed, other smaller banks such as Optima have also this service available. This payment method allows to make P2P payments by simply using a phone number that is connected to the user's bank account. The transaction amount is limited to 500 €per transaction when receiving and 500 €per transaction when sending money.

Cross-border payments and money transfers are done thanks to local payment methods such as SmartPay, Intel Express, and Worldbridge (branded as PayLink) which have been acquired by Western Union.

Some Buy Now, Pay Later (BNPL) players are present in Greece, such as Klarna and Satispay.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Worldbridge</u>	Western Union	68	13,23	1,23	<u>Link</u>
Cosmote Payments	OTE SA	30	12,09	-2,38	Link
Tora Wallet	OPAP Investment Limited [CY]	16	8,68	2,69	Link
Smart PAY	Independent company	12	1,81	0,19	Link
<u>Iris Payments</u>	-	n.a.	n.a.	n.a.	<u>Link</u>
Otropay	Independent Company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Banks

The Greek banking sector is constituted of 14 credit institutions, 19 EEA branches and 2 non-EEA branches⁴⁰⁹. As of 2022, the country's consolidated banking assets amounted to 329 billion EUR410. Due to the financial crisis, the Greek banking sector shrank significantly, both in terms of number of banks and consolidated assets⁴¹¹. The sector is heavily concentrated with four banks capturing over 85% of the market⁴¹². There are also several regional cooperative banks and foreign-owned banks as shown by the high number of foreign branches.

The four major systemic Greek banks are the National Bank of Greece, Piraeus Bank, Alpha Bank and Eurobank.

The National Bank of Greece (NBG) is the leading bank in Greece with 23% of the market share and total assets of 75.8 billion EUR. NBG provides universal bank services and issues credit, debit, and prepaid cards exclusively with Mastercard. It offers mobile and internet banking services as well as full remote onboarding for customers.

The second largest bank in Greece is the universal bank Piraeus Bank which has a strong influence in the Balkans, Greece included. The company has 22.8% of the market share with total assets of 75.2 billion EUR⁴¹³. It issues credit and debit branded cards with Mastercard and Visa. Additionally, the bank issues Visa prepaid cards. The products are compatible with Google Pay, Apple Pay, Fitbit, and Garmin Pay. The bank provides internet and mobile banking with their dedicated solution Winbank and Winbank app. In March 2024 the Greek government announced its sale of the 27% stake in Piraeus Bank acquired after the bailout programs established as a result of the financial crisis.

https://pay.com/blog/top-payment-methods-in-greece

⁴⁰⁸

https://www.tora.gr/ https://euclid.eba.europa.eu/register/ 409

⁴¹⁰ https://thebanks.eu/countries/Greece

⁴¹¹ https://thebanks.eu/countries/Greece/major_banks

https://thebanks.eu/countries/Greece/major banks

https://thebanks.eu/countries/Greece/major_banks

The third major bank is Alpha Bank with 21.9% of the market share and 72.1 billion €in total assets. The bank issues credit, debit and prepaid cards with Visa and Mastercard. It offers access to wallets such as Apple Pay, Google Pay, Garmin pay and Xiaomi Pay. Similarly to its competitors Alpha Bank offers online and internet banking as well as remote onboarding for its customers. In 2022, the Italian PSP Nexi acquired a 51% stake in Alpha Bank who's goal was "to pave the way for a new era of digital payments in Greece".

The final systemic Greek bank is Eurobank with an international presence in Greece, Cyprus, Luxembourg, Serbia, Bulgaria and the UK (London). Eurobank has a 19.6% share of the Greek market and total assets of €64.5 billion EUR. The company issues credit and debit cards with both Visa and Mastercard. Additionally, the Eurobank issues Visa prepaid cards. It offers mobile and internet banking services which allow users to perform a wide range of transactions among which instant payments and P2P transfers.

Other banks worth mentioning are Pancreta bank which acquired HSBC Greek operations in July 2023. This acquisition is favored by the Bank of Greece, Greece's central bank, which seems to favor competition in the banking sector by enabling the creation of a fifth large bank⁴¹⁴. And finally, the Greek bank Optima that went public in September 2023 in Athens Stock Exchange.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Eurobank	Eurobank Ergasias Services and Holdings SA	9.972	3.215,00	1.353,00	Link
National Bank of Greece	Parent company	8.254	2.459,00	1.122,00	Link
<u>Piraeus Bank</u>	Piraeus Financial Holdings SA	8.292	2.269,00	864,00	Link
Alpha Bank	Alpha Services and Holdings SA	8.444	2.193,05	342,16	Link
Pancreta Bank	Parent company	518	63,63	3,86	Link

Source: Orbis | Financials 2022

Non-banking issuers

The Greek unicorn, Viva Wallet Holdings, offers multiple payment solutions for merchants. One of the key offerings of the company is Viva Wallet, which provides businesses with payment accounts that include an IBAN. Additionally, it offers the possibility to issue both digital and physical business cards. The company Paysafe also issues prepaid cards for users in Greece.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Viva Payment</u> <u>Services</u>	Viva Wallet Holdings	432	115,90	-17,90	<u>Link</u>

Source: Orbis | Financials 2022

Payment processing & gateways providers

There are multiple processors and gateway providers in the Greek market.

NBG Pay is a strategic alliance between National Bank of Greece (NBG) and the leading global payment processor EVO Payments International. Other players such as EveryPay work as payment gateways offering solutions for both the online and the physical payment space. In November 2022, EveryPay partnered with Fintro to improve in-store payment acceptance. More specifically, customers benefit from other payment methods, and merchants benefit from simplified and streamlined POS terminal management⁴¹⁵.

Other payment service providers include leading companies such as Worldline and Euronet Merchant Services (offered under the name "ePay" in Greece), as well as the Italian giant Nexi. As mentioned above, Nexi acquired a 51% stake in Alpha Bank making the Italian processor one of the top 3 acquirers in the Greek market⁴¹⁶.

As mentioned earlier, Viva Wallet is highly present in Greece. The company provides acquiring solutions to merchants and recently they introduced the tap-to-pay technology allowing merchants to receive payments with a single iPhone device. During 2024, Viva Wallet's goal is to deploy its solutions in most of the European Union⁴¹⁷.

It is also important to mention Worldline's subsidiary, Cardlink, being Greece's largest Network Service Provider. The company operates over 290,000 devices that provide merchants and consumers with fast and secure payment services on a daily basis.

https://www.ekathimerini.com/economy/1217350/creating-a-fifth-pole-in-greek-banking/

https://thepaypers.com/payments-general/finaro-partners-everypay-to-improve-in-store-payment-acceptance--1258955

https://www.alpha.gr/-/media/alphagr/files/group/press-releases/2022/20220704_deltio_typou_enb.pdf https://www.ekathimerini.com/economy/1228113/viva-to-launch-new-service-in-24-countries/

EDPS is also worth mentioning as it has been shaping the landscape of electronic payments in Greece through the introduction of new technologies and the provision of premium processing and transaction support services. It continues to be a leader in transaction speed (maximum 1") and transaction volume per terminal (average more than 120 per day). EDPS accepts all card transactions of VISA, Mastercard, Amex, Diners, ChinaUnionPay, Co-branded and Loyalty cards (EuroReturn, Bonus, Go4More, Yellows)418.

Cosmote Payments, owned by OTE, started developing acquiring card services which are currently offered to OTE's companies for online and retail stores. Currently, Cosmote Payments is building a digital e-money offering in order to fulfill their vision which is to become "the digital provider of everyday life use cases".

Tora's services are available through a vast retail network in Greece, which includes OPAP stores as well as other retail locations (kiosks, convenience stores, super markets, gas stations, and so on), totaling over 10.000 retail locations⁴¹⁹.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Viva Payment</u> <u>Services</u>	Viva Wallet Holdings	432	115,90	-17,90	<u>Link</u>
Nexi Greece Processing Services	Nexi	933	64,71	-16,66	<u>Link</u>
Worldline Merchant Acquiring Greece	Worldline	-	19,08	-1,35	Link
Cosmote Payments	OTE SA	30	12,09	-2,38	<u>Link</u>
Everypay Payment Services Single Member	Independent company	26	5,98	-0,17	Link
Edps llektroniki Epexergasia Pliroforion Tilematikis	Independent company	30	4,60	0,88	Link
NBG PAY	NBG & EVO Payments	-	2,60	-0,87	Link

Source: Orbis | Financials 2022

Open banking enablers

The four major banks in Greece, National Bank of Greece, Piraeus Bank, Eurobank, and Alpha Bank, provide developer support for deployment and construction of bank applications.

The company SaltEdge provides also provides developers with tools for Open Banking application development.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Alpha Bank	Alpha Services and Holdings SA	8.444	2.193,05	342,16	<u>Link</u>
National Bank of Greece	Parent company	8.254	2.459,00	1.122,00	<u>Link</u>
Eurobank	Eurobank Ergasias Services and Holdings SA	9.972	3.215,00	1.353,00	Link
<u>Piraeus Bank</u>	Piraeus Financial Holdings SA	8.292	2.269,00	864,00	Link

https://edps.gr/en/company/ https://www.LinkedIn.com/company/tora-wallet-s.a./

Infrastructure providers

Finartix Fintech Solutions SA provides core banking solutions for users, such solutions are targeted towards retail & corporate banking as well as payments among others.

Natech partnered with Piraeus Bank to provide BaaS and Core Banking solutions. The solution is aimed at local, regional, community, retail and business banks among others.

The company striga provides banking as a service to its users allowing them to open euro and crypto accounts, euro and crypto cards, and IBAN numbers as well as SEPA payments.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Natech</u>	NATECH SA	80	6,49	2,26	Link
<u>Finartix Fintech</u> <u>Solutions</u>	Independent company	65	1,60	0,31	Link

Source: Orbis | Financials 2022

Expert Opinion

"The imposition of capitals controls in 2016, resulted in a radical increase in the use of cards (credit and debit) that had a significant effect in the increase of cashless payments. Since then, Greek Government, trying to resolve the serious issue of tax avoidance, continuously tries to encourage use of cashless payments or to discourage use of cash in POS, resulting in continuous increase of the use of cashless means including credit cards.

In this landscape Greek Banks have proceeded in several transformation activities (e.g., outsourcing of acquiring business) trying to provide new, more advanced solutions and compete with the new payment providers that rise in the Greek market, creating a very competitive payment environment that can be beneficial for Greek consumers."

George Gialitakis | Senior Manager - Deloitte Greece

Cyprus

Introduction

Being situated at the intersection between Europe, Asia, and Africa, Cyprus is a gateway for many international businesses. Originally a cash-based country there have been some changes in consumer preference since 2019. In fact, the degree of digitalization of payments in Cyprus grew heavily between 2019 and 2022. According to the European Central Bank, the country saw the share of online payments in consumers' non-recurring transactions increase 16-fold over the course of three years⁴²⁰. The country experienced the largest growth in online transactions among countries in the European Economic Area. Paradoxically, Cyprus remains a heavily cash-based country despite Cypriot's preference for cash going down from 49% to 23% in the span of three years⁴²¹.

Despite the increased usage of non-cash payment methods, cash is still the most used method for most point-of-sale (59%) and peer-to-peer transactions (87%)⁴²². The second most used payment method in Cyprus is card payments with 36% of POS transactions being settled with this method. Cyprus is remarkable for its high use of cards in the online space making up 71% of transactions, the highest card usage rate among EEA countries.

Besides the classic payment methods, Cyprus has seen some involvement from players in the alternative payment industry, especially from e-wallet providers, cross-border payment providers and cryptocurrency solutions providers. It should be noted that the growth of alternative payment methods has been slow which could be explained by Cypriot's hesitance to exchange their personal data for access to innovative payment solutions, demonstrating that there is still some work to be done before adopting a holistic digital payments culture⁴²³.

The ongoing transformation of the payment ecosystem in Cyprus is supported by the local regulatory frameworks (EMI and Payment Institutions licensing and supervision, and regulations on Crypto Asset Service Providers) and European level directives such as SEPA payments, PSD2, PSD3 and the introduction of instant payments.

Card payment schemes

Cyprus has two key players in the card schemes: Visa and Mastercard.

Both Visa and Mastercard products can be obtained through the Cyprus-based banks and some non-banking issuers. Bank of Cyprus, Hellenic Bank, and Alpha Bank issue cards with both schemes. The other banks issue cards exclusively with Visa.

The non-banking issuers JCC Payment Systems, Unlimit and CSC Europe Limited issue cards with both schemes depending on the customer's needs.

Alternative payment methods

Some of the available payment methods in Cyprus are e-wallets, cross-border payment solutions and cryptocurrencies.

Revolut is an important player in the Cypriot market which is a commonly used payment method, Revolut offers e-cards and physical cards for its customers.

Many e-wallet providers that work in collaboration with the major Cypriot banks. Apple Pay, Google Pay, Xiaomi Pay and Garmin Pay are some of the e-wallet providers present in the Cypriot market. Two other players work in collaboration with major banks. Such is the case of the English solution Settle and the local solution sKash.

Settle is an e-wallet solution that allows users to make payments with their devices by linking their cards to their Settle account. The app also allows users to request money and to make payments. Settle is compatible with cards issued by Bank of

The Cypriot solution sKash is an e-wallet solution that allows users to make payments with their devices and with physical cards with the possibility for cashback. This solution provides users with a physical card linked to their account and enables cross-border bank transfers. The solution is put forward by AstroBank.

Sepaga has a wide variety of products such as e-wallet accounts, prepaid cards issuance and e-wallet accounts.

Oropay has a diversified product offering with a mix of e-wallets, merchant accounts, debit cards, virtual cards, international money transfers to online merchants and physical persons⁴²⁴.

The international player Wise is an important player in the Cypriot market. The solution allows customers and businesses to send money all around the world with full transparency on commissions and exchange rates.

KoronaPay and OroPay offer cross-border money transfer services and peer-to-peer payments, SPSI and G.S. Cashline Limited also offer money transfers, money exchange and remittance services.

⁴²⁰ https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc7

⁴²¹ https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc7 422

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc7

 $https://www.europeanpayments.council.eu/news-insights/insight/digital-payments-cyprus \\ https://thebanks.eu/emis/oro-pay-354686$

Ecommbx specializes in providing a secure payment platform. Ecommbx Limited provides card issuing and accounts for individual customers. For corporate customers the company provides card issuing, fully compliant money transfer network, virtual accounts with IBAN, e-accounts, SWIFT transfers, SEPA transfers, FPS transfers, multi-currency conversions, and a personal account manager⁴²⁵.

Profee is a solution created by Sibilla Solutions which primarily serves people in the European Economic Area. Initially intended for cross-border money transfers, the company now provides users with accounts with virtual and physical cards, as well as instant and secure money transfers. Sibilla Solutions also provides businesses with custom-made solutions to meet their specific requirements⁴²⁶.

Cryptocurrencies in Cyprus are mostly held as an investment asset.

e-Toro holds a license in the Cyprus Securities Exchange Commission, the platform offers cryptocurrency and stock trading in its financial platform.

Other players present in the Cypriot market and operating in the cryptocurrency sphere are Unlimit Crypto licensed in Lithuania, Coinbase, Revolut and Binance.

Alternative payment methods	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Unlimit Crypto	Unlimit Group LTD	n.a.	n.a.	n.a.	Link
<u>Sepaga</u>	Independent company	n.a.	n.a.	n.a.	Link
Ecommbx Limited	Independent company	n.a.	n.a.	n.a.	Link
Sibilla Solutions LTD	Independent company	n.a.	n.a.	n.a.	Link
Skash LTD	Skash	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Banks

In 2012 and 2013, Cyprus underwent a financial crisis mainly due to its large exposure to Greek Government Bonds and the major domestic real estate bubble. Fortunately, by 2016, the country had benefited from government aid and was eventually able to stabilize its financial sector.

Today, Cyprus is considered an important financial center and a hub in the banking landscape due to its proximity with Asia, Africa and Europe. Indeed, the country's favorable taxation, sophisticated legal framework, and strategic location make it an appealing investment and living destination for both individual and corporate international clients. Cyprus is seen as a vital business gateway connecting Europe, the Middle East, Africa, and Asia, as reflected in the Cypriot banking landscape. Despite the strategic importance of Cyprus as a financial center, the number of employees has declined from 7.463 in 2021 to 6521 in 2022 due both to the digitization of the sector and to the closure of RCB bank in 2022⁴²⁷.

There are currently 20 registered credit institutions⁴²⁸ of which six local credit institutions, seven subsidiaries of and branches of the EEA and seven non-EEA subsidiaries and branches. While some banks focus solely on the domestic market, others offer their products and services to international customers; these services are known as international banking or international business banking.

As of 2024 the Central Bank of Cyprus, CBC, identified five credit institutions as systemic banks⁴²⁹ among which can be found the Bank of Cyprus, Hellenic Bank, Eurobank Cyprus, AstroBank and Alpha Bank Cyprus. These credit institutions are considered by the CBC as Other Systemically Important Institutions (OSII) and are required to maintain a higher level of capital reserves due to its relevance to the Cypriot financial system.

The Cypriot banking sector is heavily concentrated with the five largest banks capturing over 90% of the total market share⁴³⁰⁴³¹.

Bank of Cyprus (BoC) is the largest bank in Cyprus with a market share of 40.8% and consolidated total assets of 26.63 billion EUR⁴³²⁴³³. Bank of Cyprus offers everyday banking, wealth management services and corporate banking. Physical and Online Banking are offered by the bank allowing customers to open bank accounts and issue cards both remotely and in-person. Finally, the bank issues debit, credit, and prepaid cards with both Visa and Mastercard, all the cards are compatible with Apple Pay, Google Pay and Settle.

- 425 https://thebanks.eu/emis/ecommbx-354683
- 427
 - https://thebanks.eu/emis/sibilla-solutions-354689 https://in-cyprus.philenews.com/local/the-shrinking-cypriot-banking-sector-in-numbers/
- 428 429
- https://www.centralbank.cy/en/licensing-supervision/banks/register-of-credit-institutions-operating-in-cyprus. https://www.centralbank.cy/en/financial-stability/macroprudential-policy-decisions/o-sii-capital-buffer-for-other-systemically-important-institutions-credit-institutions 430 The market share is computed as the percentage of total assets held by the bank relative to the total assets of the Cypriot banking sector, this metric is the same used for the rest of the banks
- orbis visited the 07/05/2024)
- orbis (visited the 07/05/2024)
- 433 https://www.centralbank.cy/en/licensing-supervision/banks/aggregate-cyprus-banking-sector-data

Hellenic Bank is the second largest bank in Cyprus with a market share of 30.8% and consolidated total assets of 20,06 billion EUR434435. Similarly to BoC, the bank offers everyday banking, wealth management services and corporate banking. The bank provides digital banking and issues debit, credit, and prepaid cards with Visa and Mastercard. Such cards are available with Apple Pay, Google Pay and Garmin Pay. Hellenic Bank also provides access to an API for users to develop their own applications.

Eurobank Cyprus is a subsidiary of the Greek banking group Eurobank. The Cypriot subsidiary has 7,95 billion €in assets and 12.2% of the market share⁴³⁶⁴³⁷. Similarly to the other banks presented hereabove the bank provides all types of financial services from everyday banking to wealth management as well as corporate banking. The bank offers online banking through their online portal. The bank issues debit and credit cards exclusively with the Visa card scheme. In 2023, Eurobank Cyprus acquired a 17% stake in Hellenic Bank⁴³⁸ and as of March 2024 the bank's parent Eurobank acquired a Majority Stake in Hellenic Bank.439

Alpha Bank Cyprus had 4.6% of the market share in 2022 and held 2,95 billion €in assets⁴⁴⁰⁴⁴¹. The bank offers traditional financial services similar to the banks cited hereabove such as everyday banking, wealth management and corporate banking. Online banking is available for users. The bank issues credit and debit cards with both Visa and Mastercard. Such products are compatible with Apple Pay, Google Pay, Garmin Pay and Xiaomi Pay.

The fifth key credit institution is AstroBank which is comparable in size to Alpha Bank Cyprus. The bank has a 4.2% of the market and total assets of 2,72 billion EUR442443. The bank offers everyday banking, private banking and corporate banking to its customers. AstroBank has both physical and online banking through an app and a website. Additionally, it issues both debit and credit cards with Visa exclusively which can be used with the e-wallet sKash. It should be noted that the bank had been in negotiations to purchase the Cyprus Development Bank (CDB), but the deal fell through in November 2023⁴⁴⁴.

Other players worth mentioning in the Cypriot banking system are RCB Bank, a new entrant among the key banks in the country, and the Cyprus Development Bank.

The country has other minor players in the industry such as Société Générale Bank and Ancoria Bank.

Banks	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Bank of Cyprus	Bank of Cyprus Holdings Public Limited Company	2.889	673,71	60,32	Link
Hellenic Bank	Eurobank SA	2.398	402,45	21,81	Link
Eurobank Cyprus	Eurobank SA	447	164,48	94,34	<u>Link</u>
<u>Astrobank</u>	Parent company	465	72,26	12,18	<u>Link</u>
Alpha Bank Cyprus	Alpha Services and Holdings SA	476	70,40	6,52	Link
Cyprus Development Bank	Parent company	138	13,18	-0,04	Link
RCB Bank	Crendaro Investment Limited	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Non-banking issuers

Due to the high popularity of cards in Cyprus there is a vast array of non-banking issuers. In fact, many of the alternative payment method providers issue cards that are directly linked to their e-wallets. Despite the large number of non-banking issuers, there are three key non-banking issuers that provide card issuing services for companies.

JCC Payment Systems offers many services in the context of payments. Among those services card-issuing is a service that is offered to businesses that wish to provide their customers with any types of payment cards: both financial (Visa and Mastercard) and non-financial.

Unlimit offers a B2B card-issuing service to its customers. The API-based solution allows businesses to customize the solution to cater to the business' customer requirements, allowing to issue customized cards on-demand.

CSC Europe Limited is a company that issues internationally accepted payment cards, virtual payment cards and private label cards.

- 434 orbis (visited the 07/05/2024)
- 435 https://www.centralbank.cy/en/licensing-supervision/banks/aggregate-cyprus-banking-sector-data
- orbis visited the (07/05/2024)
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- 437 438 https://www.ekathimerini.com/economy/1218457/eurobank-cyprus-now-controls-46-5-of-hellenic-bank/https://www.thenationalherald.com/greeces-eurobank-acquires-majority-stake-in-cyprus-hellenic-bank/ 439
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- 442 orbis visited the (07/05/2024)
- https://www.centralbank.cy/en/licensing-supervision/banks/aggregate-cyprus-banking-sector-data-https://www.financialmirror.com/2023/11/08/astrobanks-cdb-takeover-collapses/

Non-banking issuers	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Unlimit EU</u>	Unlimit Group LTD	n.a.	n.a.	n.a.	<u>Link</u>
JCC Payment Systems	Bank of Cyprus Holdings Public Limited Company	n.a.	n.a.	n.a.	Link
CSC Europe	CSC Europe LTD	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Payment processing & gateways providers

JCC Payments Systems is a payment processor and gateway. The company is the leader in Cyprus in processing technologies, offering all card acceptance solutions. JCCSoftPos allows merchants to accept contactless payments directly on their Android smartphones. It offers issuing banks a mobile card payment solution which is connected to tokenisation platforms and OEM wallets such as Apple Pay, Samsung Pay, Google Pay, Garmin Pay, etc. Its partner payment schemes are Visa, Mastercard, American Express, UnionPay and JCB.

Payabl is an EU-regulated PSP which processes online payments and issues prepaid cards. The company processes Visa and Mastercard but also other payment methods such as PayPal, Apple Pay, Google Pay or Klarna⁴⁴⁵.

Unlimit, which holds an EMI license in Cyprus, provides acceptance and processing of online payments in the Cypriot market. It processes payments with Visa, Mastercard and UnionPay.

The Montreal-based payments technology company Nuvei entered the Cypriot market with the acquisition of SafeCharge International Group in August 2019⁴⁴⁶. This strategic acquisition enabled Nuvei to step across European, Asian and Latin-American territories - while the company was originally operating in the US and Canada.

ISX Financial offers e-money solutions such as business IBAN accounts and consumer e-wallets. It goes beyond e-money, as it also offers payment processing services with iSXPay and an identity platform Payldentity to comply with AML/CFT regulatory requirements.

Moneygate offers banking services to individuals and to businesses with a focus on payment solutions. The company gives access to SWIFT and SEPA payments, issues cards, provides multicurrency accounts and currency conversion services.

Payment processing & gateway providers	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Nuvei</u>	Nuvei Corporation	n.a.	n.a.	n.a.	<u>Link</u>
<u>Unlimit</u>	Unlimint Holding EU LTD	n.a.	n.a.	n.a.	Link
JCC Payment Systems	Bank of Cyprus Holdings Public Limited Company	n.a.	n.a.	n.a.	<u>Link</u>
ISX Financial	ISX Financial	n.a.	n.a.	n.a.	<u>Link</u>
Payabl. CY	Roteral Limited	n.a.	n.a.	n.a.	Link
Moneygate Solutions	Moneygate Solutions Limited	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Open banking enablers

Major banks in Cyprus provide app-developing capabilities to their users.

Eurobank, Alpha Bank, Bank of Cyprus and Hellenic Bank provide APIs for developers that wish to create and deploy banking-based applications.

https://payabl.com/news/article/welcome-payabl-powered-powercash21

https://www.prnewswire.com/il/news-releases/nuvei-completes-acquisition-of-safecharge-for-us-889-million-strengthening-its-global-payment-technology-and-reach-879250713.html

Open banking enablers	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Bank of Cyprus	Bank of Cyprus Holdings Public Limited Company	2.889	673,71	60,32	<u>Link</u>
Hellenic Bank	Eurobank SA	2.398	402,45	21,81	<u>Link</u>
Eurobank Cyprus	Eurobank SA [GR]	447	164,48	94,34	<u>Link</u>
Alpha Bank Cyprus	Alpha Services and Holdings SA [GR]	476	70,40	6,52	<u>Link</u>

Source: Orbis | Financials 2022

Infrastructure providers

The Unlimit, which holds an EMI license in Cyprus provides BaaS services to its customers allowing them to have the banking infrastructure that they require for their operations. The company allows its customers' customers to create a bank account, to make payments and to control their expenses. Furthermore, the company provides white label card issuing.

Nuvei, also licensed as an EMI in Cyprus, provides BaaS services such as account creation with fast Know Your Customer procedures as well as card issuance.

Infrastructure providers	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Nuvei Limited	Nuvei Corporation	n.a.	n.a.	n.a.	<u>Link</u>
<u>Unlimit EU</u>	Unlimint Holding EU LTD	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Expert Opinion

"The payments industry in Cyprus has been continuously evolving in recent years through the rapid introduction of new players and modern technologies such as mobile wallets. The increasing accessibility and adoption of such technologies by the wider population of the island demonstrates a shift towards digital payments, even though a part of the population prefers the familiar convenience of cash-based transactions. The adoption of EU regulations such as PSD2 has enabled the increased trust in the performance of electronic payments, fuelling the adoption further. The Cypriot payment landscape remains therefore a blend of traditional and modern payment methods to meet all needs."

George Nathanael | Senior Manager - Deloitte Cyprus

Expert Opinion

"The payments landscape in Cyprus is evolving rapidly, driven by EU regulations like PSD2, which promote open banking and innovation. The rise of fintech solutions, including mobile payments and e-wallets, reflects a shift toward digitalization and enhanced customer convenience. This transformation aligns with Cyprus focus on security and compliance, fostering a payment ecosystem that is both competitive and secure."

Elsa Abdo | Consultant - Deloitte Cyprus

Malta

Introduction

Malta has 542.000 inhabitants. The penetration rate of both cards and payment accounts, is under the EU average with 90% of consumers having access to cards and 81% of consumers having access to accounts for payments compared to the EU average of 93% and 91% respectively⁴⁴⁷.

Similarly to other countries in the European Union there are multiple payment methods available, however the most used payment method at point-of-sale is cash which makes up 77% of the transactions, making Malta the country with the highest use rate of cash at POS in the EU. Card payments are the second most popular payment method which account for 18% of the point-of-sale transactions⁴⁴⁸. The remaining transactions are mostly settled with mobile apps and other payment methods.

The Maltese online space is dominated by card payments with 53% of transactions being made with that method. Alternative payment methods are successfully taking market share in the digital space with solutions such as e-wallets, e-money and QR code payments making up for 43% of online transactions. It should be noted that those same payment methods are the second favorites after cash when it comes to peer-to-peer payments.

Cash is the most important part of the Maltese payment ecosystem. Nevertheless, there is declining preference for cash, as evidenced by a 5% decrease in cash acceptance at POS⁴⁴⁹. Such changes can be linked to the introduction of regulations on the use of cash, which imposes a 10.000€ limit on certain high-cost goods such as jewelry, antiques, or real estate⁴⁵⁰. This decline in cash preference presents an opportunity for new players in the payment ecosystem.

Cards, including digital wallets, are widely used, though some merchants still expect a minimum card expenditure ranging from EUR 5 to EUR 10 to accept this payment method. 451. Innovative players such as Revolut are pioneering cardless payment methods, allowing merchants to cater to their customers without the need for a POS terminal.

In 2022, the use of e-money cards, like Revolut, in Malta reached an all-time high, with the total number of e-money cards issued surpassing the number of traditional credit and debit cards issued by banks. Out of 2,13 million payment cards issued in Malta in 2022, 1,2 million featured e-money functionalities⁴⁵².

Malta has enacted multiple legislations that have laid the foundation for the country's crypto-friendly ecosystem and a tax regime that makes it an appealing hub for innovative fintechs, payment service providers (PSPs), and electronic money institutions (EMIs). These entities benefit from Malta's proximity to the iGaming industry. Since online casinos are considered high-risk merchants, they consistently require advanced payment and banking solutions. Furthermore, Malta's amendments to its domestic regulatory framework in 2011, which lowered the initial capital requirement for EMIs from €1 million to €350.000, have opened the market to smaller newcomers⁴⁵³.

Regulatorily, the Maltese government not only aligns with EU directives but also goes further to mitigate the country's exposure to tax evasion, money laundering, and criminal activities. Following this approach, Malta implemented an EU directive aimed at reducing VAT fraud by PSPs more swiftly than required by the European Commission⁴⁵⁴. Additionally, the release of the 2023 National Risk Assessment report, which outlines various AML/CFT risks, mandates all subject persons operating in Malta to incorporate these risk considerations into their AML/CFT framework, with the objective of having in place effective mitigating measures, policies, controls, and procedures.

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5

⁴⁴⁹

https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212–783ffdf46e.en.html#toc5 https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212–783ffdf46e.en.html#toc5

⁴⁵⁰ https://legislation.mt/eli/sl/373.4/eng/pdf

https://www.adyen.com/payment-methods-guides/europe/malta

⁴⁵² http://weekly.uhm.org.mt/en/article/e-money-cards-jikbru-fil-popolarita/

https://www.mfsa.mt/wp-content/uploads/2019/10/20191031 FIR 03.pdf

https://cfr.gov.mt/en/eServices/Pages/Central-Electronic-System-of-Payment-information-(CESOP).aspx



Card payment schemes

Card payments represent an important share of payments at POS and in the online space. The market is predominantly dominated by two card scheme giants, Visa and Mastercard, with Maltese banks typically offering one of the two options.

The country's two main banks, Bank of Valletta and HSBC, primarily offer Visa debit and credit cards. However, HSBC also provides two Mastercard options in its product list.

Alternative payment methods

Malta demonstrates high acceptance of e-wallets. Major players in the e-wallet industry are PayPal, Apple Pay and Revolut.

The e-wallet sector has seen a proliferation of service providers catering to a range of customers, from individuals to exclusively corporate clients.

The following are some of the entities playing in this space.

Revolut counts over 190,000 users in the country⁴⁵⁵. The company offers a wide variety of financial services ranging from bank accounts, payment cards, stock, portfolio services (crypto and stocks), cross-border payments, insurance and many other services. In addition, Revolut also issues cards both with Visa and Mastercard.

Mifinity offers services to both individuals and corporate customers. The individual offering provides an e-wallet solution allowing to have e-money, to pay online and finally to send money to third parties. The offering to businesses provides payment gateways for iGaming, Forex, travel and eCommerce businesses⁴⁵⁶.

Astropay offers a multi-currency wallet with high acceptance, international payments capabilities and a cash-back solution. Furthermore, the company offers free instant payments and has a multi-currency wallet functionality⁴⁵⁷.

https://astropay.com/

https://www.independent.com.mt/articles/2021-02-18/local-news/Revolut-launches-as-a-bank-in-Malta-now-offers-protected-deposit-accounts-6736231124

https://www.mifinity.com/

Another player present at multiple stages of the payment value chain is Finance Incorporated Limited (FIL). This player has a wide offering of solutions ranging from individual e-wallets to payment gateways for businesses. FIL is the author of the iPayMix and PaymixPro⁴⁵⁸. iPayMix is designed for individuals who require an e-Wallet. This solution also issues cards linked to the e-wallet account. The professional version of iPayMix is PaymixPro which is a solution aimed towards businesses that require a place to centralize payment information and invoice issuing. The solution offers an account, card issuing, SEPA and SWIFT payments among other things.

Plix, or EMP Systems, offers e-wallet services for both individuals and businesses with the possibility of multi-currency accounts. Other players diversify their services to provide solutions to both individuals and corporates⁴⁵⁹.

Moneybase stands out by integrating an e-wallet with currency, stock, and other financial asset trading functionalities. Recently, they have begun issuing cards linked to e-wallet accounts and offer businesses a centralized financial management platform.⁴⁶⁰

Some players are exclusively focused on the corporate market: FinXP, Andaria and Fyorin. The companies provide businesses with dedicated IBAN accounts, cross-border payments, and finally SEPA payments. FinXP and Andaria provide physical card issuing. Fyorin and Andaria provide multi-currency business accounts 461,462,463.

Nium provides a multi-currency e-wallet for companies and other related services⁴⁶⁴.

Zastrpay is an app that allows to make deposits and cash withdrawals without requiring a bank account. Users can simply create an account, generate a QR code with Zastrpay and receive or deposit the money at one of the partner shops.

In Malta, the Buy Now Pay Later (BNPL) method has recently gained traction as a cost effective alternative for consumers to credit cards and traditional banks loans, allowing consumers to improve their purchasing power using flexible payment plans. Businesses have embraced BNPL options due to their positive impact on customer lifetime value, increased conversions and better customer experience.⁴⁶⁵.

Local businesses provide their customers with their in-house BNPL solution. Such is the case for stores such as Avantech and Homemate which give the BNPL option to customers at check-out. Other companies such as Flexypay enable businesses, merchants, and individuals to accept online payments and provides BNPL functionalities. With the rise in popularity of this method, BNPL fintechs are slowly emerging in the market. The company Solfy provides a card-based BNPL solution. The company issues cards and whenever a payment is made with the card, the payment is automatically made in various installments.

Many of the players mentioned above offer cross-border payment solutions as an extension to their e-wallet service. Other players, such as Nium, are more focused on cross-border payments.

Alternative payment methods	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
EMP Systems	EMP Systems Holding Limited	n.a.	n.a. n.a.		<u>Link</u>
<u>Handi.Cash</u>	Kavalier Holdings Limited	n.a.	n.a.	n.a.	Link
<u>I-Real</u>	Finance incorporated LTD	n.a.	n.a.	n.a.	<u>Link</u>
<u>Fyorin UK</u>	PorterPays LTD	n.a.	n.a.	n.a.	Link
<u>Revolut</u>	Revolut Group Holdings Ltd.	n.a.	n.a. n.a.		<u>Link</u>

https://www.financeincorp.com/

https://plixpay.com/en/homepage/

https://moneybase.com/ https://finxp.com/

https://www.fyorin.com/home

https://andaria.com/

https://www.nium.com/

https://gcsmalta.com/uncategorized/the-rise-of-the-buy-now-pay-later-trend/

Banks

Malta is increasingly establishing itself as an international banking center and financial hub in the Mediterranean. The Maltese banking sector has evolved, featuring a mix of domestic and foreign-controlled banks that offer a variety of services, from traditional retail banking to more sophisticated private banking, wealth management, and corporate banking solutions.

There are currently 19 operating credit institutions in the country⁴⁶⁶. The Central Bank of Malta identifies APS Bank, Bank of Valletta (BOV), BNF Bank, HSBC, Lombard Bank, and MeDirect Bank as Malta's 'core domestic banks'⁴⁶⁷.

Despite the presence of multiple banks, the industry is heavily concentrated, with the two largest banks, BOV and HSBC, holding 65% of the industry's assets⁴⁶⁸. BOV is the oldest and largest financial service provider in Malta, with assets exceeding €14.5 billion⁴⁶⁹. The global leading bank HSBC follows with €7.3 billion in assets⁴⁷⁰,⁴⁷¹. Each of these banks operates around 40 branches nationwide and primarily issues Visa credit and debit cards, in addition to offering digital banking services.

The next leading banks are the online bank MeDirect⁴⁷² (€5 billion), APS Bank (€3.1 billion⁴⁷³), Lombard Bank (€0.65 billion) and BNF Bank (€1.16 billion)⁴⁷⁴.

Some smaller Maltese banks went through a rebranding process. Such is the case for the Maltese subsidiary of the Finnish group Multitude SE, Ferratum Bank, rebranded and renamed to Multitude Bank as part of the group' strategy. Furthermore, the corporate bank AgriBank rebranded under the name Lidion Bank to modernize its brand image while providing a mix of traditional banking and "cutting-edge financial services" such as transaction monitoring and bank account aggregation for their customers.

Notable smaller institutions include FIMBank, Sparkasse Bank, and FCM Bank, Novum Bank and Izola Bank, among others.

The Maltese banking ecosystem is moving towards higher degrees of digitalization as it can be seen by some companies' strategic moves. BOV implemented Al into its processes by partnering with the fraud-prevention solution Resistant Al⁴⁷⁵. BNF Bank embarked on a digitalization journey with their partnership with Temenos solution⁴⁷⁶. Finally, HSBC Malta won the Bank of the Year Award which demonstrates the efforts of the bank to successfully adopt innovative technologies⁴⁷⁷. These moves align with the broader European shift towards digital banking, supported by directives like PSD2 and PSD3.

Banks	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Bank of Valletta	Parent company	2.082,00	295,57	31,53	<u>Link</u>
HSBC Bank Malta	HSBC Holdings	931,00	145,80	36,18	Link
MeDirect Bank (Malta)	MDB Group Limited	339,00	74,66	8,66	<u>Link</u>
APS Bank	The Archidiocese of Malta	548,00	62,44	5,77	<u>Link</u>
Lombard Bank (Malta)	Parent company	942,00	59,23	17,63	<u>Link</u>
BNF Bank	JUD Investment Group	251,00	30,13	8,07	Link
<u>Izola bank</u>	Van Marcke Finance	65	12,3	7,84	<u>Link</u>
Novum Bank Limited	Novum Participations B.V.	134	73,4	59	Link

https://euclid.eba.europa.eu/register/

https://timesofmalta.com/articles/view/maltas-retail-banks-in-focus.959134

https://www.privacyshield.gov/article?id=Malta-Banking-Systems; https://thebanks.eu/countries/Malta/major_banks

⁶⁹ Orbis (data 2022)

Orbis (data 2022)
https://timesofm

https://timesofmalta.com/articles/view/maltas-retail-banks-in-focus.959134

https://www.privacyshield.gov/article?id=Malta-Banking-Systems

Orbis (data 2022)

https://timesofmalta.com/articles/view/maltas-retail-banks-in-focus.959134

https://www.fintechfutures.com/2023/05/bank-of-valletta-taps-resistant-ai-for-fraud-prevention-solution/

https://www.fintechfutures.com/2023/11/bnf-bank-chooses-aspire-systems-as-strategic-partner-for-implementing-cutting-edge-temenos-digital-banking-solutions/. https://www.independent.com.mt/articles/2023-12-01/business-news/HSBC-Malta-wins-The-Banker-s-Bank-of-the-Year-Award-for-2023-6736256801



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Non-banking issuers

Multiple non-banking issuers are present in the Maltese market. Companies such as AstroPay, iPayMix, PaymixPro, MoneyBase, FinXp, Andaria and Nium issue cards linked to e-wallets.

Other issuers are Insignia Cards which provides exclusive credit cards to individuals and dLocal, a company that operates in developing countries allowing unbanked individuals to have access to cards and prepaid cards.

Non-banking issuers	Non-banking issuers Group		Revenue (Million €)	Net Income (Million €)	LinkedIn
Transact Payments Malta	Neptune International Limited	n.a.	6,04	1,99	<u>Link</u>
Andaria Financial Services	Andaria Capital Limited	n.a.	0,56	-1,21	<u>Link</u>
<u>FinXP</u>	FinXP Holdings Limited	n.a.	n.a.	n.a.	Link
<u>Insignia Cards</u>	Insignia International Limited	n.a.	n.a.	n.a.	Link
Dlocal Dlocal Limited		n.a.	n.a.	n.a.	Link
<u>Moneybase</u>	CC Finance Group PLC	n.a.	n.a.	n.a.	Link

Payment processing & gateways providers

The number of Payment Service Providers licensed in Malta is increasing in recent years, and the Island has become the preferred location for the establishment of Payment Service Providers, in addition to the thriving i-Gaming and e-Commerce industries⁴⁷⁸. It should be noted that the recent changes in EU Directives (PSD2, PSD3, CESOP and National Risk Assessment) should shift the way that PSPs conduct business in Malta.

EPG Financial Services Limited offers a wide range of payment processing services for international merchant accounts. It provides both online and mobile payment solutions⁴⁷⁹.

Global Payments is another PSP which offers a complete worldwide commerce ecosystem. It processes more than 50 billion transactions every year and serves merchants in over 100 countries. It enables merchants to accept online payment simply and accept credit and debit cards through its POS systems thanks to its innovative software.

Trust Payments provides all types of payment solutions such as POS hardware, payment processing and finally online payment solutions.

MaxPay is an international PSP gateway with more than 30 bank partners. It offers a platform which helps online business owners to accelerate growth⁴⁸⁰.

Truevo is a solution for online and POS payments.

PaymixSoftPOS is one of the multiple solutions offered by Finance Incorporated Limited. The solution provides merchants with a way to make payments with a smartphone and without requiring any additional hardware.

Syspay provides e-commerce payment solutions in Malta⁴⁸¹.

Dlocal holds an EMI license but operates as a PSP which accepts local cards, money installments, bank transfers, e-wallets, direct debit, and cash payments in emerging markets⁴⁸².

Plix, an EMP systems solution, provides merchants with IBAN accounts and payment acceptance solutions⁴⁸³.

Xcoins offers a payment gateway for over ten different cryptocurrencies⁴⁸⁴.

Payment processing & gateway providers	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Trust Payments (Malta)	Trust Payments Ltd	n.a.	163,41	21,04	<u>Link</u>
Dlocal	Dlocal Limited	n.a.	n.a.	n.a.	<u>Link</u>
Truevo Payments	DalaMear Investments LTD	n.a.	n.a.	n.a.	Link
Finance Incorporated	Finance incorporated LTD	n.a.	n.a.	n.a.	Link
Maxpay	Maxpay Holding Limited	n.a.	n.a.	n.a.	<u>Link</u>
Global Payments	Global Payments Inc (US)	n.a.	n.a.	n.a.	Link
Syspay	SYScommerce Group Ltd	n.a.	n.a.	n.a.	<u>Link</u>
EPG Financial Services	Euro Payment Group GmbH	n.a.	n.a.	n.a.	Link
EMP Systems	EMP Systems Holding Limited	n.a.	n.a.	n.a.	<u>Link</u>
Xcoin (Europe)	Xcoins	n.a.	n.a.	n.a.	<u>Link</u>
Finxp Limited	FinXP Holdings Limited	n.a.	n.a.	n.a. n.a.	
Shift4 Payments	Shift4 Payments	148	214	61,2	Link

https://gsl.org/en/offers/payment-services-provider-license-psp-in-malta/

⁴⁷⁹ https://www.LinkedIn.com/company/epg-financial-services-ltd/?originalSubdomain=mt

https://www.LinkedIn.com/company/maxpay/

https://syspay.com/about-us/ 482 https://dlocal.com/

https://thebanks.eu/emis/emp-systems-354744

https://xcoins.com/en/crypto-gateway/

Open banking enablers

New players in the Open Banking space have appeared in the Maltese market.

As mentioned earlier, NIUM has multiple service offerings. Additionally, the company provides developers with tools to create their own banking applications. OpenPayd also provides tools to developers to create their own Open Banking applications.

Open banking enablers	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Nium Fintech	Independent company	28	n.a.	n.a.	<u>Link</u>
Openpayd Financial Services Malta	Openpayd Holding Limited	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Infrastructure providers

Banking-as-a-service in Malta is relatively new in the market. The only player operating in the sector this year is OpenPayd which provides B2B2C solutions with their BaaS platform.⁴⁸⁵

Infrastructure providers	Group	Number of Employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Openpayd Financial Services Malta	Openpayd Holding Limited	n.a.	n.a.	n.a.	<u>Link</u>
RS2 Smart Processing	RS2 Group	38	11,7	2,5	Link

Source: Orbis | Financials 2022

Expert Opinion

"Malta's payment ecosystem is diverse and includes a range of payment providers, from traditional banks to fintech startups. The country has made efforts to promote innovation in the sector, with initiatives such as the Malta Digital Innovation Authority. However, there are still some challenges being addressed, such as ensuring regulatory compliance and improving access to payment services for all segments of the population. Overall, Malta's payment ecosystem has potential for growth and development."

Cheryl Grech | Senior Manager - Deloitte Malta

https://www.openpayd.com/banking-as-a-service/

Central and Eastern Europe

Introduction

The dynamic payments landscape in Central and Eastern Europe is characterized by diversity and innovation. The region has become a center of technological progress, where new payment methods are emerging and thriving. In many Central and Eastern European countries, cash is no longer as popular as it once was, as digital payment methods are now considered more convenient, and the population has become familiar with technology.

With Mastercard and Visa as two well-established players, debit and credit card use is on the rise in Central and Eastern Europe, with most cards being debit cards. Card payments are expected to grow and eventually account for almost 30%⁴⁸⁶ of the payments market. The region has also seen an increase in other payment methods such as bank transfers (from 14%⁴⁸⁷ in 2020 to 22%⁴⁸⁸ in 2023) and e-wallets (from 6%⁴⁸⁹ in 2020 to 13%⁴⁹⁰ in 2023). In addition, "buy now, pay later" (BNPL) services are growing in number, demonstrating a global trend in redefining consumer credit. Those steady growths reflect the shift in consumer preferences towards more agile and secure digital payment solutions.

Finally, the countries of Central and Eastern Europe (CEE) have seen a major boom in fintech startups and companies, with Poland and the Czech Republic taking the leading positions. Most FinTech solutions concern innovations for the banking and payments sector, with the launch of payment methods such as contactless and mobile payments, host card emulation, and cryptocurrencies. The estimated value of the FinTech market in the nine Central and Eastern European countries is 2,2 billion⁴⁹¹ €.

Card payment schemes

As of today, Visa and Mastercard maintain a dominant position in the Central and Eastern European (CEE) market.

Alternative payment methods

Digital payment methods such as PayPal, Apple Pay, and Google Pay are steadily gaining in popularity in the region, with each country favoring different mobile payment systems and applications. For example, Pago is the main mobile payment app in Romania, while Flik is widely used in Slovenia for peer-to-peer transactions. Slovakia offers Viamo, a local payment method that facilitates peer-to-peer money transfers and payments to merchants. OTP Mobil's Simple is the preferred choice in Hungary, and finally, Aircash is commonly used in Croatia. Each of these payment methods should continue to develop in their respective countries. For their part, Bitpanda, Paysafecard, Paypo and Akcenta are well-implemented in the region.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
<u>Bitpanda</u>	BP22 AG	350	2.366,96 -116,04		<u>Link</u>
paysafecard.com Wertkarten	Foley Trasimene Acquisition II Corp	240	98,33 81,88		Link
Paypo	NRW Sp. z o.o.	n.a.	26,30	4,78	Link
AIRCASH d.o.o.	Independent company	35	20,01	7,04	Link
AKCENTA CZ	Raiffeisen Bank International AG	107	16,80	16,80 2,98	

https://ecommercegermany.com/blog/payment-methods-in-cee#:~:text=Pay%2Dby%2DLink%3A%20lt,2020%20to%2017%25%20in%202023.

https://ecommercegermany.com/blog/payment-methods-in-cee#:~:text=Pay%2Dby%2DLink%3A%20lt,2020%20to%2017%25%20in%202023

https://ecommercegermany.com/blog/payment-methods-in-cee#:~:text=Pay%2Dby%2DLink%3A%20lt,2020%20to%2017%25%20in%20203. https://ecommercegermany.com/blog/payment-methods-in-cee#:~:text=Pay%2Dby%2DLink%3A%20lt,2020%20to%2017%25%20in%202023.

https://ecommercegermany.com/blog/payment-methods-in-cee#:=:text=Pay%2Dby%2DLink%3A%20lt,2020%20to%2017%25%20in%202023.

https://www2.deloitte.com/me/en/pages/about-deloitte/articles/fintech-cee-region.html

Banks



Poland, the Czech Republic, and Hungary are the three dominant countries in the CEE banking sector, accounting for over 63,4%⁴⁹² of total assets.

In 2023, transactions in the banking sector were mainly aimed at gaining market share with Austria's Erste Group being the most active buyer in the region. The group completed 7⁴⁹³ transactions between 2018 and 2023 in the Czech Republic, Hungary, and Romania followed by Belgium's KBC Group, which announced 3494 transactions in the Czech Republic, Bulgaria, and Slovakia. The Hungarian MBH Bank group, resulting from a merger finalized in spring 2023, has begun its expansion in Hungary, and OTP's acquisition of Slovenian bank Nova KBM was finalized in February 2023, representing OTP's largest acquisition to date.

As of today, four native banks have a major foothold in the region. Firstly, PKO Bank is a leader in the Polish market with branches in the Czech Republic, Slovakia, and Germany. The bank occupies first place in the Finnoscore 2023 ranking, establishing itself as the European leader in digital banking⁴⁹⁵.

Secondly, OTP Group is Hungary's biggest financial supplier and OTP Bank has been acclaimed as the premier digital bank in the Central and Eastern European (CEE) region by Euromoney's Awards for Excellence in 2023⁴⁹⁶. As a result of an international expansion strategy, OTP Group is a determining player on the banking market within the CEE region. OTP Group currently operates in Albania, Bulgaria, Croatia, Romania, Serbia, Ukraine, Russia, Moldova, Montenegro and Slovenia.

Erste Group Bank is the largest bank in Austria, as well as one of the largest financial service providers in Central and Eastern Europe, having more than 16 million⁴⁹⁷ customers across 7 countries: Austria, Croatia, Czech Republic, Hungary, Romania, Slovakia and Serbia.

Finally, Raiffeisen operates in 24 countries, including 12 in the Central and Eastern Europe (CEE) region. Among these, seven are EU member states: Romania, Slovakia, Hungary, Poland, Austria, the Czech Republic, and Croatia.

The two major Italian banks UniCredit and Intesa Sanpaolo have also a strong presence in Central and Eastern Europe. Moreover, the Belgian bank KBC is present in Bulgaria (United Bulgarian Banks), Slovakia (CSOB) and Hungary (K&H).

https://www2.deloitte.com/content/dam/Deloitte/hu/Documents/financial-services/Deloitte-CEE-MA-Banking-Study-2023.pdf

⁴⁹³ https://www2.deloitte.com/content/dam/Deloitte/hu/Documents/financial-services/Deloitte-CEE-MA-Banking-Study-2023.pdf

https://www2.deloitte.com/content/dam/Deloitte/hu/Documents/financial-services/Deloitte-CEE-MA-Banking-Study-2023.pdf

https://en.media.pkobp.pl/268082-pko-bank-polski-european-leader-in-digital-banking#:~:text=PKO%20Bank%20Polski%20has%20claimed.potential%20customers%2C%20 and%20remote%20onboarding.

https://www.otpgroup.info/news/OTP-Group-members-win-prestigious-international-awards#:~:text=The%20Hungarian%20OTP%20Bank%20has,award%20for%20the%20

https://www.boursorama.com/bourse/actualites/la-banque-erste-group-affiche-un-benefice-record-en-2023-fbbabc85433a9f0d12bcc5caeeb25781

Banks	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Banca Intesa San Paolo	Parent Company	95.574	22.264,00	4.402,00	<u>Link</u>
<u>UniCredit</u>	Parent Company	82.995	21.507,00	6.473,00	<u>Link</u>
Raiffeisen Bank International	Parent Company	44.414	9.786,00 3.797,00		Link
KBC Groep NV/ KBC Groupe	Parent Company	41.947	8.575,00	2.818,00	<u>Link</u>
Erste Group Bank	Parent Company	48.303	8.495,30 2.666,30		<u>Link</u>
OTP Bank	Parent Company	35.976	4.534,54 866,19		Link
Powszechna Kasa Oszczednosci Bank Polski SA - PKO BP	Parent Company	25.071	3.706,53 705,44		Link

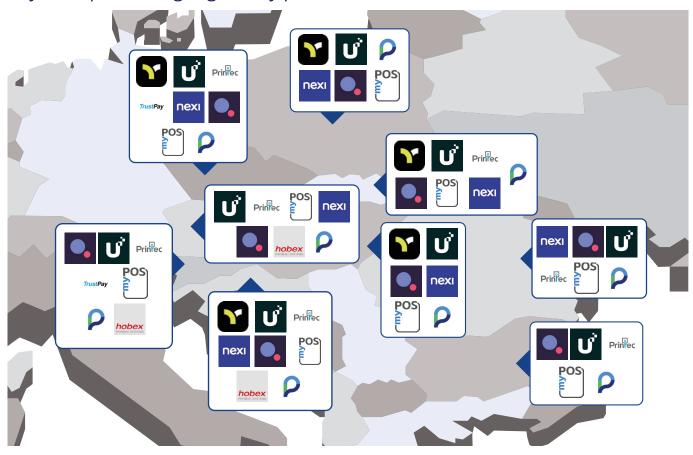
Source: Orbis | Financials 2022

Non-banking issuers

In Central and Eastern Europe, several players are active in the non-banking issuer sector, offering innovative financial solutions catering to diverse consumer and business needs. WAG Payment Solutions and Edenred are currently the most widespread players in the region.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
W.A.G. payment solutions,	W.A.G Payment Solutions PLC	1.223	2.368,70 16,63		Link
Edenred	Edenred	9.750	2.031,00 386,00		Link

Payment processing & gateway providers



The number of processor and gateway providers in the region is rising, with leading companies such as Nexi, PayU, Hobex, MyPos, Trust pay, Teya (previously known as Saltpay⁴⁹⁸), Paysafe, Paysera and Printec. Some countries in the region are also seeing the arrival of new players on their markets, details of which will be presented in the report.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
<u>Nexi Payments</u>	Parent company	10.347	3.135,00	142,00	<u>Link</u>
<u>Hobex</u>	Parent company	111	62,716	n.a.	<u>Link</u>
MyPos Technologies	Novapay Technologies INC	303	51,34	51,34 10,58	
Trust Pay,	Parent company	81	30,85	2,13	Link
<u>Paysera</u>	Independent company	160	11,29	-2,46	Link
<u>PayU</u>	Naspers Limited	n.a.	n.a.	n.a.	<u>Link</u>
Paysafe Group	Foley Trasimene Acquisition II Corp	n.a	n.a.	n.a. n.a.	
Printec Holdings	Parent company	n.a.	n.a.	n.a.	<u>Link</u>

https://smartbranding.com/saltpay-rebrands-to-teya-on-a-mission-to-empower-every-business-in-europe-to-thrive/#:~:text=Established%20in%202019%2C%20SaltPay%20 is.that%20go%20beyond%20simple%20payments.

Open banking enablers

Open banking is gradually gaining a foothold in Central and Eastern Europe, with significant developments in several countries, notably Poland and Romania where several players are active. Bankart is one of the biggest players active in this field. The detailed characteristics of the other players in each country will be outlined in the report.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Bankart.	Independent company	213	35,58	1,59	Link

Source: Orbis | Financials 2022

Infrastructure providers

The number of infrastructure providers operating in the region is relatively small. PSA Payment Services and Finshape are the two biggest players with their headquarters in the region.

New Frontier Innova, part of the New Frontier Group, has developed a Banking-as-a-Service platform called Fintense, turning traditional banks into digital leaders. The company is active in Slovenia, Bulgaria and Poland.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
PSA Payment Services Austria	Parent Company	105	285,14	n.a.	<u>Link</u>
Einshape	W.UP.	57	11,06	-0,61	Link
New Frontier Innovation	New Frontier Holding GmbH	n.a.	n.a.	n.a	Link

Romania

Introduction

Despite being part of the European Union since 2007, Romania continues to use the Romanian Leu (RON) as its national currency, as it has not yet joined the eurozone. The country aims to adopt the euro by 2026⁴⁹⁹. Romania's internet penetration rate is one of the highest in Europe⁵⁰⁰, surpassing even some of the continent's wealthiest countries like France, Belgium, Finland, and Austria. In January 2023, Romania had 17,82⁵⁰¹ million internet users, indicating an 88,9%⁵⁰² internet penetration rate of the total population.

End of 2023, cash transactions still dominated Romania's payment landscape, accounting for 70%⁵⁰³ of all payment transactions. This has resulted in one of the lowest bank card penetration rates in the EU for the country, with roughly one card per person. The number of credit cards in circulation in 2022 approached approximately 3 million⁵⁰⁴, whereas debit cards reached around 17 million⁵⁰⁵. However, the trend is gradually shifting towards electronic payments, driven by government and central bank initiatives to increase consumer preferences and wider acceptance of card payments.

From September 2022 to September 2023, electronic payments surged by 22,83%⁵⁰⁶, instant payments increased sevenfold, whereas non-instant payments saw a decline of 8,84% 507. Digital wallets are also gaining traction, despite a continuing preference among many Romanians for cash or cash-on-delivery online payments. The digital payments market is projected to show an annual growth rate of 8,27%⁵⁰⁸ resulting in a projected total amount of 18,069 billion⁵⁰⁹ € by 2028.

Finally, Romania is emerging as a key player in the fintech sector, underpinned by its high internet and smartphone penetration rates, particularly among the 18-35 age demographic⁵¹⁰. The country's fintech landscape is among the fastestgrowing sectors and the digital payments user base is projected to reach 11,5 million⁵¹¹ by the end of 2027, underscoring the growing adoption of fintech solutions. These developments have transformed Romania not only into a hub for regional investment funds but also as a strategic partner for globally operating companies.

Card payment schemes

Visa and Mastercard stand as the leading forces in the Romanian debit card arena, with Visa capturing the top spot in terms of transaction volume and overall value⁵¹². Mastercard, on the other hand, outpaces Visa with a higher number of cards issued⁵¹³, demonstrating its extensive penetration in the market. To solidify their market dominance, both Visa and Mastercard have established strategic partnerships with Romania's premier banking institutions. Mastercard, for instance, collaborates with major banks such as Banca Transilvania, BRD (a Société Générale entity), CEC Bank, Banca Comerciala Romana (BCR), OTP Bank, Libra Internet Bank, Credit Europe Bank, and Raiffeisen Bank. These alliances underscore their commitment to expanding their footprint and enhancing payment solutions across the country.

In April 2022, Mastercard, in partnership with OTP Bank Romania and Radcom, a developer of equipment and complete ticketing solutions, completed the implementation of an innovative solution in Romania, which redefines payments for public transport travel⁵¹⁴. The solution determines a personalized profile of the passengers, based on the trips paid contactless with the card, smartphone, or other wearables, and subsequently facilitates the best price for the bus trip. The service will be available to all Mastercard cardholders, and the first cities to benefit, for the first time, from the new solution are Brasov, Constanta, and Iasi. Public transport operators in these cities already have equipment installed on their fleet of buses.

Alternative payment methods

Alternative payment methods are heavily dominated by international players such as Bitpay, PayPal, Apple Pay, UnionPay, Paysafecard, Alipay, Trustly, Mobiamo and Google Pay.

Romania has seen diverse payment tools gain popularity, including digital wallets, and mobile payment applications. According to a report by Statista, the number of e-wallet users in Romania is expected to reach 6,5 million⁵¹⁵ by 2025, up from 4,9 million⁵¹⁶ in 2021. BT Pay, the leading Romanian bank's mobile app, exemplifies the move towards digital, serving as a mobile wallet for over 2 million⁵¹⁷ users.

- https://www.euractiv.com/section/politics/news/romania-wants-to-push-euro-adoption-bv-2026/
- 500 https://www.blue-europe.eu/analysis-en/short-analysis/romania-and-internet-connectivity-success-factors/
- https://www.blue-europe.eu/analysis-en/short-analysis/romania-and-internet-connectivity-success-factors/ 502 https://www.blue-europe.eu/analysis-en/short-analysis/romania-and-internet-connectivity-success-factors/
- https://merchantmachine.co.uk/most-reliant-on-cash/ https://www.statista.com/statistics/1097166/credit-card-and-debit-card-number-in-romania/ 504 505
- https://www.statista.com/statistics/1097166/credit-card-and-debit-card-number-in-romania/ https://www.europeanpaymentscouncil.eu/news-insights/insight/instant-payments-romania-engine-development-payments-sector 506 507
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- https://startupsnthecity.com/beez-the-romanian-fintech-set-to-disrupt-the-way-people-are-buying-online-or-in-brick-and-mortar-shops/https://en.bancatransilvania.ro/news/comunicate-de-presa/2-milioane-de-clienti-ai-bancii-folosesc-aplicatia-bt-pay 517

MobilPay Wallet (one of Netopia's subsidiaries) is the most recognized and honored local payment method in Romania and the first Romanian tech product to receive such recognition from Silicon Valley. It is the first digital wallet in Romania that has enabled users to send payments instantly from an app.

Timesafe, operating under the name Pago, is another leading mobile payment application in Romania. Pago is an app for managing and paying all utility bills from one account: users get their bills updated in real time, organised by due date on one screen, and pay them in a few seconds. The company launched real-time money transfers between cards in February 2022⁵¹⁸, enabling Pago users to transfer money to any cards issued by banks in Romania and any Revolut cards.

Several other e-wallet providers have also gained popularity in Romania. As example, Paysafe is a global e-wallet provider that has made its mark in Romania by offering a secure platform for online payments, money transfers and currency conversions. On top of that, it offers a prepaid card option, which allows users to make physical transactions. Skrill and Mutchbetter are two other popular e-wallets in Romania. The former offers instant transfers, currency conversions, and a platform for crypto-currency transactions, while the latter is an e-wallet application offering an innovative approach to online payments by using device pairing, touch identification, dynamic security codes, and a transaction review system to guarantee the highest level of security.

In terms of BNPL, Leanpay, a leading provider of Buy Now Pay Later (BNPL) services in Central and Eastern Europe, started operating in Romania in April 2023⁵¹⁹. The Romanian fintech Beez is also worth noting. The Beez Pay feature allows buyers to make purchases with a minimum upfront payment while paying the rest through a system of installments spread over up to 45 days without any fees or interest⁵²⁰. Beez users can make their purchases in installments, with no interest, eliminating the need for traditional bank-based financing.

Alternative payment methods	Group	Number of employees Revenue (Million €)		Net Income (Million €)	LinkedIn
Timesafe (Pago)	Mozaik Investments Gmbh	7	3,41	0,03	<u>Link</u>
<u>Beez</u>	Independent company	1	0,41	0,18	<u>Link</u>
Leanpay	Leanpay LTD	n.a.	n.a.	n.a	<u>Link</u>

Source: Orbis | Financials 2022

Banks

With 67⁵²¹ credit institutions, Romania's banking sector is relatively modest in size when compared to its Central and Eastern European counterparts, with Banca Transilvania standing out as the largest⁵²². The Romanian banking sector is largely characterized by foreign-controlled banks, primarily from Austria, Italy, Belgium, Poland, the Netherlands, and France, although it also includes a variety of domestically owned institutions, both state and privately held. The sector has recently gone through many acquisitions, which reflects a broader trend of consolidation in the Eastern European banking sector, where mergers and acquisitions are on the rise.

In 2022, Banca Transilvania (BT), which stands among the biggest banks in Southeastern Europe, achieved the position of 1st largest bank in Romania with a market share of 26,78%⁵²³ dominating the Romanian banking sector in terms of total assets.

BT signed a binding agreement to acquire OTP Bank Romania for an amount of 347,5 million⁵²⁴ € in February 2024. As a result of this agreement, OTP Group is completely exiting the Romanian market. This acquisition will further strengthen BT's leading position and contribute to the consolidation of the Romanian banking market. OTP Group's brand name will temporarily remain in place to ensure a smooth transition for customers and colleagues until the merger is completed.

The following leading banks are Banca Comerciala Romana (BCR), UniCredit and BRD (a Société Générale group). These three banks all have approximately 12%525 of the market share in terms of total assets. UniCredit's recent acquisition of Alpha Bank's Romanian subsidiary for 300 million⁵²⁶ € in October 2023 propelled the Italian group to the position of the country's thirdlargest bank, with almost 12% market share (versus 7,5% in 2022), competing with BCR and BRD. In the transaction, Alpha Bank Group will keep 9,9% of the new Romanian entity; UniCredit will have the remainder⁵²⁷.

Moreover, Alpha Bank announced that it completed the integration of Orange Money Romania's operations as of January 2024⁵²⁸. The Romanian subsidiary of Orange reached an agreement in August 2023, aiming to transfer its mobile banking activities to Alpha Bank's local branch. The agreement entails the transfer of the financial technological platform, clientele, products, personnel, and contracts with suppliers to Alpha Bank Romania. The announcement comes two months after the French group decided to exit the financial services sector in France and Spain, eager to refocus on its core business.

- https://blog.pago.ro/en/pago-launches-money-transfer/https://www.romaniajournal.ro/business/financial/leanpay-the-latest-bnpl-fintech-in-the-region-enters-romania-with-a-e1m-investment/ 519
- https://startupsnthecity.com/beez-the-romanian-fintech-set-to-disrupt-the-way-people-are-buying-online-or-in-brick-and-mortar-shops/https://data.ecb.europa.eu/data/datasets/MFI/MFI.M.RO.102.T.1 521 522
- https://www.fitchratings.com/research/banks/fitch-affirms-banca-transilvania-at-bb-outlook-stable-05-12-2023 523 https://thebanks.eu/countries/Romania/major_banks
- https://www.otpgroup.info/news/OTP_Group_sells_OTP_Bank_Romania https://thebanks.eu/countries/Romania/major_banks
- 526 https://www.romania-insider.com/unicredit-alpha-bank-merger-romania-2023
- https://www.romania-insider.com/unicredit-alpha-bank-merger-romania-2023 https://www.romania-insider.com/alpha-bank-orange-money-integration-jan-2023

Other banks worthy of mention include ING Bank, Raffeisen, CEC and Garanti Bank, which was named best consumer digital bank 2021 in Romania by Global Finance. Note that ING Bank, Raffeisen, UniCredit and CEC Banks hold approximately 7,5% of the market share in 2022⁵²⁹.

In terms of digital banking, Revolut has gathered 2,8 million⁵³⁰ individual clients in Romania over approximately five years, with most of them using payment and transfer services. A year ago, Revolut also launched lending services, and by May, its loan portfolio amounted to around 90 million⁵³¹ €. The company will continue to uphold its fully digital model and aim for the 10th position in terms of assets in the Romanian market. In the past 12 months, Romanian customers have executed 236 million⁵³² card transactions and deposited more than half a billion⁵³³ € in their Revolut accounts.

Finally, it's also worth highlighting Salt Bank, the 100% digital Romanian bank. Bought in 2021 by BT, Salt Bank was previously known as Idea Bank. In November 2023, Salt Bank formed a partnership with Starling Bank, a British challenger bank, to use its cloud-based banking platform known as Engine by Starling to power its new retail bank⁵³⁴.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Transilvania Bank</u>	Parent company	11.256	1.301,49	503,39	<u>Link</u>
Banca Comerciala Romana	Erste Group Bank AG [AT]	5.430	960,00	353,19	Link
BRD - Groupe Societe Generale	Société Générale [FR]	6.126	701,24	270,48	<u>Link</u>
Raiffeisen Bank	Raiffeisen Bank International AG [AT]	5.084	667,95	667,95 254,12	
<u>UniCredit Bank</u>	UniCredit SPA	3.365	514,80	514,80 201,87	
CEC Bank	Government of Romania	5.310	372,09	85,83	Link
Alpha Bank	Alpha International Holdings [GR]	2.063	152,39 26,08		<u>Link</u>
<u>Garanti Bank</u>	Banco Bilbao Vizcaya Argentaria SA [ES]	1.000	109,67 40,12		<u>Link</u>
Salt Bank	Transilvania Bank	n.a.	31,26	-2,55	<u>Link</u>
ING Bank	ING Bank Nv	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Non-banking issuers

N/A

Payment processing & gateway providers

Some domestic payment service providers include Netopia Payments, Printec, Westaco, Danubius and Mellon. However, the Dutch company PayU is the leading payment service provider in Romania.

PayU participates in the online payment processing market by offering both a cutting-edge payment gateway and an acquiring service. PayU Romania's annual revenue was 305 million⁵³⁵ \$ in 2023. In the first 9 months of 2023, PayU GPO Romania registered a 25%⁵³⁶ increase in processed volumes and 18%⁵³⁷ more transactions than in the same period last year⁵³⁸.

Founded in 2003, Netopia includes Netopia Payments, mobilPay Wallet, web2sms and Kartela. With more than 25.000⁵³⁹ partners in the e-commerce sector, Netopia Payments is one of the market leaders in online payment processing in Romania. In early 2024, Netopia Payments launched a BNPL payment solution in collaboration with Oney Bank⁵⁴⁰.

Printec is a leader in business-to-customer transaction technologies in 16⁵⁴¹ Central and Eastern European countries and is one

- 529 530 https://thebanks.eu/countries/Romania/major_banks
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- 534 https://ibsintelligence.com/ibsi-news/salt-bank-taps-engine-by-starling-to-power-digital-banking-in-romania/
- https://rocketreach.co/payu-romania-profile_b5d4d0edf42e3891 https://romania.payu.com/en/news/evolution-in-the-first-9-months-of-2023/
- https://romania.payu.com/en/news/evolution-in-the-first-9-months-of-2023/ https://romania.pavu.com/en/news/evolution-in-the-first-9-months-of-2023/
- https://innovacap.com/our-investments/portfolio/netopia-group#:~:text=Presently%2C%20over%2025%2C000%20enterprises%20operating.mobile%20phone%20credit%20
- https://www.revistabiz.ro/netopia-payments-introduce-solutia-de-plata-buy-now-pay-later-in-parteneriat-cu-oney/
- $https://worldline.com/de-de/home/top-navigation/partners/business-partners/printec-group.html \#: \sim: text = Printec\% 20 is \%20 a \%20 leader \%20 in, interaction \%2C\% 20 making \%20 leader \%20 l$ everyday%20life%20easier.

of the fastest-growing information technology groups in this area, offering a wide range of technology solutions that help improve human interactions. From cash transactions via ATMs, to card transactions, self-service solutions and more, they enable hundreds of organizations across Europe to meet and exceed customer expectations, while optimizing operations and creating cost savings.

The company's operations of SelfPay as a provider of self-service payment terminals facilitate a high volume of transactions. across a diverse set of service. The fast-growing fintech is leading the electronic payment solutions field, running the largest network of self-service payment stations in Europe⁵⁴². Processing over 2 million⁵⁴³ transactions monthly and building an ecosystem of smart financial services, they also have partnerships with major utility providers & the telecom industry, as well as financial institutions and public authorities. As a result, the SelfPay platform and the APIs of these third parties were directly integrated, enabling users to access and pay their preferred Service providers from a SelfPay payment station.

Acquired by the European blockchain unicorn Elrond in March 2022, Twispay provides payment processing services for online transactions through Visa, Mastercard and other alternative payment methods. Twispay, being a principal member of Visa (for issuing Visa cards) and Mastercard (for issuing and acquiring Mastercard cards), the acquisition has been an important move for Elrond, as it now issues MultiversX cards.

Finally, Token, the largest payment services provider in Turkey, has invested 7 million⁵⁴⁴ € in 2023 to set up their first international subsidiary in Romania, which will serve as a base for the group's expansion in other EU markets. The payment services provider is present in both offline payments through their OderoPOS payment terminals, as well as online e-commerce payments with their OderoPAY platform. The company aims to reach a total of over 15.000 merchants and 35 to 40% market share in the POS payment terminals market within the next three years⁵⁴⁵.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Printec Group Romania	Printec Holdings Limited [CY]	166	24,27	1,78	<u>Link</u>
Netopia Financial Services	Innova/7 S.C.A	16	8,31	1,29	<u>Link</u>
<u>Danubius Exim</u>	Independent company	37	6,88	1,21	<u>Link</u>
PayU Romania Services	PayU Fintech Holdings BV [NL]	54	5,80	0,32	<u>Link</u>
<u>Westaco</u>	Craciun Tarara	34	4,94	0,28	<u>Link</u>
Mellon Romania	Mellon Technologies [GR]	91	2,57	-0,12	Link
Capital Financial Services (Twistpay)	Elrond Network S.R.L	30	1,39	-2,60	Link
Token Payment Services	Koc Holdings	19	0	-2,21	<u>Link</u>

Source: Orbis | Financials 2022

Open banking enablers

In 2021, Smart Fintech became the first open banking third party provider in Romania. The firm is leading innovation in Open Banking, helping FinTech's quickly integrate and deliver new products and services. Specialized in the development of innovative open banking solutions such as the Smart Pay, the company launched a new open banking product, Smart Accounts which is an account consultation service developed in Romania⁵⁴⁶.

FINQware also enables open banking. The firm develops technologies and products to implement "open banking at work", giving people the tools to be wiser with their money. Authorised as payment institution, the Romanian fintech company with European operations specializes in the development of innovative solutions for automating financial transactions for businesses. The FingTreasury platform, together with the new FingPayments module, represents a significant advance in the field of corporate treasury and payment management.

In 2023, FINQware declared a taxable profit for the first time⁵⁴⁷ which shows that open banking works, that it is being embraced, and that it is a disruptive technology that can generate value and profits. Recently, the company received another global endorsement as the only European platform accredited and promoted by Citibank to its global customers for the automation of financial transactions based on real-time banking connectivity.

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Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Finqware</u>	Independent company	7	0,35	-0,41	<u>Link</u>
Smart Fintech	Independent company	5	0,05	-0,02	Link

Source: Orbis | Financials 2022

Infrastructure providers

N/A

Expert Opinion

"Romania's payments ecosystem experienced a surge in digital innovation, marked by an increasing focus on contactless transactions and mobile payment solutions. The competitive landscape in the country's payments sector evolved through technological advancements and strategic partnerships among key players. Government-led initiatives promoting financial inclusion and enhancing payment infrastructure contributed to the steady growth of electronic payments nationwide."

Condrache Sara | Consultant - Deloitte Romania Nacu Raluca | Manager - Deloitte Romania

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Bulgaria

Introduction

Bulgaria formally joined the EU in 2007 and has been a member of the European Exchange Rate Mechanism (ERM-II) since July 2020. The country was expected to join the eurozone in 2024, but its entry was delayed to the first of January 2025⁵⁴⁸.

With a population of 7 million⁵⁴⁹ inhabitants, Bulgaria is second to Romania in terms of amount of cash transactions. Indeed, in 2022, 63%⁵⁵⁰ of transactions were still made with cash and, during the same period, approximately 28%⁵⁵¹ of the population did not hold a bank account. However, there has been a significant move towards digital payments in recent years reflected by an increasing trend towards mobile payment solutions⁵⁵². Supporting this transition, the digital investment market in Bulgaria is expected to grow by 20,25% from 2023 to 2027⁵⁵³.

In a perspective to increase card penetration in the country, banks are introducing more convenient methods for consumers to access personal banking services. For example, UBB (part of KBG group) offers debit card issuance via its mobile banking app where customers can apply for a debit card directly⁵⁵⁴. The number of POS terminals accepting card payments is also increasing⁵⁵⁵, facilitating the transition from cash to card payments.

Contactless payments are on the rise in the country, Bulgaria's DSK Bank (part of OTP group) partnered with payment solutions provider O-CITY to launch contactless payment cards that can be used across 3.900⁵⁵⁶ validators installed on public transport including buses, trams, and trolleybuses. For their part, online card transactions and digital wallets are gaining popularity as well supported by the fintech sector's expansion.

Bulgaria is fast becoming a hub for financial technology start-ups in southeastern Europe. This can be explained by a lower cost of living than in the rest of the EU, making start-up growth more accessible. In 2023, the country counted 223⁵⁵⁷ FinTech start-ups, with the largest segment being digital payments, representing a total transaction value of 3.520⁵⁵⁸ \$.

In conclusion, the Bulgarian payments landscape is on a growth trajectory, with a clear trend towards digitization and strong development of the fintech market. The country's integration into the European financial ecosystem promises consumers more integrated, secure, and convenient payment options in the future.

Card payment schemes

Credit and debit cards are becoming increasingly popular in Bulgaria, with a growing number of transactions processed annually⁵⁵⁹. Debit cards dominate the market⁵⁶⁰ but credit cards are the most common way for consumers to make purchases online⁵⁶¹.

Multinational players such as Visa, MasterCard, Maestro, American Express, and Discover are active in the country⁵⁶².

Moreover, UnionPay, the world's largest card network with over 7,5 billion⁵⁶³ cards issued worldwide, is also present, and UnionPay cards are accepted at 2.200⁵⁶⁴ merchants in Bulgaria.

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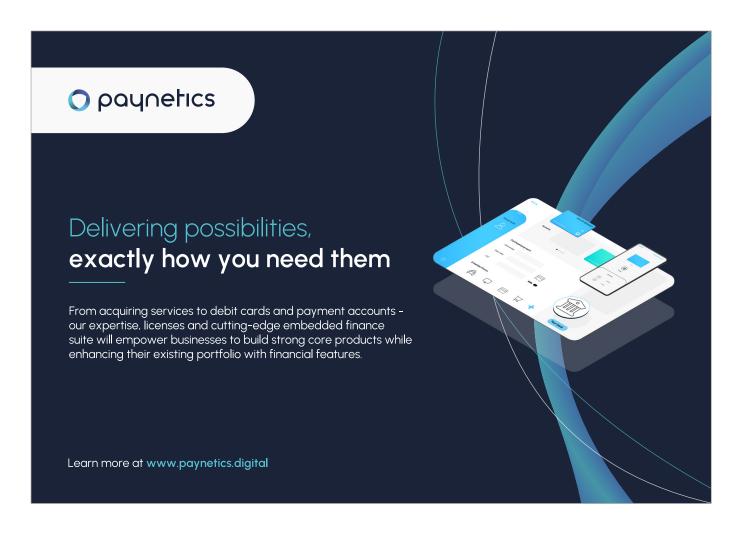
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Alternative payment methods

Local payment methods are heavily dominated by foreign players, including international payment methods such as PayPal, Apple Pay, and Google Pay as well as other widespread actors such as Paysafecard, Trust Pay, Wise, Skrill, Mobiamo and Paysafe.

Phyre, a Bulgarian start-up founded in 2015, developed a mobile wallet allowing users to pay at any contactless terminal, send free and instant peer-to-peer transactions, store their loyalty cards, and get the latest promotions from nearby merchants. Phyre was acquired by Paynetics in 2023⁵⁶⁵. Tenen Payment is another Bulgarian solution covering money transfers, payment account management, foreign exchange and digital wallets⁵⁶⁶.

ONE wallet, developed by Postbank, provides customers with contactless card payments and money transfers via phone. Each user registered for the service is issued a free digital card to an e-money account, which they can use to make contactless payments at POS terminals, shop online, and order money transfers. The digital wallet also allows them to block and unblock their cards whenever they want. As of 2022, their mobile wallet is also available to non-customers of the bank⁵⁶⁷.

According to the latest data from UniCredit Bulbank, over 60% of customers actively use Bulbank's mobile banking service to make transfers and manage products. UniCredit Bulbank is the only financial institution in Bulgaria that offers a fully digital conclusion of a mortgage without the need to physically visit a bank branch at any stage of the process⁵⁶⁹

Furthermore, the online and mobile banking platform DSK Smart continues to be the preferred channel for online banking amongst DSK Bank clients. This platform gives users the option to create a virtual card, apply for personal credit, and pay common bills⁵⁷⁰.

Worth noting, Curve is offering a digital wallet that users can use to combine all their debit and credit cards in a single Curve card⁵⁷¹. They pay with their physical Curve card (or using a mobile payment option such as Google Pay) and the funds are debited directly from the desired debit or credit card, eliminating the need to juggle multiple cards.

As other mobile banking solutions present in the country, we also find RaiPay, MyFin, B@CB Pay (developed in collaboration with Paynetics and Phyre), CCB Mobile and UBB Mobile.

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Alternative payment methods	Group	Number of employees Revenue (Million €)		Net Income (Million €)	LinkedIn
Paysafe Bulgaria	Foley Trasimene Acquisition II Corp	1.471	114,96	7,48	<u>Link</u>
<u>Phyre</u>	Parent company	n.a.	n.a.	n.a.	Link
Tenen Payments	Independent company	n.a.	n.a. n.a.		Link
<u>Myfin</u>	First Investment Bank AD	n.a	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Banks

Bulgaria's banking sector holds significant influence over its financial system. Currently, the country boasts 5 tier 1 banks, 12 tier 2 banks, and 6 branches of international banks, totaling to 23 banks in operation. This number is notably high for a nation of Bulgaria's size. Nonetheless, there is a noticeable trend towards consolidation within the banking industry, indicating a potential decrease in the number of banks. This shift is exemplified by the recent news of the acquisition of Tokuda Bank by the Bulgarian-Credit American Bank (BACB)⁵⁷².

In terms of instant payment, BISERA6 is a payment system that handles customer transfers for amounts up to 999.999.999,999 BGN, accepting payment orders 24 hours a day, 7 days a week⁵⁷³. The system accepts transfer orders for mass, instant and budget payments in BGN, based on the SEPA schemes of the European Payments Council.

The top 6 banks in terms of total assets are United Bulgarian Bank (34 billion⁵⁷⁴ BGN), DSK Bank (32,7 billion⁵⁷⁵ BGN), UniCredit Bulbank (32,12 billion⁵⁷⁶ BGN), Eurobank (19,38 billion⁵⁷⁷ BGN), First Investment Bank (13,8 billion⁵⁷⁸ BGN), and Central Cooperative Bank (7,7 billion⁵⁷⁹ BGN).

DSK Bank is part of the OTP Group, the fastest-growing banking group in Central and Eastern Europe. It has more than 2,5 million⁵⁸⁰ customers and 294⁵⁸¹ bank branches (16%⁵⁸² of all bank branches in Bulgaria). The bank issues Mastercard and Visa debit cards and offers online banking with DSK Direct and mobile banking with DSK Smart. Interestingly, it also offers a confirmation service for transfers and documents made through online and mobile banking via its DSK mToken12 mobile application⁵⁸³.

Hailed as "Bank of the Year in Bulgaria" in 2023⁵⁸⁴, UniCredit Bulbank is a subsidiary of the Italian UniCredit bank. The institution offers online and mobile services in addition to issuing Visa and Mastercard debit cards which can be integrated into Apple Pay or Bulbank Mobile's Digital Wallet. For the first half of 2023, UniCredit Bulbank led Blink instant payments, holding over 45%⁵⁸⁵ market share with 15%⁵⁸⁶ of all sales made remotely. In early 2023, UniCredit Bulbank expanded its portfolio of digital wallets making three options available; Google Pay for customers with Android smartphones, Apple Pay for iOS devices, and UniCredit Bulbank's digital wallet, which allows customers with Huawei devices to initiate contactless card payments with a smartphone. Payments with a digitized card provided by the bank grew by 215%⁵⁸⁷ for the first half of 2023.

The sale of BNP Paribas Personal Finance Bulgaria to Eurobank Ergasias Services and Holdings S.A. was completed in 2023⁵⁸⁸. In the same year, the Bulgarian National Bank authorized the merger of Raiffeisenbank Bulgaria (KBC Bank Bulgaria) with UBB⁵⁸⁹. The new, unified UBB, based on end 2023 data, became the country's largest bank in terms of assets. The operational merger is scheduled for completion in 2024.

Thanks to their cooperation with IRIS Solutions, a technological partner in the implementation of the Multibanking project, First Investment Bank became the first Bulgarian bank that offer the Open Banking service to its customers⁵⁹⁰.

Finally, the neobank Revolut, which also operates in the country, is gaining in popularity.

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Banks	Group	Number of employees	Revenue	Net Income	LinkedIn
DSK Bank	OTP Bank PLC	5.985	605,33	288,19	<u>Link</u>
<u>UniCredit Bulbank</u>	UniCredit SPA	3.985	517,11	235,42	<u>Link</u>
<u>First Investment</u> <u>Bank</u>	Bulgarian privatey owned company	2.990	255,34	255,34 50,10	
<u>United Bulgarian</u> <u>Bank - UBB</u>	KBC Groep NV/ KBC Groupe AS	2.844	252,94	n.a.	<u>Link</u>
Central Cooperative Bank	ICA Invest Capital AG	1.816	106,74	n.a.	Link
Investbank	Independent company	589	49,77	25,03	Link
Eurobank Bulgaria	Eurobank Ergasias Services & Holdings	3.458	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Non-banking issuers

Founded in 2004, EasyPay is a Bulgarian company that offers products and services such as payment of utility bills, payment of taxes and fees, bank transfers in Bulgaria, and money transfers. The company is the largest non-bank payment company in the country and is available in more than 3200⁵⁹¹ retail locations in Bulgaria and abroad. The EasyPay cards can be used to withdraw cash from any ATM and pay in retail stores at a point-of-sale terminal in Bulgaria.

For its part, iCard offers personal and business IBAN accounts, virtual Visa and Mastercard payment cards, and gift cards to individuals and business entities⁵⁹². Similarly, Cashwave offers instant digital gift cards for 350 leading brands in 33⁵⁹³ countries and 16⁵⁹⁴ currencies in Europe.

MyFin offers virtual cards for internet payments and digital cards for smartphone and smartwatch payments, as well as withdrawals from contactless ATMs. In case users want to have a real plastic card, they offer a card from 100% biodegradable plastic⁵⁹⁵.

Diners Club Bulgaria is an innovative financial company, issuing Diners Club credit cards. The company is offering the "Evolve" credit card which combines the best features of Diners Club International and Mastercard. Indeed, Diners Club credit cards give several privileges such as access to over 950 VIP airport lounges worldwide, participation in the Diners Club Bulgaria cashback program, free Wi-Fi program, free travel insurance abroad, and numerous regional and international discount programs⁵⁹⁶.

Finally, other players such as Transcard, Transact, Curve and Nuvei, the Canadian fintech company that launched its card issuing service in 2023⁵⁹⁷, are also active in the country.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Easypay	Independent company	976	51,64	2,90	<u>Link</u>
<u>Nuvei Bulgaria</u>	Parent company	278	30,14	2,28	Link
<u>Cashwave</u>	Independent company	9	24,92	0,21	Link
<u>lcard</u>	Intercapital Holding AD.	245	1,39	6,02	<u>Link</u>
<u>Diners Club Bulgaria</u>	First investment Bank AD	n.a.	n.a.	n.a.	<u>Link</u>
Transcard Financial Services	Pomorie Turninvest EAD	n.a.	n.a.	n.a.	<u>Link</u>
Transact Europe	Ransact Europe Holdings OOD	n.a.	n.a. n.a.		<u>Link</u>
<u>Myfin</u>	First Investment Bank AD	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

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Payment processing & gateway providers

In recent years, Bulgaria has seen positive developments in the payments processing sector, due partly to technological innovations in the payments field and the change in consumer needs.

The US investment fund Advent International finalized the acquisition deal of the Bulgarian fintech company MyPOS in early 2024⁵⁹⁸. MyPOS offers merchants both conventional and Android-based payment terminals, enabling customers to receive payments instantly at no additional cost. The company increased the number of terminals used by merchants in Bulgaria by about 40%⁵⁹⁹, bringing the total to 7000⁶⁰⁰ in the first quarter of 2022. The company has received numerous honours for its contributions to the payments sector and was named "Company of the Year" in 2023 by Forbes⁶⁰¹.

As a Payment Institution, Borica has a key role in the payment industry in Bulgaria as a leader in the provision of services for the banking sector⁶⁰². The payment system processes card payment transactions, and offers innovative products for customers and partners, such as remote electronic identification, cloud-based electronic signature, and other trust services⁶⁰³.

Epay is a registered representative of EasyPay and provides payment services for card payments at ATMs, as well as a system for automatic utility bill payments and SMS notifications for bank card transactions⁶⁰⁴.

Finally, being part of London-based digital wallet provider Skrill, Paysafe Bulgaria is a payment platform that connects and facilitates transactions between businesses and consumers through its industry-leading capabilities in payment processing, digital wallets, and online cash services⁶⁰⁵.

Other players such as Nuvei, Stripe, Datecs, QuadraPay, PayCEC, Payware, PayMan, Finrax, and Lime Pay, are also active in the country.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Paysafe Bulgaria	Foley Trasimene Acquisition II Corp	1.471	114,96	7,48	<u>Link</u>
MyPos Technologies	Novapay Technologies INC	303	51,34	10,58	<u>Link</u>
<u>Nuvei Bulgaria</u>	Nuvei Corporation	278,00	30,14	2,28	Link
<u>Borica</u>	JV of 20 Bulgarian banks	401,00	27,46	27,46 3,79	
<u>Epay</u>	Datamax System Holding AD	n.a.	n.a.	n.a.	<u>Link</u>
<u>Datecs Payment</u> <u>Technology</u>	Datecs Ltd.	n.a.	n.a.	n.a.	Link
<u>Finrax</u>	Independent company	n.a.	n.a.	n.a.	<u>Link</u>
PayMan Group	Independent company	n.a.	n.a.	n.a. n.a.	
Lime PAY	Lime Tech OOD	n.a.	n.a. n.a.		Link
<u>Payware</u>	Independent company	n.a	n.a	n.a	Link

https://therecursive.com/mypos-gets-acquired-by-advent-international-to-enhance-the-future-of-european-fintech/

https://seenews.com/news/bulgarian-fintech-mypos-expands-local-ops-launches-bucharest-store-789932 https://seenews.com/news/bulgarian-fintech-mypos-expands-local-ops-launches-bucharest-store-789932 600

https://www.mypos.com/en-us/mypos-named-company-of-the-year-by-forbes

https://cloudsignatureconsortium.org/member/borica-ad/

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https://www.epay.bg/v3main/front?p=about&lang=en.https://www.jobs.bg/en/company/675

Open banking enablers

IRIS Solutions, the leader in Open Banking in the Balkan peninsula has already partnered with more than 60606 banks enabling them to extract financial data stored in bank accounts to use them and create value⁶⁰⁷.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Iris Solutions	Parent company	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Infrastructure providers

Paynetics offers banking-as-a-service and is the card issuer for Phyre, unicorn Payhawk, and many other companies⁶⁰⁸. The company provides business-to-business payments and a digital banking platform with all the elements needed to design, develop, and operate financial products.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Paynetics</u>	Intera Financial Services AD.	91	0,08	3,33	Link

Source: Orbis | Financials 2022

Expert Opinion

"Bulgaria is moving towards digital payments, even though cash remains widely used. The country is adopting digital financial solutions with innovations like mobile banking apps, instant P2P payments using only mobile numbers, digital wallets, partnerships for contactless payments in public transportation, etc. Additionally, Bulgaria's fintech sector is flourishing, positioning the nation as a regional hub for startups, especially in the digital payments domain."

Ganchev Aleksandar | Director - Deloitte Bulgaria

https://en.irisbgsf.com

https://en.irisbgsf.com/aboutus https://www.paynetics.digital/empowered-clients/

Slovenia

Introduction

Slovenia has been a member of the European Union since 2004 and became in 2007 the first of the new EU members to adopt the euro.

In April 2023, the Slovenian government adopted the Digital Slovenia 2030 Strategy as the umbrella strategy in the field of digital transformation. The aim is to determine the key strategic development directions for the country's future by putting people and businesses at the heart of digital⁶⁰⁹. For now, the Internet penetration rate in the country has reached 73%⁶¹⁰.

Regarding the payment sector, Slovenia remains faithful to cash, which accounts for 73%⁶¹¹ of payments at bricks-and-mortar points of sale. Similarly to consumers in other euro area countries, card payments are primarily used to make larger purchases⁶¹². However, the total number of card transactions made in Slovenia saw a steady increase over time as well as the share of online payments which rose to 15%⁶¹³ in 2022. 54% of Slovenian consumers mostly use card payments and 20%⁶¹⁴ use a digital wallet. The cards and payments market size was valued at 11,8 billion⁶¹⁵ \$ in 2022 and is expected to achieve a compound annual growth rate of more than 10%⁶¹⁶ from 2022 to 2026.

The digital payments market is also expanding. By 2028, it is forecasted to welcome 164 million⁶¹⁷ users, underscoring the increasing preference for digital transactions among consumers globally.

Finally, the financial technology sector in Slovenia is developing at a steady rate with the top fintech categories being payment, cryptocurrency, and blockchain firms⁶¹⁸. The Fintech's Digital Assets market in Slovenia is projected to grow by 5,21%⁶¹⁹ from 2024 to 2028 resulting in a market volume of 340,9 million⁶²⁰ \$ in 2028.

Card payment schemes

Most card payments in Slovenia are made using VISA or Mastercard. However, Diners cards are also used in the country. At the end of 2022, 62,4 thousand⁶²¹ credit cards and 2,86 million⁶²² debit cards were in circulation in the country.

Alternative payment methods

When it comes to payment options, the two main Slovenian players are mBills and Leanpay. However, some other players currently developing in the country are also worth noting.

mBills is considered a local payment method, turning users' smartphones into wallets. The Slovenian FinTech company is now used by over 100.000 users⁶²³.

For its part, the local company Leanpay, which specializes in processing high-value purchases (up to 12.000 \in), also offers Buy Now, Pay Later (BNPL) solutions for much higher-value purchases, up to 5.000 \in ⁶²⁴. This offering is roughly four times greater than the maximum amounts typically provided by other BNPL competitors.

FLIK is an instant payments system developed by all 15⁶²⁶ Slovenian commercial and savings banks in cooperation with the national payment processor Bankart. The system allows peer-to-peer and peer-to-merchant money transfers, although the first option is much more widely used. FLIK Pay application allows easy, fast, and secure payments between users of different banks. The only requirement is that both, the sender and recipient of the transfer, must be FLIK users and must use the mobile application of one of the Slovenian banks participating in the FLIK national payment scheme.

In early 2024, the Financial Administration of the Republic of Slovenia, in collaboration with the Public Payments Administration, introduced an innovative approach to settling tax obligations involving the use of FLIK. The option to pay taxes with FLIK is now available in all Slovenian banks except Sparkasse⁶²⁷.

Valú represents the next generation of smart wallets in Slovenia. Established in 2017 by Telekom Slovenije, the VALÚ smart wallet has today over 110.000⁶²⁸ Slovenians adopters, executing more than 2 million⁶²⁹ transactions during last year alone.

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                    https://unija.com/en/new-way-of-paying-taxes-via-edavki-with-flik/
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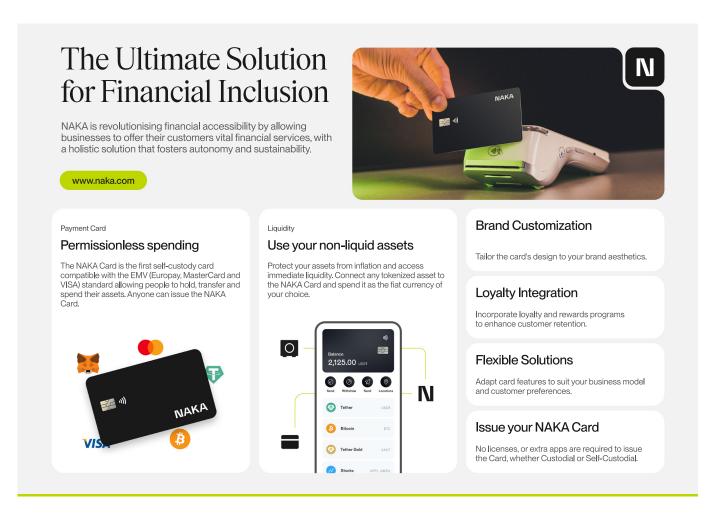
Furthermore, the user base of Valù is expanding annually by approximately one-third⁶³⁰, demonstrating its growing popularity and acceptance.

Slovenia has a comparatively wide adoption of big ambitions for its country in the field of cryptocurrencies and numerous outlets offer the ability to pay via this method. Actual adoption, however, is lagging.

International players such as PayPal, Google Pay, and Apple Pay are also active in the country⁶³¹.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
mBills_	Petrol Slovenska Energetska Druzva D.D.	19	2,66	-1,09	<u>Link</u>
<u>Leanpay</u>	Independent company	17	0,52	0,50	<u>Link</u>

Source: Orbis | Financials 2022



Banks

The Slovenian banking sector is relatively small, having a small number of banks, a high degree of concentration, and a moderate share of foreign capital. Most of the banks operating in Slovenia are universal banks providing products and services in retail and business banking. Net profit of commercial banks in Slovenia impressively reached 557,9 million⁶³² € in the first seven months of 2023, compared with 267,1 million⁶³³ € in the same period last year.

With a market share of 30,2%634, Nova Ljubljanska Banka (NLB) remains the leader in the Slovenian banking market due to its well-established network of branches, ATMs, 24/7 contact centre and its constant improvements in digitization. NLB issues Mastercard, Visa and Karanta cards⁶³⁵.

https://www.telekom.si/en/about-us/press-releases/more-than-110-000-slovenian-using-valu-smart-wallet 631

https://support.ecwid.com/hc/en-us/articles/360003236099-Payment-options-for-Slovenia

⁶³² https://seenews.com/news/slovenian-banks-profitability-to-rise-in-2023-c-bank-836289 https://seenews.com/news/slovenian-banks-profitability-to-rise-in-2023-c-bank-836289 633

https://www.nlb.si/nlb/nlb-portal/eng/investor-relations/financial-reports/2023/nlb-ar-2023-eng.pdf

⁶³⁵ https://www.nlb.si/cards

In 2022, Nova Ljubljanska banka acquired a 100% stake in Sberbank Banka⁶³⁶. Moreover, the bank entered into a sale and purchase agreement in late 2023 to acquire a 100% shareholding in SLS HOLDCO, the parent company of Summit Leasing Slovenija, as well as its subsidiaries⁶³⁷.

OTP Bank, which made its entry into the Slovenian banking sector in 2019 through the acquisition of SKB, completed the acquisition of NKBM in early 2023 (Slovenia's second-largest bank with a market share of 20,7\%038 in terms of total assets). With the takeover complete, OTP is now predicting to merge NKBM and SKB in the second half of 2024, establishing the largest banking institution in Slovenia by loan and deposit volumes and positioning itself as the market leader in its fifth regional country⁶³⁹. The bank resulting from the merger will be called OTP Bank.

Banks	Group	Number of Revenue (Million to employees		Net income (Million €)	LinkedIn
Nova Ljubljanska Banka	Parent company	8.228	1014,37	457,83	<u>Link</u>
Nova Kreditna Banka Maribor	OTP Bank PLC.	1.767	287,96	106,08	<u>Link</u>
SKB Banka	OTP Bank PLC.	925	131,57	61,05	<u>Link</u>

Source: Orbis | Financials 2022

Non-banking issuers

Erste Card, called Diners Club Slovenia, issues personal and business cards with deferred payment (on average 30 days interest-free deferred payment).

The e-money provider mBills that we already mentioned earlier focuses on offering payment cards and mobile wallets but also enables connection with loyalty cards offered by various stores. The "network" of service and product providers that support mBills payment is continuously growing.

Paywiser, a company at the forefront of the global payments technology sector, offers B2B acquiring but also issuing services⁶⁴⁰. They currently offer UnionPay and Mastercard cards in the country and will soon be offering Visa cards as well⁶⁴¹.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Erste Card (Diners Club Slovenija)	Karntner Sparkasse AG	56	9,68	0,68	<u>Link</u>
mBills_	Petrol Slovenska Energetska Druzva D.D.	19	2,66	-1,09	Link
Paywiser	Paywiser Ltd	7	0,74	0,08	Link

Source: Orbis | Financials 2022

Payment processing & gateway providers

Payment service providers in Slovenia are key players when it comes to the country's transition to an instant payment environment. Bankart, the national processor, implemented the Bankart Instant Payments System (BIPS), including the domestic payment scheme FLIK.

Bankart regulates the network of POS terminals, offers card, ATM processing services, as well as online processing services to different banks and financial institutions in six countries across South-Eastern Europe. The company processes more than 45 million⁶⁴² transactions each month. Bankart also offers an e-invoice system enabling the exchange of electronic invoices between invoice senders and recipients.

Eligma is another important payment service provider (POS), also known as GoCrypto. The company provides a selection of POS solutions for businesses allowing them to accept cryptocurrency payments in person or online. The solution also enables business owners to obtain payments in the currency of their choice.

 $[\]underline{https://www2.deloitte.com/content/dam/Deloitte/hu/Documents/financial-services/Deloitte-CEE-MA-Banking-Study-2023.pdf}$

⁶³⁷ https://www.nlb.si/investor-news-30-11-2023-1

https://seenews.com/news/otp-to-complete-integration-of-slovenias-nkbm-in-2024-report-814336

https://www.otpgroup.info/news/nova-kbm 640

https://www.eu-startups.com/directory/paywiser/

https://paywiser.com/services-issuing https://www.ibm.com/case-studies/bankart

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
<u>Bankart</u>	Independent company	213	35,58	1,59	<u>Link</u>
Eligma Labs (GoCrypto)	Independent company	24	0,48	-5,15	<u>Link</u>

Source: Orbis | Financials 2022

Open banking enablers

The Bankart Developer Portal contains APIs for retrieving bank account information, initiating payments from bank accounts, accessing ATM network data as well as transaction reports, and many other APIs that add value for their users⁶⁴³.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
<u>Bankart.</u>	Independent company	213	35,58	1,59	Link

Source: Orbis | Financials 2022

Infrastructure providers

N/A

Expert Opinion

"Slovenia, which adopted the euro in 2007, intends to prioritize digital transformation as part of its 'Digital Slovenia 2030' strategy. Cash payments still dominate the payments landscape, while card payments are on the rise. In addition, Slovenia's fintech sector, particularly in payments, cryptocurrencies and blockchain, is steadily expanding."

Filipic Lan | Director - Deloitte Slovenia

https://www.bankart.si/en/open-banking-and-online-payments/

Slovakia

Introduction

Slovakia has a total population of 5,47 million⁶⁴⁴, of which 91%⁶⁴⁵ have access to the Internet and 84%⁶⁴⁶ hold a bank account. The country is characterized by its open-to-innovation business environment and economic growth⁶⁴⁷.

Although Slovakian still uses cash extensively⁶⁴⁸, Slovakia registered one of the largest declines in cash use by value (-12%⁶⁴⁹) between 2019 and 2022. In total, 62%⁶⁵⁰ of the population prefers to use electronic payment rather than cash for offline transactions. As of March 2022, most people prefer to pay in cash for anything up to 5€, and above 21€, the preferred payment method is rather an electronic one⁶⁵¹. Consequently, credit card and online banking payment methods are gaining in popularity as well as contactless payments that have been heavily promoted by the Slovakian banks⁶⁵². Moreover, international players are launching online platforms in the country to benefit from the growing eCommerce market, which directly impacts the growth of electronic payments.

The tendency to hold on to cash observed in the country can be in part explained by the unavailability of electronic payments in some basic establishments such as hairdressers, doctors, markets, and other public institutions⁶⁵³. 47%⁶⁵⁴ of Slovaks give up shopping in stores due to lack of cash at least once a month. Moreover, in 2023, the Slovakian parliament passed a law to protect physical payments from a future where the digital euro becomes mandatory, making the right to pay in cash part of the constitution⁶⁵⁵.

The local fintech ecosystem of Slovakia is shaped by traditional banks, as they have been in the innovation business for a long time. As a result, it is more difficult for innovative start-ups to convince consumers to adopt their products or services. Nevertheless, the country is a leader in the CEE region, with 3,7⁶⁵⁶ software developers per 100 members of the working population, compared to a CEE average of around 1,3⁶⁵⁷. The Slovak Fintech Association, in cooperation with Mastercard and Vacuumlabs, has created the first fintech centre to provide innovative companies with technological, legal, and business advice⁶⁵⁸.

Despite the lack of a reliable legal framework for crypto-currencies, crypto-currency businesses can operate legally in Slovakia as long as they adhere to general rules. The "Blockchain Slovakia" organization has been set up to support the development of businesses whose business models are based on blockchain technology, including crypto currencies⁶⁵⁹.

Card payment schemes

Payment cards are a popular means of payment in Slovakia. As well as being used to withdraw cash from the country's extensive network of ATMs, they have become the most widely used means of making cashless payments to both bricks-and-mortar and online merchants⁶⁶⁰. The most popular card type is debit card which are increasingly being used for low-value transactions⁶⁶¹. In 2022, 5,3 million⁶⁶² debit cards were issued, compared with 590.000⁶⁶³ credit cards.

The JCB (Japan Credit Bureau) issues Japanese credit cards accepted in over 190⁶⁶⁴ countries (including Slovakia) and has a global user base of over 80 million⁶⁶⁵ people. JCB has developed agreements with hundreds of top banks and financial institutions throughout the world as part of its worldwide expansion strategy. JCB payment cards are accepted online⁶⁶⁶.

With over 7,5 billion⁶⁶⁷ cards issued worldwide, UnionPay is the world's largest card network. Well-established in Slovakia, UnionPay cards are accepted at more than 10.000 merchants⁶⁶⁸ (mainly department stores, jewelry and clock stores, brand stores, hotels, duty-free shops, and major airports).

Visa, MasterCard, American Express and Maestro are firmly established in Slovakia's commercial landscape and are widely accepted⁶⁶⁹. Diners Club and Discover are also active in the country.

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           https://www.paycec.com/be-en/news/finding-the-best-jcb-payment-gateway
           https://www.paycec.com/be-en/news/finding-the-best-jcb-payment-gateway
         https://www.paycec.com/be-en/news/finding-the-best-jcb-payment-gateway.https://www.deepl.com/fr/translator#fr/en/Avec%20plus%20de%207%2C5%20milliards%20de%20cartes%20émises%20dans%20le%20monde%2C%20UnionPay%20est%20
          le%20plus%20grand%20réseau%20de%20cartes%20au%20monde.%20%0A
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Alternative payment methods

Online banking is the major local payment method and the second most popular method in Slovakia after paying by card⁶⁷⁰. With a growing market share⁶⁷¹, online banking is a good alternative to cards for merchants and shoppers who want to increase the security of their transactions. In terms of alternative payment methods, several new players have entered the market.

Firstly, BLIK, one of the largest payment systems in Poland, is entering Slovakia. Today, this solution is actively used by over 11,3 million⁶⁷² customers and requires no QR codes or card numbers to pay for something online but only a generated sixdigit code. Two banks in Slovakia are said to be launching it soon: mBank (which also operates in Poland) and Tatra Banka⁶⁷³. Moreover, after obtaining approval from the National Bank of Slovakia (NBS), BLIK acquired 100% shares in mTrust⁶⁷⁴, which owns VIAMO.

VIAMO has been operating in the Slovakian market since 2013 and its portfolio of services includes P2P payments, payments through the VIAMO PayGate payment gateway, and online payments. Currently, it cooperates closely with two banks: VUB and Tatra Banka. Its services can still be used by clients of all the banks in Slovakia through a special VIAMO Plus application.

Founded in 2013, Mobiamo provides mobile payments and carrier billing, allowing customers to make secure and fast payments from their mobile devices. The company operates in over 110^{675} countries and has approximately 75 million⁶⁷⁶ users.

This year, Mastercard and Visa will introduce a new and quicker way to pay for orders when shopping online in Slovakia⁶⁷⁷. The Click to Pay service will discard a slew of steps that are now necessary when paying for items online, like manually entering card and other identification numbers, or authorization in a certain time limit, which often failed to pay. In other words, Click to Pay should provide a service like Apple Pay and Google Pay which are also active in the country.

Other players like Alipay, WeChat Pay, and Paypal are also available in the country.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
BLIK	mTrust, s. r. o.	n.a.	0,33	-0,09	<u>Link</u>

Source: Orbis | Financials 2022

Banks

The Slovak banking sector is one of the most innovative in Europe and has long been providing its clients with new innovative solutions. As evidence of their engagement, banks actively participate in financial education. For example, numerous initiatives are funded by banks, the central bank, or the banking association, such as the Economics Olympiad for high school students⁶⁷⁸. The Banks are also aware of the ongoing move towards digitalization and want to increase customer comfort by providing the opportunity to pay conveniently and quickly. This transition is supported by the growing number of contactless payments by card, mobile phone, or smartwatch⁶⁷⁹.

25⁶⁸⁰ credit institutions are operating in the country. The banking sector is highly concentrated and predominately foreignowned (foreign-owned banks account for around 87%681 of total banking sector assets). The five largest banks in the system hold 79,3%⁶⁸² of total banking sector assets. Slovak banks posted a net profit of 564,6 million⁶⁸³ € in the first six months of 2023 representing a year-on-year increase of 46,6%⁶⁸⁴.

With roughly 2,2 million⁶⁸⁵ customers, Slovenská sporiteľňa is Slovakia's leading bank. As a follow-up to observations made in previous years, Slovenská sporiteľňa's total assets continue to increase reaching more than 2,6 billion⁶⁸⁶ €. The bank issues Visa debit and credit cards that can be integrated into wallets such as Apple Pay and Google Pay. Slovenská sporiteľňa has launched its mobile app, Georges, enabling new customers to create a SPACE account in 10 minutes without visiting a branch, and plans to merge it with the SLSP mToken application for payment confirmation later this year⁶⁸⁷. In 2023, the bank introduced payments via Swatch Pay and cash withdrawals from ATMs via the app⁶⁸⁸. Finally, the bank offers different accounts according to the customer's age: kids, students, young adults, and over 62s.

- 670 https://www.adyen.com/payment-methods/online-banking-slovakia
- https://www.adyen.com/payment-methods/online-banking-slovakia https://blik.com/en/blik-takes-over-viamo-a-slovak-mobile-payment-platform-the-first-step-in-foreign-expansion 672
- https://spectator.sme.sk/c/23284683/popular-in-poland-but-can-slovaks-also-fall-for-blik.html
- 674 675 https://www.ebf.eu/slovakia/
- https://www.mobiamo.com/coverage
- 676 677 https://www.mobiamo.com/coverage
- https://spectator.sme.sk/c/23161141/mastercard-and-visa-to-simplify-internet-shopping-in-slovakia.html https://www.ebf.eu/slovakia/
- 679 680 https://www.europeanpaymentscouncil.eu/news-insights/insight/instant-payments-slovakia
- https://www.statista.com/statistics/349129/eu-18-credit-institutions-number/ https://economy-finance.ec.europa.eu/system/files/2023-05/SK_SWD_2023_625_en.pdf 681 682
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- 684 https://spectator.sme.sk/c/23205812/slovakia-banks-profits-2023.html
- https://www.nordlb.com/my-nord/lb-portals/download/research-document-856?cHash=d80a2ccbf2da7149e6c2c0493f798a93 https://cdn0.erstegroup.com/content/dam/sk/slsp/www_slsp_sk/en/financne-ukazovatele/consolidated-financial-statements-31122023.pdf 686
- https://zive.aktuality.sk/clanok/DZJbTEC/slovenska-sporitelna-chysta-velku-zmenu-pri-svojich-aplikaciach-pozor-v-cr-sa-na-tom-prizivuju-podvodnici/https://www.finreport.sk/banky-a-poistovne/slovenska-sporitelna-prinasa-platby-cez-swatch-pay-a-vyber-hotovosti-z-bankomatu-cez-aplikaciu/

Winner of the award "Bank of the Year" in 2022689, Tatra Banka is Slovakia's second-largest bank and a subsidiary of the Raiffeisen Banking Group. It provides both corporate and individual customers with sophisticated banking services and money management options⁶⁹⁰. Similarly, the bank issues Mastercard and Visa cards, with specific offers for children and students. The bank's consolidated profit increased by 27%⁶⁹¹ year-on-year from 2022 to 2023. Other services include its mobile app Tatra Banka and Viamo, to send money fast and securely, and Tatra Banka POS to turn Android phones into terminals.

Tatra Banka is pushing to play a key role in the transition towards sustainability by becoming the first bank in Slovakia to issue green bonds⁶⁹². They also introduced an 'Account for the Blue Planet', offering clients green alternatives to its products and a combination of digital solutions facilitating everyday finance management with intelligent technology towards a sustainable future. In the same perspective, Tatra shows its users the carbon footprint of each purchase made with their card and rewards users who make responsible purchases from sustainable merchants by offering discounts of up to 15%⁶⁹³ when buying organic fashion, farm food and many other products.

The third largest bank in Slovakia is VÚB which is devoted to serving small and medium-sized businesses. VÚB issues Visa and Maestro debit cards as well as Mastercard credit cards. Like Slovenská Sporitea, the bank offers junior, student, and senior accounts. Other services include VÚB Viamo, its mobile application that enables customers to send money to anyone simply with a phone number, ePayments enabling customers to shop online via online banking and Payme to share payments with friends. The bank received the title TOP Employer Slovakia for 2023 and 2024 making VÚB Banka one of the world leaders in the field of employee working conditions⁶⁹⁴.

At the end of 2023, the European Investment Bank (EIB) signed a 50 million⁶⁹⁵ € loan agreement with Všeobecná úverová banka (VÚB), intending to generate additional loans for small and medium-sized enterprises (SMEs), mid-sized companies (MSEs) and public and private institutions in Slovakia. The EIB loan is expected to be matched by VÚB and other lenders, providing at least 100 million⁶⁹⁶ € in new financing for small and medium-sized projects in the country.

Banks	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Slovenska sporiteľna	Erste Group Bank AG.	3.585	687,99	242,79	<u>Link</u>
<u>Tatra Banka</u>	Raiffeisen Bank International AG	3.324	529,85	186,78	<u>Link</u>
<u>Vseobecna Uverova</u> <u>Banka</u>	Intesa Sanpaolo	3.358	550,14	169,75	Link

Source: Orbis | Financials 2022

Non-banking issuers

SKPay has a solid reputation on the Slovakian market for issuing contactless prepaid cards. These cards are available without the need for a bank account⁶⁹⁷ and allow users to make payments in person and online, as well as withdraw cash in the same way as ordinary cards.

In the same category, we also find WestStein, an innovative financial company offering payment solutions using reloadable prepaid MasterCard cards for businesses and consumers. WestStein prepaid cards, which do not require a credit check or minimum income⁶⁹⁸, are an alternative to traditional current accounts for those who do not have a bank account. The cards can be used to manage payroll, bonus payments and other business expenses.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
SKPAY	Slovakian Republic	17	12,21	1,04	Link
Weststein	Private company	n.a.	n.a.	n.a.	Link

- https://www.thebanker.com/Bank-of-the-Year-Awards-2022-Tatra-Banka-1669824451

 - https://www.emis.com/php/company-profile/SK/Tatra_Banka_as_en_1546674.html https://www.tatrabanka.sk/files/archiv/en/about/economic-results/annual-reports/AnnualReport2023.pdf
- 691 692 https://www.thebanker.com/Bank-of-the-Year-Awards-2022-Tatra-Banka-1669824451 693 https://www.tatrabanka.sk/en/personal/account-payments/current-account/
- https://www.besmarthead.com/en/activity/vub-banka-received-t/131696/overview

- https://mojakarta.skpay.sk/en
- https://www.prnewswire.com/news-releases/prepaid-financial-services--weststein-bring-the-power-of-prepaid-to-consumers--businesses-in-latvia-522669981.html

Payment processing & gateway providers

RPC belongs to the Raiffeisen Bank of Austria. Through RPC, businesses in Slovakia can now accept payments using their smartphones by downloading the Tatra Banka POS app. Raiffeisen Bank International's shared service and card competence centre is one of the largest processing companies in the region, with 1,5 billion⁶⁹⁹ transactions processed in 2022, hosting over 7,5 million⁷⁰⁰ payment cards and managing a network of 116.000⁷⁰¹ POS terminals.

Providing secure e-commerce payments, Trustpay is a leader in card payment acceptance. The company positions itself as one of the most innovative payment service providers in the market by adding new payment methods such as WeChat Pay, CB acquirer, iDEAL, etc. The company's portfolio includes worldwide online card payment processing, accounts for online businesses, a portfolio of local payment methods and reconciliation tools. In 2023, Trust pay has once again earned its place in the esteemed Fintech Power 50^{702} , an annual guide recognizing the most influential and innovative players in the fintech industry. On top of this, they also won the Diamond of Slovak Business award, as well as the Deloitte Best Managed Companies 2023 award⁷⁰³.

DanubePay is a processing center capable of handling all types of payment and non-payment transactions. The PSP provides services to acquirers and issuers of payment instruments and finds its main competitive advantage in its flexibility and in-depth knowledge of card processing. DanubePay uses its own technology (StarCARD) for transaction authorization and processing. Their system is as well-suited to new companies with a small number of transactions as it is to well-known companies with a larger number. Any client system can be connected to the system, since it is modular, it makes it easy to create a communication interface satisfying all technical and security criteria.

Other actors are also available in the country such as 24-Pay, Payout, Stripe, Pay Solutions and Ultima Payments.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
Regional Card Processing Centre	Raiffesen Bank International AG	213	31,49	1,71	<u>Link</u>
<u>Trust Pay,</u>	Parent company	81	30,85	2,13	<u>Link</u>
<u>DanubePay</u>	J&T Finance Group SE	57	7,98	0,26	Link
<u>24-Pay</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>
<u>Payout</u>	Independent company	n.a.	n.a.	n.a.	Link
Pay Solutions,	Parent company	n.a.	n.a.	n.a.	Link
<u>Ultima Payments</u>	Parent company	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Open banking enablers

N/A

Infrastructure providers

N/A

https://www.trustpay.eu/news/

https://tapxphone.com/news/new-success-for-tapxphone-partner-rpc-over-10-thousand-raipos-terminals-connected-in-6-countries/

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https://www.trustpay.eu/2023/12/08/trustpay-secures-place-in-the-fintech-power-50-2023/

Expert Opinion

"Slovakia is experiencing a shift towards electronic payments despite the widespread use of cash. Contactless payments are gaining ground, supported by local banks, while international e-commerce platforms are expanding. In addition, Slovakia is at the forefront of software development in the CEE region, supported by initiatives such as the fintech center and organizations such as "Blockchain Slovakia" that support businesses leveraging blockchain technology."

Hraskova Veronika | Director - Deloitte Slovakia

Hungary

Introduction

As a small country with a population of 9,6 million⁷⁰⁴ and a diversified economy, Hungary has recently made significant progress in the development of payment systems, although the use of cash is still largely dominant in the country⁷⁰⁵. The Hungarian National Bank (MNB) has implemented a strategy to significantly enhance the electronic payment infrastructure by 2030, aiming to increase the adoption rate of electronic payments to 60%⁷⁰⁶.

Currently, card payments account for only 38-40%⁷⁰⁷ of retail payments in Hungary, compared with 75-80%⁷⁰⁸ of purchases in Western Europe. Nevertheless, the number of retail transactions carried out with bank or debit cards has increased considerably in recent years, with 90%⁷⁰⁹ of cards used in Hungary being Mastercard and VISA cards, and 93%⁷¹⁰ of payment cards issued being contactless cards that can be used at 96%711 of point-of-sale terminals. Moreover, due to the significant expansion of online commerce, the number of online card transactions increased by 20%⁷¹² in 2022.

In response to the relatively low number of ATMs per capita in Hungary, despite a cash turnover significantly higher than in many other countries, the Hungarian National Bank (MNB) launched a new regulation in 2023 to set the minimum number of ATMs that banks must maintain according to their average annual cash withdrawal and deposit turnover713.

Furthermore, Hungary has seen a significant shift towards digital financial tools with digital wallets quickly catching up to card-based payments. In 2022, the number of payment cards registered in mobile wallets increased by over 450.000⁷¹⁴, up 37%⁷¹⁵ compared to the previous year. Around 80%⁷¹⁶ of mobile devices in Hungary use the Android operating system, meaning people can easily register their cards in Google Pay, and although Apple products are less popular, they still account for 20%717 of the market.

In March 2020, GIRO, the central clearing house implemented the AFR instant payment system to reduce the amount of cash in circulation and promote digital payment solutions. The unique aspect of the Hungarian implementation stems from its compulsory nature, which necessitated significant IT development for each payment service provider (PSP). As of 2022, AFR payments volume was already representing 5%718 of total payments volume and the rate of transfers settled within 5 seconds was above 99,8%⁷¹⁹. While the payment system introduced in 2020 has only been partially rolled out on the receiving side, the second phase in the development of the AFR system, known as AFR 2.0, will bring 100%⁷²⁰ coverage on the receiving side by 2024, while focusing on the adoption of uniform data capture solutions (QR code, deeplink, NFC)⁷²¹.

In terms of innovation, Hungary has a well-developed financial sector with advanced digital infrastructure. In 2023, 60%⁷²² of banks had a FinTech partner, and institutions' openness towards creating new partnerships has increased. In total, 175723 FinTech companies are now operating in the country offering a full range of services from branch banking to investments.

Finally, Hungary has established itself as one of the leading bitcoin mining locations in Europe⁷²⁴. The country is currently seeking to establish a regulatory framework for digital assets to enable banks, investment funds and asset management companies to provide services in the crypto-currency market⁷²⁵. The proposed framework is expected to attract new investors and companies to the country's growing crypto-currency sector. As of today, there are 46726 bitcoin ATMs in operation in the country and people can pay with bitcoin or other cryptocurrencies at almost a hundred locations.

https://www.touteleurope.eu/pays/hongrie/https://www.mnb.hu/letoltes/fizetesi-rendszer-jelentes-2023-hun-0626.pdf

⁷⁰⁴ 705 706 707 708 https://www.mnb.hu/letoltes/fizetesi-rendszer-jelentes-2023-hun-0626.pdf

https://www.trade.gov/country-commercial-guides/hungary-trade-financing #::text=Card % 20 payments % 20 account % 20 for % 20 roughly, as % 20 that % 20 of % 20 card % 20 payments.https://www.trade.gov/country-commercial-guides/hungary-trade-financing#:-:text=Card%20payments%20account%20for%20roughly.as%20that%20of%20card%20payments.

⁷⁰⁹ 710 https://pay.com/blog/top-payment-methods-in-hungary#:~:text=Around%2080%25%20of%20mobile%20devices,in%20the%20Google%20Pay%20app. https://www.mnb.hu/letoltes/fizetesi-rendszer-jelentes-2023-hun-0626.pdf

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⁷¹² 713

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⁷¹⁴ 715 https://www.mnb.hu/letoltes/fizetesi-rendszer-jelentes-2023-hun-0626.pdf

https://pay.com/blog/top-payment-methods-in-hungary#:~:text=Around%2080%25%20of%20mobile%20devices.in%20the%20Google%20Pay%20app. https://pay.com/blog/top-payment-methods-in-hungary#:~:text=Around%2080%25%20of%20mobile%20devices.in%20the%20Google%20Pay%20app.

⁷¹⁶ 717 718

https://www.pymnts.com/real-time-payments/2023/hungarys-domestic-scheme-to-boost-real-time-payments-volume-nearly-3x-by-2026/https://www.giro.hu/storage/MGYrTi7OhPM9vgYAXs366xS1fp7zaOThSWgBOHno/2022_GIRO_Annual_report.pdf

⁷¹⁹ 720

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⁷²² https://www.mnb.hu/letoltes/final-mnb-fintech-digitalisation-report-2023.pdf

⁷²³ 724

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 $https://www.binance.com/fr/square/posit/2024-03-02-hungary-plans-to-establish-digital-asset-regulatory-framework-with-central-bank-as-main-regulator-4850193408065 \\ https://dailynewshungary.com/fr/there-are-many-places-in-hungary-where-you-can-pay-with-cryptocurrency/\#google_vignette$

Card payment schemes

Mastercard leads as the preferred credit card in the country⁷²⁷, significantly outpacing other options for both online and physical store transactions. The second most popular credit card is Visa, accounting for 20%⁷²⁸ of the market. Most Mastercard and Visa cardholders use their cards for in-store purchases and e-commerce payments and those cards are compatible with popular digital wallets like Google Pay, simplifying the checkout process for customers.

While Hungary's adoption of cashless payments is slow compared to other European nations, more than 50%⁷²⁹ of the population now uses cards for daily payments and 72%⁷³⁰ utilize their cards at least monthly.

Alternative payment methods

Hungary's trend towards mobile commerce is clear, with almost half of all internet purchases made via smartphones⁷³¹. At the end of 2023, over 2,3732 million bank cards were linked to mobile wallets meaning that one in three actively used bank cards was integrated with a cell phone for transactions. In addition, MNB (Magyar Nemzeti Bank) data revealed that mobile wallets accounted for 22,3%733 of all cards purchases for the third quarter of 2023, underlining Hungarian consumers' growing preference for digital wallets.

Simple, OTP Mobil's mobile wallet, continues to be a comprehensive solution for any card issued locally. The Hungariandeveloped application offers a range of practical solutions through a single platform for various areas, such as paying bills, paying for parking, buying motorway tickets, concert tickets, insurance, and more⁷³⁴. It enables users to conduct a wide range of online and in-store transactions and is not limited to a single bank⁷³⁵. For its part, PayPal is currently installed on 128⁷³⁶ Hungarian e-commerce stores and is commonly used for peer-to-peer money transfers and online shopping.

In 2022, the Magyar Nemzeti Bank (MNB), Hungary's central bank, unveiled an innovative mobile application, Pénzmùzeum, dedicated to the Money Museum. This application represents a foray into the application of blockchain technology to the issuance of digital collectibles and marks an important step in the bank's exploration of digital assets⁷³⁷.

In Hungary, the "Buy Now, Pay Later" (BNPL) market has recently expanded with the arrival of the Swedish fintech company Klarna which offers "buy now, pay in 3 installments" allowing customers to split the cost of a product into three parts, and to pay it back at 0% interest over 30-day intervals⁷³⁸. This addition enriches a market that already includes three other BNPL service providers Instacash, PastPay and IzzyPay.

InstaCash originally operated as a credit intermediary and online platform for personal loans. However, it launched its Buy Now, Pay Later (BNPL) platform in 2022. The type of service (for example, whether payment is deferred for 30 days or 9 months) can be decided by the lender, as the plug-in is configurable without further development. The most important sectors for InstaCash are private healthcare, high-end services, and retailers, where purchases or baskets can reach several hundred thousand forints.

As a payment solution based on factoring, PastPay allows companies to pay for goods ordered within 30 days, even if they receive them immediately⁷³⁹. By using PastPay, merchants can improve their cash flow free of charge, and if their customers don't pay, PastPay takes responsibility. What's special about PastPay is that it can also be used semi-manually by merchants who sell offline, via a single portal⁷⁴⁰.

In the same field, we also find IzzyPay. This service provides a flat-rate deferred payment of 14 days for people making purchases from online shops. Customers can pay the purchase price by bank transfer or online payment and can request a further 14 days once⁷⁴¹. Payment with IzzyPay is flexible and free, so online shops that introduce the service can see an increase in the average customer basket size and a significant reduction in the proportion of cash on delivery.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
OTP Mobil Szolgaltato	OTP Bank PLC	107	52,58	3,78	<u>Link</u>
<u>InstaCash</u>	Independent company	5	n.a.	n.a.	<u>Link</u>
IzzyPay Financial Company	Independent company	7	n.a.	n.a.	Link

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- 729 730
- https://pay.com/blog/top-payment-methods-in-hungary https://www.statista.com/statistics/1233825/hungary-device-usage-by-phase-of-online-shopping/
- 731 732 https://fintechzone.hu/tobb-mint-23-millio-bankkartyat-tarolnak-a-mobiltarcakban-magyarorszagon/
- 733 734 https://fintechzone.hu/tobb-mint-23-millio-bankkartyat-tarolnak-a-mobiltarcakban-magyarorszagon/
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- https://otpmobil.hu/en/services/
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- 737 $\underline{https://www.mnb.hu/en/pressroom/press-releases/press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-mobile-application-the-mnb-s-new-blockchain-technology-based-platform-press-releases-2022/the-money-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-museum-muse$ launched
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Banks

Two leading institutions, OTP Bank and MBH Bank, dominate the banking sector in Hungary.

OTP Bank Nyrt stands out as Hungary's largest banking entity by total assets. Catering to a diverse clientele, including private individuals and businesses, OTP Bank provides a comprehensive suite of services across retail, private, and corporate banking sectors. The bank enhances customer convenience by offering online and offline versions of Mastercard and Visa cards accepted worldwide, and owns OTP Simple mobile wallet, which is used by millions of users⁷⁴².

Renowned for its digital innovation, OTP Bank has been acclaimed as the premier digital bank in the Central and Eastern European (CEE) region by Euromoney's Awards for Excellence in 2023⁷⁴³. The bank also earned the Best Bank in Hungary title for the sixth occasion⁷⁴⁴ and has witnessed a significant expansion in its corporate financing activities, reporting a 33%⁷⁴⁵ annual increase in 2022. Moreover, in a strategic move to enhance its payment processing capabilities, OTP Bank has embarked on a multi-year partnership with Iliad Solutions, appointing them as its payment testing provider⁷⁴⁶.

After a merger process spanning over two years Budapest Bank Zrt, MKB Bank Nyrt. and Takarékbank Zrt. merged to form Magyar Bankholding Zrt. (MBH Bank) on May 1, 2023⁷⁴⁷. This merger birthed Hungary's second largest, entirely domestically owned financial entity, now serving close to 2 million⁷⁴⁸ retail and corporate customers.

In November 2023, MBH Bank Nyrt. signed a share purchase agreement with the Austrian Bausparkasse Wüstenrot AG, the German Wüstenrot & Württembergische AG and Bausparkasse Schwäbisch Hall AG to acquire a 76,35%⁷⁴⁹ stake in Fundamenta-Lakáskassza Lakás-takarékpénztár Zrt. The anticipated finalization of this merger in the first half of 2024 will see Fundamenta operate as a consolidated but independent subsidiary under MBH Bank, promising to inject considerable growth with an additional 480.000⁷⁵⁰ customers, and significant increases in loans and deposits.

MBH Bank's acquisition strategy also includes purchasing a 98,46%⁷⁵¹ stake in Duna Takarék Bank from the Danube Private Equity Fund. This move is set to substantially enhance MBH Bank's presence in the retail and residential mortgage markets, further supported by Fundamenta's extensive distribution network.

Following the footsteps of OTP Bank and MBH Bank, Hungary hosts several foreign banking entities such as K&H Bank (KBC), UniCredit Bank (UniCredit Group), CIB Bank (Intesa Sanpaolo Group), Raiffeisen Bank (Raiffeisen Group), and Erste Bank (Erste Group), affiliated with Belgian, Italian, or Austrian banking conglomerates.

Revolut, which has 1,3 million⁷⁵² customers in Hungary, and Viva Wallet, Europe's first fully cloud-based neobank offering card acceptance services, advanced online payment gateways, corporate accounts with local IBAN and a Viva Wallet Mastercard⁷⁵³, are also present in the country.

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Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
OTP Bank	Parent company	35.976	4.534,54	866,18	<u>Link</u>
MBH Bank Nyrt	Hungarian Bankolding	9.747	1.295,36	227,52	<u>Link</u>
K&H Bank	KBC Groep NV/KBC Groupe SA	3.244	711,32	168,74	<u>Link</u>
Erste Bank Hungary	Erste Group	3.352	565,89	133,48	Link
Raiffeisen Bank	Raiffeisen Bank International AG	2.947	531,07	179,97	<u>Link</u>
<u>UniCredit Bank</u> <u>Hungary</u>	UniCredit SPA	1.774	527,83	211,74	<u>Link</u>
<u>CIB Bank</u>	Intesa Sanpaolo	2.210	344,31	90,09	<u>Link</u>
<u>Fundamenta-</u> <u>Lakaskassza</u>	Hungarian Bankholding Ltd.	664	64,14	11,25	<u>Link</u>
Viva Payment Services Single Member Hungarian Branch	Jpmorgan Chase & o	7	0,03	-0,43	<u>Link</u>
Revolut Bank UAB Hungarian Branch Office	Revolut Payments UAB.	n.a	n.a	n.a	<u>Link</u>

Source: Orbis | Financials 2022

Non-banking issuers

N/A

Payment processing & gateway providers

The largest payment service provider in Hungary is SimplePay, which was developed by OTP Mobil. SimplePay is a secure and fast payment solution for merchants and customers. The service is available in thousands of online stores, making financial transactions possible for customers with a Simple account (who can also use their saved card) and for other online customers⁷⁵⁴. The payment solutions of Instant Transfer provide innovative solutions to meet every need: users can pay using QR codes, deeplinks or conventional online bank transfer⁷⁵⁵.

B-payment Group is another important player helping companies accept cards with online payment solutions as well as POS terminals. Its online payment solutions include the installation of payment pages for the online shops of merchants who accept Mastercard, Maestro, Visa, Visa Electron, Union Pay, JCB, Diners Club, Discover and American Express or local cards.

Barion Payment is a payment gateway that offers a range of payment options to businesses while specializing in data-driven payment solutions for online shops. With the aid of cutting-edge paytech solutions, the company's objective is to establish a cashless society⁷⁵⁶. Since 2015, Barion has been giving over 15.000⁷⁵⁷ merchants a unique online and affordable payment solution.

Stripe payment processing system also supports non-card payment methods for businesses based in Hungary⁷⁵⁸.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
OTP Mobil Szolgaltato	OTP Bank PLC	107	52,58	3,78	Link
Salt Hungary Inc. (B-Payment Group)	SaltPay Europe Limited	3	5,21	1,74	<u>Link</u>
Barion Payment	Independent company	37	3,63	0,30	<u>Link</u>

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Open banking enablers

N/A

Infrastructure providers

N/A

Expert Opinion

"Hungary's payment landscape has undergone significant digital transformation, with a surge in mobile wallet adoption and a rise in electronic payment acceptance. Despite this shift, cash remains dominant, with only 38-40% of retail payments made with cards, though card transactions have increased. Additionally, Hungary is fostering innovation in its financial sector, evidenced by a growing number of FinTech companies and new digital solutions."

Nemeth Annamaria | Senior Manager - Deloitte Hungary

Poland

Introduction

With 38 million⁷⁵⁹ inhabitants showing an online presence rate of 90%⁷⁶⁰, Poland has the largest economy in Eastern Europe and the sixth largest in Europe. The country is also the largest IT hub in Central and Eastern Europe and one of the most important IT centres in Europe.

The efforts of the Cashless Poland Foundation have significantly contributed to the popularity of payment cards and other cashless payments in Poland. To extend the payment acceptance network in the country, the foundation undertook to reimburse, for the first 12 months, the costs incurred by entrepreneurs who decide to offer their customers the option of paying with a card or other payment instruments⁷⁶¹. Consequently, while cash is still widely used for day-to-day low-value transactions, payment cards have become the preferred payment tool in Poland, accounting for 38,9%⁷⁶² of the total payment transaction volume in 2022.

Additionally, digital payment methods are now widely favored, accounting for over 80%⁷⁶³ of online transactions, with a significant proportion of the population using online banking services (68%⁷⁶⁴) and mobile applications (43%⁷⁶⁵). Digital wallets, also known as e-wallets, are used for 22%⁷⁶⁶ of online payments. Moreover, 97%⁷⁶⁷ of payment card transactions are contactless which shows the impact of the growing popularity of mobile banking and the high adoption rate of wallet solutions. In total, the number of cashless transactions has grown from 3 billion⁷⁶⁸ in 2016 to 9 billion⁷⁶⁹ in 2022 and the total value of digital payment transactions is expected to double from 2022 to 2026⁷⁷⁰.

Poland has also seen a growth in the usage of instant payment within mobile channels. As a result, Poland's domestic instant payments system, Express Elixir, is doubling its transactions each year reaching 19,5 million⁷⁷¹ transactions in June 2022. Regarding e-commerce, 77%⁷⁷² of Polish Internet users already bought products online, and by 2026, e-commerce is expected to account for 20%⁷⁷³ of all retail sales in Poland. Moreover, instant payments have boosted growth in non-card e-commerce payments while also simplifying payments across all channels. In 2023, Poland's e-commerce reached a total value of 22 billion⁷⁷⁴ \$ and is expected to reach 31 billion⁷⁷⁵ \$ in 2027.

Finally, the Polish FinTech industry continued to be one of the most innovative in the EU with the payment sector representing 25%⁷⁷⁶ of Polish FinTech activity. In 2022, there were 74⁷⁷⁷ FinTechs in the payment category including some of the industry's most successful companies, such as Blik. In addition, the strong position of the Polish technology and fintech industry has been demonstrated by the recognition of numerous Polish companies including PayPo, Digital Gateways and Kontomatik, in the Deloitte Technology Fast 50 Central Europe 2023⁷⁷⁸.

Card payment schemes

Out of the nearly 45 million⁷⁷⁹ cards in circulation in Poland, debit cards dominate the market⁷⁸⁰ since only $12\%^{781}$ are credit cards. Visa and Mastercard each hold around $50\%^{782}$ of the market share for card issuers in Poland.

Poland has been an important country for Visa which has been operating in the country since 1995. In early 2024, Visa joined Future Finance Poland, engaging specifically in Open Finance which will improve Poland's financial center position. With Visa as a driving force in digital payments, Poland also became the first market in the world to achieve 100% contactless availability⁷⁸³. Moreover, insights from the Polish market have inspired the company to create an innovative payment method for online stores called Visa Mobile, and the fact that Visa has opened a Global Technology and Product Hub in Poland shows that the company sees great potential in the market⁷⁸⁴.

American Express and Diners Club are also active in the country.

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Alternative payment methods

The rise of digital payments continues to be a prominent trend in Poland. Mobile wallets, contactless payments, and other innovative payment solutions are becoming increasingly popular among consumers, driving a shift away from traditional banking methods. International options like Paypal, Google Pay, and Apple Pay are well implemented as well as Skrill and PayU mobile⁷⁸⁵.

With 95%⁷⁸⁶ of the market, Blik, the most widely used mobile payment method in Poland, has seen impressive growth in POS transactions. In the third quarter of 2022, users made 67 million⁷⁸⁷ transactions at a payment terminal, which is 175%⁷⁸⁸ more than the same period in the previous year. The BLIK brand is owned by Polski Standard Platności (PSP), a joint initiative established by six large banks in Poland (Alior, BZ WBK, ING, mBank Millennium and PKO BP. Launched in 2015 by the company Polski Standard Platnosti, Blik allows users to make online and in-store purchases as well as to transfer money in real time between bank accounts and ATMs without the need for a payment card. Transactions are identified by a 6-digit onetime code which the user generates and authenticates in their mobile app. In addition, Blik Contactless allows users to pay at point of sales (POS) utilizing near-field communication (NFC) based on Mastercard virtual cards. End 2023, BLIK entered a partnership with DXC Technology to modernize its services and expand across Romania and Slovakia⁷⁸⁹ and aims to become a European payment system⁷⁹⁰.

PayPo is the most popular BNPL method in Poland, with over 1 million active users and 80%⁷⁹¹ of the BNPL market in the country. It allows buyers to pay in 30 days or to split their purchase into several installments (from 3 to 12, depending on the value of the order⁷⁹²). Twisto, another BNPL payment method launched in 2013 in the Czech Republic, has been operating in Poland since 2018. Its main features are that it aggregates all payments into one statement only and offers the best exchange rates for international transactions⁷⁹³. Finally, Mokka, a leading fintech operating in Poland also specializes in buy now pay later solutions794

Aiglabs, the owner of integrated solutions for businesses and customers, has launched an innovative deferred payment method in partnership with Dotpay. They now enable customers to execute a payment up to 30 days following the order submission date or to split it into installments. The solution, called Kupuj Teraz, Zapłać Później, is the first of this kind in Poland allowing purchases up to 2000⁷⁹⁵ PLN.

Based in Poland, Currency One is one of the largest companies in the online currency exchange market, with over 500.000⁷⁹⁶ users exchanging tens of millions of euros, dollars, pounds sterling, Swiss francs and other currencies every month.

Finally, Conotoxia is the holding company of "Cinkciarz.pl" (the company's brand name in Poland) and a fast-growing global fintech providing access to innovative financial services. Its users can easily exchange currencies, use multi-currency cards and send money transfers from 30 countries in 27 currencies⁷⁹⁷.

Some other players are also active in the country such as Mobiltrek, Skycash, Fintecom and TryPay.

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Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Polski Standard Platnosci (Blik)	Independent company	75	46,32	20,28	<u>Link</u>
<u>Paypo</u>	NRW Sp. z o.o.	n.a.	26,30	4,78	<u>Link</u>
Mobiltek	Independent company	10	10,65	0,05	Link
Currency One	Independent company	99	10,31	3,71	<u>Link</u>
<u>Aiqlabs SP</u>	Parent company	40	7,33	0,51	<u>Link</u>
<u>Twisto Polska</u>	Twisto Payments A.S.	38	6,14	-5,30	Link
Conotoxia	Independent company	19	3,74	-0,54	Link
<u>SkyCash</u>	Parent company	46	2,09	-0,07	<u>Link</u>
Fintecom	Independent company	15	0,81	0,03	Link
<u>TryPay</u>	Femion Technology S.A.	14	0,72	-0,04	<u>Link</u>

Source: Orbis | Financials 2022

Banks

The banking sector in Poland plays a significant role in the country's financial system. With a modest percentage of domestic commercial banks, foreign-controlled banks dominate the Polish banking sector. Nevertheless, the state of Poland has acquired and taken control of an increasing number of banks over the last few years, including PKO Bank Polski, Pekao, Alior, Bank Pocztowy, Bos and Velo Bank. Poland's share of commercial banks has hence increased over the last decade and the top five banks are now controlling 80%⁷⁹⁸ of their respective sectors.

In 2023, the five major banks in Poland in terms of total assets were PKO Bank Polski (501 billion⁷⁹⁹ PLN), Pekao Bank Hipoteczny (292 billion⁸⁰³ PLN), Santander Bank Polska (276 billion⁸⁰³ PLN), ING Bank Śląski (245 billion⁸⁰² PLN) and mBank (226 billion⁸⁰³ PLN).

PKO Bank Polski (PKO BP) was founded in 1919. The bank, which is currently Poland's largest bank, occupies first place in the Finnoscore 2023 ranking, establishing itself as the European leader in digital banking⁸⁰⁴. This recognition is a testament to the bank's strong position as a technological leader, not only in the Polish banking sector but also when compared to the world's top banks. By 2025, PKO Bank Polski plans to make all its services available through remote channels and to expand its ecosystem of non-banking services⁸⁰⁵. PKO BP issues both Mastercard and Visa cards and their mobile app IKO has reached nearly 7,5 million⁸⁰⁶ active users in 2023.

The second largest local bank in Poland is Bank Pekao. The bank is working on developing quick and convenient digital channels. For example, PeoPay application, the Bank's primary mobile banking tool, provides many innovative solutions ensuring customers have full access to a wide selection of orders, automated recurring payments, and instant transaction authorization. Over 2,8 million⁸⁰⁷ customers were active on the application at the end of 2023. Furthermore, the bank was also the first financial institution in Poland to offer customers the option of opening a selfie account with an e-ID card808 and has been awarded the prestigious title of "Bank of The Year" in Poland in 2023⁸⁰⁹.

Santander Bank Polska and ING Bank Slaski are examples of banks in Poland owned by foreign-controlled banking groups. Santander Bank Polska developed a mobile app that allows users to perform contactless payments through BLIK or with a phone or watch by adding the card to a digital wallet such as Google Pay, Apple Pay, Garmin Pay or Fitbit Pay⁸¹⁰. ING Bank Slaski offers different payment methods such as contactless Visa payments through the Moje ING app, BLIK, Apple Pay, Google Pay or Garmin Pay⁸¹¹.

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mBank, which operates in Poland, the Czech Republic, and Slovakia, is the first fully online bank in Poland. In 2023, they served 5,7 million⁸¹² retail customers and 34.500⁸¹³ corporate clients. LeaseLink and Paynow, two fintechs in the mBank portfolio, have begun cooperating in the field of business financing. Thanks to the integration of the Paynow payment gateway, small and medium-sized enterprises (SMEs) can now use LeaseLink to finance their company's purchases without cash.⁸¹⁴

Bank Millennium is also worth mentioning, as the Bank was honored with the title of "The Best Bank in Poland" by Global Finance for 2024⁸¹⁵. Moreover, Bank Millennium was announced to stand among the world's most trustworthy companies in 2023816. Bank Millennium is the only Polish bank that issues American Express cards817. Other banks act as intermediaries between the customer and American Express or offer an American Express product under their logo by signing a special issuing agreement. Currently, their number of active digital customers exceeded 3 million818 and the number of mobile customers reached 2,4 million819.

Six months after the Bank Guarantee Fund (BFG) began the restructuring of Getin Noble Bank in 2022, BFG filed for bankruptcy. As a result, the Bank Guarantee Fund announced the launch of the competitive sale procedure regarding the potential acquisition of 100% of the issued and outstanding share capital of VeloBank (founded in October 2022 as part of the restructuring). In early 2024, an affiliate of Cerberus Capital Management offered a total consideration of 1.075 million820 PLN for VeloBank shares, and the completion of the transaction is expected to occur in mid-2024.

In terms of relevant innovations, Bank Pocztowy teamed up with identity solutions provider Thales in 2022 to launch a biometric Mastercard debit card⁸²¹. The payment card features a fingerprint sensor that allows cardholders to make contactless payments without having to enter a PIN, regardless of the transaction amount. To make payments, customers must tap the card against a contactless point-of-sale terminal while placing their finger on the sensor.

Note that in the last decade, the Polish banking sector, which is characterized by great stability and security, and is one of the most developed in Central and Eastern Europe, has taken huge steps to increase the importance of using digital channels, focusing on customer orientation.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Powszechna Kasa Oszczędności (PKO) Bank	Government of the Republic of Poland	25.071	3.706,53	705,44	<u>Link</u>
<u>Santander Bank</u> <u>Polska</u>	Banco Santander SA.	11.309	2.691,15	640,85	Link
Bank Polska Kasa Opieka (Bank Pekao)	Government of the Republic of Poland	14.642	2.420,07	366,24	Link
<u>mBank</u>	Commerzbank AG	8.364	1.742,58	-149,63	<u>Link</u>
<u>ING Bank Slaski</u>	ING Groep NV	8.399	1.647,04	365,16	<u>Link</u>
Bank Millennium	Banco Comercial Portugues, SA	6.987	898,14	-216,10	Link
Bank Pocztowy	Government of the Republic of Poland	1.087,00	101,01	22,37	Link

Source: Orbis | Financials 2022

Non-banking issuers

Quicko is a Polish fintech that provides financial and technological solutions for card issuing, online payments, contactless payment devices, and other payment services. The company has developed Quicko Wallet, a digital wallet working with Mastercard payment cards issued by Quicko⁸²².

Striga also allows the issuing of self-branded cards at a cost and time-to-market 10x lesser than any provider available today. Partners of Striga can launch their own branded cards (with dedicated IBAN accounts) by placing their brand front and center on our customizable card designs. Financial Companies can generate physical and/or virtual cards: An entire card life cycle management, where end-users can pause, terminate and replace their cards as needed823.

- https://www.mbank.pl/pdf/relacje-inwestorskie/introduction-to-mbank-eng.pdf
- 813 https://www.mbank.pl/pdf/msp-korporacie/relacie-inwestorskie/wyniki-finansowe/2023/presentation-q4-eng.pdf
- 814 https://smebanking.club/leaselink-paynow-from-the-mbanks-portfolio-established-cooperation/
- 815 https://www.bankmillennium.pl/en/about-the-bank/press-centre/press-releases/-/news/bank-millennium-is-the-best-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-finance-bank-in-poland-according-to-global-financmagazine?id=33097613
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- 818 https://www.bankmillennium.pl/en/about-the-bank/press-centre/press-releases/-/news/bank-millennium-celebrates-3-million-active-clients?id=32751884#:~:text=Bank%20 Millennium%20celebrates%203%20million,Bank%20Millennium%20exceeded%203%20million.
- 819 https://www.bankmillennium.pl/en/about-the-bank/press-centre/press-releases/-/news/bank-millennium-celebrates-3-million-active-clients?id=32751884
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Conotoxia is issuing multi-currency visa cards enabling customers to withdraw cash from ATMs worldwide and to process contactless payments with their phone or watch in over 160824 currencies. Cardina is issuing Visa cards in the country as well825.

For its part, IT Card issues both Visa and Mastercard cards⁸²⁶.

Non – banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>IT Card</u>	Parent company	n.a.	95,53	5,99	<u>Link</u>
Conotoxia	Independent company	19	3,74	-0,54	Link
<u>Cardina</u>	Independent company	16	1,03	0,02	<u>Link</u>
Quicko	Parent company	4	0,54	-0,30	Link

Source: Orbis | Financials 2022

Payment processing & gateway providers

Poland is a highly competitive market for acquiring in both e-commerce and POS. Companies in the acquiring market have comparable offerings and the most important value-added products are dynamic currency conversion (DCC), cashback, topups, bill payments, and "pick-up drop-of" (PUDO) package collections.

Polskie ePatnoci (Polish ePayments - PeP) is a leading merchant acquirer that provides a comprehensive range of in-store and online payment solutions and value-added services. The company currently offers payment solutions for small and mediumsized enterprises (SME) businesses through an installed base of more than 250.000827 POS terminals. Intending to dominate the cashless payment market in Poland, PeP has undertaken several acquisitions over the previous five years, including NeoTu, PayUp, TopCard, Billbird and PayLane⁸²⁸.

Fiserv Polska is the owner of the Polcard brand, which introduced cash payments to Poland in the early 1990s. The company offers POS terminals as well as PolCard Go, a softpos product that allows merchants to transform electronic devices into mobile terminals. In 2023, PolCard Go introduced the possibility of displaying advertising content on the screens of their terminals to allow shop franchisees to inform consumers about discounts and promotions⁸²⁹. Their terminals process Visa, Mastercard, American Express, Diners Club, Discover, JBC, UnionPay, and BLIK payments.

eService, owned by Global Payment, is one of the largest acquirers in Europe and one of the most active partners of the Cashless Poland Program, which aims to popularize and facilitate access to cashless payments for small businesses⁸³⁰. The company is offering services such as BLIK terminals, cashless payments with mobile devices, and PIN Pads for cash registers. They also offer safe payments through SafeLink for Visa, Mastercard, BLIK, Google Pay, and PayPal.

IT Card is a Polish processing company that processed more than 884 million⁸³¹ transactions in the year 2023, mainly Visa and Mastercard. The company specializes in outsourcing services for financial entities, including full outsourcing of ATMs, point-of-sale terminals, card issuance and processing, 3D Secure authentication, eCommerce transaction processing, and mobile applications832. Planet Cash ATM network and Planet Pay POS terminal network are part of the ITCARD Group. Recently, the company implemented a commercial application for the HoReCa sector transforming the Android POS terminals which can now, as well as accepting all forms of payment, take food orders, add tips, process cash rebates, and integrate with the sales system⁸³³.

BlueMedia is a pioneer in the payments space in Poland, offering a range of payments and payments-related services such as automation of bill payments and online payments via the Blue Media and Autopay brands. It also offers merchants tools to perform omnichannel online payments and processes card payments such as Visa, Mastercard, Maestro and BLIK. The company is looking to accelerate its recent rapid growth in e-commerce and Mobility payments⁸³⁴.

PayTel, part of the Portuguese SIBS Group, is a leading payment services provider on the Polish market that has been recognized by the Cashless Foundation as the fastest-growing acquirer, as well as acquirer of the year in 2022835. The company specializes in processing cashless payments, mobile payments (BLIK, Google Pay, Apple Pay) and manages a network of point-of-sale terminals. PayTel also offers solutions for electronic and online payments, including those using an e-commerce gateway and QR payments. Early 2023, PayTel signed a preliminary agreement to acquire Kar-Tel, the leading company offering value-added services and products at the point of sale using payment terminals and IT solutions, such as top-ups and bill payments836.

- 824 https://conotoxia.com/multi-currency-cards 825
- https://cardinalcommerce.com/issuers/ 826
- https://fintech.itcard.pl/?lang=en
- 827 https://pep.pl/en/about-us/#:-:text=Polskie%20ePlatności%20(Polish%20ePayments%20-%20PeP.payment%20solutions%20for%20SME%20merchants.) and the properties of the properties
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SkyCash, and its main competitor mPay, offer mobility payment services in the country. SkyCash is currently the leader in its sector with a market share of over 80%837 for smartphone parking payments and over 50%838 for purchasing city tickets. SkyCash's application supports transfers to phone numbers and other payment methods such as parking fees, cinema tickets, ATM cash withdrawals, and public transport tickets.

As previously mentioned, there are many established players in the sector. We could also mention PayU, TryPay, Fenige, CashBill, Przelewy24, Element Payment, Paymento Financial, YetiPay, eCard, and MassPay which are all active in the country.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Blue Media	Parent company	n.a.	258,06	1,28	<u>Link</u>
Polskie ePlatnosci	Nets	440	211,99	13,69	<u>Link</u>
<u>PayU</u>	Naspers Limited	330	159,95	1,99	Link
<u>e-service</u>	EVO Holdings	575	131,66	38,73	Link
<u>Fiserv Polska</u>	Fiserv Inc	507	96,04	11,76	<u>Link</u>
<u>IT Card</u>	Parent company	n.a.	95,53	5,99	<u>Link</u>
Przelewy24 (PayPro)	Nexi	230	91,08	26,82	<u>Link</u>
<u>Fenige</u>	Independent company	24	12,10	-0,63	Link
<u>eCard</u>	Nexi S.p.A.	19	8,06	-0,96	Link
<u>Cashbill</u>	Independent company	9	5,91	0,37	<u>Link</u>
<u>mBank</u>	Grupa Lew	15	5,81	0,03	<u>Link</u>
<u>mElements</u>	mBank	15	2,57	-0,15	<u>Link</u>
<u>SkyCash</u>	Parent company	46	2,09	-0,07	<u>Link</u>
Paymento Financial	Independent company	27	1,16	0,23	Link
YetiPay	Dc24 Alternatywna Spolka Inwestycyjna Sp. z o.o.	6	0,04	-0,04	Link
MassPay	Independent company	n.a.	n.a	n.a	Link
<u>Paytel</u>	SIBS - SGPS, S.A.	n.a	n.a	n.a	<u>Link</u>

Source: Orbis | Financials 2022

Open banking enablers

The Polish market demonstrates interest in the review of open banking regulations and Polish users are quite willing to embrace solutions based on open banking.

Kontomatik started as a personal finance management platform. In 2021, the company decided to focus solely on B2B services based on open banking and financial data analysis. Kontomatik was the first company to become an authorized account information service provider (AISP) in the CEE region. Its primary service is customer bank account access, which allows a company to receive data from a customer's bank account with their consent. TryPay was also one of the first Polish companies to receive a permit from the Polish Financial Supervision Authority to provide open banking services⁸³⁹.

bNesis provides application programming interfaces (APIs) for banks that allow tracking of data from external and nontraditional sources. It automates push/SMS/email marketing by tracking and making relevant sales offers of products and services to customers and offers non-traditional data from eCommerce, payment systems, eWallets, customer relationship management services, social media, job searching, and shipping services⁸⁴⁰.

⁸³⁷ https://useinsider.com/case-studies/skycash/

⁸³⁸ https://www.norbsoft.com/en/portfolio/skycash

https://deviniti.com/software-development-case-studies/case-study-trypay/https://tracxn.com/d/explore/payments-startups-in-warsaw-poland/_OHtzFGG-hPUSuk7dprUrvVs3CDve5XkcZOOaVWXPZrl/companies

Finally, founded in 2020 as an open banking services provider841, TransactionLink enables institutions to build products such as personal finance management, lending solutions, online payments, and more. It also enables to access transactional data and balance details of the customer⁸⁴².

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Kontomatik</u>	Runa Capital Fund	2	2,05	-0,28	Link
<u>TryPay</u>	Femion Technology S.A.	14	0,72	-0,04	<u>Link</u>

Source: Orbis | Financials 2022

Infrastructure providers

Vodeno offers a Banking-as-a-Service (BaaS) cloud-native platform entirely based on Google Cloud. The company has been recognized with the Polish Innovation Award 2022. In late 2022, UK-based NatWest entered a strategic partnership with Vodeno to create a BaaS business in the UK aiming to offer BaaS to NatWest's business customers⁸⁴³.

In 2023, Poland-based financial technology solutions provider Verestro has launched a Bank-as-a-Service platform for financial institutions. By leveraging this new product, banks can gain the ability to offer BaaS solutions to their partners and customers and improve the way they deliver digital financial services. Banks will be able to access the platform via APIs (Application Programming Interfaces) or SDKs (Software Development Kits).844

Finally, Striga is offering banking and crypto services for businesses in Poland. Striga's Banking as a Service (BaaS) enables companies to build and launch financial products using a single set of application programming interfaces (APIs)845.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Verestro</u>	Private company	84	5	1	Link
<u>Vodeno</u>	Warburg Pincus	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Expert Opinion

"Poland's payment landscape reflects a strong shift towards digital transactions, supported by initiatives like the Cashless Poland Foundation. Payment cards have emerged as the preferred method, accompanied by a notable rise in digital wallets and contactless payments. The country's FinTech industry demonstrates innovation and growth, with payment solutions such as BLIK, playing a pivotal role in driving technological advancements."

Marcin Chomicki | Senior Consultant - Deloitte Poland

https://www.eu-startups.com/2023/10/berlin-based-transactionlink-raises-e5-million-to-build-and-automate-companies-onboarding-process-in-minutes/

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https://striga.com/fr/baas-platform/baas-platform-in-poland/

Austria

Introduction

Austria is a prosperous, democratic country located in Central Europe with a well-developed market economy, skilled labour force, and high standard of living.

in 2023, cash use is significantly higher in Austria (79%846) than in other European countries. Among various age demographics, individuals aged 55 and older are the most reliant on cash, with an 86%847 rate. Similarly, the younger generation, aged 18-24, also shows a significant reliance on cash at 68% at 68% the highest rate within this age group compared to peers in Germany, France, Switzerland, Finland, Ireland, and the Netherlands. Additionally, 56%⁸⁴⁹ of Austrians associate cash with anonymity, the highest percentage among the surveyed countries. When it comes to peer-to-peer transactions, cash is the preferred method for 64%850 of Austrians.

Although cash remains king in German-speaking countries, Austria is shifting towards a digital payment-friendly society, including the use of contactless. As of June 2021, the average contactless rate was 82%851, and today, contactless transactions account for more than three-quarters of all cashless payments.

Austria has a high bank account penetration rate of 98.2% and 1.81 cards per capita⁸⁵² among its population of 9 million. Worth noting that debit cards are more widely used than credit cards because there seems to be an aversion to debt. However, attitudes toward using credit appear to be shifting, despite the prevalent use of debit methods⁸⁵³.

Moreover, the innovative use of unattended payment terminals has been one of the major outcomes of this shift. With over 10.000 vending machines in Austria accepting debit, credit and mobile phone payments, contactless payment acceptance is on the rise on account of opportunities in the workplace, community buildings, shops and restaurants. Indeed, there is a rising demand for "intelligent" vending machines that improve user experience 854. Noteworthy initiatives, such as Mastercard's partnership with the Austrian Bundesliga football club LASK to implement a cashless payment system at the LASK Raiffeisen Arena, also highlight this evolution.

As one of the first participants in the SEPA Instant Credit Transfer (SCT Inst), Austria occupies a leading position in the European real-time payments area, with a growing number of participants helping to meet the growing demand from consumers and businesses for fast and transparent cross-border payments. In 2023, the country reached 443855 participating financial institutions (FIs) and PSPs, and the volume of real-time payments in Austria is expected to reach 593 million⁸⁵⁶ by 2026.

Furthermore, the entry of digital-only banks such as the UK-based fintech company Revolut, which started operating as a bank in Austria in October 2021, underscores the evolving banking landscape⁸⁵⁷. Austria's prepaid card market has shown impressive growth, increasing at a CAGR of 9,5%858 during 2018-2022. It is projected to grow at a CAGR of 10,2%859 from 2023 to 2027, reaching a market value of 6,89 billion⁸⁶⁰ \$ by 2027.

Card payment schemes

In Austria, the card market is largely dominated by Mastercard, which holds an 80% share, followed by Visa at 18%861. American Express and other card providers make up the remaining 2%862. For online shopping, both credit and debit card payments are the top choices, accounting for 35%863 of all e-commerce transactions.

Like in many other European countries, Austrians prefer debit cards to credit cards, with about 1,12864 debit cards per person compared to 0,39865 credit cards. The rise of digital-only banks has also played a role in increasing the popularity of debit cards, complementing traditional banks and encouraging more people to adopt this payment method.

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Alternative payment methods

In Austria, the market for alternative payment methods has traditionally seen less traction compared to other European countries, primarily because of the strong foothold of card payments and a widespread preference for cash among the population. However, the landscape is beginning to shift, particularly with the rising adoption of contactless payments.

Digital wallets are fast becoming a preferred method for online transactions, making up about 25%866 of all online transactions. PayPal remains the top choice for Austrian consumers, with a 2022 Statista survey highlighting its use by 84% of respondents for online purchases. Other digital wallets like Amazon Pay, Apple Pay, WebMoney, SEQR, Skrill, and Google Pay also see significant usage.

Local payment options are also popular in Austria. Raiffeisen Group's ELBA-pay application, Erste Group's George business application, and the electronic bank transfer system developed with Austrian banks for e-commerce are gaining ground. Additionally, based in Vienna, Paysafecard is a key player in eCash solutions, providing various prepaid and online cash options like Paysafecard Account and Paysafecash as part of the global Paysafe Group.

Bitpanda is an Austrian company headquartered in Vienna. Bitpanda's mobile app provides access to its trading platform, which offers crypto-currency trading, commodities and securities trading, as well as ETFs. Bitpanda Pay is used by 3 million⁸⁶⁷ users.

Fonmoney is a young online Start-Up based in Vienna. Created in late 2011 the company makes it possible to send money around the world as a top-up or bank transfer⁸⁶⁸.

The "Buy Now, Pay Later" (BNPL) model is on the rise in Austria. The most common BNPL services in Austria are Klarna and Ratepay, A 2022 study reported that 60%869 of respondents used Klarna to make an online purchase in the last year. Credi2 is an Austrian-based fintech startup that designs, builds, and operates "buy now, pay later" (BNPL) solutions for banks, payment institutions, consumers, and merchants. Moreover, the payment services provider Payone has also announced a strategic partnership with Payla and Vereinigte Volksbank Raiffeisenbank (VVRB) in 2023 that will enable them to give Payone's merchant customers access to new products in the fields of buy now, pay later (BNPL)870. Finally, Unzer provides BNPL solutions to their customers as well⁸⁷¹.

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SOFORT GmbH, headquartered in Munich, Germany, and established in 2005, is a leading online payment service provider primarily known in the German and Austrian markets. A subsidiary of the Klarna Group since 2014, SOFORT, also known as "Pay Now", facilitates secure, straightforward transactions over the Internet without the need to use a credit or debit card. The system relies on the user's online banking credentials to make payments, giving priority to security and privacy. On average, around 3 million⁸⁷² SOFORT transactions are processed monthly, and the payment method is supported by over 35.000⁸⁷³ online merchants.

This evolving payment landscape in Austria reflects a broader trend towards digital and alternative payment methods.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Bitpanda</u>	BP22 AG	350	2.366,96	-116,04	<u>Link</u>
paysafecard.com Wertkarten	Foley Trasimene Acquisition II Corp	240	98,33	81,88	<u>Link</u>
<u>credi2</u>	Parent company	n.a.	n.a.	n.a.	Link
<u>Fonmoney</u>	Transpaygo Limited	13	n.a.	n.a.	<u>Link</u>
<u>Unzer Austria</u>	Unzer GmbH	10	n.a.	n.a.	Link
Klarna Austria	Klarna Holding AB	4	n.a	n.a	Link
<u>Payone</u>	Payone GmbH	4	n.a	n.a	Link

Source: Orbis | Financials 2022

Banks

Austria's banking system is known for being strong and stable, even when faced with rising interest rates and economic changes. By mid-2023, the banks in Austria had assets totaling around 1,2 trillion⁸⁷⁴ € and made a profit of 7,3 billion⁸⁷⁵ € in the first half of the year, despite the economic challenges and the possibility of a mild recession in 2023. The banks also have a low rate of non-performing loans, which is only 2%876.

A significant part of Austria's banking success comes from its activities in Central, Eastern, and Southeastern Europe (CESEE), where its subsidiaries hold nearly 300 billion⁸⁷⁷ € in assets. As of October 2023, there were 424⁸⁷⁸ credit institutions in Austria. The banks are focusing on digital services, offering online banking and apps, although Austrians still prefer using cash over cards⁸⁷⁹.

The Austrian banking system is well-organized, with banks grouped into industry associations based on their specific focus. The largest Austrian banks in terms of total assets in 2024 are Erste Group Bank (245,7 billion⁸⁸⁰ €), Raiffeisen Bank International (152,2 billion⁸⁸¹ €), UniCredit Bank Austria (101,66 billion⁸⁸² €), BAWAG Group (45,66 billion⁸⁸³ €), and Raiffeisenlandesbank Oberösterreich (37,2 billion⁸⁸⁴ €). Other important banks include Raiffeisenlandesbank Niederösterreich-Wien, Oberbank, Steiermärkische Bank und Sparkassen, Raiffeisenlandesbanken Steiermark, and Hypo Noe Landesbank.

Erste Group Bank, established in 1819, is the top bank in Austria and a major provider of financial services in Central and Eastern Europe, serving over 16 million⁸⁸⁵ customers in seven countries. The bank recorded an operating result of 5,5 billion⁸⁸⁶ euros in 2023, an increase of 38%887 compared to the previous year. On the domestic front, Erste Group commands a 23%888 market share in retail deposits, with 3,9889 million customers in Austria alone. The bank offers both Mastercard and Visa cards as well as a personalized online banking solution for each client type (private or corporate) and needs.

Raiffeisen Bank International focuses on corporate and investment banking and is leading in digital innovation. It offers a mobile app called My ELBA, which helps customers manage their money with features like money transfers, account overviews, and debit card management. It also provides Mastercard and Visa cards.

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In an exciting development early in 2024, Raiffeisen Bank for Lower Austria and Vienna embarked on a strategic partnership with Bitpanda Technology Solutions, one of Europe's pioneering platforms in the realm of decentralized finance⁸⁹⁰. This collaboration marks a significant milestone as Raiffeisen Bank becomes the first 'traditional' bank within the European Union to integrate digital asset trading into its services. Through their existing mobile banking application, customers now can engage in trading cryptocurrencies and explore various asset classes. With this innovative step, Raiffeisen Bank opens the door for its customers to access a diverse portfolio of more than 2.000⁸⁹¹ digital assets.

Finally, with 118 billion⁸⁹² € in total assets, Italian UniCredit Bank is the third-largest bank in Austria. The universal bank offers services similar to Erste Group and Raiffeisen.



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Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Raiffeisen Bank International	Parent company	44.414	9.786,00	3.797,00	<u>Link</u>
<u>UniCredit Bank</u> <u>Austria</u>	UniCredit SPA	4.872	2.075,00	823,00	Link
Bawag Group	Parent company	3.305	1.355,40	318,60	<u>Link</u>
Erste Bank der oesterreichischen Sparkassen	Erste Group Bank	2.422	1.011,81	338,50	<u>Link</u>
Raiffeisenlandesbank Oberoesterreich Aktiengesellschaft	Raiffeisenbankengruppe OOE Verbund eGen	1.675	551,91	n.a.	<u>Link</u>
<u>OberBank</u>	Parent company	2.058	550,36	n.a.	Link
Raiffeisenlandesbank Niederoesterreich- Wien	Raiffeisen-Holding Niederoesterreich-Wien	1.236	311,58	-22,35	Link
HYPO NOE Landesbank fuer Niederoesterreich und Wien	Land Niederosterreich	616	176,73	47,13	Link
Steiermaerkische Bank und Sparkassen Aktiengesellschaft	Steiermaerkische Verwaltungssparkasse	1.242	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Non-banking issuers

N/A

Payment processing & gateways providers

As online transactions have become more prevalent in the past four years, merchants with a broader reach feel the need to connect to multiple payment gateway providers in Austria.

Other important local players include DIMOCO Payments and Hobex. DIMOCO Payments was also founded in 2000 and enables merchants to accept more than 100^{893} payment methods, whereas Hobex is a payment gateway offering a full range of services for payment processes.

Payone is one of Austria and Germany's most opted payment service providers. The portal facilitates payment solutions for businesses and merchants, allowing them to accept online payments from different platforms, through credit or debit cards, or on their devices. Their offer enables various payment methods, such as VISA, MasterCard, PayPal, Vpay, Girocard, Google Pay, Union Pay, Alipay, AMEX, iDeal, Maestro, Apple Pay and Klarna⁸⁹⁴.

Unzer offers payment and commerce solutions to over 70.000⁸⁹⁵ merchants across Europe. In 2024, the company expanded its business activities and launched its point-of-sale (POS) solutions in Austria and Luxembourg. With its iPad cash registers, card terminals, and the mobile mini cash register POS Go, Unzer supports all retailers who want to digitize their processes and meet the increasing demand for cashless payments. In Germany, Unzer already serves more than 40.000⁸⁹⁶ retailers with its POS solutions.

We can also find other regional payment service providers in Austria, Concardis (a Nets company), Netcetera, and Qenta. Finally, Global Payment and the global leader Worldline are also active in the country for processing payments.

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Payment processing & gateways providers	Group	Number of employees	Revenue (Million €)	Net income (Million €)	LinkedIn
<u>Hobex</u>	Parent company	111	62,72	n.a.	Link
Worldline Austria	Worldline	54	13,49	2,05	Link
Concardis Austria	Talefin Group Lt	16	3,92	0,40	Link
Netcetera	Nexi SPA	57	n.a	n.a.	Link
<u>Unzer Austria</u>	Netcetera Group AG	10	n.a.	n.a.	Link
<u>Payone</u>	Unzer GmbH	4	n.a.	n.a.	Link
DIMOCO Payments	Payone GmbH	n.a.	n.a.	n.a.	Link
Global payment	Global payment s.r.o	n.a.	n.a.	n.a.	Link
Qenta Payment CEE	Qenta Technologies Group SARL	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Open banking enablers

FINcredible is a FinTech company located in Vienna that specializes on innovative services and products in finance and risk management. The company offers digital credit checks about individuals, without exposing their private information and financial details to their contracting partners897.

George offers a digital banking experience that combines design, technology and open banking services⁸⁹⁸. Based in Vienna, George was developed in Erste Group's George Labs and currently serves over 9 million⁸⁹⁹ users in 6⁹⁰⁰ European countries.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
George Labs	Erste Group Bank AG	53	n.a	n.a	Link
<u>FINcredible</u>	Parent company	11	n.a	n.a	Link

Source: Orbis | Financials 2022

https://www.crunchbase.com/organization/fincredible https://www.erstedigital.com/en/services

https://www.Linkedin.com/company/george-labs/?originalSubdomain=at https://www.Linkedin.com/company/george-labs/?originalSubdomain=at

Infrastructure providers

New Frontier Innova, part of the New Frontier Group, has developed a Banking-as-a-Service platform called Fintense, turning traditional banks into digital leaders. Their clients include Raiffeisen Bank, OTP Bank, APS Bank, and many more.

Furthermore, the Austrian local player QENTA Payments, is now offering its banking-as-a-service platform.

Payment Services Austria (PSA) is a transaction service provider that has been the competence center for cashless payment in Austria for many years. PSA enables banks in the DACH region to offer their customers cards, accounts, and identity products, while guaranteeing fast, convenient and secure transactions. The company operates as a core banking services (CBS) provider, focusing on transaction processing and helping banks ensure smooth payment operations for their customers. On behalf of the banks, the company manages the ATM system with approximately 7000901 ATMs and around 10 million902 debit cards, processes yearly 3 billion⁹⁰³ transactions for the banks, and provides connections to international account payment transactions. PSA has developed the mobile debit card and the P2P payment service ZOIN, which allows users to send and receive money via smartphone without entering the IBAN or the account number, the phone number of the other party is enough to complete the transaction.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
PSA Payment Services Austria	Parent Company	105	285,14	n.a.	<u>Link</u>
Qenta Payment CEE	Qenta Technologies Group S.àr.l.	n.a.	n.a.	n.a.	<u>Link</u>
New Frontier Innovation	New Frontier Holding GmbH	n.a.	n.a.	n.a	<u>Link</u>

Source: Orbis | Financials 2022

Expert Opinion

"In Austria, the payments landscape is balanced between cash and digital methods, with a strong preference for cash among different age groups. However, there is a trend towards digital payments, particularly contactless transactions especially for younger people. Austria is also focusing on real-time payments reflecting a dynamic and evolving market."

John Thomas | Senior Manager - Deloitte Austria

https://www.psa.at/en/

https://www.psa.at/en/

Czech Republic

Introduction

With a 95% banked population of 10,88 million and an Internet penetration of 92,8% the Czech Republic has seen a steady decline in cash usage over the last few years. Indeed, while Czechia is one of the most prominent countries in Europe where cash payments are popular, customers are slowly transitioning to contactless payments (credit cards, online banking, and more)907. 67%908 of Czech consumers indicate a strong preference for non-cash transactions.

One main factor of this transition is the massive growth of the e-commerce sector, currently valued at 6 billion \$ annually, projected to grow to 8 billion \$ by 2027909. Consequently, an increasing number of customers are buying online and opting for online payments910.

Simultaneously, there is an escalating demand for account-to-account transactions, software point of sale (SoftPOS) solutions, instant payments, and a rapidly expanding market for unattended payment solutions. As a result, predictions indicate an annual growth rate of 13,76% for the POS Terminals Market within the period 2022-2027⁹¹¹ and estimate the volume of daily real-time payments in the nation to reach 662 million by the year 2026⁹¹². This rapid expansion underscores the vibrant and ever-changing fintech landscape of the Czech Republic.

Over recent years, the country has, indeed, experienced significant growth and development in its fintech markets, distinguished by remarkable innovation and adaptability. This evolution has seen the emergence of startups and platforms focusing on various fintech services, including digital payments, personalized banking, peer-to-peer lending, financial advice automation, and blockchain technologies⁹¹³.

Regarding crypto-currencies development, a comprehensive set of rules for crypto-currency activities has not yet been developed in the country⁹¹⁴. However, the Czech Republic has become a hotspot for cryptocurrency companies⁹¹⁵ and the country has the most crypto entities registered among EU countries⁹¹⁶. The CKMA (Czech Cryptocurrency Association), the prominent association in the field, intends to extend crypto-currencies adoption⁹¹⁷.

Card payment schemes

Contactless card ownership and usage is remarkably high in the Czech Republic, with Mastercard reporting that 98%918 of the population owns a contactless card and 94%⁹¹⁹ use contactless payments. Card payments, particularly debit and credit cards (32%⁹²⁰), are widely accepted, with Visa and Mastercard leading the market⁹²¹. Visa is used slightly more (53%⁹²²) than Mastercard (47%⁹²³).

Moreover, UnionPay cards, issued by China UnionPay, are accepted at 41.000924 merchants and 85%925 ATMs in the country.

Alternative payment methods

In terms of alternative payment methods, bank transfers are popular in the republic and the use of QRcode payments is increasing. Moreover, the Czech National Bank now offers a technical solution for the use of the "Pay a Contact" service, whereby payers can enter their telephone number instead of their account number when sending money to users of this service.

Well-known players providing alternative payment methods are also present in the country, including AKCENTA, the largest payment institution in Central Europe with more than 25926 years of experience and over 51.000927 clients. The company offers domestic and international payments.

Furthermore, SAB Finance, another company that provides foreign exchange and cross-border payment services, also offers international payment solutions that consider exchange rate fluctuations. The company's services include market monitoring, foreign exchange analysis, regular payments and multiple payments⁹²⁸.

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- https://www.paymentwall.com/fr/payment-methods/czech-republic https://inai.io/blog/top-8-payment-gateways-in-the-czech-republic 907
- 908 https://www.mordorintelligence.com/industry-reports/czech-republic-pos-terminals-market
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- $https://catalystpay.com/resources/blog/advice/czech-fintech-ecommerce-innovation-cee-catalystconversations \\ https://rue.ee/crypto-regulations/czech-republic/$
- https://www.Linkedln.com/pulse/cryptocurrency-czech-republic-white-and-partners-n7eef https://www.dlnews.com/articles/regulation/european-countries-roll-out-crypto-laws-in-race-toward-mica/
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- https://www.mordorintelligence.com/industry-reports/czech-republic-pos-terminals-market https://www.mordorintelligence.com/industry-reports/czech-republic-pos-terminals-market 919
- https://www.ppro.com/countries/czech-republic/ https://uberant.com/article/1997781-digital-transactions-in-the-heart-of-europe-exploring-popular-online-payment-methods-in-the-czech-republic/
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- https://www.unionpayintl.com/cardholderServ/globalCard/en/global_3/10050192?type=1
- https://www.unionpayintl.com/cardholderServ/globalCard/en/global_3/10050192?type=1 https://www.akcenta.com
- https://www.akcenta.com
- https://pitchbook.com/profiles/company/226310-59#overview

In 2023, Twisto, one of the Czech Republic's pioneering fintech companies also specialized in BNPL, was acquired by Param (a financial technology company that provides customizable embedded finance solutions for businesses and individuals). Through their combined expertise, Param and Twisto cater to over 85.000929 merchants. This strategic move not only fortifies Twisto's future but also grants it increased financial stability and growth potential.

Skip Pay, another Buy Now Pay Later (BNPL) modern payment method, is also popular among the country's online shoppers. Some other players such as Google Pay, Apple Pay, Garmin Pay, Xiamo Pay, Skrill and PayPal are also well implemented.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
AKCENTA CZ	Raiffeisen Bank International AG	107	16,80	2,98	<u>Link</u>
SAB Finance	Parent company	64	8,28	11,19	<u>Link</u>
<u>Skip Pay</u>	KBC GROEP	n.a.	0,17	-6,8	<u>Link</u>
Twisto payments	Parent company	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022



Banks

The Czech banking sector is one of the most progressive in Central Europe⁹³⁰ distinguished by its small size and great concentration. Banks with foreign capital (mainly from Austria, Italy, France and Belgium) dominate the banking industry. Československá Obchodní Sanka (ČSOB), Česká spořitelna and Komerční Banka are the major players; the three of them being foreign owned. The interbank payment system in the Czech Republic, which handles interbank payments in Czech koruna, is the CERTIS system (Czech Express Real Time Interbank Gross Settlement system) and as of 2022, over 50 banks and payment service providers (PSPs) participate in the instant payment system⁹³¹.

 $[\]underline{https://www.financemagnates.com/fintech/biggest-turkeys-fintech-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion/linear-param-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-acquires-czech-twisto-in-european-expansion-expansion-acquires-czech-twist$

 $https://www.mordorintelligence.com/industry-reports/czech-republic-pos-terminals-market \\ https://www.pymnts.com/real-time-payments/2023/czech-republics-real-time-payments-adoption-slow-despite-promising-potential/ligence.com/real-time-payments/2023/czech-republics-real-time-payments-adoption-slow-despite-promising-potential/ligence.com/real-time-payments/2023/czech-republics-real-time-payments-adoption-slow-despite-promising-potential/ligence.com/real-time-payments/2023/czech-republics-real-time-payments-adoption-slow-despite-promising-potential/ligence.com/real-time-payments/2023/czech-republics-real-time-payments-adoption-slow-despite-promising-potential/ligence.com/real-time-payments/2023/czech-republics-real-time-payments-adoption-slow-despite-promising-potential/ligence.com/real-time-payments/2023/czech-republics-real-time-payments-adoption-slow-despite-promising-potential/ligence.com/real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-republics-real-time-payments/2023/czech-$

ČSOB was created by the government in 1964 to handle convertible currency transactions and provide finance for international trade. Part of KBC Group since 1999. it is a universal bank that offers individuals, SMEs, corporations and institutional clients a wide range of retail, corporate and investment banking products and services. In 2022, Československá obchodná banka achieved the position of 4th largest bank in Slovakia with a market share of 15,79%⁹³². The bank issues Mastercard and Visa cards that are compatible with wallets such as Apple Pay, Google Pay, Garmin Pay and Xiaomi Pay.

Česká Spořitelna is a universal bank that specializes in offering retail and business banking products and services to individuals, small and medium-sized businesses, municipalities, and towns. Part of the Erste Group since 2000, the bank also provides financing and capital market solutions to large companies. In terms of total assets, it is the second-largest bank in the Czech Republic (1.797,8 billion⁹³³ CZK). Currently, the Bank provides services to 4,5 million⁹³⁴ clients and has 2,3 million⁹³⁵ active clients for internet banking and BUSINESS 24 (an application for corporate clients that allows them to manage their finances). In 2023, Česká spořitelna achieved the position of 2nd largest bank in the Czech Republic with a market share of 18,3% and in the same year, the European Investment Bank (EIB) and Česká spořitelna have made 400 million⁹³⁷ € available to Czech small and medium-sized enterprises (SMEs) and mid-cap companies (ETIs).

Komerční Banka is the third largest bank in the Czech Republic and has been part of Société Générale Group since 2001. As universal commercial bank, Komerční Banka offers a variety of retail, private, corporate and investment banking products and services to individuals, SMEs and other business entities⁹³⁸. In 2023, the bank received the Mastercard Bank of the Year 2023 award⁹³⁹ and achieved the position of 3rd largest bank in the Czech Republic with a market share of 15%⁹⁴⁰.

Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Ceska Sporitelna</u>	Parent company	10.237	1.990,78	836,90	Link
Ceskoslovenska Obchodni Banka (CSOB)	KBC Groupe SA	8.105	1.870,72	604,05	<u>Link</u>
Komercni Banka	Société Générale	7.687	1.607,77	736,79	Link

Source: Orbis | Financials 2022

Non-banking issuers

Eurowag offers payment and mobility solutions for the road transport sector, in particular with its professional fuel cards. In 2023, Eurowag inaugurated two LNG stations in the Czech Republic, with the ambition of reaching 30 stations by 2030. Eurowag cardholders can use these services at a growing network, including 302 card-accepting stations⁹⁴¹.

Paynovatio, a registered Czech fintech company, provides complete end-to-end solutions for clients by designing, developing, implementing, and managing pre-paid programs. They issue cards under both Mastercard, VISA and China Union Pay and therefore have the same acceptance as credit and debit cards on the internet.

Edenred has combined its know-how with Mastercard's universal technology to create Edenred card made from recycled plastic. This means that meal voucher and benefits portfolios can be combined on a single card offering many more options. The card is contactless and supports mobile payments using Google Pay and Apple Pay.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
W.A.G. payment solutions	W.A.G Payment Solutions PLC	n.a.	3.716,37	24,01	<u>Link</u>
Edenred CZ	Edenred	n.a.	20,68	1,98	<u>Link</u>

⁹³² https://thebanks.eu/banks/17732

⁹³³ https://www.csas.cz/en/about-us/who-we-are 934 https://www.csas.cz/en/about-us/who-we-are

⁹³⁵ https://www.csas.cz/en/about-us/who-we-are

https://www.basiczerinaboucus/mio-we-are https://www.helgilibrary.com/charts/ceska-sporitelna-market-share-in-bank-revenues-quarterly#:~:text=As%20a%20result%2C%20Ceska%20Sporitelna,in%20 2016%2D06%2D30.

⁹³⁷ https://www.eib.org/fr/press/all/2023-369-eib-and-ceska-sporitelna-to-channel-eur400-million-to-czech-smes-mid-caps

https://www.kb.cz/en/about-bank/facts-and-results

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https://lngprime.com/europe/eurowag-launches-two-czech-lng-fueling-stations/77147/

Payment processing & gateway providers

In the dynamic landscape of the Czech Republic's e-commerce industry, esteemed payment gateway providers serve as indispensable bridges, connecting merchants with acquiring banks or financial institutions for the secure transmission of payment information.

One prominent payment gateway in the Czech Republic is GoPay, a member of the Worldline group. With a strong presence in the market, GoPay offers comprehensive payment solutions tailored to the needs of businesses. It provides merchants with many features, including seamless integration with e-commerce platforms, support for various payment methods (credit cards, debit cards, online banking), and advanced fraud prevention tools.

Another notable payment gateway in the Czech Republic is PayU which offers a wide range of payment solutions designed to simplify online transactions. Their payment gateway enables merchants to accept payments through various channels, including credit cards, alternative payment methods, and recurring billing. PayU emphasizes user-friendly integration, fast and secure payment processing, and robust risk management capabilities. Similarly to PayU, Paysera is a popular online payment processing tool that allows to accept payments in different countries and currencies either by card, electronic banking or other popular payment methods.

Furthermore, PayCeC is a popular payment gateway in the Czech Republic. PayCEC provides merchants with a comprehensive suite of payment services, including secure payment processing, support for multiple currencies, and customizable payment pages. It offers a seamless payment experience for customers, ensuring efficient and reliable transactions⁹⁴².

Other major payment service providers in Czechia include Global Payments, ComGate, and Softpay with Global Payments occupying about 80% of the banking market and the other players concentrating on large merchants.

Tap-to-phone technology provider SoftPay has announced a strategic partnership with multifunctional POS system solution provider Dotykacka to meet the growing demand for contactless payment acceptance in the Czech Republic and Slovakia. The collective goal of this collaboration is to provide businesses with a versatile range of point-of-sale options, cater to the needs of mobile workforces, and offer self-service and emergency SoftPOS solutions, ultimately reinforcing businesses and delivering superior service to end customers. Softpay allows any Android device to function as a payment terminal, offering greater flexibility and enhancing customer interactions⁹⁴³.

In a push to promote cashless transactions, four Czech banks are rolling out a novel solution that allows merchants to bypass traditional terminals while eliminating the need for customers to pay in cash. The innovative new system, called Cvak, is expected to change the way payments are made in the country. Both the merchant and the consumer can have an account with any local bank to use Cvak, and customers can make payments through Cvak using their mobile banking app from participating banks such as Air Bank, Fio banka, mBank and Moneta Money Bank. If a customer does not have one of these apps, they can still pay using Google Pay or Apple Pay. Cvak is the first of its kind in the Czech Republic, offering a unique solution for businesses that do not need a payment terminal but still accept cashless payments⁹⁴⁴.

The country is also home to other popular gateway providers such as GPE, ČSOB GATEWAY, Ayden, Stripe, EVO payments945

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
ComGate Payments	Comgate AS	33	16,56	0,52	<u>Link</u>
EVO Payments International	EVO Payments Inc.	11	14,81	1,73	Link
<u>GOPAY</u>	Worldline	n.a.	n.a.	n.a.	<u>Link</u>
Global Payments Europe	Parent company	n.a.	n.a.	n.a.	Link

https://www.paycec.com/faq/what-is-the-payment-gateway-in-the-czech-republic

https://www.finextra.com/pressarticle/98548/softpay-and-dotykacka-team-on-tap-to-phone-payments-in-czech-republic-and-slovakia

https://www.expats.cz/czech-news/article/transforming-card-payments-in-czechia-major-czech-banks-offer-the-cashless-cvak-system

https://inai.io/blog/top-8-payment-gateways-in-the-czech-republic

Open banking enablers

The Czech Republic is making steady progress in the field of open banking. In 2021, the Czech Banking Association released an extensive regulation on open banking standards, providing important guidelines for PSD2 (revised Payment Services Directive) implementation⁹⁴⁶.

The Lithuanian company Kevin is well-implemented in the Czech Republic. The company's next-generation high-tech infrastructure is based on open banking, enabling companies and entities of all sizes to accept payments directly from their customers' bank accounts throughout Europe⁹⁴⁷. Globally, the solution enables A2A (account-to-account) payments for e-commerce, mobile, and physical retail sales 948 across industries, including retail, parking, fashion, car-sharing, deliveries, insurance, and many more⁹⁴⁹.

Founded in 2021, the Czech company Finbricks offers a MULTIBANK open banking aggregation platform, providing access to a wide range of financial data and banking products⁹⁵⁰. They offer PSD2 AIS (automatic identification system) services, account information, balances, and transaction history, and PSD2 PIS (payment initiation service) services, including recurring payments⁹⁵¹. The company currently covers nine Czech banks for both services, and their solution is affordable even for startups and small businesses.

Tink, also well-known in the country, was founded in 2012 and became part of Visa in 2022 to improve the banking industry. It is currently Europe's most robust open banking platform offering powerful services from financial data with the broadest connectivity capabilities available. The company has 6.000 connections with banks and institutions, and 10.000 developers using its platform⁹⁵².

Salt Edge is another financial API platform that offers PSD2 and open banking solutions for businesses. The company enables third parties to access over 5.000 banking channels via a unified gateway and develops the technology necessary for banks to comply with the directive's requirements. The solution is integrated with thousands of financial institutions in over 50 countries while providing open banking solutions to a variety of financial institutions, including ING Bank, Western Union, Finom, Pleo, Freshbooks, Hyperjar, Azimut, Odoo, MoneyWiz, and many others⁹⁵³.

Kontomatik is a well-known open banking facilitator in the CEE region, providing banking data aggregation services since 2009. Over the past 12 years, the company has carried out over 20.000.000 bank data imports and served over 200 customers in 15 countries⁹⁵⁴. It provides access to account information that gives an overview of a customer's finances up to several years back and up to 90 days forward with the customer's consent.

Deloitte's licensed ADEL multibanking solution supports 15 banks in the Czech Republic and 6 banks in Slovakia for online customer identification and income verification⁹⁵⁵. The solution downloads and analyzes corporate clients' transaction history, even from multiple accounts in different banks simultaneously, and can be used by unlicensed entities.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Finbricks</u>	Komerční banka	n.a.	n.a.	n.a.	Link

https://noda.live/articles/open-banking-in-europe

https://fintech-market.com/partners/kevin https://www.speedinvest.com/blog/harnessing-the-power-of-open-banking-our-investment-in-kevin

https://www.speedinvest.com/portfolio/kevin https://www.finbricks.com/index_en.html

https://smebanking.club/finbricks-brings-a-new-experience-for-the-customers/

https://tink.com/fr/a-propos/

⁹⁵³ 954 $\underline{https://www.openbanking.org.uk/regulated-providers/salt-edge/\#: -:text=Salt%20Edge%20is%20a%20leading.channels%20via%20a%20unified%20gateway. \\ \underline{https://www.openbanking.org.uk/regulated-providers/salt-edge/\#: -:text=Salt%20Edge%20is%20a%20leading.channels%20via%20a%20unified%20gateway. \\ \underline{https://www.openbanking.org.uk/regulated-providers/salt-edge/#: -:text=Salt%20Edge%20is%20a%20leading.channels%20via%20a%20unified%20gateway. \\ \underline{https://www.openbanking.channels%20via%20a%20unified%20gateway. \\ \underline{https://www.openbanking.channels%20via%20a%20unified%20gateway. \\ \underline{https://www.openbanking.channels%20via%20unified%20gateway. \\ \underline{https://www.openbanking.channels%20via%20gateway. \\ \underline{https://www.openbanking.channels%20gateway. \\ \underline{https://ww$

https://www.kontomatik.com/about-kontomatik

https://www2.deloitte.com/cz/en/pages/financial-services/solutions/adel.html

Infrastructure providers

Founded in 1990, Finshape is a leading banking software provider in Europe. Indeed, Finshape combines a digital banking platform with deep customization capabilities, making it a digital success engine for banks in Europe and the MENA region⁹⁵⁶.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>Finshape</u>	W.UP.	57	11,06	-0,61	Link

Source: Orbis | Financials 2022

Expert Opinion

"The Czech Republic is witnessing a shift from cash to contactless and cashless transactions, driven by factors such as the growth of the e-commerce sector. This transition is accompanied by growing demand for account-to-account transactions and point-of-sale software solutions. The fintech market is flourishing, with startups offering various services, while the country has also become a hot spot for crypto-currency companies."

Apetauer Ivo | Head of Immersive Technology - Deloitte Czech Republic

Croatia

Introduction

On the first of January 2023, Croatia became the 20th country to join the eurozone⁹⁵⁷. Introducing the euro as the official currency involved several key changes and advancements in the payment ecosystem. One of them is the integration of pre-existing instant payment schemes and mobile payment apps that have gone cross-border. Card payments, both debit and credit, are widely accepted in the country with each individual holding more than 2⁹⁵⁸ cards on average.

Mobile payment solutions have also witnessed growth in the country. Various mobile banking solutions typically utilize Near Field Communications (NFC) technology which allows users to tap their devices on contactless payment terminals⁹⁵⁹.

The internet penetration rate in Croatia was around 81,3%⁹⁶⁰ in 2021 and is projected to reach 87%⁹⁶¹ by 2027. Around 87,2%⁹⁶² of Croatians will likely be smartphone users by 2028. A survey about e-commerce payment preferences in Croatia in 2022 revealed that payment by Visa or Mastercard was used by 53%⁹⁶³ of respondents, cash on delivery by 46%⁹⁶⁴ and digital wallets by 37%⁹⁶⁵. The use of digital wallets has increased, thanks in particular to local wallet solutions such as Aircash and KEKS Pay (by Erste Bank), which offer the possibility of paying at online and offline merchants as well as peer-to-peer payment solutions and in-app payments for parking or public transport.

Due to its small population, the Croatian e-commerce market is relatively modest, but still growing. Market experts forecast a compound annual growth rate of 10,4%⁹⁶⁶ for Croatian e-commerce between 2023 and 2027, generating sales of around 1,92 billion⁹⁶⁷ \$.

The Croatian government has founded regulatory innovation hubs to manage the fast-moving fintech industry meanwhile supporting various innovative projects and accelerating their plans for market entrance. Digital payments could see a transaction value of 5,65 billion⁹⁶⁸ \$ by 2027 and the neo-banking sector is expected to grow its revenue by 51,3%⁹⁶⁹ in 2023.

In terms of cryptocurrencies, the country offers the possibility to pay with cryptocurrencies for certain hotels, museums, webshops, petrol stations, humanitarian associations and even local governments. Globally, the cryptocurrency market is expected to grow in the coming years, with market revenues expected to increase from 45,57 million⁹⁷⁰ \in in 2024 to 64,12 million⁹⁷¹ \in in 2028.

Card payment schemes

Credit cards are a prevalent method for online purchases, with major multinational networks like Visa, MasterCard, American Express, and Discover facilitating transactions between merchants and banks⁹⁷². Croatia is one of the leading countries in Europe when it comes to receiving card payments or other types of electronic payment in hospitality establishments, hotels, shops, agencies, and any other place where you can shop or pay for a service⁹⁷³.

Alternative payment methods

KEKS Pay is a solution provided by leading regional bank Erste Bank. This wallet historically serviced their own bank-client base but is meanwhile opened to users not holding a bank account at Erste Bank. In addition to being a classic wallet for payment at POS and online, it offers additional benefits such as easy payments for parking and public transport. The total volume of transactions increased by 80%⁹⁷⁴ compared to 2021 and the application is used by more than 300.000⁹⁷⁵ users, representing an increase of 30%⁹⁷⁶ compared with the same period. One of the application's most popular features is free utility payments from over 65 billers in more than twenty Croatian cities. New billers, mainly local self-government units, utility companies, kindergartens, and others are constantly being added to the service.

Aircash is the market-leading bank-independent wallet solution. Like KEKS Pay, it offers a marketplace within the app, allowing users to one-click pay for parking and public transport. One of the main advantages of Aircash is the network of 50.000⁹⁷⁷ stores (petrol stations, tobacconists, etc.) where people can purchase an A-Bon (a printed e-voucher for easy and secure

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online purchases using a 16-digit PIN code) to load their wallet. This opens the solution for the historically large number of people who still prefer to load their wallet at a physical store rather than by bank transfer or card.

In 2023, Aircash increased the number of users in Croatia by 70%⁹⁷⁸ to more than 200.000⁹⁷⁹ but also became the first domestic startup to issue its own card. Indeed, the Croatian mobile wallet now offers a Mastercard in addition to its mobile application, just like the cards offered by the British company Revolut and Erste Bank's KEKS Pay. These prepaid cards, which are tied exclusively to the Aircash wallets' balances, incur no fees and have no monthly subscription plans, making them a competitively priced product in the market 980. The company is currently active in Croatia, Slovenia, Austria, Germany and Romania, with imminent plans to expand into other European countries⁹⁸¹.

With over 20 years of experience in the industry, NTH provides advanced technological solutions in the field of electronic payments⁹⁸². It offers services such as mobile payment systems and electronic payment terminals that facilitate secure transactions for end users and businesses. NTH also develops customised applications to enhance the user experience in the digital payments sector.

International payment methods such as PayPal, Google Pay and Apple Pay are also present in the country but are less widely used than in many other European markets.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
<u>AIRCASH</u>	Independent company	35	20,01	7,03	<u>Link</u>
NTH Mobile	Independent company	73	6,64	0,07	Link

Source: Orbis | Financials 2022

Banks

Croatia's banking sector is typical of Eastern European countries, with a relatively small number of banks, a high degree of concentration, and a high share of foreign capital. The major banks, predominantly under foreign control, include Zagrebacka Banka, Privredna Banka Zagreb (PBZ), Erste & Steiermärkische Bank, OTP Banka, and Raiffeisen, which lead in terms of total assets

Zagrebacka Banka is a subsidiary of the Italian bank UniCredit that offers banking and related financial solutions. The bank holds 26,30% of the market share in Croatia and issues Visa debit cards as well as Mastercard credit cards. The company's online banking service is called e-Zaba and its mobile app m-Zaba. Moreover, users can use IziPay on their mobile app to transfer money.

Privredna Banka Zagreb (PBZ) comes in second place with a market share of 20,86% PBZ is owned by another major Italian bank, Intesa Sanpaolo. The bank offers current accounts, giro accounts and student accounts. The bank issues cards branded with both Visa and Mastercard, which can then be stored in e-wallets such as Apple Pay and Google Pay. The withPAY feature enables card holders to transfer money quickly using a mobile phone number.

With a 17,93% market share, Erste & Steiermarkische is a subsidiary of the Austrian Erste Group serving 600.000 customers, including individuals and small and medium-sized businesses. The bank offers similar services that its peers.

OTP Banka, a subsidiary of the Hungarian bank, owns 10%986 of the market, and the Austrian Raiffeisen 8%987.

Neobanks such as Revolut do not yet play a relevant role in the market but with Croatia entering the Eurozone, their relevance is likely to increase.

https://total-croatia-news.com/news/made-in-croatia/croatian-mobile-wallet-aircash/

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⁹⁸⁰ 981 https://www.24sata.hr/tech/aircash-kartica-od-sada-se-moze-kupiti-i-u-austriji-te-sloveniji-858747

⁹⁸² https://www.nth-mobile.com

https://thebanks.eu/countries/Croatia/major_banks 983

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https://thebanks.eu/countries/Croatia/major_banks https://www.reuters.com/article/idUSKCN1S51CC/

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Banks	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Zagrebacka Banka	UniCredit SPA [IT]	n.a.	705,00	248,00	<u>Link</u>
Privredna Banka Zagreb	Intesa Sanpaolo [IT]	4.664	593,80	194,31	<u>Link</u>
<u>Erste &</u> <u>Steiermarkische</u> <u>Bank</u>	Erste Group Bank AG [AT]	3.320	456,04	155,55	<u>Link</u>
Raiffeisenbank Austria	Raiffeisen Bank International AG [AT]	1.857	272,48	44,73	<u>Link</u>
OTP Banka	OPT Bank PLC [HU]	2.562	269,69	97,95	Link

Source: Orbis | Financials 2022

Non-banking issuers

PBZ Card, the leading card institution in Croatia, provides payment cards authorized and regulated by the Croatian National Bank. The company offers credit cards, prepaid cards and gift cards to private individuals and businesses. They also issue Premium Visa cards and provide the service of accepting and building a sales network for Mastercard, Visa, UnionPay and American Express cards⁹⁸⁸.

Erste Card Club d.o.o. (ECC) stands as a distinguished credit card company in Croatia. ECC prides itself on offering an exclusive range of products, with a particular emphasis on Diners Club cards (Croatia's inaugural card brand)⁹⁸⁹. The company has been leading in financial service innovation across the Croatian landscape for nearly three decades and has been recognized for its excellence with five "Best New Initiative" awards in online services⁹⁹⁰. It also received three "Best Franchise" and three "Best Corporate Performance" acknowledging its remarkable growth⁹⁹¹. Positioned as a subsidiary of the Austria-based Erste Group, ECC specializes in the management of card payments. This includes services such as card issuing and acquiring, issuer authorization, and transaction processing. Furthermore, the company extends its expertise by offering educational and consultancy services.

Aircash, the market-leading mobile wallet in Croatia, offers the largest variety of loading options allowing payment both at POS and online to more than 500.000⁹⁹² users. They issue Mastercard Aircash cards that can be added to their mobile wallet and used for online purchases.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
PBZ CARD	Intesa Sanpaolo [IT]	240	105,76	17,36	<u>Link</u>
ERSTE CARD CLUB	Erste Group Bank AG [AT]	241	96,63	21,99	Link
<u>AIRCASH</u>	Independent company	35	20,01	7,03	<u>Link</u>

Source: Orbis | Financials 2022

Payment processing & gateway providers

Corvus Pay, Monri Payments (part of the Payten Group), Primex Payments and Prolaz POS are the most prominent gateways. International PSPs do not play a significant role in Croatia yet.

Monri Payments became the leading regional service provider for payment transactions and a trusted partner of numerous financial institutions and merchants expanding their services to card payment terminals with their SinglePOS solution⁹⁹³.

The second notable payment gateway in Croatia is CorvusPay which specializes in providing secure and reliable payment processing services. Their payment gateway offers seamless integration with e-commerce platforms, enabling merchants to accept online payments through channels such as credit cards, mobile payments, and alternative payment methods⁹⁹⁴.

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- https://www.amcham.hr/en/erste-card-club-doo-m431
- https://binom.hr/our-work/erste-card-club/
- https://binom.hr/our-work/erste-card-club/
- https://www.24sata.hr/tech/aircash-kartica-od-sada-se-moze-kupiti-i-u-austriji-te-sloveniji-858747
- https://commercemarketplace.adobe.com/partner/irebrovic
- https://www.paycec.com/faq/what-is-the-payment-gateway-in-croatia

Primex Payments is focused on payment solutions for e-commerce. The company offers card payment processing, direct settlement, and alternative payment solutions for merchants in Croatia and the European Union. It also provides services aimed at predicting and preventing fraud⁹⁹⁵.

For its part, the FinTech company Prolaz POS focused on partnering with local and international banking institutions to provide merchants with innovative and flexible payment services through network host services⁹⁹⁶. They enable banks to enter the market faster while simultaneously reducing operational costs associated with POS terminals.

Some other payment processors are gaining in popularity such as Nexi Croatia, a provider of payment solutions that offers digital, security and authentication payment solutions. On average, the company processes 1,5 million⁹⁹⁷ transactions per day, 560 million⁹⁹⁸ yearly, and is dedicated to developing and managing its payment business on an international level.

In 2023, Nexi Croatia and PBZ Card announced a new strategic partnership in the segment of accepting card payment transactions at points of sale. This approach will bring to points of sale simple, fast, and reliable payment solutions that are already used by 2 million⁹⁹⁹ merchants across Europe.

T-com Payway and PayCec are also recognized payment gateways in Croatia¹⁰⁰⁰. The first offers comprehensive payment solutions for online businesses, with advanced fraud prevention measures and configurable payment pages. The second supports multiple payment methods and offers customizable payment options tailored to specific business needs, prioritizing data security, transaction reliability and a seamless user experience¹⁰⁰¹.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Income (Million €)	LinkedIn
Nexi Croatia	Nexi Group	321	52,33	5,19	<u>Link</u>
Monri Payments	Payten [PL]	23	4,78	0,36	<u>Link</u>
CORVUS PAY	Independent company	18	1,34	0,17	<u>Link</u>
PRIMEX PAYMENTS	Global Primex Europe Spolka [PL]	6	0,34	-0,18	<u>Link</u>
PROLAZ POS	Independent company	1	0,15	-0,35	<u>Link</u>

Source: Orbis | Financials 2022

Open banking enablers

N/A

Infrastructure providers

N/A

https://www.crunchbase.com/organization/primex-payments-d-o-o

https://www.prolaz.hr

https://www.amcham.hr/en/nexi-croatia-doo-m628

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https://ibsintelligence.com/ibsi-news/nexi-croatia-and-pbz-card-partner-for-payment-card-acceptance/

https://www.paycec.com/faq/what-is-the-payment-gateway-in-croatia https://www.paycec.com/faq/what-is-the-payment-gateway-in-croatia

Expert Opinion

"In Croatia, card payments are widely accepted and the growing use of local digital wallets, such as Aircash and KEKS Pay, contributes to the growth of digital payments in the country. The Croatian government actively supports innovation in digital payments and expects the sector to experience significant growth in the coming years. The Croatian banking sector, meanwhile, is characterized by a small number of highly concentrated banks dominated by foreign capital."

Sprlje Filip | Senior Risk Consultant - Deloitte Croatia

Baltic Countries

Introduction

With 6 million inhabitants, the Baltic states - Lithuania, Latvia and Estonia - are home to an astonishing number of start-ups and an impressive count of 12 unicorns¹⁰⁰². Recent years have witnessed a growing community of start-ups in the region¹⁰⁰³, including ventures in the payments industry. This growth has been attributed to various drivers including the ease of working in the region, the cost of living and the emphasis placed on innovation.

Moreover, many foreign institutions have set their European headquarters in one of the three countries as the region is considered the best gateway to the EU market - especially Lithuania.

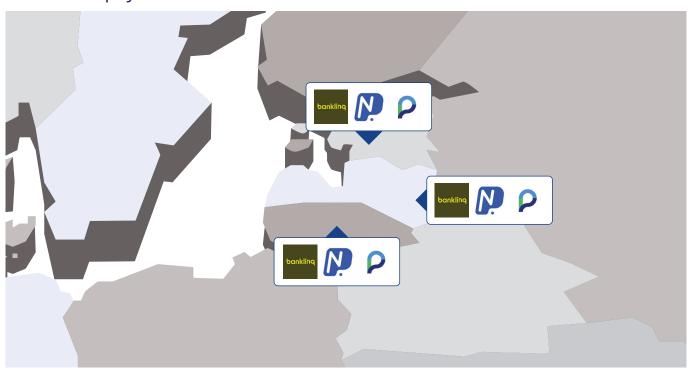
On the other hand, the Baltic States can be considered a fully consolidated market with a strong predominance of Nordics institutions in the banking and payments sector¹⁰⁰⁴. As an illustration, the large Danish payment service provider Nets operates processing services for Swedish banks, including SEB bank and Swedbank¹⁰⁰⁵, the latter being the first employer in the bank and the most loved brand¹⁰⁰⁶ in the Baltics.

Concerning preferred payment methods, they vary slightly across the three countries - cards, bank transfers, and e-wallets being the most widely used means of methods payment¹⁰⁰⁷. Payment by bank transfer is the most preferred option. As a result, solutions such as Neo Pay and Bankling are gaining traction in the region.

Card payment schemes

Without surprise, international card schemes, such as Visa and Mastercard dominate the market as there isn't any local card scheme in the Baltic region.

Alternative payment methods



Debit cards, bank transfers, and e-wallets are the most widely used payment methods¹⁰⁰⁸.

Payment by bank transfer is the most preferred option. As a result, Bankling (a solution developed by Nikulipe) and Neopay (a solution developed by Neo Finance) are gaining traction in the region. Bankling is a payment method that Nikulipe has launched for the Baltic region. The local payment method covers all relevant banks in the region. Connected banks include SEB, Swedbank, Luminor, Revolut, Citadele, Šiaulių Bankas, Medicinos Bankas, LKU, LHV Pank, and Coop Pank. It is an easy,

- https://sifted.eu/articles/baltics-estonia-latvia-lithuania-startups-ecosystem/ 1003
 - https://civitta.com/articles/the-baltic-startup-scene-today-s-realities-tomorrow-s-possibilities
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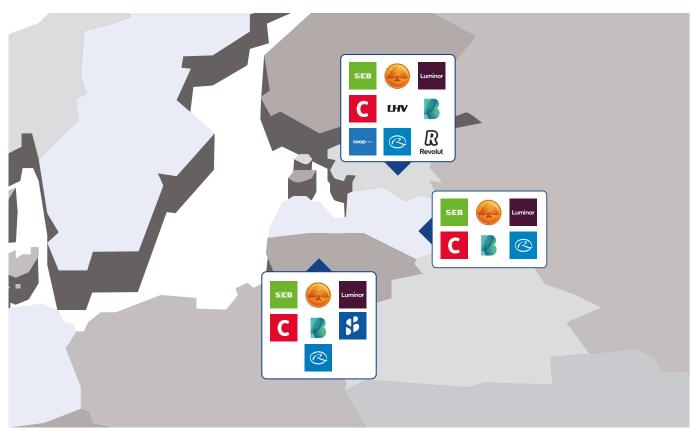
fast, and secure process based on Open Banking legislation. The idea is to pay for your online shopping by simply using your own bank account. No registration or credit card is needed¹⁰⁰⁹. Similarly, Neopay, a solution launched by NEO Finance, enables businesses to accept payments directly from banks, taking full benefit of open banking APIs¹⁰¹⁰.

E-wallets are also a much-appreciated means of payments in the region. In particular, the local wallet Paysera has been widely adopted in the Baltics.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Paysera</u>	Independent company	160	11,29	-2,46	<u>Link</u>
NEO Finance	UAB Era Capital	34	3,53	0,10	<u>Link</u>
<u>Nikulipe</u>	Bergwand GMBH	20	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Banks



The main characteristic of the banking sector of the three Baltic states is that it is dominated by the operations of banks based in the Nordics. Swedbank has the largest share of assets. After Swedbank, Sweden's Skandinaviska Enskilda Banken (SEB) is the largest player in the region¹⁰¹¹. According to their own statistics and other estimates, Swedbank and SEB, through their subsidiaries and local branches, dominate the markets in the Baltics and cover 50% of the Estonian market, 85% of the Lithuanian market and 60% of the Latvian market 1012.

https://www.banklinq.eu

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Estonia's Luminor Bank (issued from the merger of Nordea Bank and DNB¹⁰¹³) comes third in terms of market share in the region. Other local banks such as Citadele have managed to develop outside their domestic markets as well.

Amongst the approx. one dozen local banks and credit institutions in the region, it is Siauliu Bankas, Bigbank and Coop Pank (Estonia) or Rietumu Banka (Latvia) that have the biggest relevance.

Lithuania is also home of several Neobanks, that have licensing and operations in the region. Revolut has for sure the biggest relevance in terms of local customers, other Neobanks such as ZEN.com have local presence in the region. With regards to business banks, LHV Pank is growing in the Baltics and into EEA region.

Banks	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Skandinaviska</u> <u>Enskilda Banken</u>	Parent company	16.283	5.807,45	2.426,69	<u>Link</u>
<u>Swedbank</u>	Parent company	17.886	4.678,13	1.921,28	Link
Revolut Bank	Revolut LTD	337	411,22	23,56	Link
<u>Luminor Bank</u>	Luminor Holdings AS	2.352	407,70	124,70	Link
<u>Citadele Banka</u>	Parent company	1.355	179,96	46,31	Link
LHV Pank	Parent company	765	161,67	80,87	<u>Link</u>
<u>Siauliu Bankas</u>	Parent company	908	139,06	63,61	<u>Link</u>
<u>Bigbank</u>	Parent company	485	103,20	32,70	<u>Link</u>
Rietumu Bank Group	Parent company	526	73,60	17,46	<u>Link</u>
Coop Pank	Parent company	351	54,63	20,35	<u>Link</u>

Source: Orbis | Financials 2022

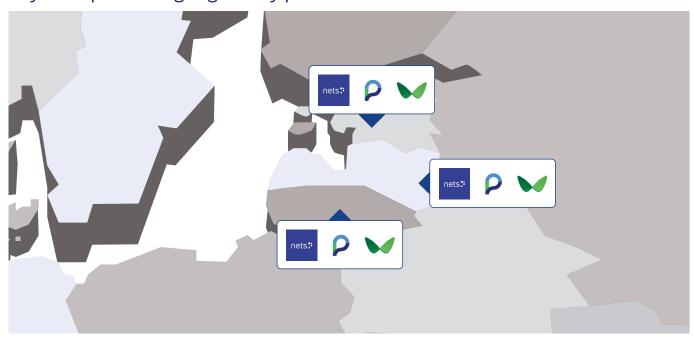
Non-banking issuers

As for non-banking issuers, there is no dominance of a single actor across the entire Baltic region. Indeed, each country has its own key player. For instance, in Estonia, Wallester is a significant player. The company has recently expanded into other European markets such as France and the UK. In Lithuania, Pervesk operates as an electronic money institution issuing cards. Meanwhile, in Latvia, there are multiple actors, but the primary one is Transact Pro.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Wallester	WALLESTER GROUP OÜ	43	3,94	-0,40	<u>Link</u>
<u>Pervesk</u>	Obolis Ltd	88	3,86	0,24	<u>Link</u>
<u>Transact PRO</u>	Independent company	30	2,70	-0,60	Link

https://www.strategeast.org/biggest-baltic-bank-starts-operations-in-estonia-latvia-and-lithuania/

Payment processing & gateway providers



Nets is a prominent payment processor not only in the Baltic region but also in the Nordics. Additionally, the company operates in 25 countries, offering services to individuals, businesses, and financial institutions.

Paysera deserves mention as well, given its significant presence in each Baltic country. Originating from Lithuania, the company serves as more than just a payment processor, providing various services including card issuance, mobile apps, currency exchange and more.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Paysera LT	Independent company	160	11,29	-2,46	<u>Link</u>
Nets Estonia	NEXI Spa	47	5,75	0,66	Link
<u>Wallester</u>	WALLESTER GROUP OÜ	43	3,94	-0,40	<u>Link</u>

Open banking enablers

Across the major open banking enablers present in the Baltics, the relevant ones include Nordigen and Yapily. Nordigen plays a big role because of its first position in providing in 2020 free open banking across 300 banks in 29 European countries 1014 while the second one, Yapily, is present in 19 European countries and serves 2000 financial institutions.

As the other European countries, they are regulated by the European Union (EU) directive PSD2 which "seeks to encourage the development and use of innovative online and mobile payment methods"1015.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Nordigen	GoCardless	79	1,27	-2,00	Link
<u>Yapily</u>	Yapily Connect Ltd	12	0,02	0,00	Link

Source: Orbis | Financials 2022

Infrastructure providers

Tuum, Mambu, and Advapay, also featured in other categories, offer core banking services to other companies. For instance, Mambu serves more than 100 million users and operates across multiple countries.

Tuum, Advapay, Railsr and Contis are significant Banking-as-a-Service solutions.

We can highlight the strong ambition of expansion of the newly founded Tuum (2019), previously known as Modularbank. Indeed, their plan is to expand in the Southern Europe and the Middle East. They provide big actors such as Nets Estonia which will be commented in the Estonia part with rolling out enablers of new financial products or services¹⁰¹⁶.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Contis (Solaris)</u>	Solaris	9	42,45	9,48	<u>Link</u>
<u>Mambu</u>	Mambu BV	105	7,17	0,42	Link
Tuum	Parent company	n.a.	3,96	-5,77	Link
Advapay	Independent company	4	1,92	0,14	Link
Railsr	Parent company	n.a.	n.a.	n.a.	<u>Link</u>

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Estonia

Introduction

Estonia is a uniquely entrepreneurial and tech-savvy environment. With a population of only 1,3 million inhabitants, this small country is leading Europe in terms of startups. Ten unicorns have their origin in the smallest Baltic country - including the leading paytechs Wise and Veriff. On a per-capita basis that represents the highest concentration of unicorns in any country in Europe, although not all are headquartered domestically¹⁰¹⁷. Indeed, policymakers are determined to establish Estonia not only as an important innovation powerhouse but also as an attractive destination for foreign founders and tech staff - the Startup Visa Scheme¹⁰¹⁸ and e-residency¹⁰¹⁹ being key measures in this regard.

Named the most advanced digital society in the world, Estonia - also called e-Estonia¹⁰²⁰ - has built an efficient, secure and transparent ecosystem where 99% of government services are online¹⁰²¹. This digital-first approach also applies to the payment's world.

Despite the decreasing popularity of cash¹⁰²², Estonians still prefer to have the option to pay with cash, making them one of the highest users of cash transactions among European countries. Indeed, at POS, cash represented 51% of payments in terms of value¹⁰²³ in Estonia. This contrasts with Nordic countries, where cash represents only 12% of transactions. However, Estonia's reliance on cash is not as high as Malta, where cash transactions account for around 65%. Contactless debit cards are much more popular than credit cards¹⁰²⁴. Consumers' preference for debt-free payments and prudent spending has led to the dominance of debit cards in terms of both transaction volume and value. Meanwhile, mobile payments have gained significant traction with 25% of P2P transactions conducted through mobile apps¹⁰²⁵. Moreover, the adoption of digital wallets is on the rise as more banks are issuing virtual cards. In 2023, 16,5% of card payments were made using an e-wallet via a banking app or smart watch¹⁰²⁶.

Since the beginning of the development of the card payment system, Estonia has been among the frontrunners in digitising its nation. It was an early member of the SEPA Instant Credit Transfer (SCT Inst) scheme¹⁰²⁷ and bank transfer payments are relevant especially for e-commerce payments. Almost three quarters of all e-shopping payments are made by bank transfers¹⁰²⁸.

Additionally, due to its favourable legislation and the Cryptocurrency Exchange Licence, Estonia plays a significant role for Crypto Exchange and Payment Startups¹⁰²⁹.

Card payment schemes

International card schemes are all present in the country. Indeed, Visa, Mastercard and American Express all have a share in the Estonian market. In the credit cards market, Mastercard accounts for 95% of the total market.

Alternative payment methods

As mentioned above, Estonia is a technologically mature market when it comes to payment methods, with contactless cards and digital options dominating the market. Estonians are looking for convenient, fast and secure payment methods. Options that allow Estonians to use a single service for different purposes are popular: a debit card that is also a customer card, a student card or a transport card¹⁰³⁰. Payment via online and mobile banking is quite common in Estonia. It is used for approximately 65% of all online payments - much more than in other European countries.

Relevant local e-wallets include Paysera. Based in Lithuania, Paysera enables customers to pay and transfer money in a few clicks.

The Lithuanian fintech Nikulipe enables instant bank transfers via its Bankling service. Built on open banking, the Baltic payment method Bankling offers a payment option that addresses regional complexities and covers all relevant banks in the Baltics.

Another globally well-known Estonian Electronic Money Institution (EMI) is Wise. Wise facilitates simple and free cross-border transfers. A Wise account is particularly beneficial for expatriates, as it enables them to send money home and manage multiple currencies within a single account. With over 16 million personal and business clients worldwide, along with 60 partners, the company shows no signs of slowing its expansion.

Monese gives you the possibility to easily open a bank account on your smartphone and handle your money anywhere in the world. They recently divided their business into two parts: a consumer-facing segment and a business-to-business core banking platform called XYB, which will be further elaborated upon.

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https://investinestonia.com/estonia-leads-europe-in-startups-unicorns-and-investments-per-capita/
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¹⁰¹⁸ 1019

https://www.Linkedin.com/posts/startup-estonia_starting-from-zero-what-can-estonia-teach-activity-6980543001395630081-fuQx/https://www.forbes.com/sites/trevorclawson/2022/09/22/starting-from-zero-what-can-estonia-teach-us-about-building-a-startup-ecosystem/

¹⁰²⁰

https://www.computerweekly.com/news/252505564/Inside-Estonias-tech-startup-scene_https://investinestonia.com/estonia-leads-europe-in-startups-unicorns-and-investments-per-capita/ 1021

https://news.err.ee/1609243248/estonians-withdrew-4-billion-in-cash-from-atms-last-year https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5

¹⁰²³ 1024

https://workinestonia.com/everyday-life/banks-and-finances/.https://www.ecb.europa.eu/stats/ecb_surveys/space/html/ecb.spacereport202212~783ffdf46e.en.html#toc5 1025 https://news.err.ee/1608959483/estonians-made-average-of-22-card-payments-in-stores-per-month-in-q1

 $[\]label{lem:https://www.europeanpaymentscouncil.eu/news-insights/insight/country-profile-digital-and-instant-payments-are-norm-estonia-https://montonio.com/blog/ecommerce-in-estonia-report/$

¹⁰²⁸

https://finlaw.io/estonia-cryptocurrency-license/

https://www.ecb.europa.eu/paym/digital_euro/investigation/profuse/shared/files/dedocs/ecb.dedocs220330_report.en.pdf

Additionally, some companies are also working on cryptocurrency as a payment method. This is the case of Wert and Swapin, which are developing payment tools for the crypto industry.

Boku offers mobile carrier billing. It acquired Fortumo in July 2020. Fortumo primarily focused on providing mobile payment solutions to SMEs, but it also served larger merchants such as Google, Amazon and Tencent¹⁰³¹.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Boku</u>	Boku	n.a.	9	0	<u>Link</u>
<u>Swapin</u>	Payster Group OU	6	0,50	-0,14	<u>Link</u>
<u>Paysera</u>	Independent company	7	0,47	0,17	<u>Link</u>
<u>Wert</u>	Independent company	7	0,04	-2,36	<u>Link</u>



https://www.finextra.com/pressarticle/82951/mobile-payments-outfit-boku-to-buy-fortumo

Banks

The market is divided between Swedish banks like Swedbank (28,47% of market share in terms of total assets), SEB Bank (16,63%)¹⁰³² and a local bank, LHV Pank (12,42%). It is interesting to note that almost 45% of the Estonian banking market is controlled by two Swedish banks. As mentioned above, the Estonian banking sector is largely dominated by foreign institutions: up to 85% of the Estonian banking sector's assets is held by foreign capital holding - mainly Scandinavian institutions¹⁰³³.

Swedish-based bank, Swedbank aims to promote financial literacy and entrepreneurship and contribute to social participation through the development of the whole society. In terms of payments, the bank offers Mastercard debit and credit cards to both individuals and businesses. It is compatible with numerous digital wallets: Google Pay, Apple Pay, mobile contactless payments (Android), Fitbit Pay, Garmin Pay, Xiaomi Pay, Fidesmo and Manage-Mii. In March 2024, Swedbank Estonia has been cleared of money laundering accusations and the years-long investigation finally ended¹⁰³⁴.

SEB is a prominent Swedish bank with a strong presence in Estonia. The bank offers Mastercard cards as part of its daily banking services. Additionally, it has a division in the country that handles savings, investments, and insurance.

LHV is the largest bank based on Estonian capital, meaning it is Estonian owned. Founded 25 years ago, the bank initially focused on traditional banking services within Estonia. However, in 2018, it expanded into the UK market and shifted its focus to technology-driven solutions. After receiving its banking license from the Prudential Regulation Authority (PRA) in 2023, LHV intensified its interest in fintechs and financial institutions. They offer fintechs customized solutions such as Indirect Scheme Access, which provides indirect access to GBP and EUR payment schemes. This includes a fully white-label experience that is invisible to end-customers, the ability for clients to own their account infrastructure, and the issuance of bank account numbers with unique Sort Codes and BIC codes. Additionally, they provide country specific IBAN generation¹⁰³⁵.

Luminor Bank provides banking products and services to all customer groups, with a special focus on small and medium-sized enterprises, as well as high-net-worth private customers. The bank offers Visa payment cards that are compatible with Google Pay, Apple Pay, Garmin Pay and Fitbit Pay. Luminor has launched a secure free card for children aged from 6 to 21 years old. It enables parents to have full control and overview of their children's internet banking and to change the limits for purchases and transfers, among others. Some changes in Luminor's shareholder composition may be underway as the US investment company Blackstone, which is the majority shareholder of the bank, plans to sell its stake, but nothing has been confirmed yet¹⁰³⁶. Luminor seems to have a high revenue in the table below, it is due to the inclusion of its activities in both Latvia and Lithuania. However, in reality, the bank is not as big in Estonia.

Besides the leading banks, there are also many Estonian players that share the rest of the market. These include Coop Bank and Bigbank. The international operating neobank brand Revolut, is also becoming increasingly popular in Estonia.

Banks	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Swedbank</u>	Swedbank AB	1.720	444,80	206,70	Link
<u>Luminor Bank</u>	Braavos Bidco Limited	2.352	407,70	124,70	Link
SEB Pank	Skandinaviska Enskilda Banken AB	1.050	209,80	115,90	<u>Link</u>
<u>LHV Pank</u>	AS LHV Group	765	161,67	80,87	Link
<u>Bigbank</u>	Parent company	485	103,20	32,70	Link
Coop Pank	Parent company	351	54,63	20,35	<u>Link</u>

https://thebanks.eu/countries/Estonia/major_banks

https://www.ebf.eu/estonia/

https://amlwatcher.com/news_article/estonian-prosecutors-conclude-swedbanks-money-laundering-investigation/

https://thepaypers.com/interviews/transforming-digital-banking-and-instant-payments-the-lhv-story—1267531 https://news.err.ee/1609230956/experts-buyer-of-blackstone-s-luminor-stake-may-come-from-europe

Non-banking issuers

Wallester and Pocopay, are both holders of payment institution licenses and are classified as non-banking issuers.

Wallester is a licensed white-label Visa card issuer that can issue both virtual and physical cards. They recently entered a new market as they opened a first office in France¹⁰³⁷. Operating all over EEA, they recently expanded by opening an office in France and appointing a UK CEO Julian Brand. In addition, in March 2024, they received a cross-border activity license which enables them to operate in the U.K from now on¹⁰³⁸.

On the other hand, Pocopay was a licensed Mastercard card issuer. However, from 05/06/2024 Pocopay will cease offering payment services to all its customers¹⁰³⁹.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Wallester	WALLESTER GROUP OÜ	43	3,94	-0,40	<u>Link</u>

Source: Orbis | Financials 2022



Payment processing & gateway providers

Nets Estonia and Swedbank process card payments in Estonia. The card payment system in Estonia is managed mostly by Nets Estonia which acts as the settlement agent between parties in the four-party card scheme¹⁰⁴⁰.

Most Estonian merchants use their banks (or specialised subsidiaries of banks such as Maksekeskus) as their card acquirer and to get access to local bank transfers. International PSPs do not play a significant role in Estonia, with the exception of Stripe, which attracts small local merchants in particular, and the Lithuania-based PSP Paysera.

Major PSP players include EveryPay, Maksekeskus and Montonio.

https://www.bfmtv.com/economie/replay-emissions/hashtag-decryptage/l-estonie-est-l-un-des-pays-les-plus-innovants-en-matiere-de-fintech_AB-202310260542.html

https://ca.finance.yahoo.com/news/wallester-secures-cross-border-activity-070600736.html

https://pocopay.com/

https://www.eestipank.ee/en/card-payment-system

EveryPay, acquired by LHV in 2022¹⁰⁴¹, assists merchants in accepting and processing Visa and Mastercard payments, as well as bank payments from major Estonian banks and alternative payments such as Paypal. It also offers acquiring services used by Swedbank, SEB Bank and LHV.

Maksekeskus - owned by leading bank Luminor - is a gateway operating in the Baltic region that accepts bank payments, card payments, mobile payments and other online payment solutions for e-commerce. Maksekeskus was acquired by Luminor Bank in July 2022¹⁰⁴².

Montonio also functions as a gateway provider in addition to being an e-commerce checkout solution. It was developed by a small startup based in Tallinn, Estonia. The startup currently supports all major banks in the Baltics and a few major banks in Finland. In April 2022, the company raised an 11 million € Series A funding round led by Index Ventures to expand further in Europe, starting in Poland. As customers often initiate payments from their bank accounts directly in Estonia, Montonio has built out open banking connections to initiate payments at a lower cost¹⁰⁴³. In November 2023, the company partnered with Venipak, a large express delivery platform in the Baltics, to offer merchants contactless parcel machines, pick-up points, and reliable courier services throughout the entire Baltic region. The aim of the collaboration is to enhance the delivery of online orders with user-friendly technology¹⁰⁴⁴.

Concerning local Estonian players, Paytailor is the only startup operating specifically in Estonia. It provides a payment solutions platform that accepts online payments for merchants and businesses.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Nets</u>	Nexi SPA	47	5,75	0,66	<u>Link</u>
<u>Maksekeskus</u>	Luminor Bank AS	24	4,69	0,64	<u>Link</u>
<u>EveryPay</u>	Independent company	22	1,63	-0,46	Link
<u>Montonio</u>	Parent company	n.a.	0,68	-3,07	<u>Link</u>
<u>Paysera</u>	Independent company	7	0,47	0,17	<u>Link</u>
<u>Paytailor</u>	Parent company	1	0,06	0,02	Link

Source: Orbis | Financials 2022

Open banking enablers

The largest banks in the country, such as SwedBank, Luminor, Coop Bank and SEB Bank, all have active open banking developer portals.

Additionally, Nordigen offers free open banking APIs integrated with all the major Estonian banks¹⁰⁴⁵. However, only 47% of institutions in Estonia are embracing SEPA instant, which highlights cautious but growing interest for open banking in the country¹⁰⁴⁶.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Nordigen</u> (Gocardless)	Groupay INC	n.a.	n.a.	n.a.	<u>Link</u>

https://www.fintechfutures.com/2022/03/lhv-group-set-to-acquire-estonian-paytech-everypay/

https://www.luminor.lv/en/news/luminor-completes-acquisition-maksekeskus

https://techcrunch.com/2022/04/12/montonio-is-building-the-payment-and-checkout-solution-to-rule-them-all/https://ibsintelligence.com/ibsi-news/venipak-taps-montonio-to-streamline-online-shopping-in-the-baltics/

 $[\]label{lem:https://nordigen.medium.com/open-banking-in-estonia-updated-bce89d1c2b32 $$ $$ https://www.yapily.com/blog/open-banking-baltics-instant-payments$

Infrastructure providers

Several BaaS companies are based in Estonia on account of the particular role the country plays in fintech, though most are at an early stage. Tuum and AdvaPay are both worth mentioning.

Tuum, previously known as Modularbank¹⁰⁴⁷, is an Estonian core banking technology provider that has developed a cloudagnostic and modular platform for banks, fintechs and traditionally non-financial companies to roll out new financial products and services quickly and easily. It serves players such as Nets Estonia and Veriff, among others. In 2024, Tuum raised 25 million € to expand its activities in the DACH region, southern Europe and the Middle East¹⁰⁴⁸. Tuum is also a core banking service provider.

Advapay is a technology and consulting provider for banks and fintechs that offers integrated banking and payment services. It defines itself as an end-to-end digital core banking solution: an engine, APIs, back and front office, SaaS, BaaS, software licence and software codes. Advapay operates mainly in Estonia and is also a core banking platform.

In addition, LHV is offering banking-as-a-service for fintech companies.

As previously mentioned, in 2023, the EMI Monese divided its business and launched XYB as their core banking platform¹⁰⁴⁹.

Also, Bankish is an Estonian core banking solution for professional credit providers. It's a modular product to cover all your needs from product management to CRM.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Tuum</u>	Parent company	n.a.	3,96	-5,77	<u>Link</u>
Advapay	Independent company	4	1,92	0,14	<u>Link</u>
<u>Bankish</u>	Parent company	8	0,44	-0,22	<u>Link</u>

Source: Orbis | Financials 2022

Expert Opinion

"Estonia's highly digitalised economy has provided a strong foundation for numerous fintech companies to emerge, including several globally recognised players in the payments field."

René Küüsvek | Assistant Director - M&A, Strategy and Analytics - Deloitte Estonia

https://www.retailbankerinternational.com/news/core-banking-platform-modularbank-rebrands-as-tuum/

https://tech.eu/2024/02/06/estonian-core-banking-provider-tuum-bags.

https://monese.com/be/en/blog/xyb-launch

Latvia

Introduction

Nestled in the heart of the Baltic region, Latvia is emerging as a key player in the European fintech scene, with a vibrant ecosystem supporting financial innovation. Particularly renowned for its peer-to-peer lending platforms. TWINO and Mintos are two successful examples, that made Latvia a pioneer in this sector 1050.

While historically a cash-dominated market ¹⁰⁵¹, Latvia has witnessed a surge in card-based payments, supported by the growing adoption of contactless cards. As of 2023, non-cash payments accounted for 77% of transactions¹⁰⁵². Worth noting that Latvians voted in favour of the discontinuity of 1 and 2 cents coins¹⁰⁵³, signalling the transition towards a cashless future. Government initiatives have played a pivotal role in facilitating this transition, including the introduction of low-cost bank accounts, financial literacy programs, and the expansion of the payment acceptance infrastructure. In April 2023, the stateowned postal service provider, Latvijas Pasts, launched a Visa-branded debit card to customers of its Postal Payment System (PNS)¹⁰⁵⁴, aimed to increase debit card usage, especially in rural areas.

Debit cards represent 70%1055 of total cards and reign as the favoured payment method in Latvia, driven by consumers' preference for debt-free transactions. Contactless card usage stands at 63%, while smartphone payments are adopted by 16% of the population¹⁰⁵⁶. Overall, there's a steady rise in these payment habits.

Out of approximately 500 start-ups in the country, 29% operate within the fintech sector, with Payment/ Data IT being major segments¹⁰⁵⁷. Combined with forward-looking regulatory initiatives, Latvia is striving to become a global fintech hub. Indeed, Latvijas Banka has launched two initiatives dedicated to supporting fintechs – the Innovation Hub and the Regulatory Sandbox¹⁰⁵⁸. The Innovation Hub offers consultations on compliance, business models, and regulations, while the Regulatory Sandbox supports the testing of innovative products¹⁰⁵⁹. Moreover, government's proactive support, through start-up grants, tax incentives, and a start-up visa for foreign founders, is designed to fuel innovation and entrepreneurship.

The European Commission also declared that Latvia is a champion of crowdfunding per capita¹⁰⁶⁰. This recognition comes after the successful adoption of the Regulation on European crowdfunding service providers for businesses in 2022¹⁰⁶¹. The country is also developing its blockchain and cryptocurrency industry¹⁰⁶². In recent years, 35 companies have specialized in these fields. For example, The Gravity Team processes 0.8% of the global cryptocurrency market 1063.

Card payment schemes

Visa and Mastercard are 2 of the most popular e-commerce methods in Latvia according to 60% of Latvians. 1064

Alternative payment methods

Cards, and more particularly debit cards are the most used payment method in Latvia. However, alternative payments like digital wallets and bank transfers are gaining in popularity.

As part of the e-wallets category, Paysera¹⁰⁶⁵ is a big player in the country. Paysera enables its users to make fast transfers by phone number or email, offers contactless Visa branded debit cards, and provides its own mobile app1066. In addition, like the other Baltic countries, most Latvian merchants use their bank as a card acquirer and to get access to local bank transfers. Paysera is also the most relevant merchant PSP in Latvia.

Monese has also established itself in the country. The company gives you the possibility to easily open a bank account on your smartphone and handle your money anywhere in the world.

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https://fla.lv/pulse2023/
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Latvia Cards and Payments - Opportunities and Risks to 2027 (globaldata.com) https://www.bank.lv/en/operational-areas/payment-systems/payment-radar 1052 1053

https://www.bank.lv/en/news-and-events/news-and-articles/news/16597-payment-radar-the-ratio-of-non-cash-to-cash-payments-in-latvia-is-73-to-27 https://baltics.news/2023/04/12/latvijas-pasts-will-offer-customers-visa-payment-cards-for-payments/

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https://statdb.bank.lv/lb/Data/293

https://www.bank.lv/en/news-and-events/news-and-articles/press-releases/16434-payment-radar-spring-2023?template=centenary.https://labsoflatvia.com/en/news/latvian-fintech-landscape-update-2023

https://www.bank.lv/en/cooperation/support-for-fintech-and-innovations

https://fla.lv/pulse2023/

https://ceelegalmatters.com/cobalt/23711-latvia-at-the-forefront-in-provision-of-european-crowdfunding-services https://likumi.lv/ta/id/331740-kolektivas-finansesanas-pakalpojumu-likums

https://labsoflatvia.com/en/news/latvia-wants-to-be-the-centre-of-the-crypto-industry 1064

https://norbr.com/library/payworldtour/payment-methods-in-baltics-states/

https://www.getewallet.com/blog/balkan

https://www.paysera.com/v2/en/index

Moreover, mobile payment solutions are increasingly prevalent. Latvia-based Mobilly, among others, offers mobile payments for public transport tickets, parking fees, car washing services and electronic cars charging. The company also provides additional services to businesses, such as managing benefits for their employees 1067. In 2023, it was announced that Mobilly, along with Mobility delivered and Jana Seta, both Latvian companies, have joined forces to develop a unified public transport app for Estonian cities. This app will now combine not only buses, trams, and trains but also taxis and electric scooters. A similar platform is also in development in Riga¹⁰⁶⁸.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Mobilly</u>	Parent company	28	2,23	0,01	<u>Link</u>
<u>Paysera</u>	Parent company	14	0,57	0,23	<u>Link</u>

Source: Orbis | Financials 2022

Banks

As in most Baltic countries, Latvia is no exception to the rule as its banking market is heavily dependent on Scandinavianowned banking players, especially Swedish banks. Indeed, Swedbank and SEB Banka hold nearly 60% of the market share 1069. They were the first and second biggest banks respectively in terms of total assets in 2023¹⁰⁷⁰.

Citadele Blanka, a Latvian bank, takes the third place in the ranking with 23% of market share 1071. Citadele Blanka aims to become the primary bank of choice for retail and small business customers across the Baltics. Along with traditional banking services, they offer professional wealth management, asset management, life insurance, leasing, and more 1072. Around 75% of bank is owned by Latvian state. Additionally, it is the only bank to issue American Express cards 1073.

Then there is Luminor Bank, a branch of the Estonian Luminor. Also worth mentioning is AS Rietumu Banka, 5th bank in Latvia in terms of total assets, with a market share of 6.5%1074. Additionally, the newly named BlueOrange Bank, with 3%1075 of the market share. The company changed its name in March 2022 from BlueOrange Bank to BluOr following global trends towards simplicity and conciseness in the digital environment.

IPAS Indexo, listed on the Nasdaq Riga Stock Exchange, is a pension management company that has recently applied for a banking license for Indexo Bank. It is the first time in 10 years that a license for the operation of a credit institution has been granted to a new participant in Latvia. The bank is expected to start operations this summer 1076.

International neobank brands such as Revolut, Lithuania-based ZEN. and the business bank European Merchant Bank are also becoming increasingly popular in Latvia.

Banks	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Swedbank</u>	Swedbank AB	1.301	223,59	103,99	<u>Link</u>
<u>Citadele Banka</u>	Parent company	1.355	179,96	46,31	Link
SEB banka	Skandinaviska Enskilda Banken AB	860	137,30	94,40	Link
<u>Rietumu Bank</u>	Parent company	526	73,60	17,46	Link
BluOr Bank	BBG AS	200	26,44	10,25	Link
<u>Ipas Indexo</u>	Parent company	83	2,28	-1,27	Link
<u>Luminor Bank</u>	Luminor Bank AS	883	n.a.	n.a.	Link

Source: Orbis | Financials 2022

https://labsoflatvia.com/en/news/3-latvian-companies-develop-combined-mobility-platform-for-tallinn-and-tartu

1069 https://thebanks.eu/countries/Latvia/major_banks 1070 https://kompass.bank.lv/bankas/en/assets

1071 https://thebanks.eu/banks/16328/market_share

1072 https://www.cblgroup.com/en/

https://www.zoominfo.com/c/citadele-bank/369357393

1074 https://thebanks.eu/banks/16326/market_share

https://thebanks.eu/banks/16311/market share

https://view.news.eu.nasdaq.com/view?id=bb90ddd45b1d8c82046dd7b77a8850e2e&lang=en

Non-banking issuers

Transact PRO is the largest non-banking Mastercard issuer in the Baltics. Interestingly, the company partnered with Mastercard and the municipality of Jelgava in September 2022 to bring City Key cards to Latvia. The card will serve as an identity tool for residents and a way to receive services, benefits and allowances - boosting the effectiveness of the administration, accounting and management of benefits for its citizens4.

LatCard, an electronic money institution and issuer, ceased operations as of 1st February 2023¹⁰⁷⁷.

Bilderlings Pay not only offers multi-currency current accounts for businesses and individuals but also facilitates cross-border payments all over the world, exchanges currencies and issues card.

Thanks to its mobile app, Weststein's clients can easily manage their finances from anywhere in the world. Additionally, for businesses, they offer prepaid virtual Mastercard cards co-branded with the company's logo for managing company expenses¹⁰⁷⁸.

Finally, Vialet Finance targets both SME businesses and private individuals. They offer contactless Mastercard cards that can be managed through their mobile app. For companies, they provide various tools including a mass payout system and PDF statements for invoicing and accounting purposes, among others. The company is a product of VIA SMS Group, an alternative financial service provider founded in 2009¹⁰⁷⁹.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Bilderlings Pay	Bilderlings Holdings SIA	85	3,02	0,04	<u>Link</u>
<u>Transact PRO</u>	Independent company	30	2,70	-0,60	Link
Weststein	Parent company	5	2,28	1,26	Link
Royal PAY	Independent company	10	2,03	0,65	Link
<u>Vialet Finance</u>	Via SMS Group AS	2	0,06	-0,24	Link

Source : Orbis | Financials 2022

Payment processing & gateway providers

The global leader, Worldline, stands as the foremost payment processor and gateway provider in the country. With a significant presence in the Baltics, the company holds a larger market share than any other competitor in the region.

Next, we have Paynt, a tech company providing advanced solutions for secure payment processing online, in-store, and on mobile devices. They empower instant omni-channel payment capabilities through the use of APIs. Additionally, they offer an acquiring-as-a-service platform—an end-to-end payment infrastructure for businesses¹⁰⁸⁰.

Transact Pro, previously introduced as a non-banking issuer, also serves as a payment processor and gateway provider for online card payments¹⁰⁸¹.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Worldline Latvia	Worldline	132	13,75	0,68	<u>Link</u>
<u>Paynt</u>	Independent company	53	2,93	-0,43	Link
<u>Transact PRO</u>	Independent company	30	2,70	-0,60	<u>Link</u>

https://www.bank.lv/preses-pazinojumi/16354-latvijas-banka-anule-latcard-as-ierakstu-elektroniskas-naudas-iestazu-registra

https://www.weststeincard.com/

https://vialet.eu/en/business https://paynt.com/

https://www.transactpro.eu/en/

Open-banking enablers

Nordigen, acquired by GoCardless in 2022, is the first free open banking data provider in Europe, offering regulated connections to more than 2300 European banks. Following the acquisition, it was relaunched as GoCardless Bank Account Data¹⁰⁸². This service enables secure access to users' bank account information for purposes such as lending, accounting, verification, and financial management. In 2024, GoCardless further expanded its services by signing an agreement to acquire Nuapay, an account-to-account payment provider and an open banking enabler. This acquisition aligns with GoCardless' vision to establish itself as the world's leading bank payment network¹⁰⁸³.

In addition, UK-based Open Banking payment provider Noda has partnered with Wargaming to introduce Open Banking payment solutions to online gamers in Lithuania, Latvia, and Estonia in 2024¹⁰⁸⁴. This solution enables gamers to make realtime payments directly from their bank accounts.

Open-banking enablers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Nordigen Solutions (Gocardless)	GoCardless	79	1,27	-2,00	Link
Noda	Estacon Limited	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Infrastructure providers

Magnetiq Bank, previously called LPB Bank¹⁰⁸⁵ offers a wide range of services and banking products, including deposit accounts, loans, and payment solutions for e-commerce, as well as a banking-as-a-service (BAAS) platform for fintech companies 1086. They are actually the only ones that are specializing in BAAS in the country. Specifically, they serve as principal members of Visa and Mastercard, offering e-commerce services, and integrate with Apple Pay, SEPA credit transfers, segregated accounts, and more to support business expansion¹⁰⁸⁷. In December 2023, AS LPB Bank was acquired by AS Signet Bank. Following the acquisition, Magnetiq Bank will continue to operate as a subsidiary, maintaining its focus on BAAS and innovative digital financial products¹⁰⁸⁸.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Magnetiq Bank (LPB Bank)	MONO SIA	216	14,42	1,31	<u>Link</u>

Source: Orbis | Financials 2022

Expert Opinion

"Latvia is steadily emerging as a global fintech hub, propelled by continuous improvements of the regulatory framework and introduction of new supporting tools for fintech ventures."

> Andris Liepins | Partner - Deloitte Latvia and Valters Sniedzitis | Senior consultant - Deloitte Latvia

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https://lpb.lv/en/banking-as-a-service-fintech/ https://www.financelatvia.eu/en/news/signet-bank-acquires-lpb-bank/

Lithuania

Introduction

Over the last decade, Lithuania became the leader in continental Europe by number of licensed payment and e-money institutions. Almost 276 Fintechs operate in this Baltic country, many of them being international companies like Revolut, Curve or Airwallex. Lithuania's Fintech ecosystem attracts both existing players and startups in various fields including analytics and big data, cybersecurity, digital banking, e-money, blockchain, cryptocurrencies and financial software¹⁰⁸⁹. It is without doubt that Lithuania is a friendly environment for electronic money institutions, as 30% of fintech's registered in the country are EMIs. A wide talent pool, substantial investment in digital infrastructure and beneficial regulatory environment for financial innovation, made Lithuania the largest hub in the EU by licenses issued. Fintech-focused initiatives, such as Regulatory sandbox, Newcomer Programme, financial incentives and many more increased over the years for both newcomers and established companies. In addition, as the European Union prepares to issue Markets in Crypto Assets (MiCA) regulation, Lithuania is preparing to be an early adopter of this change 1090.

Lithuania's payments landscape is rapidly evolving, increasingly embracing digitalization. However, cash remains prevalent, ranking among the highest in Europe. Indeed, cash transactions still constitute 42,5%1091 of the total value, indicating a need for further efforts toward achieving a cashless society. When it comes to non-cash transactions, cards dominate, accounting for 58% of transactions by value, closely followed by bank transfers at 37,2% in terms of volume¹⁰⁹². Debit cards are particularly favored among Lithuanian consumers 1093. Additionally, when shopping online, bank links are highly favored and widely utilized across Lithuania 1094.

Card payment schemes

Only international card schemes dominate the market in the country. Visa holds a slightly larger share than Mastercard in terms of usage, with approximately 56% of cards issued being Visa, while the remaining portion comprises Mastercard 1095.

Alternative payment methods

As previously mentioned, Lithuanians love to pay by bank links. While individual bank link solutions offered by each bank are still dominant with local merchants, international e-commerce platforms prefer a single solution covering multiple banks in one like Bankling, a Baltic online-banking payment option offered by Lithuanian based Fintech Nikulipe. In November 2023, Nikulipe continues its cross-border expansion with its partnership with Aircash, a dominant digital wallet provider in Center and South-Eastern Europe. Nikulipe will offer Aircash additional top-up options for the digital wallet in ten European markets. As for Nikukipe, it will increase its presence in fast-growing European markets¹⁰⁹⁶.

TransferGo, a UK-based fintech startup with Lithuanian roots, holds an Electronic Money Institution (EMI) license in Lithuania. It specializes in facilitating international money transfers for individuals, making it a popular peer-to-peer (P2P) payment method, particularly favored by migrants for its fast and competitive transfers. Despite operating in 160 countries, the company has recently secured 10 million \$ in funding to expand its presence in the Asia Pacific region 1097. Another similar actor is Ria.

As for account-account payments, Neopay has a strong presence in the country. They offer safe and immediate account-toaccount payments using open banking APIs. The company is actually owned by Neo Finance, but they offer payment initiation services under the Neopay brand.

Next there is Wittix, their services are particularly suited for mass payments to vendors, suppliers or employees. Thanks to their automated and digitalized solution, running a business has never been easier.

PayPal also has a significant market share in the country. In addition, Curve is an e-wallet that consolidates all your cards into one card and one app, providing a clear overview of your financials.

 $https://thebanks.eu/articles/e-money-institutions-in-the-fintech-ecosystem-of-lithuania \\ https://investlithuania.com/report/fintech-report-2023-2024/$

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Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Transfergo</u>	Transfergo Holdings Limited	27	21,98	-0,99	<u>Link</u>
<u>Wittix</u>	Independent company	20	3,63	0,34	<u>Link</u>
NEO Finance	UAB Era Capital	34	3,53	0,10	Link
<u>Curve</u>	Curve Ltd	11	1,47	0,13	Link
<u>Nikulipe</u>	Bergwand GMBH	20	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Banks

There are currently 85 credit institutions operating in Lithuania, including six Lithuanian banks, seven branches of foreign banks, and 71 credit unions¹⁰⁹⁸.

Not to be outdone by the Baltic countries, Lithuania is overwhelmingly dominated by two Swedish banks. Indeed, over 70% of the Lithuanian banking market is controlled by Swedbank and SEB Bankas, with Swedbank alone accounting for approximately 40%. As a result, the Lithuanian banking market is relatively small and highly concentrated¹⁰⁹⁹.

Revolut Bank and Siauliu Bankas are tied for third place in terms of total assets. While Revolut Bank is a licensed credit institution in the country, it is not to be confused with Revolut, the neobank. On the other hand, Siauliu Bankas is a local bank that, at the end of 2023, completed the merger of its retail businesses with Invalda INVL. The bank has since started managing pension and investment funds for retail investors. Other online banks have also emerged in recent years, offering only online banking services. These include domestic players such as European Merchant Bank and Mano Bank.

In addition, another regional bank operating in the Baltic region is present in the Lithuanian market, Luminor Bank of Estonia.

Banks	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Revolut Bank	Revolut LTD	337	411,22	23,56	<u>Link</u>
Swedbank	Swedbank AB	1.641	349,13	143,32	Link
SEB Bank	Skandinaviska Enskilda Banken AB	1.341	302,52	170,46	<u>Link</u>
<u>Siauliu Bank</u>	Parent company	908	139,06	63,61	Link
<u>Luminor Bank</u>	Luminor Bank AS	994	n.a.	n.a.	Link

https://thebanks.eu/countries/Lithuania/banking_sector

https://thebanks.eu/countries/Lithuania/major_banks

Non-banking issuers

Once again, Lithuanian fintechs are making their mark, exemplified by Pervesk, which holds an electronic money institution license from the Bank of Lithuania. Founded in 2016, the company offers both personal and business accounts. Additionally, they have begun issuing Visa debit cards for both individuals and businesses.

Next, there is Walletto. They can issue physical and digital cards, including credit, debit, and prepaid cards. Additionally, they offer co-branding options.

The well-known actor Paysera issues Visa cards, that can be easily added to Google Pay and Apple Pay.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Walletto	Securita OÜ	25	21,09	3,24	<u>Link</u>
<u>Paysera</u>	Parent company	160	11,29	-2,46	<u>Link</u>
<u>Pervesk</u>	Obolis Ltd	88	3,86	0,24	<u>Link</u>

Source: Orbis | Financials 2022

Payment processing & gateway providers

A lot of payment processing companies are present in Lithuania but not all of them are relevant for the local market but use Lithuania as a gateway to do business in the EU.

Similar to other Baltic countries, the majority of Latvian merchants are using their local bank as card acquirer and to get access to local bank transfers. The most relevant international PSP is the global tech company Nuvei, who has a significant relevance especially with smaller local merchants.

The most relevant local PSP is Paysera. Paysera was the first EMI holder in Lithuania (2004). However, today the company provides payments services (and hence acts as a PSP). The company is creating an industry-leading super-app. Paysera enables clients to accept online payments in e-shops, sell tickets to events, trade gold, and manage their funds via the Paysera mobile app (which has more than 1 million downloads).

Zen is a gateway provider, among other services. They enable their customers to integrate online payment solutions according to their diverse preferences.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Nuvei</u>	Simplexcc LTD	104	40,51	0,80	<u>Link</u>
Zen.Com	Zen.Com	17	20,39	-0,46	<u>Link</u>
<u>Paysera</u>	Parent company	160	11,29	-2,46	<u>Link</u>

Source: Orbis | Financials 2022

Open banking enablers

There are several open banking enablers in Lithuania. Firstly, Neopay offers a range of banking and financial services, including card payments, recurring payments, and one-click payments. They also have a strong presence in the open banking sphere, with their payment initiation service operating under the Open Banking PSD2 directive, licensed and regulated by the national bank.

Next, there is Yapily. Their open banking platform is used by approximately 2.000 institutions in 19 countries, including Lithuania. They enable their customers to innovate their products by providing access to bank information.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
NEO Finance	UAB Era Capital	34	3,53	0,10	Link
<u>Yapily</u>	Yapily Connect Ltd	12	0,02	0,00	Link

Infrastructure providers

Mambu is a cloud-native, software-as-a-service core banking platform. They service more than 260 customers and 101 million users across multiple countries. In addition, they also have banking-as-a-service capabilities.

As Lithuania became a Fintech-Hub, many banking-as-a-service (BaaS) providers have a presence in this Baltic country while there almost aren't any Lithuanian BaaS, with local BaaS-company Verified Payments being one of the few successful exceptions.

Amongst the large international BaaS players present in Lithuania are UK native Contis (acquired by Solaris in 2021), Embedded Finance SaaS provider Railsr (formerly Railsbank) and German based BaaS-Unicorn Mambu.

Contis is a major German banking as a service platform. They offer services in digital banking, payments, lending and identification. Founded in 2015, Solaris pioneered the Banking-as-a-Service market with an unparalleled combination of tech and banking services. Contis received fines in 2023 from the Bank of Lithuania regarding AML violations¹¹⁰⁰.

Railsbank, on the other hand, offers both a Banking-as-a-Service platform with embedded banking and wallets, as well as a Cards-as-a-Service platform.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Contis	Solaris	9	42,45	9,48	Link
<u>Mambu</u>	Mambu BV	105	7,17	0,42	<u>Link</u>
<u>Railsr</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Expert Opinion

"Lithuania hosts numerous fintechs, supported by a wide talent pool, strong digital infrastructure, and a beneficial regulatory environment for financial innovation."

Andris Liepins | Partner – Deloitte Latvia and Valters Sniedzitis | Senior consultant – Deloitte Latvia

https://www.finextra.com/newsarticle/43348/contis-slapped-with-840k-fine-over-aml-violations

Nordic countries

Introduction

The Nordic region comprises Denmark, Finland, and Sweden, and stands out as one of the most digitized regions globally, particularly in terms of payments. With a high penetration rate and minimal cash usage, it exemplifies a cashless society.

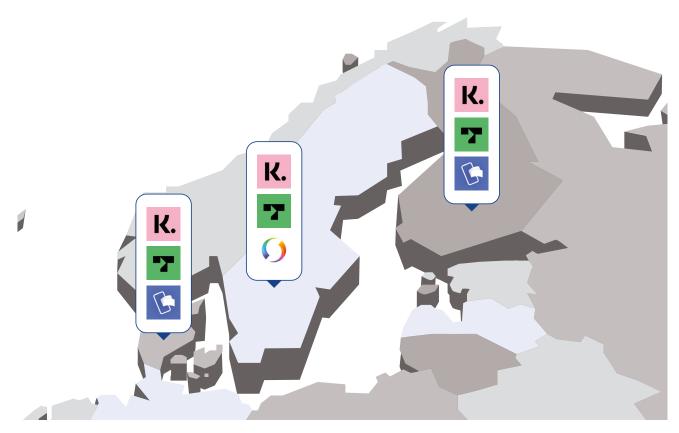
"We trust our governments more than many countries do, and we're willing to share information. This combination of trust and collaboration created a strong foundation for today's industry." stated Claus Bukenborg, head of Customer Solutions for Danske Bank¹¹⁰¹. This collaborative environment explains how Nordic countries lead fintech solutions, especially in the digital payments field.

Moreover, Sweden¹¹⁰² stands out as one of the most cashless societies globally, with almost no cash payments. Consequently, Denmark and Sweden have developed their own mobile payment solutions to adapt to this shift, while Finland and Norway's populations have gravitated towards card-based payments 1103. Reflecting a global trend, the Nordic region is increasingly moving towards account-to-account payments, underpinned by its trust-driven and innovative environment¹¹⁰⁴.

Card payment schemes

Visa and Mastercard are dominant in this region. However, Denmark has its own national card scheme called Dankort, developed by Nets. In order to enable international use, Dankort cards are typically co-branded with Visa. However, Finland and Sweden don't have their own schemes and heavily really on international brands.

Alternative payment methods



Mobile payment apps are gaining popularity in the Nordic countries. While debit card payments remain the most common method, the use of mobile payment apps is steadily increasing across the region. Danes and Swedes lead as the most frequent users, with other Nordic countries closely following suit. Notably, mobile payments have surpassed cash as the second favourite payment method for the first time among all Nordic consumers¹¹

 $[\]underline{https://www.mckinsey.com/industries/financial-services/our-insights/nordic-payments-where-collaboration-and-competition-lead-to-innovation-and-competition-lead-to-innovation-and-competition-lead-to-innovation-and-competition-lead-to-innovation-and-competition-lead-to-innovation-and-competition-lead-to-innovation-and-competition-and-competition-lead-to-innovation-and-competition-and-competition-lead-to-innovation-and-competition-and-competition-lead-to-innovation-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-competition-and-com$

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MobilePay is establishing itself as the major mobile payment method in two Nordic countries. It is widely used in Denmark and Finland, while Swedes use their local mobile app called Swish. At the end of 2021, Danske Bank (MobilePay's parent company) announced the merger of MobilePay with the Norwegian Vipps and the Finnish Pivo. The ambition of these deals is to create Europe's best and most comprehensive mobile wallet - serving 11 million users and over 330.000 shops and web-shops¹¹⁰⁶. The merger of MobilePay and Vipps has been approved by the relevant authorities in October 2022¹¹⁰⁷. Only after 7 weeks after Vipps MobilePay becoming a reality, the company has passed 1 billion transactions during 2022¹¹⁰⁸. In 2024, the company launched a new unique version of the app for Finland, Denmark and Norway, which will enable easier cross-border transfers within the Nordics¹¹⁰⁹. They also plan to launch it in Sweden as well.

Other major payment methods include the Swedish buy-now pay-later company Klarna and the account-to-account solution Trustly. Both tend to be more international. However, as these payment methods are widely used in the Nordic countries, it was therefore essential to include the two companies in the regional section.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Klarna</u>	Parent company	n.a.	1.501,83	-938,7	Link
<u>Trustly</u>	Parent company	398	106,23	1,66	Link
Getswish	Independent company	33	22,40	1,36	Link
Vipps Mobilepay	Danske Bank A/S	75	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Banks



Similar to the Baltic states, the Nordic countries can be viewed as a larger consolidated market. Specifically, Denmark, Finland, and Sweden share many payment characteristics. The regional operation of most Nordic banks accounts for the abundance of banks in this area.

The major banks in the Nordics are Nordea Bank, Danske Bank, Skandinaviska Enskilda Banken (SEB), as well as Swedbank.

https://danskebank.com/news-and-insights/news-archive/company-announcements/2021/ca30062021 1107

https://danskebank.com/news-and-insights/news-archive/company-announcements/2022/ca21102022

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Nordea bank is one of the leading universal banks in the Nordics. This major bank operates in Denmark, Finland, Norway and Sweden¹¹¹⁰. It is worth mentioning that the company entered the EURO STOXX 50¹¹¹¹ Index in September 2022¹¹¹².

Danske Bank is the first largest bank in Denmark, third largest bank in Finland, and fifth largest bank in Sweden¹¹¹³. Interestingly Danske bank offers Nordic accounts for people that have fixed expenses in Denmark, Sweden and Norway. This kind of account is convenient for people that either have a summer house in one of those countries or live abroad. It enables users to avoid currency exchange fees and inconvenience when paying bills, withdrawing cash and paying for goods in shops1114.

Skandinaviska Enskilda Banken (SEB) is the leading corporate bank in the Nordics and one of the leading universal banks in the Nordics and the Baltics¹¹¹⁵.

While Swedbank's home markets are Sweden, Estonia, Latvia and Lithuania - where the bank offers services such as loans and mortgages, savings and investments, payment services, pension and insurance, and private banking, the bank also has international branches, including in Denmark and Finland¹¹¹⁶.

Handelsbanken was previously operating in the three Nordic countries, however, it announced in October 2021 that it would leave Denmark and Finland, as the group saw little opportunity to scale up its offerings without significant investment¹¹¹⁷. In November 2022, Handelsbanken finalized the sale of its operations in Denmark to Jyske Bank¹¹¹⁸.

Banks	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Nordea Bank	Parent company	31.439	9.669	3 587	<u>Link</u>
<u>Danske Bank</u>	Parent company	20.021	6.116,01	-615,88	<u>Link</u>
<u>Skandinaviska</u> <u>Enskilda Banken</u>	Parent company	17.288	5.807,45	2.426,69	<u>Link</u>
<u>Swedbank</u>	Parent company	18.405	4.678,13	1.921,28	Link
<u>Jyske Bank</u>	Parent company	3.956	1.281,37	504,54	<u>Link</u>

Source: Orbis | Financials 2022

Non-banking issuers

Unlike banks, there is no uniformity among key players in this category. Each country has its own non-banking issuers, primarily operating at a local level. Examples include Nets in Finland, Pleo in Denmark, and Mynt in Sweden.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Mynt	Independent company	24	2,37	-3,21	Link
<u>NETS</u>	Nexi Group	n.a.	n.a.	n.a.	Link
Pleo Financial Services	Pleo Holding APS	32	n.a.	16,85	<u>Link</u>

https://www.nordea.com/en/about-us/who-are-we/our-markets

https://www.nordea.com/en/news/nordea-enters-the-flagship-euro-stoxx-50-index#:~:text=The%20EURO%20STOXX%2050%20is.of%20free%2Dfloat%20market%20 capitalisation.

https://www.nordea.com/en/press/2022-09-02/nordea-joins-the-flagship-euro-stoxx-50-index

¹¹¹³ https://danskebank.com/about-us

¹¹¹⁴ https://danskebank.dk/en/personal/products/accounts/konto-i-norden

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Payment processing & gateway providers



Nets, part of the Italian Nexi group, is the main regional payment service provider operating in the Nordic and Baltic regions. It offers payment processing and acquiring services for merchants and major Nordic banks.

Point Transaction System was acquired by Verifone in 2012. It is a Nordic payment gateway, present in every country and the leading supplier of ATMs to Nordic banks.

It is also important to note that the international PSP Worldline has acquired Handelsbanken's card-acquiring activities in the Nordics. This acquisition is part of Worldline's strategy to expand its presence across Europe through partnerships with leading local financial institutions¹¹¹⁹. Moreover, in May 2022, Worldline renewed its strategic partnership with Tietoevry Banking for card acquiring processing services for the next five years. The agreement includes Worldline's authorization processing services in the Nordic market¹¹²⁰.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Nets</u>	Nexi	3.188	935,40	127,30	<u>Link</u>
<u>Verifone</u>	Francisco Partners Feeder, LP	59	n.a.	2	<u>Link</u>

https://www.globenewswire.com/en/news-release/2021/10/18/2315913/0/en/Worldline-completes-the-acquisition-of-Handelsbanken-s-card-acquiring-activities-in-the-Nordics.

html.
https://www.tietoevry.com/en/newsroom/all-news-and-releases/press-releases/2022/05/wordline-strategic-partnership/

Open banking enablers

The development of open banking varies from country to country. For instance, Finland lacks major open banking enablers and is not a significant proponent of this technology. In contrast, Denmark and Sweden boast companies emerging as key players in this field. For example, the Swedish company Tink, with 350 employees, and the Danish Bankdata, owned by eight major banks in the country and in collaboration with Aiia, an open banking platform, indicate significant strides in improving open banking technology in these two nations.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Tink</u>	Parent company	399	26,78	-110,87	<u>Link</u>
Aiia (Mastercard)	Mastercard	94	n.a.	-8,10	Link

Source: Orbis | Financials 2022

Infrastructure providers

Vilja Solutions offers a cloud-native core banking platform to its clients, serving not only Sweden but also the entire Nordic region, with some extensions in Europe.

The Danish SDC, provides one system across Denmark, Norway and Sweden. With the Core Banking System, banks can choose to implement a solution that incorporates all SDC's options or opt for a higher degree of integration with their own and third-party applications, made possible through open APIs directly integrated into the Core Banking System.

Each country has their own banking-as-a-service platforms.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
SDC	Parent company	583	229,02	2,23	Link
<u>Vilja Solutions</u>	Parent company	104	8,35	-1,39	Link

Denmark

Introduction

The Danish population keeps pace with its Nordic neighbors in terms of high digitalization. The country is renowned for its advanced payment infrastructure and a strong preference for cashless transactions. In fact, even in grocery and retail stores, cash usage is declining¹¹²¹, accounting for only 9% of all payments in terms of value at point of sale (POS) in 2023¹¹²². The Danish legal tender is set to undergo changes starting in 2025. Old banknotes will be replaced by new ones to meet technological standards. Additionally, the largest value note, the 1.000-krone, will be phased out of circulation. Furthermore, the government is proposing a bill to reduce the cash spending limit from DKK 20.000 (€4.600) to DKK 10.000 (€2.300)¹¹²³.

Similar to the rest of the Nordic countries, 75% of consumers in Denmark prefer using cards as their payment method at point of sale (POS), with debit cards being the most commonly used type. Danish consumers tend to be hesitant to use credit payment methods and prefer to spend within their means¹¹²⁴.

A recent trend observed in the Nordics, particularly in Denmark and Sweden, is a gradual decrease in card usage in favor of mobile payments. Approximately 20% of the population prefers to pay via mobile phone for purchases at stores, restaurants, and grocery shopping¹¹²⁵.

Online payments exhibit a similar trend, with 47% preferring to pay by card, 40% preferring to pay via a mobile app, and 6% using the international brand PayPal. Dankort is the preferred card payment method, while MobilePay dominates among mobile apps, with both being local players¹¹²⁶.

In March 2024, Denmark signed an agreement to join the Eurosystem's liquidity management and payments system, T2, as well as its instant payments system, Target Instant Payment Settlement (TIPS)¹¹²⁷. TIPS is a new market infrastructure service for transferring funds in real time and around the clock, serving as an extension of Target2.

Card payment schemes

Most traditional American payment schemes, such as Mastercard, Visa, and American Express, are present in Denmark. Additionally, Denmark has its own domestic debit card payment scheme called Dankort, developed by Nets Denmark. Dankort is the preferred payment method in Denmark, with approximately 95% of the population owning this card¹¹²⁸, accounting for 65% of all card payments¹¹²⁹. Interestingly, instead of using the term 'payment card,' Danes commonly refer to it simply as 'a Dankort'.

Like many local payment schemes, Dankort is often co-branded with international schemes such as Visa and Mastercard. This enables Danes to use their Dankort for purchases abroad where it might not be accepted alone. However, Dankort Visa is the most widely used payment card in the country, with 85% of online purchases being made through Dankort Visa¹¹³⁰. Historically, Visa was the only partner of Danish banks for collaboration with Dankort. However, this changed slightly last year when Sydbank announced the introduction of Mastercard Dankort.

The popularity of Dankort among merchants and consumers stems from lower transaction fees compared to international schemes, a result of Danish legislation. Unlike standard debit cards, Dankort debit allows you to overdraw your account by a certain amount¹¹³¹.

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¹¹²⁹ https://nordicfintechmagazine.com/european-and-nordic-fintechs-a-radical-shift-in-power-dynamics-unleashes-a-new-era-for-payments/#:~:text=Loss%20of%20market%20 share%20opens%20the%20door%20to%20new%20entrants&text=%E2%80%9CPure%E2%80%9D%20Dankorts%20accounted%20for%20a,for%20the%20same%20time%20

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Alternative payment methods

Launched in 2013 by Danske Bank, MobilePay is an app designed to facilitate both in-store and online payments, as well as peer-to-peer transactions¹¹³². It has become the most popular mobile payment app in Denmark, with 85% of the population using it, making MobilePay a key player in the Danish payment landscape. Following its merger with Vipps, a Norwegian mobile payment app, in 2022, the company has been actively collaborating to develop a unified technological platform for use across the Nordic countries. In March 2024, Vipps MobilePay launched a new integrated version of the app for Finland, Norway, and Denmark, enabling cross-border payments within the Nordic region. By that time, 4,5 million Danish users had already adopted the new platform. Additionally, the company is awaiting final approval from the EU Commission and Apple to launch Tap-to-Pay functionality in-store on both iPhones and Android devices 1133. However, a small number of merchants have announced that they will no longer accept MobilePay due to the company's requirement for merchants to purchase new hardware. Nonetheless, this change is expected to affect only 1% of in-store payments made through MobilePay¹¹³⁴.

Paypal comes right after mobile solutions. It is often used for Peer-to-Peer transfers for people outside of the country. It is also used by contractors and freelancers who work on an international scale¹¹³⁵.

The Swedish companies Klarna and Trustly are also operating in Denmark. Klarna, known as a Buy Now Pay Later company, enables users to defer payment for up to 10 days. Klarna competes with Viabill, another Buy Now Pay Later service in Denmark. Viabill specializes in offering Buy Now Pay Later (BNPL) services to both online and brick-and-mortar shops, whereas the other services are primarily focused on online transactions¹¹³⁶.

On the other hand, Trustly enables consumers to make or receive payments by signing into their online banking accounts directly from the merchant's website or mobile app, without needing to navigate away. In June 2023, the Danish neobank Lunar announced its decision to open its infrastructure to Trustly through a single API integration. This move allows Trustly to offer instant payments in the local currency¹¹³⁷. Recently, Trustly collaborated with Nordnet, a platform for savings and investments, to allow the latter's customers to make large instant deposits across the Nordic region¹¹³⁸.

InPay has been recognized as the fastest-growing company in Denmark and the sixth fastest-growing fintech in Europe¹¹³⁹, boasting a workforce of over 200 employees. This fintech specializes in providing low-cost and secure cross-border payment solutions for businesses. Recently, InPay obtained an electronic money institution (EMI) license. The company now operates as an EMI, Payment Service Provider (PSP), and Third-Party Provider (TPP), making it unique in the Nordic region¹¹⁴⁰. Furthermore, in 2023, The Red Cross in Denmark, a branch of the world's largest humanitarian movement with 16 million volunteers spanning 192 countries, announced a strategic alliance with InPay. This partnership aims to save the Red Cross millions of kroner annually, enabling the organization to allocate these funds to those in need¹¹⁴¹.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Inpay</u>	Inpay Holding PAS	7	47,07	10,83	<u>Link</u>
<u>Vipps Mobilepay</u>	Danske Bank A/S	75	n.a.	n.a.	<u>Link</u>
<u>Trustly</u>	Trustly AB	n.a.	n.a.	0,00	<u>Link</u>
<u>Klarna</u>	Klarna Bank AB	n.a.	n.a.	n.a.	<u>Link</u>

Source: Orbis | Financials 2022

Banks

The largest banks in the country are, in descending order, Danske Bank, Jyske bank, Nykredit, Sydbank and Nordea. It's worth noting that four out of five banks in Denmark are Danish and collectively hold over 85% of the market share in terms of total assets.

Danske Bank is the largest bank in Denmark, holding 30% of the domestic market share 1142. It issues debit Visa cards cobranded with Dankort and credit Mastercards. In terms of mobile payments and wearables, Danske Bank offers payment services through MobilePay, Apple Pay, Google Pay, Fitbit, and Garmin Pay. In 2024, the bank entered into an agreement to sell half of its ATMs to Nokas, the largest owner of ATMs in the Nordics. This decision reflects a strategic move to streamline operations and focus more resources on core banking services¹¹⁴³.

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Jyske Bank is the second largest bank of the country¹¹⁴⁴. The bank became notorious due to being the world's first bank to launch negative interest rate on mortgage¹¹⁴⁵. Jyske Bank offers Mastercard credit cards, Visa debit cards and Dankort debit cards. In combination with these cards, Jyske Bank offers mobile payment solutions such as Visa Mobile and the other mobile payment solutions cited above. In 2022, it was announced that Jyske Bank acquired Swedish Handelsbanken's operations in Denmark¹¹⁴⁶. However, the IT transition was finalized at the end of 2023. Handelsbanken decided to exit Denmark and Finland as they believed that further growth in those markets would require additional investments. For Jyske Bank, this acquisition presents an opportunity to compete more effectively with larger banks in Denmark¹¹⁴⁷.

The third-largest bank in Denmark is Nykredit. Similar to Danske Bank, Nykredit issues Mastercard credit cards and debit cards co-branded with Visa and Dankort. Additionally, it provides mobile payment solutions through MobilePay, Google Pay, Apple Pay, Fitbit, and Garmin Pay.

Sydbank offers private banking services as well as banking for businesses. As previously mentioned, it was the first bank to introduce the modern Dankort Mastercard and discontinue the traditional Visa Dankort.

The Finnish Nordea Bank is the fourth largest bank in the country. It offers Visa and Dankort debit cards and Mastercard credit cards that can also be linked to mobile payment solutions.

Many other local banks are present on the market, including Spar Nord Bank, Arbejdernes Landsbank, Ringkjoebing Landbobank, Sparekassen Kronjylland.

Major Swedish bank, SEB Bank is present in Denmark. The bank issues its Mastercard credit cards through Eurocard.

The Danes also use the Danish Lunar app, a neobank offering Visa cards. In 2023, they raised 35 million € to expand their activities1148.

Finally, international fintechs such as Revolut, N26 and Monese are also present on the Danish market.

Banks	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Danske Bank</u>	Parent company	21.022	6.116,01	-615,88	Link
<u>Jyske Bank</u>	Parent company	3.873	1.281,37	504,54	Link
Nykredit Bank	Forenet Kredit FMBA	1.021	944,12	369,26	Link
<u>Sydbank</u>	Parent company	2.034	726,01	255,63	Link
Spar Nord Bank	Parent company	1.644	557,25	190,55	Link
Arbejdernes Landsbank	Parent company	1.827	505,25	106,12	Link
Ringkjobing Landbobank Aktieselskab	Parent company	646	376,93	201,02	Link
<u>Sparekassen</u> <u>Kronjylland</u>	Parent company	800	240,97	66,24	Link
Skandinaviska Enskilda Banken	Skandinaviska Enskida Banken (SEB) AB	350	n.a.	n.a.	Link
<u>Nordea</u>	Nordea Bank ABP	7.500	n.a.	n.a.	<u>Link</u>
<u>Lunar Bank</u>	Lunar Group A/S	144	n.a.	-198,52	Link
<u>Sparekassen</u>	Parent company	n.a.	n.a.	n.a.	<u>Link</u>

https://jyskebank.com/about

¹¹⁴⁵ https://www.globaldata.com/store/report/denmark-cards-and-payments-market-analysis/

¹¹⁴⁶ $\underline{https://kpmg.com/se/sv/home/nyheter-rapporter/2023/01/jyske_banks-acquisition-of_handelsbanken-denmark-is-now-completed.html$

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Non-banking issuers

Pleo, a Danish fintech unicorn, provides a comprehensive spending solution designed to simplify expense management for businesses. It offers smart company cards along with an intuitive app and software platform, enabling employees to make work-related purchases while granting companies full control and visibility over their spending. The fintech has achieved significant success over the years and has expanded its operations to ten European markets¹¹⁴⁹. In 2023, the company appointed a new CFO, a symbolic step to potentially be listed on a stock market soon¹¹⁵⁰.

EnterCard is a financial services company that offers credit cards and payment solutions primarily in the Nordic region. They provide a range of card products and services tailored to meet the needs of individuals, businesses, and partners, with a focus on flexibility, security, and customer-centric service.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>EnterCard</u>	Entercard Group AB	35	n.a.	n.a.	Link
<u>Pleo</u>	Pleo Holding APS	32	n.a.	16,85	Link

Source: Orbis | Financials 2022

Payment processing & gateways providers

The largest payment gateways are Nets and Point Transaction System (Verifone Denmark). These two players are present in every Nordic country as well as in the Baltic countries.

Nets utilizes its services through an agreement with BOKIS, a Danish payment and card cooperative consisting of 52 banks, including domestic banks such as Nykredit, Sydbank, Arbejdernes Landsbank, and Spar Nord. BOKIS collectively accounts for 45% of the country's payment market through its member banks¹¹⁵¹. In January 2023, Nets extended its partnership with BOKIS until 2029. Consequently, BOKIS continues to issue and process Dankort and international payment cards through Nets¹¹⁵².

In addition, Nets has partnered with Softpay.io to launch SoftPOS, a system that enables companies to accept contactless payments through smartphones or tablets. SoftPay is already being utilized by prominent companies such as Salling Group, the largest retailer in Denmark¹¹⁵³, and DSB, the largest operating train company¹¹⁵⁴.

Other local payment service providers include Altapay, Reepay and QuickPay.

The primary acquirer and payment service provider in Denmark is Clearhaus. This payment institution offers payment processing and settlement services for online merchants, handling transactions for 33.000 merchants daily. With a strong presence in Denmark, Clearhaus holds more than 20% of the market share in the country¹¹⁵⁵. In April 2024, the company entered into a partnership with Ryft, a UK-based company. This partnership will enable Clearhaus to utilize Ryft's technology and licensing to expand its operations across Europe¹¹⁵⁶.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>NETS</u>	Nexi Spa	1 871	638,70	92,90	<u>Link</u>
Clearhaus	Clearhaus Holding A/S	75	52,63	-3,29	<u>Link</u>
<u>Verifone</u>	Francisco Partners Feeder, LP	61	n.a.	1,67	Link
QuickPay	Pow Invest APS	35	n.a.	2,71	<u>Link</u>
<u>Altapay</u>	Fjeslsted Rasmussen Invest APS	30	n.a.	0,49	Link
Reepay	INI APS	18	n.a.	-0,13	Link

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¹¹⁵⁰ https://www.cnbc.com/2023/12/13/pleo-appoints-new-cfo-as-it-looks-to-get-in-shape-for-ipo.html 1151 https://www.bokis.dk/Sider/AboutUs.aspx

¹¹⁵² https://www.crowdfundinsider.com/2022/12/200137-danish-payment-firm-bokis-extennds-partnership-with-nets/

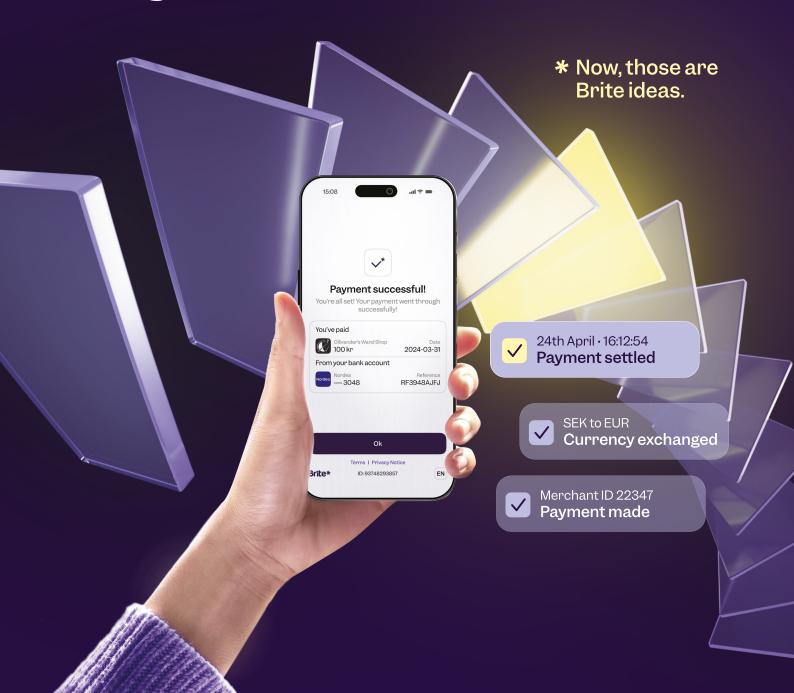
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Flexible, fast, and fuss-free Instant Bank Payments*



Open banking enablers

Bankdata, owned by eight banks including Jyske Bank, Djursland Bank, Kreditbanken, Nordfyns Bank, Ringkjøbing Landbobank, Skjern Bank, Sparekassen Sjælland-Fyn, and Sydbank, serves more than a quarter of the Danish population and is one of the largest IT providers in the country. They specialize in core banking, card platforms, digital banking, and more. Additionally, they have a division responsible for open banking. Bankdata partnered with Aiia, an open banking platform acquired by Mastercard in 2021, to deliver open banking services to the 1,7 million customers of its eight member banks. This collaboration was a strategic choice to quickly enter this specific market, rather than developing the solution internally¹¹⁵⁷. Additionally, 27 other banks, including Spar Nord, Nykredit, and Arbejdernes Landsbank, gained access to open banking APIs through an agreement with Aiia (formerly known as Nordic API Gateway), facilitated by the collectively owned IT supplier BEC¹¹⁵⁸.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Aiia (Mastercard)	Mastercard	63	n.a.	-8,10	Link

Source: Orbis | Financials 2022

Infrastructure providers

SDC's core system is both flexible and scalable, which makes it easy to adapt to the specific needs of each financial institution. The company operates not only in Denmark but in other Nordic countries as well.

Cardlay is a strategic partner to banks, card issuers, processors, and other financial institutions in the digital transformation process. In end of January 2024, they launched their new expense management solution integrated with Eurocard¹¹⁵⁹.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
SDC	Parent company	583	229,02	2,23	Link
Cardlay	Parent company	n.a.	n.a.	-6,84	Link

Source: Orbis | Financials 2022

Expert Opinion

"The change in payments landscape in Denmark is evolving rapidly, driven by EU regulations like PSD2 which accelerates new and innovative solutions build on top of open banking etc. In addition, the payment industry in Denmark builds on a society with a high digitalization and high adoption rates of digital payment solutions, and an innovate environment making it a perfect sandbox for advanced FinTech solutions. Furthermore the Danish payment infrastructure is being updating with the introduction of a new Instant Payment Scheme with Denmark joining the TARGET Instant Payment Settlement (TIPS) service – launching April 2025."

Morten Wischmann | Head of Direct Payments & Business Development - Banking Circle

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Finland

Introduction

It is widely recognized that Nordic countries are at the forefront of payment digitalization, and Finland is no exception. Finns began shifting significantly towards digital banking as early as the 1990s. In the country, payments are highly digitalized throughout the payment value chain, closely aligned with European payment systems at every level.

For example, e-invoicing has become a common practice in Finland, whereas many other European countries are just beginning to embrace this trend. In fact, a significant 85% of Finns across various age groups regularly receive e-invoices, surpassing the usage of traditional paper invoices. Even public entities in Finland are required to exclusively accept electronic invoices. Moreover, both businesses engaging in B2B transactions and individual consumers commonly use e-invoicing daily. This involves either authorizing each transfer or activating instant credit transfers.¹¹⁶⁰

Among Nordic countries, Finland exhibits the greatest resistance to transitioning to a completely cashless society¹¹⁶¹. Indeed, in 2022, the Bank of Finland submitted a legislation initiative to ensure the availability, acceptance, and deposing facilities of cash to address the crisis¹¹⁶². However, cash usage in Finland continues to decrease, with one of the lowest rates in Europe and approximately one in ten individuals never uses cash. Even in restaurants, cash is no longer the preferred method of payment for Finns¹¹⁶³. Only 10% of transactions in Finland involve cash¹¹⁶⁴.

Card payment is the most popular way of payment at POS in Finland across all merchant categories, with a vast majority of contactless debit cards¹¹⁶⁵. Their usage is particularly high at physical points of sale. The main reasons why consumers prefer cards is because they are convenient, out of habit and fast¹¹⁶⁶¹¹⁶⁷. On the contrary, online payment habits are characterized by online banking in the first place with 31% of ecommerce purchases, followed by mobile payments which represent 23%¹¹⁶⁸ and finally cards¹¹⁶⁹.

Mobile payments are also highly popular among Finns for various types of transactions, including peer-to-peer (P2P), online purchases, and point-of-sale (POS) transactions. They are predominantly favored by the younger generation. In 2023, mobile payments surpassed cash for the first time ever, becoming the second-favorite payment method in the Nordic region¹¹⁷⁰. MobilePay is notably the leading brand in the market¹¹⁷¹.

There have also been some changes to the Consumer Protection Act. From now on, payment methods must be presented in a specific order to consumers making online purchases. There are two key points to note: credit or other deferred methods cannot be presented first, and no default method should be pre-selected on the website. The aim is to make consumers more aware of their payment choices and reduce reliance on credit payments¹¹⁷².

Card payment schemes

In this region, Visa and Mastercard dominate the market due to the absence of local card schemes. Visa holds a 55% share among cardholders¹¹⁷³, with 48% of physical point-of-sale purchases made using Visa¹¹⁷⁴. Online, Visa accounts for 14,3% of transactions¹¹⁷⁵. Meanwhile, Mastercard is utilized by 45% of cardholders¹¹⁷⁶, with 25% of in-store purchases¹¹⁷⁷ and 11,7% of ecommerce payments being conducted through Mastercard¹¹⁷⁸.

Alternative payment methods

As internet penetration is nearly 100%, it is not surprising that online banking and bank transfers are the number one payment method in this Nordic region. Indeed, they are used more frequently than physical cards. Trustly, a Swedish company, enables consumers to pay online directly from their bank account without leaving the website¹¹⁷⁹. Recently, Trustly collaborated with Nordnet, a platform for savings and investments, to allow the latter's customers to make large instant deposits across the Nordic region¹¹⁸⁰. However, historically Finns would pay online by logging into their web bank account. Merchants would make available a list of various banks and redirect buyers to their bank's website for identification. This method is still widely used among the population.

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As previously mentioned, mobile payments are very popular among Finns, with 2,6 million users¹¹⁸¹. It enables customers to pay both at point of sale (POS) and online¹¹⁸². Additionally, it is widely used for peer-to-peer (P2P) transactions, with 50% being conducted through the mobile app MobilePay¹¹⁸³. The company that merged with Vipps, a Norwegian mobile payment app, in 2022 has been diligently collaborating to develop a unique technological platform that could be utilized throughout the Nordic countries. As of March 2024, ultimately, Vipps MobilePay launched a new unified version of the app for Finland, Norway, and Denmark, which will facilitate cross-border payments in the Nordics. Their aspiration is to soon expand their presence into Sweden as well¹¹⁸⁴.

There is also the presence of local mobile payment apps such as Siirto and Pivo, which represent respectively 14% and 7% of mobile payments¹¹⁸⁵.

Another alternative payment method that is quite used in Finland is Buy Now, Pay Later (BNPL). Indeed, around 10% of ecommerce is done through this service. Klarna is the preferred app, allowing users to split purchases into three months payments. As long as the payments are made on time, the service remains free of interest and fees¹¹⁸⁶. Their presence in Finland began with Swedish merchants as the app is originally from Sweden. Paytrail, a local player, has a similar offering to Klarna called Walley. With Walley, the customer receives an invoice that enables them to make partial payments over a period of 36 months¹¹⁸⁷.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Paytrail</u>	Nexi Group	73	40,53	5,37	<u>Link</u>
Klarna	Klarna Holding AB	29	4,41	1,32	Link
<u>Trustly</u>	Trustly	4	0,35	0,02	Link
<u>Siirto</u>	OP Osuuskunta	n.a.	n.a.	n.a.	Link
<u>Vipps MobilePay</u>	Vipps Mobilepay AS	2	0,10	n.a.	Link

Source: Orbis | Financials 2022

Banks

Finland is home to a total of 17 banks¹¹⁸⁸, with a significant dominance by four major players: Nordea, followed by OP Financial Group, Danske Bank and finally S-bank. Together, these four institutions represent approximately 80%1189 of the market share within the country.

Nordea Bank holds the top position in terms of total assets and is recognized for offering the most extensive financial services across the Nordic Region. Catering to both private and business clients, the bank provides a wide array of services including Private Banking, Investment Banking, Wealth Management, and personal banking services. Additionally, Nordea offers a smartphone app, Nordea Mobile, for convenient banking. The app is available in Finnish, English, and Swedish, a feature highly appreciated by clients, especially considering its availability across languages, which is not always the case with competitors. Nordea's credit cards are branded with Mastercard, while its debit cards bear the Visa brand¹¹⁹⁰.

OP Financial Group, headquartered in Helsinki, is a cooperative bank owned by 2,1 million owner-customers. The group comprises 102 OP cooperative banks and the central cooperative. It is active in three main segments: retail banking, corporate banking, and insurance. Similar to Nordea, OP Financial Group offers its own mobile app called the OP-mobile app. Additionally, OP developed the Pivo mobile app, which boasts over 1,2 million users in the country¹¹⁹¹.

In 2023, Nordea and OP established a joint venture aimed at developing new solutions for phone-number-based payments and e-invoice management. Furthermore, both companies are planning to expand the operations of their co-owned company, Siirto, to enhance solutions offered to businesses and merchants, particularly concerning the management of joint beneficiary registers¹¹⁹².

In third place is Danske Bank. Alongside their banking services, they also offer life insurance, pension plans, mortgage financing, asset management, real estate agency services, and leasing. Their cards are exclusively branded with Mastercard and can be added to Google Pay, Apple Pay, and Garmin Pay.

- 1181 https://mobilepay.fi/artikkelit/2024/03/12/vipps-ja-mobilepay-ovat-nyt-sama https://pay.com/blog/top-payment-methods-in-finland
- 1183
 - https://www.bearingpoint.com/en-fi/insights-events/insights/finnish-consumers-are-digital-frontrunners-in-the-payment-landscape/#:~:text=Over%2070%25%20of%20 Finns%20prefer.(7%25)%20are%20used.
- https://mobilepay.fi/artikkelit/2024/03/12/vipps-ja-mobilepay-ovat-nyt-sama
- https://www.bearingpoint.com/en-fi/insights-events/insights/finnish-consumers-are-digital-frontrunners-in-the-payment-landscape/#:~:text=Over%2070%25%20of%20 Finns%20prefer,(7%25)%20are%20used.
- https://pay.com/blog/top-payment-methods-in-finland https://support.paytrail.com/hc/en-us/articles/4413022674449-Walley-Buy-now-Pay-later-service 1187 1188
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- 1189 https://www.suomenpankki.fi/en/Statistics/mfi-balance-sheet/tables/rati-taulukot-en/markkinaosuudet_luottolaitokset_en/
- 1190
- https://www.op.fi/op-financial-group/about-us/op-in-brief 1192
- https://www.nordea.com/en/news/nordea-and-op-form-a-joint-venture-to-enhance-payment-services-in-finland

Danske Bank has a strong digital presence through its mobile app, Mobile Bank¹¹⁹³, and Munrahat¹¹⁹⁴. The latter is a mobile app designed for children aged 8-14 years old, which integrates a current account connected to a debit card and a savings account. Parents can rest assured as they have complete control over their child's account.

In July 2023, Danske Bank's Norway announced the sale of its Norwegian Personal customer and private banking business, including associated asset management portfolios, to the Finnish bank Nordea. This acquisition aligns with Nordea's strategy to expand its presence in the Nordic Region, particularly in Norway¹¹⁹⁵. The transaction is currently under investigation by the Norwegian competition authority but is expected to be finalized by the end of 2024¹¹⁹⁶.

Lastly, S-Bank is often referred to as a 'supermarket bank' in Finland because it is affiliated with a major grocery store chain, providing services tailored to these merchants¹¹⁹⁷. Additionally, S-Bank offers private banking and asset management services. However, S-bank doesn't offer as many banking services as other banks like Nordea do. Their significance is largely attributed to their affiliation with the grocery store chain. At this grocery store chain, customers get loyalty points only on the S-bank card, making it nearly essential for regular shoppers to possess a card from this bank. They thus focus more on retail banking, particularly on the countryside. Notably, all their cards are branded with VISA¹¹⁹⁸.

Alongside traditional banking, neobanks also have their place on the Finnish market. Finns use Revolut, N26, Bunk and Monese¹¹⁹⁹ as well as domestic players such as Holvi. Holvi targets small businesses and entrepreneurs¹²⁰⁰.

Banks	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Nordea Bank	Parent company	30.499	9.669,00	3.587,00	<u>Link</u>
OP Corporate Bank	OP Osuuskunta	820	553,00	211,00	Link
<u>S-Pankki</u>	Parent company	776	221,80	35,81	<u>Link</u>
<u>Svenska</u> <u>Handelsbanken</u>	Svenska Handelsbanken AB	750	0,10	n.a.	<u>Link</u>
Danske Bank	Danske Bank A/S	1.000	0,10	n.a.	Link

Source: Orbis | Financials 2022

Non-banking issuers

Historically, NETS formerly known as Luottokunta, is now part of Nexi. The company, which is now the primary acquirer, was initially owned by banks and merchants, and served as the sole issuer and acquirer in the country. Over time, banks began expanding their issuing activities and gradually acquired all processing services from NETS. Consequently, banks emerged as the primary issuers in the country, continuing to utilize NETS' services to this day. This dynamic explains why non-banking issuers, presented below hold a minor share, even in 2024.

Nevertheless, Finland is considered to be a very friendly e-money country. Indeed, multiple electronic money institutions are present in the country and their importance is increasing.

Holvi Payment Services focuses on catering to self-employed individuals, with the aim of simplifying their work management. They offer a range of financial products including debit, credit, and virtual cards branded with Mastercard, along with an online business account. In addition to payment services, they also assist with tax and invoice management¹²⁰¹.

Zevoy on the other hand, an electronic money institution, issues virtual credit or prepaid cards branded with VISA¹²⁰². In 2022, they raised 15 million € to expand its expense management tools within Europe¹²⁰³.

Enfuce Financial services is a card as a service (CAAS) platform. They thus also offer card issuing. They provide debit, credit, prepaid and even kids' cards with special features controlled by the guardian 1204.

In 2023, a new player entered the Finnish market. Berlin-based fintech company Pliant obtained an Electronic Money Institution (EMI) license in Finland. This enables them to issue VISA credit cards directly after achieving principal membership with the company. Their ambition for the future is to establish themselves as an independent payment institution in Europe¹²⁰⁵.

- 1193 $\underline{https://danskebank.fi/sinulle/paivittaispalvelut/digitaaliset-pankkipalvelut/mobiilipankki}$ 1194
- https://danskebank.fi/sinulle/paivittaispalvelut/digitaaliset-pankkipalvelut/munrahat 1195 https://www.nordea.com/en/press/2023-07-19/nordea-to-acquire-danske-banks-personal-customer-business-and-associated-savings-assets-in-norway#:~:text=Nordea%20
- has%20entered%20into%20an.in%20Norway%20among%20household%20customers. https://www.reuters.com/markets/deals/decision-nordeas-purchase-danske-bank-personal-customer-business-postponed-2023-11-07/
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- 1199 https://top10mobilebanks.com/best-mobile-banks-fl/ https://www.holvi.com/fi/lisatietoja-holvista/ 1200
- 1201
- https://www.holvi.com/business-account/
- https://zevoy.com/en
- https://www.eu-startups.com/2022/04/finnish-fintech-startup-zevoy-raises-e15-million-and-plans-european-roll-out-of-its-expense-management-tool/ 1203
- https://enfuce.com/product/issue-any-card/ https://www.getpliant.com/en/press/pliant-secures-emi-license-and-visa-principal-membership/

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Holvi</u>	Holvi Payment Services OY	87	8,00	-1,76	<u>Link</u>
<u>Zevoy</u>	Supersonic Helsinki AB	32	0,68	-5,07	<u>Link</u>
<u>Pliant</u>	Infinnity Financial Technologies GMBH	3	0,37	0,00	<u>Link</u>
<u>Enfuce</u>	Enfuce Financial Services Oy	2	0,12	-0,25	<u>Link</u>
<u>NETS</u>	Nexi Group	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Payment processing & gateway providers

Paytrail, a Finnish company that is part of the NETS Group, is the leading provider of online payment services in Finland, serving over 22.000 customers. They offer a comprehensive range of payment methods including online banking, cards, invoicing, installments, mobile payments, and gateways¹²⁰⁶. With the support of 11 banks in Finland, Paytrail ensures a high level of security, allowing customers to shop online without sharing sensitive information over the web¹²⁰⁷. As a reminder, NETS is the primary acquirer in Finland, and the majority of transactions are processed through NETS due to their acquiring agreements with most merchants in the country.

Next up is Enfuce Financial Services, specializing in card issuing, payment processing, and open banking solutions. They also provide the flexibility to scale your solutions globally¹²⁰⁸. The Finnish company has recently secured additional 8,5 million to expand its investment in Germany and France, with participation from VISA and Maki.vc¹²⁰⁹.

Payment processing & gateway providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Paytrail</u>	Nexi Group	73	40,53	5,37	Link
<u>Enfuce</u>	Parent company	125	12,29	-13,60	Link

Source: Orbis | Financials 2022

Open banking enablers

Open banking is supported by the European Union to drive some changes in the financial services industry. However, in recent years there have not been some significant developments in Finland in this field.

Infrastructure providers

There are no domestic mass payment transaction clearing system in Finland. EBA-clearing is fully utilized instead. However, Siirto serves as a small clearing system. While not considered a major player in the field, Siirto lacks a mass clearing system.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Siirto	OP Osuuskunta	n.a.	n.a.	n.a.	<u>Link</u>

²⁰⁶ https://www.paytrail.com/maksupalvelu

https://switchpayments.com/channels/6078b63f5c98ce001052b359

https://enfuce.com/

https://fintechnordics.com/7119/fintechfinland/finlands-enfuce-secures-e8-5-million-additional-investment-for-germany-and-france-expansion/

Expert Opinion

"Finland, a country that has embraced the technological future of payment methods, is leading the way in digitalization and transitioning towards a cashless society."

Marko Hykkonen | Director - Deloitte Finland

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Sweden

Introduction

Sweden is widely regarded as a pioneer in the transition towards a cashless society. According to Sweden's central bank (Riksbank), the proportion of Swedes using cash decreased from 39% to 9% between 2010 and 2020. By 2023, the share of consumers who never use cash had risen to 46%, the highest among Nordic neighbors, a remarkable achievement. In contrast, in Finland, only 10% of the population had abandoned cash by that time. However, similar to other Nordic countries, the population believes that cash must still be an available payment option, but merchants are reluctant handling cash due to fixed costs associated with it¹²¹⁰.

It's unsurprising that contactless debit cards are the most favored payment method in Sweden at POS, commanding an 86% market share 1211. However, they are gradually ceding ground to mobile payments, particularly through Swish, which is gaining popularity in Sweden. Apple Pay and Samsung Pay have also solidified their position as the second most favored mobile payment method.

The previous year marked a historic moment as cash was surpassed for the first time by another payment method to become consumers' second favorite choice in the Nordics. Mobile payments, offered by Swish, experienced a surge in popularity, claiming the second position¹²¹², their convenience is highly appreciated. Moreover, the emergence of new alternative creditbased payment methods developed by Swedish fintechs such as Klarna and Trustly accelerated this trend.

For online purchases, Swedes predominantly use debit cards, Klarna, and Swish. This underscores the popularity of digital wallets and 'Buy Now, Pay Later' (BNPL) options, such as Klarna, among consumers¹²¹³. However, there has been a decrease in the usage of BNPL services, supposedly because payment options on e-commerce sites that involve consumers shopping on credit cannot be displayed first or pre-selected if other payment methods are available 1214.

Moreover, Sweden is one of the leading countries in terms of fintech performance. According to a Europe's fintech opportunity report, they are just a step away from the UK, which currently holds the first position, and they outperform the almighty US1215. This position explained the success of the previously mentioned fintechs but also other Swedish fintechs that are currently booming, including the open banking enabler Tink and the mobile banking application Rocker.

To meet the needs of an increasingly cashless society, the Riksbank is piloting a digital currency (CBDC) called the e-Krona. The currency is currently available for purchasing and selling¹²¹⁶.

Sweden's fertile ground for fintech innovation is evident not only in its digital payment solutions but also in its openness to futuristic technologies. In 2018, more than 4.000 Swedes had microchips implanted in their hands. However, the company responsible for the technology went bankrupt.

Card payment schemes

In terms of payment schemes, Mastercard dominates, with Visa a strong second. However, consumers tend to have no preference for one or the other and changes in the operator landscape are mainly due to banks changing operators¹²¹⁷.

https://insights.nets.eu/publication/nordic-payment-report-2023

¹²¹⁰ https://insights.nets.eu/publication/nordic-payment-report-2023

¹²¹² https://www.riksbank.se/en-gb/payments--cash/payments-in-sweden/payments-report--2024/ 1213

https://www.rapyd.net/blog/the-top-ecommerce-and-payment-trends-in-sweden/

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https://www.mckinsey.com/industries/financial-services/our-insights/europes-fintech-opportunity

https://www.riksbank.se/en-gb/payments--cash/e-krona/

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Alternative payment methods

International mobile and e-wallet payment solutions such as Apple Pay, Google Pay, Amazon Pay, Samsung Pay and PayPal are present in Sweden. Wearables are also very common payment methods. They include US players such as Garmin Pay and Fitbit Pay, as well as a Swedish startup called Fidesmo Pay.

The most common mobile payment app in Sweden is Swish (GetSwish AB) which provides mainly e-commerce gateway and enables the integration of their services into physical PoS through banks agreement 1218. The app was launched in 2012 as a cooperation between six of the largest banks in Sweden (Danske Bank, Handelsbanken, Länsförsäkringar, Nordea, SEB and Swedbank and Sparbankerna). It offers online and in-store payments for individuals and businesses, and P2P mobile payments through QR codes and payment requests. Nevertheless, Swedes are more accustomed to using Swish for online payments rather than in-store purchases¹²¹⁹. To boost its in-store usage, Swish has introduced a new self-scanning solution in April 2024, allowing customers to handle the entire purchase directly within the Swish app. 1220.

Some cafés, restaurants and supermarkets have recently started to display QR codes to give customers the possibility to pay directly with their mobile application. The verb swisha (to swish) has even entered the day-to-day language. It refers to making a payment with the mobile app Swish¹²²¹.

Sweden is also country of origin to internationally known alternative payment methods, Klarna and Trustly.

Trustly offers account-to-account payments primarily used for online shopping. They grew to become the leading global payment platform for digital account-to-account transactions¹²²². In 2023, the company acquired SlimPay, a A2A-based recurring payments platform. The goal is to improve existing direct debit capabilities in the UK and Sweden¹²²³.

Headquartered in Sweden, Klarna provides a buy-now-pay-later service and stands out as one of Europe's leading paytech companies and among the most valuable startups. Despite being a champion in its field, 2022 was a challenging year for the company (and many other tech companies). Klarna's losses amounted to 200 million US\$ in the third quarter of 2022 after its valuation was slashed by 85% (to 6,7 billion US\$). However, the situation changed, and for the first time since 2019, the company became profitable. 1224.

1220

https://www.swish.nu/losning/cash-register 1219

https://www.riksbank.se/en-gb/payments--cash/payments-in-sweden/payments-report--2024/

https://www.swish.nu/newsroom/news/patriks-prylar-was-first-to-offer-scan-with-swish

¹²²¹ https://sweden.se/life/society/a-cashless-society

¹²²² https://www.trustly.net/press/2022/02/trustly_launches_new_growth_strategy_organizational_structure_and_regional_management_teams

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Rocker is a Swedish digital banking company, operating exclusively in Sweden with approximately 200.000 users¹²²⁵. The company announced a strategic partnership with Snowdrop Solutions, a leading provider of location-enhanced data enrichment solutions. By seamlessly integrating Snowdrop's API into its platform, Rocker will offer its customers clean transaction details, a clear overview of their spending patterns, and more. The aim is to allow consumers to better understand and manage their finances, demonstrating a clear commitment to innovation and user-centricity¹²²⁶.

In the realm of contactless technology, Fidesmo stands out as a company facilitating the seamless connection of contactless services to various devices, including wearables, cards, and smartphones. Headquartered in Sweden, Fidesmo extends its reach across most European countries.

TalkRemit facilitates mobile remittance and international funds transfers in Sweden, and the rest of Europe. They aim to provide financial solutions in a highly interconnected world. As a fully licensed electronic money institution, they can send money to bank accounts, mobile wallets, and facilitate cash pick-ups.

Brite is a fintech company, specializing in instant bank payments, that facilitates account-to-account payments in Sweden. They eliminate the need for card details, apps, or sign-ups, streamlining the payment process for both merchants and consumers.

Finally, the app Steven helps users manage and settle shared expenses, making it easier to split bills among friends or group members. To facilitate smooth transactions, the app integrates various payment methods such as Swish and Klarna.

Alternative payment methods	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
Klarna	Klarna Holding AB	6.002	1.489,51	-917,75	Link
Trustly	Parent company	398	106,23	1,66	<u>Link</u>
Rocker	Schibsted ASA	50	26,66	-11,72	Link
Getswish	independent company	33	22,40	1,36	Link
<u>TalkRemit</u>	Parent company	3	1,81	0,12	Link
<u>Fidesmo</u>	Parent company	12	0,97	-1,94	Link
<u>Steven</u>	Parent company	7	0,03	-1,43	Link

Source: Orbis | Financials 2022

Banks

Sweden's banks are widely regarded as robust and high-performing relative to their European counterparts¹²²⁷. Currently, there are approximately 159 banks operating in Sweden, overseen by the supervisory authority Sveriges Riksbank. Skandinaviska Enskilda Banken (SEB) holds the top position in terms of total assets, commanding around 18% of the market share. Handelsbanken follows closely with 15% of the market share, trailed by Swedbank with 12%.

SEB issues Mastercard debit and credit cards and offers various payment methods through wearables, including Fitbit, Garmin, Samsung, and Fidesmo. Additionally, SEB provides mobile payment options through Samsung Pay, Apple Pay, and Swish. The bank operates a subsidiary called SEB Kort Bank, which issues private and corporate cards not only in Sweden but also in other Nordic countries. The card issued and administered by SEB Kort Bank is known as Eurocard.

Handelsbanken previously operated in other Nordic countries as well as in the UK. However, in 2022, they exited the other Nordic countries and consequently disposed of their Finnish and Danish subsidiaries¹²²⁸. Handelsbanken issues Mastercard credit cards, as well as Maestro debit cards. Additionally, it provides mobile payment options through Samsung Pay, Apple Pay, and Swish. Notably, as of lune 2023, the bank is the only one among its competitors to introduce interest rates on salary accounts, providing customers with an incentive to become clients¹²²⁹.

Finally, Swedbank issues Mastercard debit and credit cards. It also offers mobile payments through Google Pay, Samsung Pay, Apple Pay, Swish, and Masterpass, as well as wearable payments through Fidesmo Pay, Fitbit Pay, and Garmin Pay. Furthermore, the company has a subsidiary called EnterCard, which issues credit cards not only in Sweden but also in other Nordic countries.

Sweden's banking sector also includes a significant presence of foreign banks, constituting approximately 20% of the total number of banks¹²³⁰. Among them, notable ones are Nordea from Finland and Danske Bank from Denmark, which rank as the fourth and fifth largest banks in Sweden, respectively¹²³¹. Nordea is commanding approximately 8% of the market share¹²³².

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https://thebanks.eu/banks/17527/market_share https://thebanks.eu/countries/Sweden/banking_sector

Banks	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Skandinaviska</u> <u>Enskilda Banken</u>	Parent company	16.283	5.807,45	2 426,69	<u>Link</u>
<u>Svenska</u> <u>Handelsbanken</u>	Parent company	10.954	4.877,92	1 930,45	Link
<u>Swedbank</u>	Parent company	17.886	4.678,13	1 921,28	Link
<u>Danske Bank</u>	Danske Bank A/S	n.a.	n.a.	n.a.	Link
Nordea Bank	Nordea Bank Abp	n.a.	n.a.	n.a.	Link

Source: Orbis | Financials 2022

Non-banking issuers

Mynt is an embedded solution for virtual and physical Visa company cards, as well as expense and spend management.

Non-banking issuers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Mynt</u>	Independent company	24	2,37	-3,21	<u>Link</u>

Source: Orbis | Financials 2022

Payment processing & gateways providers

Zettle, Bambora, and Smartrefill are all internationally known companies founded in Sweden.

Zettle, originally known as iZettle, was founded in Sweden and acquired by PayPal in 2018. They offer hardware such as card readers and POS terminals to assist businesses. Their goal is to provide small businesses with user-friendly tools, enabling them to compete effectively in a world dominated by larger corporations.

After operating for 17 years as Beanstream, the company was acquired by Bambora in 2015. Bambora offers a range of business solutions, including online payment processing, point-of-sale (POS) systems, payment gateway solutions, and billing services. The company is part of Worldline, a renowned global acquirer.

Lastly, let's explore Smartrefill, a company that offers smart digital solutions for the TelCo industry. Their services include managing payments, top-ups, recurring subscriptions, loyalty bonuses, and multi-family subscription packages. They are fully owned by BGA Invest, an investment company with a focus on regional entrepreneurs and companies.

Payment processing & gateways providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Bambora</u>	Worldline	200	318,91	8,90	<u>Link</u>
Smartrefill	BGA Invest AB	26	55,19	-0,38	<u>Link</u>

Source: Orbis | Financials 2022

Open banking enablers

Sweden is seen as a future major player in the disruptive evolution of Open Banking, thanks to their active commitment to foster innovation in the fintech sector¹²³³. Tink serves as a prime example, offering an open banking solution for businesses. It provides financial services that enable banks and fintech companies to develop a broader range of banking and payment services. Tink facilitates the initiation of invoices and peer-to-peer transactions through its own app, eliminating the need to open multiple banking apps simultaneously and thereby enhancing the customer journey. The company is now part of Visa, operating in 18 European markets and boasting over 6.000 connections to all major banks across Europe. In 2023, Tink forged numerous partnerships with companies such as Splitwise, Payop, Micropayment, Deutsche Bahn, and many others.

https://nordigen.com/en/banks/open-banking/location/se/

Finshark is another player in the open banking field in Sweden. While smaller than Tink, the company is headquartered in Lund and has expanded its presence into other countries such as Denmark, Spain, Bosnia Herzegovina, and recently, Finland.

Open banking enablers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Tink</u>	Parent company	339	26,78	-110,87	<u>Link</u>
<u>Finshark</u>	Parent company	7	1,38	-0,98	Link

Source: Orbis | Financials 2022

Infrastructure providers

Vilja Solutions offers a cloud-native core banking platform to its clients, serving not only Sweden but also the entire Nordic region, with some extensions in Europe. Their platform consists of pre-packaged building blocks that can be assembled to create a solution tailored to each customer's needs. In 2023, the company partnered with the previously mentioned open banking enabler, Finshark. By integrating Finshark's open banking APIs into their platform, they aim to offer the best digital account validation process on the market¹²³⁴.

InterGiro, also known as Intergiro International AB, is a fintech company that offers digital banking solutions designed to cater to the needs of businesses and entrepreneurs. They provide a platform that combines banking and financial services, allowing users to manage their finances more efficiently. InterGiro's banking-as-a-service division enables clients to easily onboard new customers, create wallets, transfer funds, and access checkout solutions.

Infrastructure providers	Group	Number of employees	Revenue (Million €)	Net Revenue (Million €)	LinkedIn
<u>Vilja Solutions</u>	Parent company	104	8,35	-1,39	<u>Link</u>
Intergiro	Parent company	115	6,07	-10,83	Link

Source: Orbis | Financials 2022

Expert Opinion

"Sweden is at the forefront of the cashless revolution, with cash transactions rapidly declining as the nation has fully embraced digital payment solutions. Sweden boasts a thriving fintech scene with companies driving payments innovation at both the domestic and pan-European level, including many that are taking advantage of the growing maturity of Europe's open banking infrastructure."

Lena Hackelöer | Founder & CEO - Brite Payments

https://thedigitalbanker.com/vilja-expands-with-open-banking-technology-from-finshark/

Disclaimer

As this report exclusively focuses on entities that offer or concentrate their services on payment products and services, investment banks are not included. Retail banks are predominantly represented in the "bank" category due to their substantial volume of payment services, which may explain the absence of certain private banks.

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Glossary

Term

Definition

Payment gateway

A service that helps merchants initiate ecommerce, in- app, and point of sale payments for a broad variety of payment methods. The gateway is not directly involved in the money flow; typically it is a web server to which a merchant's website or POS system is connected. A payment gateway often connects several acquiring banks and payment methods under one system.

Payment processor

A system that connects to a shopper's bank and a merchant's bank in order to make a payment transaction on behalf of a merchant. Usually, a payment processor obtains the payment information from a payment gateway.

Acquirer (or Acquiring bank)

A bank or a financial institution which acquires funds for its merchant from a shopper. To accept card payments, an acquirer should be licensed by corresponding card networks and either partner with a payment processor, or be a payment processor itself. Some PSPs may operate as an acquirer as well.

Issuer (or Issuing bank)

A bank or financial institution which offers payment cards to consumers on behalf of card networks such as Visa, MasterCard, or American Express. These are typically major commercial banks.

Payment Service Provider (PSP)

A company which combines the functions of both a payment gateway and a payment processor, can connect to multiple acquiring and payment networks. Additionally it can be an acquirer and provide risk assessments and other financial services.

Important reasons for a merchant to do business with a PSP are:

- a single technical connection for all the payment methods that are offered to the consumer on the web; (gateway)
- access to local payment methods in defined countries;
- a single administrative connection (reporting); a single settlement procedure with an agreed frequency;
- usually, fewer contracts are needed, compared to having individual connections to acquirers. The PSP acts as the 'super merchant', being able to offer lower fees because of its purchasing power at the acquirers;
- access to specialist knowledge concerning the payment process;
- risk management and fraud prevention tools are provided and regularly updated

Banking as a Service (BaaS)

BaaS players offer complete banking processes, such as payments or credit, as a service through modern API- driven platforms.

ePayments-as-a-service (PaaS)

PaaS players operate cloud-based platforms to provide specialized services, such as card issuing, payments clearing, cross-border payments, disbursements, and e- commerce gateways. Companies wishing to offer these services can integrate these platforms via application programming interfaces (APIs). The ability to rapidly add or replace specific solution providers is key to this model, as it allows companies to realize the "fast follower" vision of capitalizing on best-of-breed solutions.

Card Payment Schemes

Payment schemes determine the technical norms and rules for conducting payment operations. They enable the management of the operations of the payment processes. These technical rules and standards are restrictions that determine how money is to be transferred between the payment institutions. Notable payment schemes include Mastercard and Visa.

Electronic Money Institution (EMI)

EMIs may store, conduct, and issue electronic money. This monetary value can be reused later for other electronic payments.

Alternative Payment Methods

Payment methods refer to the entire set of means through which shoppers can pay for their purchases

Credit card

Credit cards are issued to cardholders, after which a revolving account is created by the issuer, granting a line of credit to the cardholder. The cardholder can then borrow money for payment to a merchant.

Non-banking Issuers

Issuers are typically major commercial banks, but they can also be non-banking institutions. Their role is to issue payment cards to consumers and manage the cardholder accounts. E-money institutions and payment institutions have the authorisation to do so. Examples include Qonto and Lydia. The two companies issue cards, but do not hold (yet) a banking license – Qonto holds a payments institution license, while Lydia holds an e-money license institution.

Open Banking Enablers

Open banking allows access and control of banking data through APIs. Open banking enablers are companies that provide an easy way to integrate financial data with a third-party. Examples in Europe include Tink, True Layer and Ibanity.

Core banking providers

They offer comprehensive software solutions that form the backbone of a bank's operations. These solutions typically include core banking systems, which manage essential banking functions such as customer accounts, transactions, and financial records. Core banking systems are integral to a bank's daily operations, providing the foundational technology for various banking services. Examples include Skaleet, Sopra Banking Software and Temenos.

^{*}Note that a player could be categorized in more than one section. For instance, Lydia is considered as both a non-bank issuer (for their card issuance service) and an alternative payment method (for their P2P solution).

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