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"Open Banking meets user needs by innovating new solutions in digital financial services."

### Open Banking picks up pace

Introduced as part of the EU's second Payments Services Directive (PSD2) in 2018, Open Banking is now having a revolutionary effect on the way people pay, enabling banks, merchants and others to dramatically expand the payment options offered, while making payments more secure, faster and easier.

As implementations gather pace across Europe, Open Banking is democratizing financial services by placing consumers at the center of where and how their data is used to provide the services they need. Financial institutions, payment gateways and fintechs use this consumer permissioned data to provide more rapid and inclusive access to credit, personal financial management, digital wallets and payments services. Mastercard plays a central role in this ecosystem as a trusted intermediary and secure network.

This report focuses on the evolution of Open Banking across Europe as businesses need to keep pace with increasing customer expectations by providing an ever better user experience, optimising workflows and collaborating with fintechs to build new revenue streams.

Building on our landmark "The Future of Open Banking in Europe" study published eight months ago¹, we track progress across Europe and reveal the shift to Open Banking is rapidly gathering pace, with more implementations and greater collaboration between banks, Third Party Providers (TPPs) and intermediaries. At the same time, consumer enthusiasm for and adoption of Open Banking products is also growing fast.

By mandating open and flexible application programming interfaces (APIs) and data-sharing between banks and other companies such as fintechs, utilities providers, telecoms players and more, Open Banking has kicked off a new era of digital, consumer-centric financial services – and users are responding positively.

In this report, we explain the Open Banking revolution through use cases and case studies where implementations have already delivered better user service to users alongside business growth for financial institutions, payment gateways and fintechs. We also outline Mastercard's open banking payments offering and the latest feature, Pay by Link, which makes invoicing and payments easy and simple for partners across the continent.

At Mastercard, we believe Open Banking is growing fast but still holds enormous promise as a means of fostering greater competition and innovation across the financial services industry. As we show in this report, we have already brought a range of Open Banking integrations to market and look forward to working with our partners on the delivery of Open Banking solutions that improve service for their customers while growing revenue and profitability.

#### Jim Wadsworth

Senior Vice President for Open Banking, Mastercard

To learn more visit mastercard.com/openbanking

### Open possibilities

Mastercard's Open Banking solutions shape the future of a digital economy where all businesses and people live a simpler and more convenient life. We empower choice, security and a seamless experience with a single infrastructure to initiate payments and access financial data. Through Open Banking, Mastercard provides more efficient and affordable access to services businesses and people want and need.

Mastercard helps customers exchange data and initiate payments securely and seamlessly by promoting governance, standards and business guidelines, powering the ecosystem and extending its role as a trusted partner. Mastercard partners with influential financial institutions and fintech providers alike to give consumers a leg up in a complicated financial world, helping to improve financial literacy, expanding financial inclusion and ultimately leading to better financial outcomes.

With more than 150 Open Banking clients including 40 banks, Mastercard is connected to more than 3,000 banks across 18 European markets. We process more than two million payment requests every month and handle more than 100 million API requests each month.



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## Enabling competition and innovation

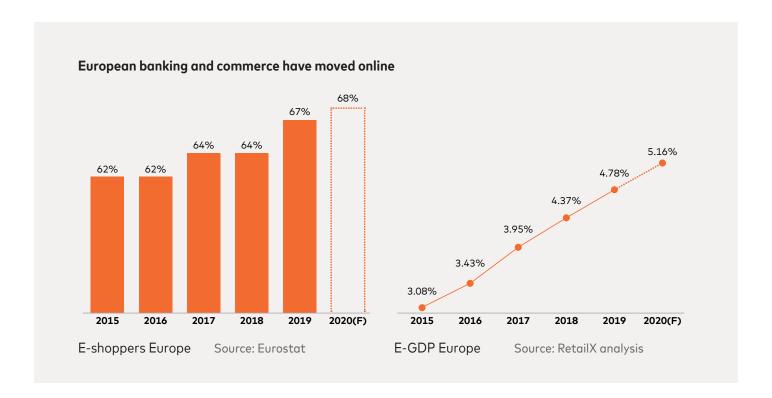
"Digital and mobile are key channels for today's consumer – and Open Banking is ushering in a new era of online competition, innovation and choice."

The second payment services directive (PSD2) introduced by the EU in January 2018 began a period of change in retail banking and payments not seen for decades. Since that time, the pace of change has accelerated and millions of European consumers are now experiencing the benefits of Open Banking thanks to a wave of digital finance innovations that are sweeping the continent.

A range of markers show how far we've come. According to Eurostat, just 51% of Europeans used internet or mobile banking in 2017; fast forward five years, and that figure has risen to more than 66%. Eurostat figures also show more than two-thirds of Europeans now shop online, with more than 5% of all economic activity across the continent now taking place online. In more advanced markets such as the UK, Germany and the Nordics, this figure stands at around 10% as of May 2022.

66%

of Europeans use internet or mobile banking





### The benefits of Open Banking

By mandating Open APIs in financial institutions and the sharing of customer data, Open Banking is creating a new era of flexibility and choice for consumers, and more competition between providers.

Open Banking offers huge scope for innovation and the delivery of a wider range of services that feature faster customer journeys, reduced costs, fewer errors thanks to better data sharing and easier integrations between product providers.

And the benefits don't stop there – thanks to Payment initiation Services (PIS) powered by open banking, transaction friction is reduced to a minimum, freeing consumers to pay through a wider range of channels than ever before.

From a bank perspective, benefits can include:



Banks can access more customers and gain new customers by creating a winning customer experience



Increased revenues thanks to frictionless payments and a wider range of payment options for consumers



Open Banking APIs enable TPPs to build applications and services around the bank



Greater financial transparency for account holders

# User uptake rockets across Europe

Our September 2021 study, "The Future of Open Banking in Europe", revealed five tiers of Open Banking readiness, with the Nordic markets ranked as most advanced, followed by the UK and other leading European economies such as France, Italy, Spain and Germany. Other European economies such as Poland and Hungary were also seen to be readying Open Banking as a means of leapfrogging from legacy infrastructures to fully digitalized finance.

In just eight months since we published our original study, the situation has developed fast. In the UK, 15 new Open Banking products were launched between November 2021 and February 2022 for a total of 124 products in the market, with seven new providers (336 total) and six new third party providers, or TPPs, for a total of 244. Examples include faster merchant onboarding for marketplaces, more secure payments and simpler refund processes. The number of consumers using open banking products in the UK also rose from three million in November 2021 to five million by the end of February 2022.

In France and Germany, meanwhile, national standards for Open APIs such as The Berlin Group's NextGen PSD2 Open API framework have successfully proliferated, paving the way for the introduction of the first Open Banking products in these countries later this year. As of May 2022<sup>3</sup> France hosted 26 TPPs, and 89 of its financial institutions had fully opened their API infrastructures to other players. Germany hosted 38 TPPs and had 80 banks with fully open API infrastructures. For Italy and Spain, the corresponding numbers of TPPs and banks with open APIs were 13 TPPs and 69 banks (Italy) and 9 TPPs and 46 banks (Spain).

#### **Open Banking Readiness Index 2021**

| Infrastructure readiness                   | NO                     | DK  | SE  | UK                          | DE                 | FR   | ES                          | IT  | PL                          | HU                     |
|--|------------------------|-----|-----|-----------------------------|--------------------|------|-----------------------------|-----|-----------------------------|------------------------|
| Open Banking Regulation implemented        | PSD2, GDPR implemented |     |     | PSD2, GDPR implemented      |                    |      |                             |     |                             |                        |
| Digital Payment Instruments used           | Domestic CT realtime   |     |     | Paym,<br>Faster<br>Payments | SCT, SDD, SCT-Inst |      |                             |     | Elixir<br>Express<br>Elixir | Domestic<br>CT<br>AZUR |
| Open Banking licenses in country for PISPs | 4                      | 5   | 14  | 73                          | 24                 | 12   | 8                           | 5   | 6                           | 1                      |
| Open Banking licenses in country for AISPs | 4                      | 9   | 28  | 184                         | 35                 | 20   | 8                           | 8   | 10                          | 5                      |
| Open Banking licenses in country for TPPs  | 6                      | 13  | 31  | 200                         | 35                 | 23   | 8                           | 9   | 12                          | 5                      |
| TPPs passported in country                 | 93                     | 102 | 105 | 67                          | 112                | 115  | 115                         | 118 | 108                         | 90                     |
| API Aggregators in country                 | 19                     | 20  | 19  | 22                          | 20                 | 19   | 20                          | 19  | 19                          | 17                     |
| Open APIs in country                       | 194                    | 53  | 44  | 166                         | 68                 | 89   | 46                          | 53  | 46                          | 34                     |
| Open API Standard in country               | Nordic API             |     |     | OBIE                        | FinTS,<br>NextPSD2 | STET | Outsourced to one agregator |     | PolishAPI                   | By bank                |

Note: TPPs can be either an AISP, a PISP, or both AISP+PISP. Around 4,000 ASPSPs offer AIS/PIS services under PSD2 regulation are not counted here.

Source: European Banking Authority, domestic FSAs, PCM research. Data collected Dec 2020 - May 2021

# UK sees growth in providers, products and consumer use of Open Banking

Highlights: February 2022 Powered by Open Banking:

### Loqbox gives renters the ability to build their creditworthiness

After polling its members and learning that 92% of LOQBOX renters want to own their own home. the money app has launched a new service to help them build up their credit worthiness. LOQBOX Rent uses Moneyhub's open banking technology to track, and report rent payment behaviour to Experian. This makes it easier for renters to seamlessly add rental payment information to their credit report, strengthen their credit score, improve their chances of accessing fair, affordable credit and improve their chances of securing a mortgage in the future.

### Cheddar acquires open banking technology firm Upside

Cheddar operates as a bank accountenabled payments platform that is free for consumers to use. Acquiring Upside's technology will allow the firm to begin to implement open banking as part of its services. Commenting on the acquisition Tariq Zaid, CEO and Founder at Cheddar, said: "We believe this will add substantial value for our customers whilst also complementing our other services and operations. We look forward to exploring these new open banking opportunities to enhance our customer offering.

#### Vyne and Gr4vy partner to enable instant open banking payments for merchants

The partnership trend continues. Vyne, the specialist account-to-account payments platform, announced a new partnership with Gr4vy, a leading cloudnative payment orchestration

platform (POP), that will give online merchants access to open banking payments infrastructure. As eCommerce becomes the cornerstone of retail, Vyne's open banking technology gives merchants access to a single view of transaction data and thereby an enhanced understanding of their business as well as greater control over their finances.

#### Snoop wins Best Open Banking Solution at Banking Tech Awards

Open banking-powered personal finance app Snoop took the win at this year's Banking Tech Awards. Snoop uses open banking data and advanced analytics to help consumers find their biggest money-saving opportunities, as well as help them manage their money.



#### Key highlights

February 2022

### OBIE Trustee Charlotte Crosswell appears at APPG

On the 22nd of February, Charlotte Crosswell joined the All-Party Parliamentary Group (APPG) on Open Banking and Payments panel discussion. The theme of the panel was "Managing the transition to a new Open Banking governance model." Under the Chair of MP, Ian Liddell-Grainger, the panel discussed topics including the next steps towards a new Open Banking governance model, progressing the UK's global lead in Open Banking and ensuring it evolves to encompass Open Finance and other sectors through Smart Data, as well as how best to ensure that Open Banking delivers for consumers and businesses while achieving a bigger vision beyond the CMA banks.

### FCA recognises the success of Open Banking

Sheldon Mills, Executive Director of consumers and competition at the Financial Conduct Authority (FCA), said that he sees open banking as a "glowing success." This followed the OBIE's announcement that it had passed the significant milestone of five million users benefiting from open banking-powered products and services.

In the article published in Peer2Peer Finance News, Mills also underlined the importance of maintaining the "successful mechanism" in the move towards the next phase of open banking and the importance of expanding the use of open data sharing into other forms of financial services.

#### VRPs under the spotlight

The Independent highlighted variable recurring payments (VRPs) as the new way of making payments and moving money between your accounts. The piece quoted Victor Trokoudes, CEO and co-founder of investment app Plum, saying: "It's really important that we as an industry still apply pressure to the Open Banking system, to help ensure that innovation and improvements continue for the benefit of consumers."

### OBIE launches campaign for charities

As part of its first co-ordinated campaign, the OBIE published an innovative ebook which explains how open banking payment solutions can help charities increase fundraising revenue. The campaign was supported by three case studies from JustGiving, Wonderful, and Pledjar which set out the cost savings and administrative efficiencies offered by open banking, as well as new ways to raise funds through options such as digital 'round-ups'.

Source: OBIE UK



#### Unlock better payments

With Mastercard Open Banking solutions now in place across Europe, how can financial institutions, payment gateways, fintechs and others build meaningful products and solutions that take advantage of these new infrastructures to grow revenue?

Open banking enables all kinds of business to broaden the range of ways in which consumers and businesses can pay. We can also expect faster transaction and settlement speeds, meaning that people and companies pay and get paid faster and with lower costs. Examples include:



#### Instant and faster payments

Account-to-account (A2A) payments and instant payments have seen stratospheric growth in recent years as consumers appreciate the speed and ease of these methods. Open Banking will make instant and faster payments easier to integrate and speed up authentication for payers and payees compared to existing processes by using API calls on both parties' banks.



#### **QR-code** payments

Already used for menu delivery and item selection in hospitality after COVID-19, integrating QR-code payment into this process will deliver a new level in customer service and convenience.



#### Social media payments

The use of social media as a marketplace for used items and for sending funds to friends and family is a huge yet untapped market. Open Banking can facilitate the integration of payment functions into social media.



#### Logistics

Logistics companies and merchants are looking to combine payment with ordering and/or delivery functions. While bespoke software for this application exists, Open Banking will help standardised solutions to proliferate, making integration easier, boosting revenues and improving customer service.



#### Gaming

Users are looking for faster and easier in-game payments with a secure and trusted partner channel. Open Banking can makes in-game micropayments faster and more secure.

# Open Banking payments in action

### Smooth and simple invoicing and acceptance

We recently announced the launch of a new product: Pay by Link. Based on open banking payments, this feature is set to empower multiple players across the ecosystem and enable new use cases ranging from accounting, insurance, and telecom companies to social commerce, payment service providers, and utility companies. Pay by Link ties directly into Mastercard's open banking vision of ushering in a new era of choice, simplicity and personalization in a safe and secure manner.

### Transform invoice payments

Pay by Link is designed to transform the way people pay bills. With a simple link, Pay by Link allows for bill payment easily and securely from a bank account, using any channel – from email and sms through to PDFs and Word files. And there's no need to enter or remember payment details. Using Pay by Link, businesses have the opportunity to accept and receive payments anywhere and reduce friction in the entire payment flow.

### Make contextual payments

Your customers can now receive payments without having to maintain a web shop, app or other type of software. In this way, their customers can pay directly in the context they're in.





#### Visma Dinero

Pay by Link is already live with the leading Nordic accounting software provider, Visma Dinero. Visma Dinero is using Pay by Link to simplify invoice payments for more than 77,000 small and medium-sized entrepreneurs (SMEs), combining payment with account information that makes it possible to automatically reconcile invoices instantly. Visma Dinero leverages both account information services (AIS) and payment initiation services (PIS) with the ambition to become a virtual CFO for more than 77,000 small and medium-sized entrepreneurs.

"With Pay by Link in place, we're able to remove a massive headache for businesses and make it simple to send out an invoice and get paid in any context. With a simple payment link, we're enabling our customers to get paid on time by using open banking payments in a flow that they trust with their bank. In combination with our additional access to account information from Mastercard, we make it incredibly smooth to both pay and reconcile for thousands of businesses," says Martin Buch Thorborg, Co-Founder and CEO of Visma Dinero.

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- Martin Buch Thorborg, Co-Founder and CEO, Visma Dinero





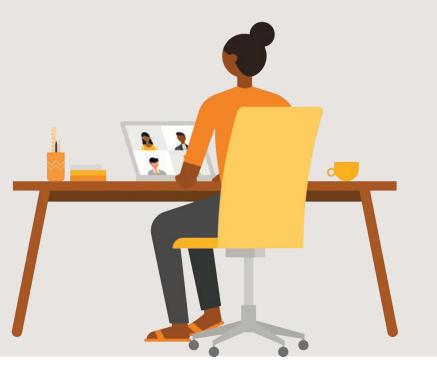
#### **Abillio**

Abillio is a payments gateway for the growing gig economy that lets freelancers and gig workers use its 'Company-as-a-service' solution to invoice their cross-border customers and get fast payouts for their services, while Abillio takes care of running the company, accounting, taxes and paperwork. Based in Riga, Latvia, Abillio launched its digital platform in the spring of 2021 and has experienced rapid growth. Such success has put a heavy load on Abillio's invoice and payment processing power, which initially relied on human operators to get the job done.

Mastercard's open banking solution is a perfect match to solve this ever growing problem. "Our service is massively popular with Latvian freelancers. As we roll out to other EU countries, we decided we couldn't be successful without the open banking solutions Mastercard offers. They also have a dedicated SMB growth programme, which is great for small startups like us," explains Martins Vilums, co-founder and CMO of Abillio, "Mastercard's wide connection to Baltic and EU banks has enabled us to access banking data for incoming payments and automate payout initialization so we can save human resources for more important, non-routine tasks."

### "As we roll out to other countries, we need the Open Banking solutions Mastercard offers."

- Martins Vilums, Co-Founder and CMO, Abillio





#### Tesco Bank

Tesco Bank uses Mastercard Open Banking Connect to allow their 2.6 million credit card customers to easily manage and pay their balance by making payments directly from their bank account. Every month Tesco Bank's credit card customers need to pay their credit card bill. Many choose the convenience of managing their credit card via Tesco Bank's online banking or mobile app. The only method of payment through these channels is with a debit card. This method requires a customer to locate and enter their debit card details each month. In addition, if a customer wishes to check their bank balance before making the payment, they would have to do that separately through other means, adding more time to the task.

Tesco Bank implemented their "Pay By Bank" feature, leveraging Mastercard Open Banking Connect, within their online banking and mobile app. "Pay By Bank" allows online and mobile Tesco Bank credit card customers to pay their bill directly from their bank account via electronic payment services. Mastercard Open Banking Connect allows Mastercard's clients to enable customers to initiate single immediate payments, view all of their bank accounts and transactions from one location, setup standing orders and establish future dated payments. This is the first implementation of this technology in the UK, and connects Tesco Bank with 18 other UK financial institutions.





#### **Avarda**

Based in Sweden, Avarda is known for its omnichannel payments platform that offers complete white label solutions to retailers and merchants. To provide an even smoother checkout experience, Avarda recently teamed up with Mastercard to boost its core payment products with Open Banking – and now, Open Banking payments is implemented as part of Avarda's two core products: Checkout and 'buy now, pay later' payment methods.

Avarda has launched a new user-friendly solution that shows consumers their invoice balance in real-time. Consumers can see all the information related to payments on the retailer's website. If the consumer pays with Avarda's 'buy now, pay later' payment method, the invoice can be paid with account-to-account payments in the same place without separate login to the online bank, explains Avarda's Development Manager, Eeva-Liisa Marjomaa: "With Open Banking we can get account-to-account payments through one integration for all Nordic markets. This is a clear advantage when it comes to both implementation and maintenance of our services."

"With Mastercard's payment product we can get account-to-account payments through one integration for all Nordic markets. This is a clear advantage when it comes to both implementation and maintenance of our services."

- Eeva-Liisa Marjomaa, Development Manager, Avarda





#### Lunar

Leading challenger bank and nordic fintech Lunar decided to take advantage of our open banking technology to create value-added, multi-banking features. This partnership enables Lunar to take an important step in becoming the primary banking interface for its more than 500.000 users. Since 2020, Lunar has activated multi-financial features and enabled payments across Denmark, Sweden and Norway with Mastercard. As a result, Lunar is one of the first Danish banks with a fully functional combination of both account aggregation and payment initiation services.

Through its work with Mastercard on Open Banking, Lunar has created a 'financial super app' for its rapidly growing customer base across the Nordics. By utilising account aggregation and payment initiation services, Lunar provides customers with actionable open banking features that allows them to view and move money between accounts, as well as pay bills from accounts at other banks all in one app. Commenting on the partnership, Brian Søndergaard Nielsen, Lead Architect of Lunar, said: "We want to create an app that lets users manage all their finances across banks and money in one place. Our ambition is to become the go-to interface for handling everything related to our users' financial life. To deliver the future of banking services, we're creating a digital banking experience that is second to none. As open banking is maturing past payment initiation and account information into more financial services like 'Request to pay'. We believe this open approach to banking will help empower our customers to take charge of their economic life. Creating a foundation for full economic insight no matter where you do banking and in Lunar they will get a world class digital experience."

"We are excited to work with Mastercard, especially to offer payment initiation services for our users. They bring extremely high quality and have delivered strongly across a wide range of Nordic financial services."

- Brian Søndergaard Nielsen, Lead Architect, Lunar

### Move forward with your Open Banking strategy

Implemented just four years ago, PSD2 is transforming financial services Europe, with a wide range of products already launched in several markets and more to follow. When it comes to payments, Open Banking simplifies the payments process, reduces costs and grow revenues by multiplying opportunities to pay in a wider range of channels, speeding up transactions and making the invoicing and reconciliation processes faster and easier.

Open Banking can improve the way people pay bills, allowing for bill payment through any channel with a simple, secure link from a bank account without having to enter or remember payment details. Through the Open Banking solutions now available in market, businesses have the opportunity to accept and receive payments anywhere and reduce friction across the entire payment flow.

# Take action for better customer satisfaction and revenue arowth

Businesses in every sector of activity now need to realise the benefits of Open Banking for their revenue growth and expansion by enabling a frictionless payment experience for their customers, plus greater choice in how, when and where bills get paid. To meet the demands of modern customers, businesses should be looking to partner with experts that can rapidly integrate multi-rail open banking solutions.

In late 2021, Mastercard announced the acquisition of Aiia, a leading European Open Banking technology provider that offers a direct connection to banks through a single API, allowing its customers to develop and launch new digital solutions that meet the needs of everyday life.

At Mastercard, we believe open banking will usher in a new era of choice, simplicity and personalization, making commerce faster, easier and safer for consumers all over Europe and the world.

For more about how Mastercard can help you deliver an Open Banking solution that generates revenue and serves your customers, contact sales@aiia.eu

### Aiia, a Mastercard company

We work to shape the future of an inclusive digital economy where all businesses and people can live a simpler and more convenient life. Through our European open banking networks, partnerships, and passions, we seek to empower choice and security with a single infrastructure of payments and financial data.

The network allows businesses and financial institutions to integrate financial data and to offer account-to-account payments directly in their services to an estimated reach of 337 million European citizens.

Today, Aiia has more than 3.000 connected banks across 18
European markets, handled more than 100 million API requests on a monthly basis and more than 2 million account-to-account payment requests processed on a monthly basis for large banks and e-commerce payment gateways.

By enabling individuals, financial institutions, governments and businesses with Open Banking we help them meet the demands of the modern consumer. All while giving them the freedom to pay without having to press pause.

That's Open Banking that simply works.

See Mastercard, "Open Banking Readiness Index 2021": https://b2b.mastercard.com/news-and-insights/ research-and-reports/open-banking-readiness-index-2021/

<sup>2.</sup> Data from www.openbankingtracker.com/country

