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Accelerating open banking

How the Nordics are driving new opportunities across industries.

A white paper
by AiiA

May 2020

Empowering frictionless financial futures for all

The open banking platform AiiA is the only API aggregator that offers full coverage of all business and personal bank accounts in the Nordics and soon the rest of Europe. With its in-depth market approach, AiiA was founded to standardise the format of financial data and payments, enabling frictionless financial futures for all industries. Today the technology behind AiiA powers more than 130 companies, including major banks like Danske Bank, Jyske Bank, OP Financial Group, Santander Consumer Bank, Lunar and DNB, as well as payment providers, accounting systems and SMBs, with access to real-time data and low-cost payment options.

In early 2020, AiiA commissioned a survey of more than 100 decision makers within the financial sector and payments industry, and accounting service providers across the Nordics – Denmark, Sweden, Norway and Finland – with the aim to assess the status of the Nordic region on its approach toward open banking.

Interviews were monitored to ensure as balanced a spread as possible across country, sector, number of employees and turnover.

An important message

Because the survey was conducted before the Coronavirus found a foothold in Europe, this report does not take the extraordinary situation into consideration. Therefore, the data set does not account for any possible changes in priorities for the surveyed businesses and institutions that could have occurred due to the COVID-19 crisis.



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Foreword

Every single minute, nearly 500,000 tweets¹ are being sent and 3.3 million Facebook posts² are being posted. Almost a million and a half Tinder swipes³ and more than 188 million emails⁴ are sent. More than 694,400 hours⁵ of Netflix are being watched – and the list keeps on going.

As the amount of information being shared around the world has exploded over the last decade, it has become obvious that we're in need of tools that help us manage and process this enormous amount of data. In the age of digitalisation, convenience has become a buzzword that has captured the expectations we have for the services we allow into our lives. For hundreds of years financial data, such as account information and spending history, has been protected by laws and regulations. To create more convenience, however, that data is now slowly being opened up for innovation in any sector, fostering an equal playing field.

This movement started early in the Nordics. Since the early 1980s, the Nordic countries have adopted a digital mindset when it comes to money. To offer a more convenient alternative to cash payments, the Danish national debit card, Dankort, was introduced in 1984. The ability to

manage your bank account from home became a reality in 1999, when banks across Denmark introduced online banking. Digital initiatives from Nordic banks and governments have indeed had a great impact on the way we think about financial services in Denmark, Sweden, Norway and Finland.

With the EU's revised Payment Services Directive, PSD2, it's not only up to the banks and governments to develop more convenient financial services. The forward-thinking directive has introduced an array of new reforms that are aimed at increasing innovation, transparency and competition across the EU to create a level playing field for all businesses to the benefit of the consumer. And because of the high degree of digitalisation amongst the Nordic population and businesses, PSD2 and open banking seem to be a perfect fit for the Nordics.



To provide better insight on the current state of PSD2 and open banking in the Nordics and the rest of the EU, AiiA has conducted a survey amongst Nordic decision makers within the financial sector, payments industry and accounting services. The results have been impressive. Less than six months after PSD2 went into full effect, more than 75% of those surveyed have made at least one change to their business because of the directive. More than 80% see access to financial data as an opportunity for their business.

So, what are the opportunities right now in open banking for businesses? What steps have companies and financial institutions taken so far in the Nordics? And are there any further learnings here for other European regions?

Discover the answer to these questions and much more in the next pages.

Happy reading!

Rune Mai

CEO, AiiA

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Open banking at a glance

Open banking and PSD2 are now in full effect, and there are several reasons why companies need to sit up and not only pay attention, but also take immediate action. This need for awareness and action is clearly supported by AiiA's newly commissioned survey, composed of more than 100 decision makers within the financial sector, payments industry and accounting services across Denmark, Sweden, Norway and Finland.

An overwhelming majority of decision makers (91%) are aware of PSD2 only six months after it went into full effect. Fifty-five percent of those decision makers have stated that they know, in detail, what PSD2 is about and what implications – opportunities and challenges – it is expected to have on businesses and the overall market going forward.

Accessing and collecting real-time financial data from bank accounts and using it to build value-adding financial services has been intriguing to third-party providers (TPPs) within the fintech space, long before the EU Commission passed the directive requiring all European banks to open up their payment accounts.

Due to the lack of bank APIs, however, accessing financial data through workarounds like screen scraping and reverse engineering became a necessity for fintechs wanting to develop innovative services on top of financial data during the years leading up to PSD2.

At that time, most banks saw no advantages to sharing account data that had always been under their watch. A more tangible concern was that screen scraping from a bank's online or mobile solution could potentially, according to the banks, endanger the integrity and security of online banking.

“Open banking and PSD2 are now in full effect, and companies need to sit up and not only pay attention, but also take immediate action.”

The impact of open banking on financial institutions

Regulation/compliance requirements:

- Deliver the same functionalities through APIs as they do via their own channels to regulated third parties
- Deliver unified fallback options in case of downtime or missing functions
- Support third party integration through tooling and documentation
- Deliver strong customer authentication (SCA) solutions to customers

Business opportunities:

- Build consumer-centric products and services
- Empower customers with a full financial overview, automation and credit scoring through account aggregation
- Build instant business solutions with payment initiation from accounts in other banks
- Partner with other services for innovation
- New revenue streams through premium APIs and partnerships

There is little doubt that the intense discussions across Europe in the years leading up to PSD2 contributed to the EU Commission's decision to eventually revise the original Payment Services Directive (PSD1). Some of the prevailing concerns contributing to this revision include:

- The emerging fintech industry's need for a level playing field in terms of competition with incumbent financial institutions
- Fintechs' need for better opportunities to pursue their business ideas
- Some banks' limited desire to collaborate and share data

With the adoption and enforcement of PSD2, all European banks are now obliged to open up their customers' financial data and allow both licensed TPPs and smaller businesses to access it in order to build better-than-ever services without having to worry about PSD2 complexities.

The EU Commission's decision to implement perhaps the most progressive and effective piece of legislation ever in the history of the European financial industry – PSD2 – was influenced by the evolving movement of fintechs across the continent and the new demand for openness. On the other hand, without the bold move of the regulators and without PSD2, open banking would never have gained the extraordinary level of traction it experiences today – not only in the EU zone, but globally.

The European Commissioner for Competition, Margrethe Vestager, stated in a 2017 interview about PSD2 and the EU that:

"This could not be done without the EU and the opportunities the EU creates. The opportunities for innovative companies in smaller member states would not have been so far-reaching without the EU. PSD2 brings a fragmented market back together and, as such, opens for great

*possibilities for all. I think it's so exciting that the monopoly on payments has been broken. I want to see even more innovative solutions in the market."*⁶

As the commissioner points out, PSD2 is in the business of healing a fragmented market, while at the same time breaking monopolies and opening up for new players, new business models and new types of cooperation. This cooperation pertains to, not least, the dynamic between banks and fintechs, which is, to a large degree, what open banking revolves around today.

Margrethe Vestager, who hails from Denmark, highlights the PSD2 opportunities for smaller member states, in particular. We will take a closer look at these opportunities in the following chapter, when we explore PSD2 and open banking as seen from a Nordic perspective.

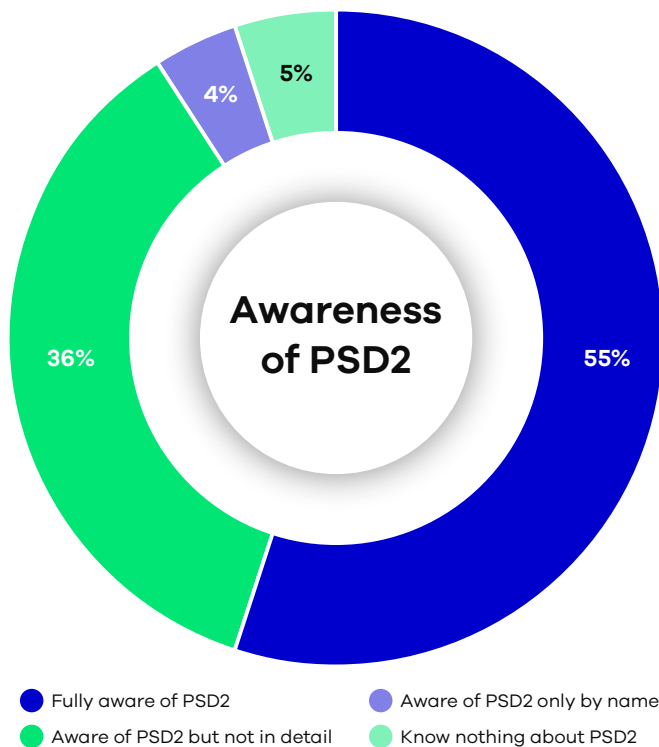
"PSD2 brings a fragmented market back together and, as such, opens for great possibilities for all."



2 Why the Nordics are the perfect fit for open banking

When the EU directive PSD2 required banks to provide dedicated APIs for external use in September 2019, every member state of the European Union had to adopt changes that were set to open up and create a more competitive and transparent financial industry. As a result, banks no longer hold the monopoly on financial data, and consumers are now able to share their spending data with innovative businesses to enjoy a wider range of financial services. Because PSD2 allows all third party providers to initiate direct account-to-account payments, businesses and consumers have also been empowered with the option to opt in for lower-cost and more secure payments.

Figure 1. To what extent are you aware of PSD2?



Since the implementation of PSD2, the Nordic countries have proven to be in an extraordinarily good position within the European open banking space. In our survey, we asked more than 100 decision makers in the financial industry in the Nordics about their readiness for PSD2. An overwhelming majority of those asked answered that they have been awaiting the arrival of PSD2 for quite some time. More than half of the decision makers (55%) stated that they are 'fully aware' of PSD2, whereas only 5% 'knew nothing about PSD2'.

But why are the Nordics the perfect fit for open banking? Why does it seem that the Nordic countries have made a cohesive and impressive directive adoption in a matter of months?

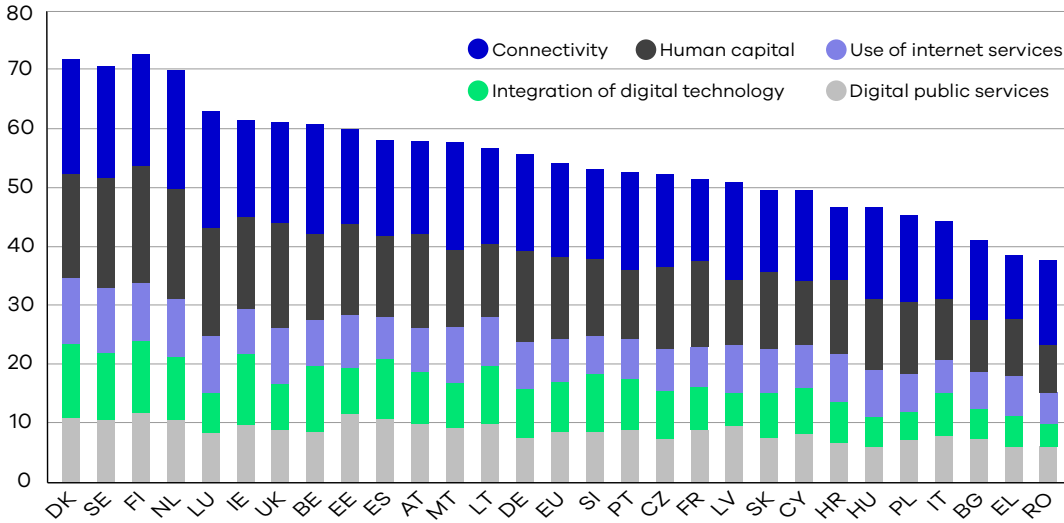
To answer that, we need to look at buzzwords such as "digitisation", "tech-savviness" and the "openness" to new technology.

The most digitised region in Europe

According to an index from the European Commission in 2017⁷, Denmark, Sweden and Finland were ranked as the most digitised countries in all of Europe, as demonstrated in Figure 2 below. Thanks to the Nordic governments' efforts to create digitised societies, the Nordics are truly digital front-runners, as it is also mentioned in the report *Digital Nordic: Staying Ahead of the Digital Agenda* from 2018, which highlights that:

"The Nordic governments have also undertaken strong efforts to digitalise their own operations. One example is the introduction of digital signatures and postboxes, which serve as the cornerstone of many digital services. Using these technologies, citizens are now able to go online to file their tax reports, apply for unemployment benefits or register a change of address."⁸

Figure 2. Digital Economy and Society Index, 2018 rankings.
Source: (European Commission, 2017c)



The European Commission's Digital Economy and Society Index (DESI) is a composite index that benchmarks relevant indicators on digital performance and tracks the evolution of the EU as a whole and its member states in digital competitiveness.



To a much larger extent than other European countries, Nordic governments have pushed for a digital agenda at an early stage. In the report *Governing the Digital Transition in the Nordic Regions* from 2019, the international research centre, Nordregio, which is established by the Nordic Council of Ministers, states:

"The Nordic countries are widely accepted as digital front-runners in the European and even global context. Thus, perhaps unsurprisingly, all Nordic countries are in the process of implementing national strategies related to digitalisation. Overall, these policies have fairly similar goals, with a focus on digital public services, supporting growth and innovation in business and ensuring digital security."⁹

Ultimately, that means that financial institutions, businesses and consumers across the Nordics have adopted a more digital and tech-savvy mindset in their everyday lives.

Of course, the point of describing how digitisation, tech-savviness and openness characterise Nordic societies is to show why the Nordic region is the perfect fit for open banking. This point is further explored in an analysis from S&P Global:

"The Nordics have long been on the leading edge of digital innovation and use of digital technology [...] The banking industry is no exception and Nordic banks are digital front-runners that started investing early in digital banking services."¹⁰

“Financial institutions, businesses and consumers across the Nordics have adopted a more digital and tech-savvy mindset in their everyday lives.”

Openness to new technology

The Nordic governments' readiness to embrace open banking is not only due to the high level of digitisation. In 2006, the five Nordic national banks published the joint report *Nordic Banking Structures*, which asserts that the Nordic banking sector's openness to new technology and innovation is striking:

"The use of new technology in banking is common in the Nordic countries. Nordic banks have succeeded in taking advantage of modern banking technology in business operations so as to reduce costs and improve efficiency. One reason for this is that the banking crises in the late 1980s and early 1990s in some Nordic countries forced banks to dramatically improve efficiency and increase the use of new technology. Common attitudes towards modern technology and its usage have been positive in the Nordic countries. Banks and their customers have been open to new innovations and their applications in banking. This development has substantially affected distribution channels and services."¹¹

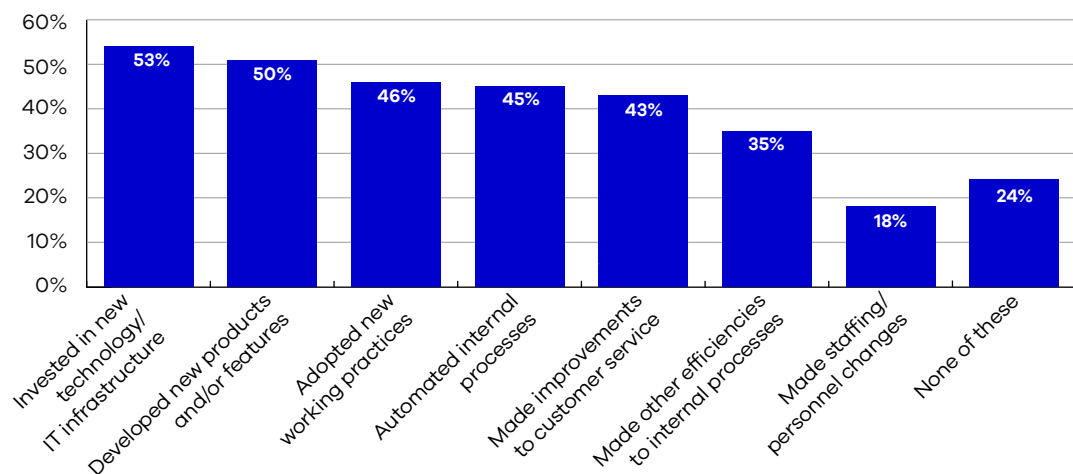
The latest example of Nordic cross-national banking cooperation was launched less than a year ago and is the comprehensive clearing infrastructure project for real-time, multi-currency cross-border payments called 'P27', which involves banks from Denmark, Sweden and Finland.

In light of the Nordic countries' long tradition of openness to new innovation¹², it is no wonder Nordic banks also have a tradition of adopting new technology. Perhaps this explains why more than 75% of the Nordic decision makers surveyed have made at least one change to their business because of PSD2 less than six months after the directive went into full effect.

- Robust culture of interoperability between authentication solutions in the Nordics
- Strong and secure national identity solutions across Nordic countries
- Pioneering tradition of digital payments in the Nordics, with Denmark introducing national debit card Dankort in 1984 and Norway launching national payment system BankAxept in 1991
- More than 85 Danish banks combining to form a national payment clearing service, which is operated by the largest Nordic payment company, Nets

“More than half (53%) of the surveyed answered that they have already invested in new technology as a result of PSD2, while 50% already developed new products and/or features.”

Figure 3. Which, if any, of the following changes has your business made as a result of PSD2 coming into effect? (Multiple choice)



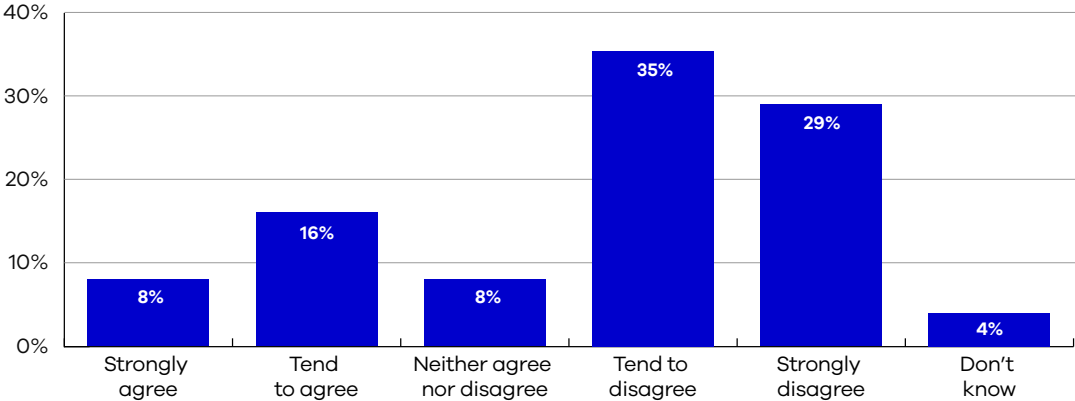
The research found that more than half (53%) of those surveyed answered that they have already invested in new technology as a result of PSD2, while 50% have already developed new products and/or features. In particular, the one change that is likely to have had the most impact on business performance is the development of new products and/or features, with 40% stating this (see Figure 11). It perhaps stands to reason that those who view open banking as positive for the economy are also significantly more likely (58%) to have seen the most impact from the development of new products and/or features (see Figure 9). In total, 76% made at least one of the changes listed to their business due to PSD2.

This gives a good indication of why the open banking adoption rate among Nordic banks and the level of mature APIs provided by the banks for the companies are significantly higher compared to the rest of the EU. If we look to the UK, a survey from 2019 indicated that the UK's largest bank, HSBC, only had a Q1 uptime of 20% in 2019.¹³ In other words, businesses could not rely on receiving data from HSBC 80% of the time in the first quarter of 2019.

Our survey also clearly indicates that the Nordic countries are not lagging behind the rest of the EU when it comes to product and service innovation; in fact, it is quite the contrary – according to the Nordic decision makers themselves. When asked if the rest of the EU is ahead of Nordic financial

businesses on products and services, 64% of those surveyed answered that they tend to disagree or strongly disagree. Put differently, the Nordics see themselves as front-runners in building innovative financial products and services.

Figure 4. The rest of the EU is ahead of the Nordic financial businesses when it comes to product and service innovation.



“The Nordics see themselves as front-runners in building innovative products and services.”

Nordic consumers are open to open banking

When it comes to PSD2 and open banking, there is no doubt that consumers play a central role. The payment directive is all about giving back consumers control of their financial data, which means consumers are able to enjoy a wider range of financial services more than ever before.

As Nordic consumers have been early adopters of digitisation and relied on mobile use for everything from online banking, shopping and more, it is fair to argue that Nordic consumers

are in a better position to quickly adjust to new open banking solutions. According to the report *The Nordic Angle* by Worldline, the high level of digital savviness has indeed prepared Nordic consumers for open banking:

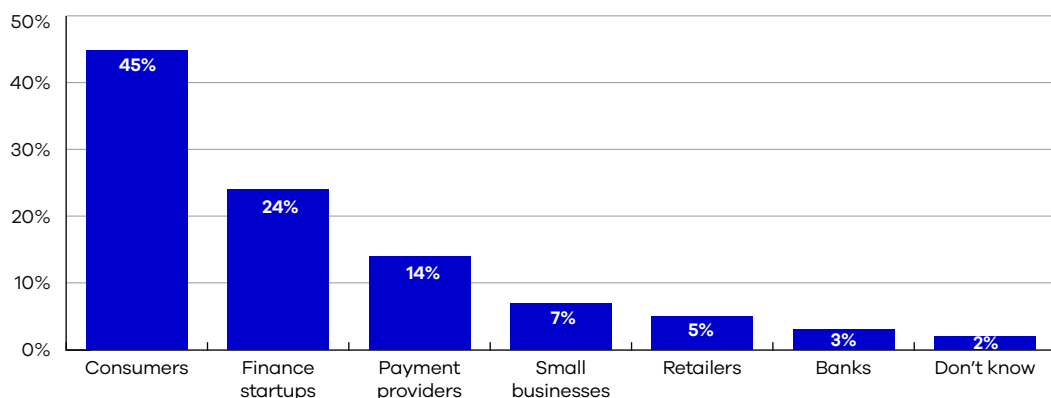
“This digital savviness, both in society in general and in the financial sector, gives the Nordic region a head start in terms of ability to handle the new compliance requirements as well as to implement new processes and services following PSD2.”¹⁴

“This digital savviness both in society in general and in the financial sector gives the Nordic region a head start.”

Allowing consumers to regain control of their financial data makes them the big winners of PSD2. According to the research, almost half (45%) of the surveyed decision makers point to consumers as those who will benefit the most

from PSD2, followed by finance startups (24%), payment providers (14%), small businesses (7%) and retailers (5%). Only 3% of the surveyed decision makers answered that they believe banks will benefit the most from PSD2.

Figure 5. Which ONE of the following, if any, do you think will benefit MOST from banks having to enable third-party access to customers?



But why is it exactly that consumers are the primary winners of open banking? How do European consumers take advantage of PSD2? And why does it seem that Nordic consumers are particularly open to new technology?

While it seems that PSD2 gives consumers increased control and ownership of their financial data, there are other reasons to believe Nordic consumers are the perfect practitioners of open banking. To shed light on this, we need to look at terms such as “digital adoption rate”, “mobile usage” and “trust in online services”.

As mentioned earlier in this chapter, Nordic governments and businesses are the most digitised in Europe, and the same goes for Nordic consumers. In fact, Denmark, Sweden, Norway and Finland are among the highest-ranking digitised regions in Europe.

One reason for this can be found in the inherent trust Nordic consumers have in their governments, which are known for pushing a digital agenda. Put differently, if Nordic consumers are taught by the government that they should trust digital initiatives, then they trust it.

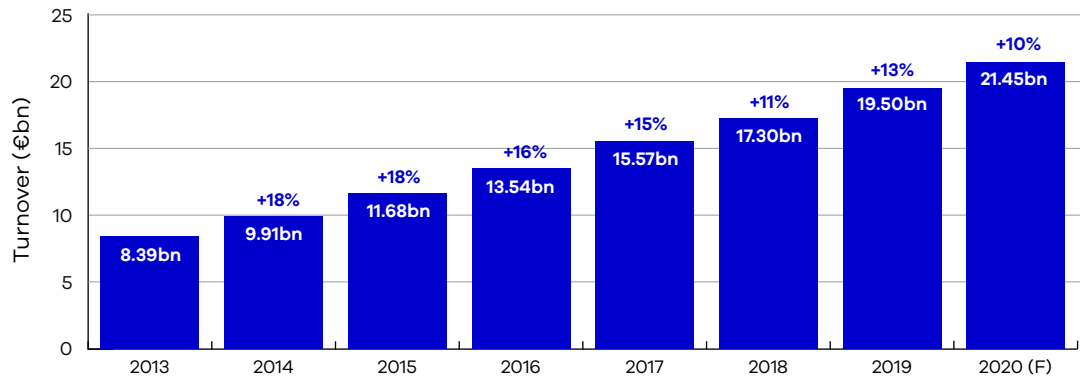
Ultimately, that means Nordic consumers have become used to interacting with all kinds of services in a digital way, also when it comes to data. Because of the Nordic trust in digital services, Nordic consumers are more open to share their financial data to use convenient services such as personal finance management tools, loan calculators and automated bookkeeping solutions.

“PSD2 gives consumers increased control and ownership of their financial data.”



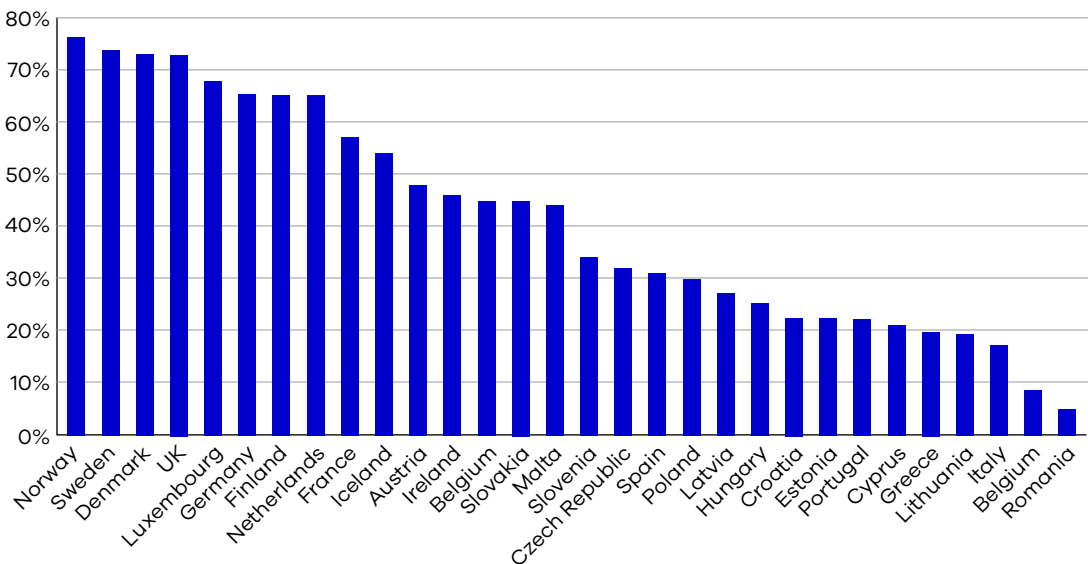
The high level of trust in the digital space has led to a boom in digital payments and online shopping in the Nordics. In Denmark alone, ecommerce is set to increase by 10% – to €21.45 billion – by the end of 2020.¹⁵

Figure 6. The B2C ecommerce turnover (€) in Denmark, including goods and services.
(Source: FDIH & Forecasted)



According to the country guide report *Online and Mobile Usage in the Nordics* by IMRG¹⁶, the Nordic countries were already leading the ecommerce space in back 2012¹⁷, when they were pointed out as the top 3 most online shopping populations in Europe.

Figure 7. Percentage of population that shopped online at least once during 2012.
(Source: Danish Payments Council)



The same report indicates that mobile usage is only growing in the Nordic countries:

"[A]cross the Nordics, mobile adoption is gaining pace and should certainly be part of a merchant's development roadmap, making full consideration of the mobile shopper's experience both for browsing and completing online purchases."¹⁸

As we have explored in this chapter, there are several reasons as to why the Nordics are a perfect fit for open banking. With a digital mindset and a high level of trust in online services, Nordic consumers have a natural openness to the opportunities that come along with open banking. The fact that the Nordic governments have pushed for a digital agenda at an early stage means that consumers across Denmark, Sweden, Norway and Finland have an open mind to new technology and services today. With more than half of those surveyed having implemented new technology or developed new products as a result of PSD2 less than six months after the directive went into full effect, businesses, payment providers and financial institutions are ready to take on the opportunities of open banking.



3 How the Nordics are driving open banking solutions

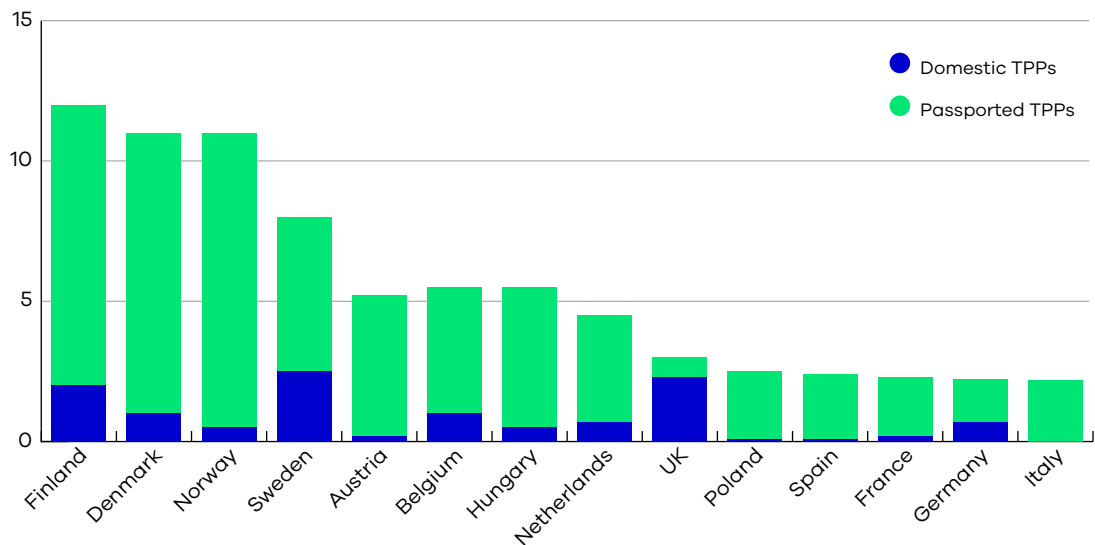
Just six months after banks were required to provide dedicated APIs for external access, financial institutions, businesses and payment gateways have moved the focus from compliance to opportunity.

To get an indication of how many businesses are already using open banking to provide innovative and convenient services, it is interesting to look at the growing number of TPPs across the EU.

With London's long-standing position as a leading European fintech hub, the UK has pushed the PSD2 agenda forward and, up until now, maintained a position as a leader in open banking.

But given that the Nordic countries are relatively small and only make up a total population of 27 million (compared to a UK population of 67 million), it becomes clear that the Nordic region, as a whole, is ahead when it comes to attracting TPPs. Despite the fact that the UK has the highest number of domestic TPPs, the Nordics seem to be the perfect place to test open banking services.

Figure 8. TPPs per million inhabitants (February 2020).
(Source: FCA, The Financial Services Register)



“The Nordic region, as a whole, is ahead when it comes to attracting TPPs.”

As can be seen in Figure 8, the number of TPPs passporting into the Nordics is at a very high level compared to the size of the population. This indicates that there is a rising interest from foreign TPPs to try out new business opportunities in the region. Of course, this raises an important question: Why is there this outside interest in the Nordics?

One possible reason is that the Nordic countries are known for being ideal test beds when it comes to trying out new tech solutions, due to their relatively small population sizes and high levels of digitisation and tech-savviness. Another likely reason is the fact that the Nordic region now offers high-quality API aggregation services for TPPs.

A win for consumers, businesses and the Nordic economy

Seen from a Nordic perspective, the European Commission is likely to succeed with some of the core ambitions through PSD2, more specifically to give consumers better control over their own financial data and access to more innovative financial services.

The survey confirms that the Nordic potential in the field of open banking is significant. The development brought on by open banking and PSD2 within the Nordic financial services industry is widely known only six months after the PSD2 deadline in September 2019, but is generally met with optimism in terms of the economic impact, as demonstrated in Figure 9.

As is shown, nearly 60% of the decision makers believe that PSD2 has already had a positive impact on the Nordic economy. None of the decision makers surveyed viewed PSD2 as having a very negative impact on the Nordic economy.

Figure 9. Do you think PSD2 has had a positive or negative impact on the Nordic economy?

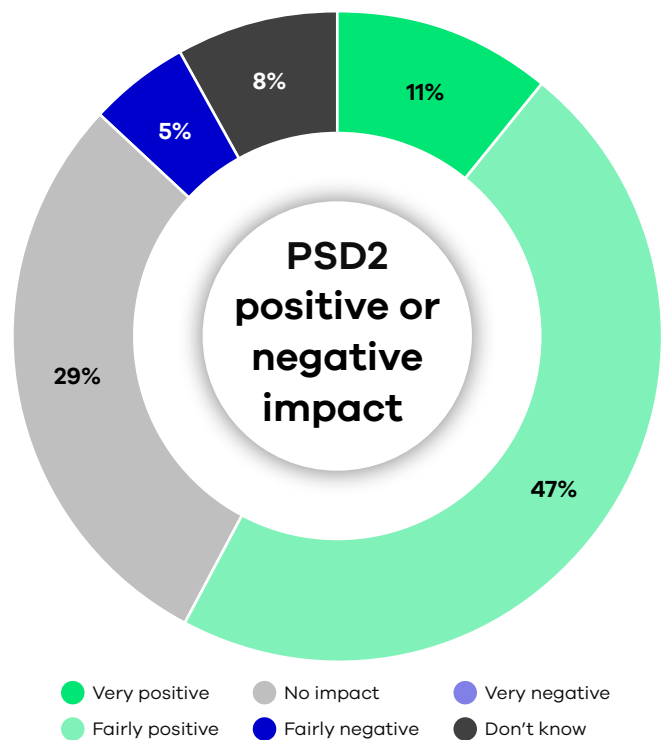
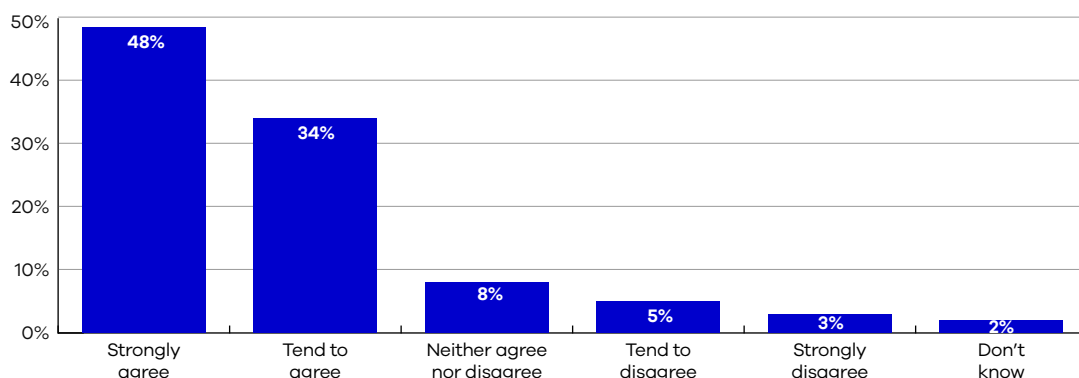


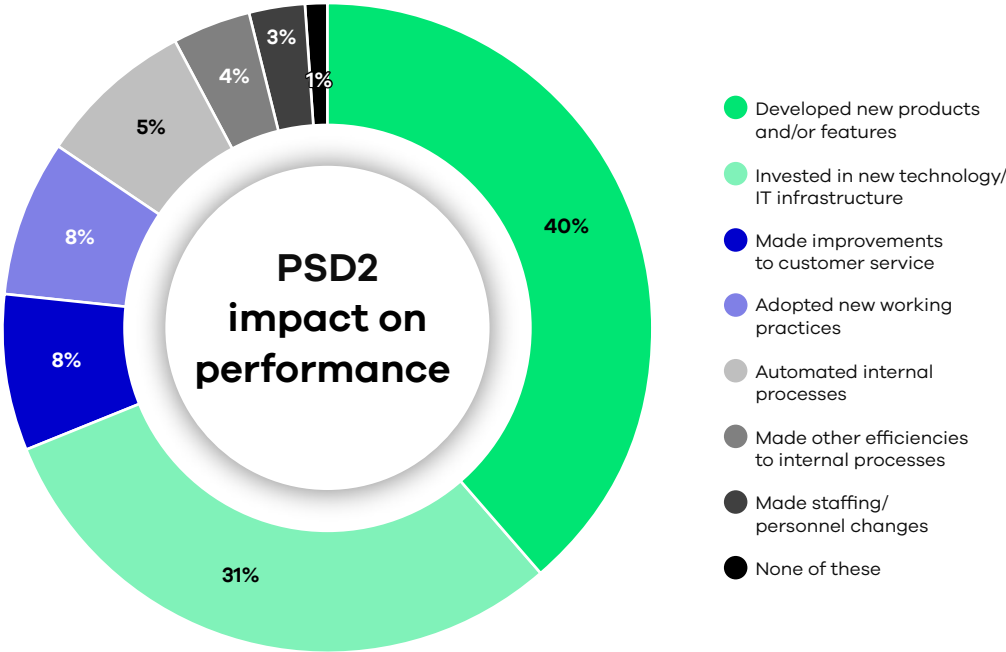
Figure 10. Access to financial data through PSD2 is an opportunity for your business.



But it is not only the Nordic economy that is set to benefit from PSD2. Research shows that half (48%) of the asked decision makers strongly agree that PSD2 is an opportunity for their business. Adding the 34% who tend to agree with the fact that PSD2 is a business opportunity, an overwhelming 82% of the surveyed decision makers are positive that access to financial data and payment initiation will give them new opportunities for their business.

Considering that the market has only been able to move since September 2019, these figures are quite remarkable. In addition to half of those surveyed strongly agreeing that PSD2 is an opportunity for their business less than six months after the directive went into full effect, 71% stated the one change that is likely to have the most impact on business performance is either the development of new products and/or features or the investment in new technology (see Figure 11), which demonstrates tremendous progress.

Figure 11. Which ONE of these changes that your business has made as a result of PSD2 has the most impact on business performance?



“The one change that is likely to have had the most impact on business performance is the development of new products and/or features.”



Jeppe Rindom

To give a better understanding of what new products businesses across the Nordics have been able to build thanks to PSD2, we have gathered a few examples from various industries.

New opportunities in the accounting space

There is no doubt that the accounting industry has been connected to long and manual processes for many decades. It is therefore clear to see that open banking has provided this industry with many benefits. One of the many companies to take advantage of the new opportunities is the Danish accounting software provider, Kontolink.

To make accounting easier for their users, Kontolink gained access to all Nordic banks and was quickly able to offer a new service that meets the future demands of accounting.

Kontolink's mission was to create a 'Tinder-style' accounting solution that enables businesses to handle their accounting on the road. If the match between transaction and receipt looks correct, users swipe one way to approve it. If it looks incorrect, users simply swipe the other way to reject it. Kontolink CEO, Kim Agger, says:

"Because of open banking, we've been able to turn the accounting process upside down. Our system uses bank transactions and data from the matched receipts to create the accounting entries. It's a much more accurate and effective way to do accounting, as real-time bank data will work as an instant reconciliation to validate that the expense is true."

With Kontolink's app, users can easily take a photo of their receipt, which will then be automatically matched to the bank transaction, as the app is connected to the bank account.

But it is not only Kontolink that has used real-time data to create better services. Last year, the fast-growing tech company Pleo used access to all Nordic banks to create smarter business expense solutions for its customers.

Designed to reduce the burden of managing and approving expenses, Pleo is a smart company card solution that decentralises company spending and simplifies bookkeeping. Commenting on the new opportunities, the CEO of Pleo, Jeppe Rindom, says:

"Before PSD2, one of our biggest hurdles was seeing the transfers our customers were making to our account. This was a major pain point for us, because it could prolong the time it took for customers' top-up payments to reach their cards. With the new setup, we're able to see the transactions within a few seconds. That has huge value for our business and for customers using Pleo credit cards."

Jeppe Rindom, CEO at Pleo

How banks can leverage open banking beyond compliance

With the technical implementation of the EU directive in place, more banks have also realised the full potential of using PSD2 to build convenient and user-driven solutions. Instead of focusing on the compliance part, banks are starting to become TPPs themselves in order to innovate with financial data from other banks, as well as gaining the ability to initiate payments from one single bank. With that, banks have the opportunity to own the customer interface.

One of the Nordic banks that has been at the forefront of this innovation is the largest bank in Finland, OP Financial Group. To keep up with customer demands, OP Financial Group integrated both account information service (AIS) and payment initiation service (PIS) into their offering. Commenting on the new opportunities, Masa Peura, SVP of Payments and Personal Finance Management at OP Financial Group, says:

“PSD2 creates new opportunities for banks and challenges the industry to evolve. At OP Financial Group, we want to be a front-runner in utilising these opportunities. Customer experience, reliability and security are the most important factors for us when selecting new partners and developing our services.”

Masa Peura, SVP of Payments and Personal Finance Management at OP Financial Group

The fact that large financial institutions are looking to use fintech companies as open banking partners demonstrates the new bridges between financial institutions and fintechs, which we will explore in the following section.

A portrait of Masa Peura, a man with a beard and short blonde hair, wearing a blue blazer over a light blue shirt. He is looking slightly to the right of the camera with a neutral expression. The background is a soft, out-of-focus grey.

Masa Peura

A circular portrait of Peter Schleidt, a man with short brown hair and a slight smile, wearing a white shirt and a blue tie. The background is blurred, showing what appears to be an office or industrial setting.

Peter Schleidt

The power of collaboration

There has been a clear shift in financial institutions' attitudes toward fintechs since this new and evolving industry first took off. In the very early stages, the reaction from incumbent financial players was primarily scepticism.

As the fintech hype started to build, a sort of uncertainty and concern began to grow among financial institutions: Would the budding undergrowth of fintech startups really be able to eventually shake the position of the financial establishment? If so, what would be the clever countermove?

Now, delivering user-driven digital services is one of the core opportunities of open banking for both agile businesses and large financial institutions.

One of the banks in Denmark embracing this core opportunity is Jyske Bank. Commenting on how fintechs can help banks, a member of the executive board at Jyske Bank, Peter Schleidt, says:

"We're not going to be the ones who develop all of our services in-house. We'd much rather be hand picking powerful business solutions and create our own ecosystem of functionalities," he explains and adds:

"If a fintech with an attractive solution can integrate it in a cheaper, faster and better way than we're able to do, we can offer compelling solutions and stay ahead of the emerging competition."

Peter Schleidt, Executive Board Member at Jyske Bank



Etienne Bell

For the last 3-5 years, the Nordic fintech communities have been booming. This is in no small part due to fintech companies often working in close collaboration with Nordic banks and other financial institutions. And, in many cases, these institutions choose to support the fintechs' ambitions by investing in them.

“When it comes to open banking, most banks are focusing purely on compliance. In other words, making their data available to their customers and third parties in time for when the new legislation kicks in. We’re taking this a step further and seeing how we can take this data and use it to develop new products and services for the benefit of our customers.”

Etienne Bell, Product Manager for Undock at Danske Bank

This trend of increasing collaboration between fintechs and financial institutions is also documented in the study from S&P Global on tech disruption in retail banking in the Nordics:

“We understand that the general approach to tackling this challenge has been fairly similar across big banks in the Nordics. A prominent strategy chosen by Nordic banks consists of actively embracing collaboration and partnerships with fintechs, a good way of internalising knowledge, for example,

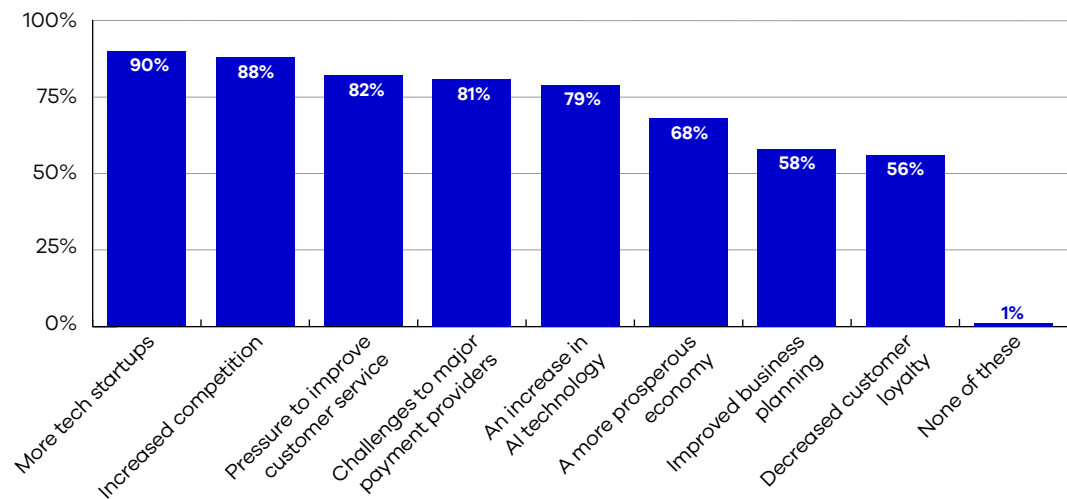
in the accelerator model (e.g. Nordea Startup Accelerator, OP Lab, DNB NXT Accelerator or Copenhagen FinTech Accelerator). This approach has proven to be more cost effective and faster than developing in-house solutions, and we believe that Nordic retail banks will continue to follow a collaborative strategy with fintechs since these partnerships enable them to stay relevant, offer leading innovations and generate new revenue in a rapidly evolving industry.”¹⁹



4 The transformative power of open banking

As open banking has gained a solid foothold in the Nordics, how will it change financial services in the future? How do businesses across the industry leverage open banking to own the customer interface and build better and more user-driven solutions? This chapter will explore the transformative power of open banking and highlight some of the current trends in the financial services industry.

Figure 12. How do you think financial institutions opening their payment infrastructure and customer data to third parties will change the business landscape in the Nordics? (Multiple choice)



Owning the customer interface

For hundreds of years, banks have played an important role as the trusted holders of financial data. But as the implementation of PSD2 has forced banks to relinquish their monopoly on financial transactions, we are starting to see radical changes to the financial services

industry. Banks no longer only compete against other banks to own the relationship with the customer. Instead, PSD2 has created a level playing field for any industry in the race to own the customer interface.



Because of this radical departure from tradition, accounting software providers, for instance, are able to challenge banks by integrating a full financial overview for customers in the accounting platform. In doing so, bookkeepers and accountants are able to skip the extra step of going to the bank app to do bank reconciliations.

On the other hand, banks are also able to own the customer interface by integrating ERP and accounting software directly into the online banking app. Now a separate accounting platform becomes redundant, as customers can handle their accounting and bookkeeping tasks in the online banking app. Simply put, it's all about creating the most convenient and user-centric

service that allows consumers to handle different tasks in a single place.

One of the front-runners in owning the customer interface is Norway's largest bank, DNB. Customers with accounts across several banks have been able to get a full financial overview from DNB's mobile banking app since 2018. Now, as a next-level open banking solution, DNB has expanded its service by enabling their customers to perform instant account-to-account payments from any bank within DNB's mobile bank on their road to becoming the favoured mobile banking app for all Norwegians.²⁰

"It's all about creating the most convenient and user-centric service that allows consumers to handle different tasks in a single place."



Ingjerd Blekeli Spiten

Explaining the advantage of owning the customer interface, Group Executive Vice President of Retail Banking at DNB, Ingjerd Blekeli Spiten, says:

“This is an important step in the direction of becoming the mobile bank for all Norwegians. We’re giving our customers huge flexibility as they’re now able to make payments and transfers between their own accounts across several different banks. For us, it’s all about making it easier for customers to gain a full financial overview no matter how many banks they might have.”²¹

Ingjerd Blekeli Spiten, Group Executive Vice President of Retail Banking at DNB

But it’s not only DNB that has taken advantage of open banking to own the interface. One of Denmark’s largest accounting software providers, Dinero (which is owned by Visma Group), became one of the first fintechs in Denmark to make use of real-time banking data through a single integration. The service automated accounting features, such as bank reconciliation, in no time, checking and matching transactions with clients’ own records. And through a trusted API provider, Dinero enabled all of their customers to use the service, regardless of which Nordic bank they used for their bank account.²²

This is something that will change the way we will look at the accounting space in the future, says David Andersen, Co-Founder and CPO at Dinero:

“As legislation, time and technology allow it, we believe that today’s accounting methods should be changed radically. We are now able to offer fully automatic accounting and provide our clients with what we call a ‘virtual CFO’. With a virtual CFO, 90% of our clients’ financial outlays will be accounted for and paid automatically. This means they never have to reconcile or manually pay an invoice again, because the bank transaction data in itself is the future of accounting. This will greatly minimise the man-hours put into the work and the errors that come with being human.”

“With access to real-time bank data or AI features, businesses are able to lower on-boarding time and reduce costs related to manual workflows.”


Optimisation and cost reduction

The advantage of open banking is not only about owning the relationship with the customer. Some of the biggest benefits of open banking lie in the ability to optimise processes and reduce costs significantly. With access to real-time bank data or AI features, businesses are able to lower on-boarding time and reduce costs related to manual workflows.

Despite the fact that all businesses can use automated access to financial data to optimise processes, the accounting space has proven to be the perfect example of how much time and money businesses can save with automated access to financial data.

To create smarter and faster accounting solutions for its customers, accounting services provider Billy recently acquired access to real-time data from Nordic banks, which allowed them to easily build new features that enable businesses to skip the manual process of employing their online bank to handle simple bookkeeping tasks.²³

Now Billy’s customers are ‘pinged’ with transactions from their bank account, which then allows customers to perform bank reconciliation based on the bank transaction itself. This, in turn, ensures that a customer’s bookkeeping is always aligned with their bank account.



David Andersen



Jonas Midtgaard

To take bookkeeping to the next level, however, one cannot only look at the automation process alone. According to the CEO of Billy, Jonas Midtgaard, automation is also about making businesses more disciplined when it comes to accounting tasks – without even noticing it. He explains:

“The fact that you get pinged live with data from the bank saying ‘we need this invoice’ makes our customers more disciplined. Simply put, we nudge our customers to handle small tasks continuously to make the VAT settlement at the end of an accounting period smoother.”

Jonas Midtgaard, CEO at Billy

There are, of course, other industries besides the accounting space that can benefit from optimisation and cost reduction. Last year, the Danish investment bank Saxo Bank managed to drastically reduce their manual customer on-boarding efforts thanks to machine learning. In an article published in Computerworld²⁴, Saxo Bank’s Global COO of Group IT, Richard Douglas, explained:

“We’re striving for continuous integration, continuous delivery, we want to increase the levels of automation and not have any manual configuration through that process. The commercial outcome of this is, if we can automate more and get faster cycle times for software delivery, then we can not only reduce the time to market of features and new value-added items with customers, but also it improves our governance and control in the platform as well.”

Low-friction mobile payments are already leading the way

PSD2 has become a disruptive force within the payments space, impacting over 300 million ecommerce shoppers in Europe alone.²⁵ Some of the key advantages experienced already have been the ability to pay directly from a personal or business account more easily, protecting financial data through a security increase by strong customer authentication (SCA), taking more ownership of one's own credentials and the knowledge that log-in data is not stored after a payment is concluded.

Speaking ahead of Europe's largest payment conference, Merchant Payments Ecosystem 2020, CEO of Polymath Consulting, David Parker, forecasted that *"...merchant payments will undergo radical changes in 2020, but not in all markets. The key change will be driven by the introduction of PISP payments, which in card-based, online payment markets has been forecast to replace up to 30% of these transactions over the next five years."*²⁶

Thanks to the arrival of PSD2, the opportunities within open banking are leading to further conveniences for businesses and consumers, and a more level playing field for payment providers. Consumers are ready to adopt and welcome new payment methods, and businesses have been waiting for new opportunities to emerge.

The time has come to remove the astronomical cost and friction of transaction fees and deliver a fairer, more enjoyable experience for all those involved. In addition to the reduced costs associated with traditional credit card payments, one of the great benefits about account-to-account payments is the fact that consumers do not have to share sensitive payment information. With the new payment landscape, account-to-account payments can easily be built into any solution. That's something major payment providers like Apple and Google Pay or mobile payment platforms, such as Mobilepay or Vipps, have already done.

"The time has come to remove the astronomical cost and friction of transaction fees and deliver a fairer, more enjoyable experience for all those involved."

5 Conclusion

The way we live our lives or run our businesses requires data to work for us, compete for our attention and, ultimately, make things easier and more efficient for us. That is why financial data needs to be made accessible and why we need technological innovation to make it meaningful.

As the research in this white paper has shown, the Nordic countries have placed themselves at the forefront of open banking, thanks to a high level of digitisation, tech-savviness and openness to new technology. Thus, the awareness of PSD2 is significant amongst decision makers in the financial sector, payments industry and accounting services in the Nordic countries, with 91% being 'fully aware' or 'aware' of PSD2.

However, being aware is one thing, but acting accordingly is something different. That is why it is nothing short of remarkable that 76% of those decision makers have already made at least one change to their business as a result of PSD2.

Open banking is truly changing the market now and, as the report has shown, a wide range of companies from across industries are already prospering from the movement.

In general, the Nordics are attracting a great deal of TPPs to the region, but most of the developments are still taking place in the background – companies ensuring compliance, automating processes, building interfaces and providing account aggregation externally as a minimum. The arrival of PSD2 has firmly pushed us into the age of the API. As the adoption of open banking increases, we will gain a better understanding of how behaviours, products and services will become personally tailored.

“Being aware is one thing, but acting accordingly is something different. That is why it is nothing short of remarkable that 76% of those decision makers have already made at least one change to their business as a result of PSD2.”



Financial institutions need to realise that competition is no longer the traditional kind. They have seen this with the fintech boom already, but what started out as head-to-head competition has now gravitated towards valuable and innovative partnerships. With PSD2, any licensed business can begin taking advantage of available data, and the early adopters are already knocking on the doors of traditional banks.

Many of these companies are likely to try to disintermediate the banks in an attempt to drive the traffic towards their own interfaces and applications. This can be, for example, accounting platforms letting their users conduct most of their banking activities directly through the platform's

interface rather than through those of the banks. Banks also have the option to disintermediate other banks by offering a superior bank interface with aggregation of accounts from other banks.

PSD2 should be viewed as a gateway to growth. The opportunities are clear for developing a more customer-centric and innovative offering, not just an operational necessity. We need to develop this market together. The successful parties and partnerships will be the ones who view PSD2 as an opportunity to get to know their customers, both businesses and consumers, better and deliver more valuable services to them.

Appendix: Nordic survey on open banking

In early 2020, Aiaa commissioned a survey of more than 100 decision makers within the financial sector, payments industry and accounting services across the Nordics – Denmark, Sweden, Norway and Finland – with the aim of assessing the status of the Nordic region on its approach toward open banking.

The survey shows that there is generally an optimistic outlook on the enforced changes, followed by the initiative to develop and invest in innovative products and services:

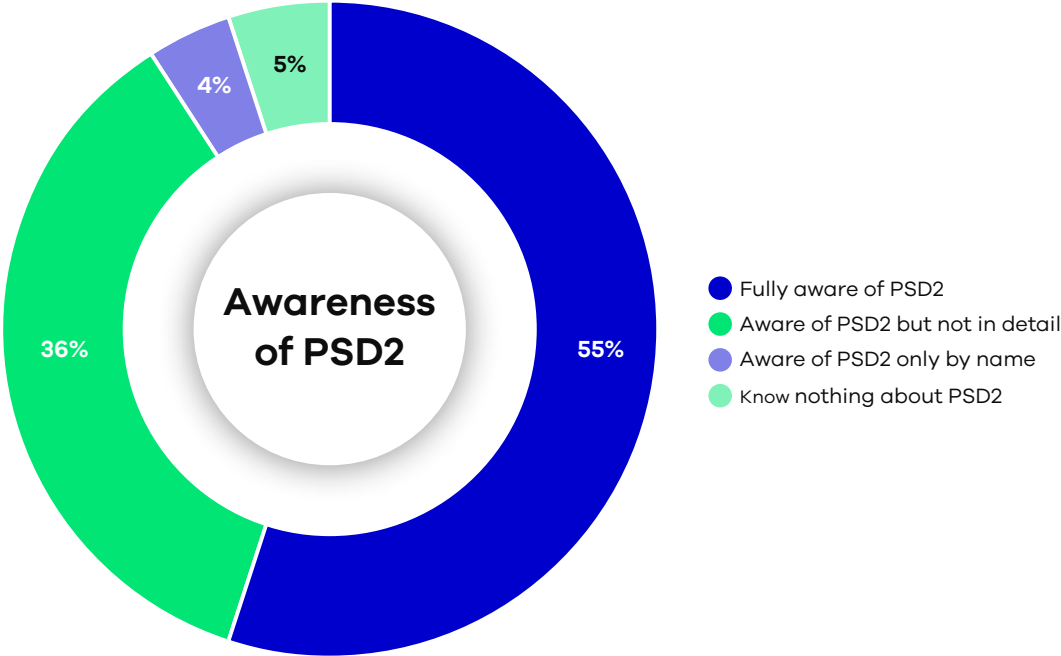
- Fifty-eight percent suggest the arrival of the legislation will have a positive impact on the region's economy (Figure 9)
 - In less than six months since the EU directive became law, more than half (53%) have invested in new technology and infrastructure (Figure 3)
 - Fifty percent have already developed new products and services (Figure 3)
- While there is equally exciting opportunity for all the audience segments researched, 82% of respondents believe the democratisation of financial data, thanks to PSD2, is a major opportunity for their business.

Awareness of PSD2 and open banking across the Nordics

A vast majority (91%) of those surveyed were 'fully aware' (55%) or 'aware, but not in any detail' (36%) of PSD2. Not surprisingly, fintechs are more 'fully aware' (71%) than decision makers overall (55%). The fact is, all surveyed groups in the Nordic market are, to a high degree, aware of PSD2.

"A vast majority (91%) [...] were 'fully aware' or 'aware' [...] of PSD2."

Figure 1. To what extent are you aware of PSD2?



In less than six months, industries have already made changes

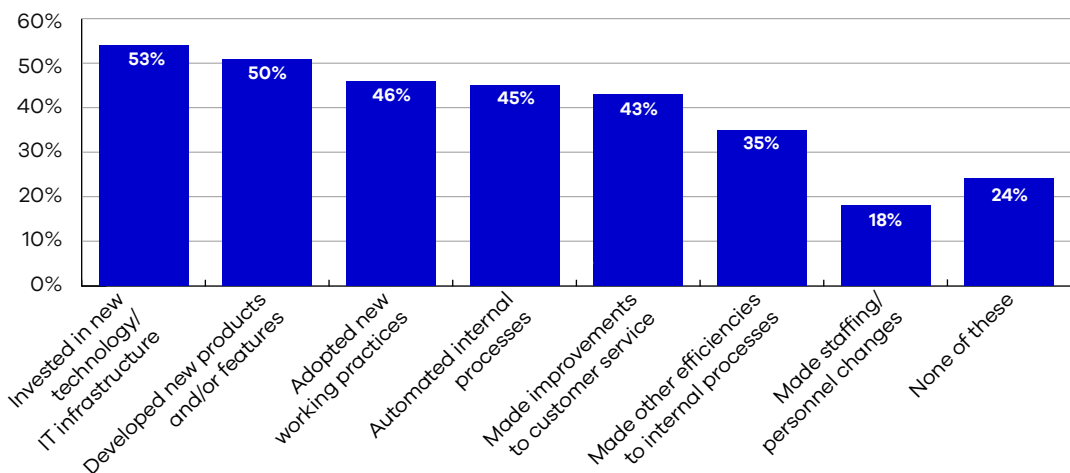
Which, if any, of the following changes has your business made as a result of PSD2 coming into effect?

Seventy-six percent of the businesses surveyed answered that they have made at least one of the following changes (see Figure 3 below).

As may be expected, banks account for the majority of changes, with only 6% making none of the above mentioned changes.

- Seventy-six percent have made at least one change as a result of PSD2
- Fifty-three percent have invested in new technology or IT infrastructure
- Fifty percent have developed new products or features
- Forty-six percent adopted new working practices
- Forty-five percent automated internal processes

Figure 3. Which, if any, of the following changes has your business made as a result of PSD2 coming into effect? (Multiple choice)

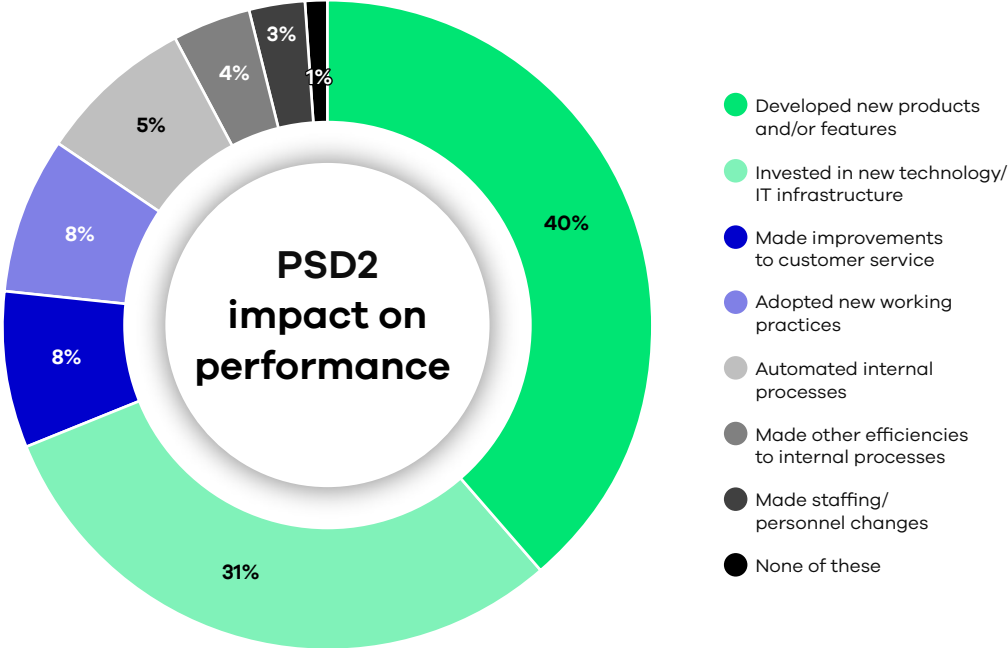


The one change that is likely to have had the most impact on business performance is the development of new products and/or features, with 40% stating this (see Figure 11). It perhaps stands to reason that those who view open banking as positive for the economy are also significantly more likely (58%) to have seen the most impact from the development of new products and/or features (see Figure 9).

A further 3 in 10 (31%) believe that the most impact has come from investment in new IT infrastructure (see Figure 11).

Considering that the market has only been able to move since September 2019, these figures are quite remarkable. In less than six months, nearly half of those surveyed strongly agreed that PSD2 is an opportunity for their business (see Figure 10). In addition, 71% stated the one change that is likely to have the most impact on business performance is either the development of new products and/or features or the investment in new technology (see Figure 11), which demonstrates tremendous progress.

Figure 11. Which ONE of these changes that your business has made as a result of PSD2 has had the most impact on business performance?



“[40%] see developing new products and/or features as having the most impact on their business.”

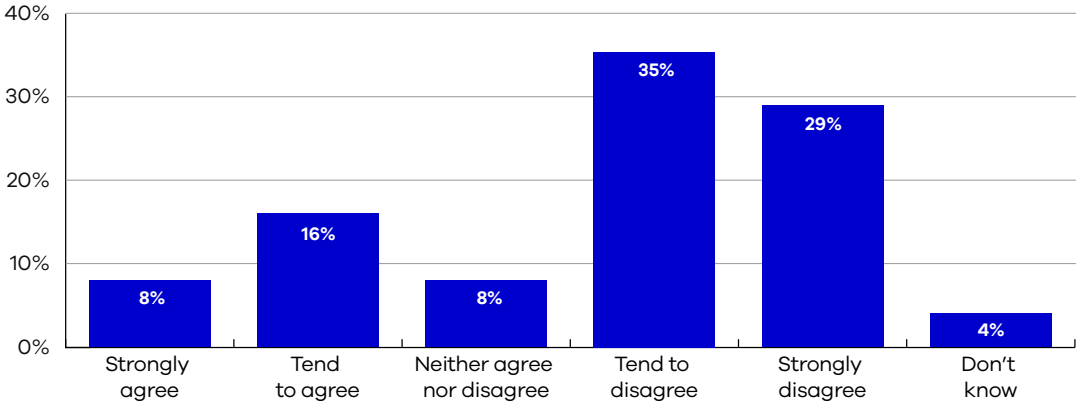
The Nordics are leading the new era of innovation

For innovation around products and services, do you believe the rest of the EU is ahead of the Nordics?

There are many reasons for being optimistic on behalf of the Nordic region, which are covered in Chapter 3 of this white paper. Not surprisingly,

nearly two-thirds (64%) of those surveyed disagree with the assertion that the rest of the EU is ahead of the Nordics.

Figure 4. The rest of the EU is ahead of the Nordic financial businesses when it comes to product and service innovation.



“Nearly two-thirds (64%) of those surveyed disagree with the assertion that the rest of the EU is ahead of the Nordics.”

Other countries across Europe have already been working with PSD2 data for some time, but with mixed results. The Nordics have adapted to open banking quickly and this can be attributed to a number of things; the region is already digitally advanced, there's a real desire from the banks to be open in order for progress to be made and, unlike many parts of Europe, the Nordics very much take a collaborative and thorough approach, which all contribute to creating the perfect environment for open banking innovation.

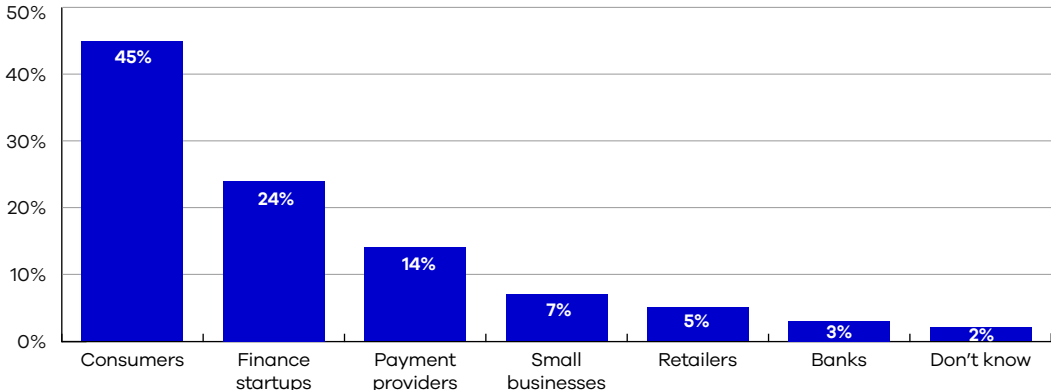
Who will benefit the most from access to financial data through open banking platforms?

Which one of the following, if any, do you believe will benefit most from banks having to enable access to financial data?

There is common agreement amongst decision makers that consumers will benefit the most from banks having to enable access to accounts:

- Nearly half (45%) believe that consumers will benefit most
- A further 24% believe that fintech startups will benefit most
- Interestingly, it is the representatives from larger companies with 100+ employees (39%) and annual turnovers of 5M Euros+ (40%) who see the fintech startups benefiting most

Figure 5. Which ONE the following, if any, do you think will benefit MOST from banks having to enable third-party access to customers?



“[45%] believe that consumers will benefit most from open banking.”

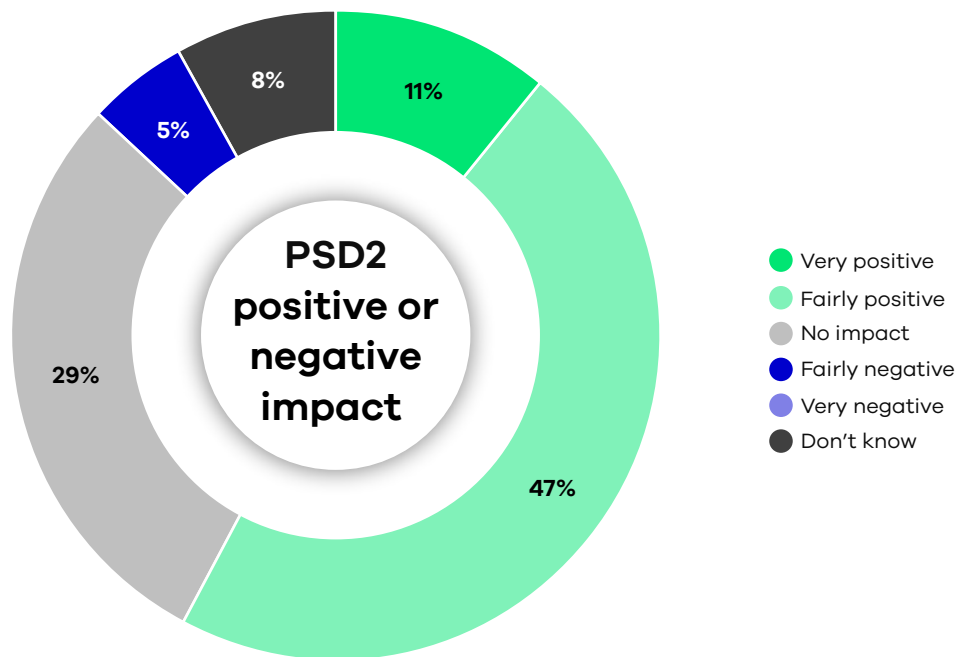
Across industries – banks, accounting services, payment gateways, fintech startups – all will certainly benefit from the access to financial data, which enables the creation of relevant and convenient solutions for customers. Not only will they improve loyalty, but they will be able to provide frictionless onboarding for business and personal consumers.

The impact of open banking on the Nordic economy

Even though the economic impact of PSD2 at this point must be quite limited, 58% of those surveyed believe that PSD2 has had either a 'very' or a 'fairly positive' impact. Not surprisingly, the percentage is higher amongst the fintech companies (71%). In contrast, out of the complete population of those surveyed, only 5% believe that PSD2 has had a negative impact on the economy in any way.

“[58%] believe that PSD2 has had a positive impact on the Nordic economy.”

Figure 9. Do you think PSD2 has had a positive or negative impact on the Nordic economy?

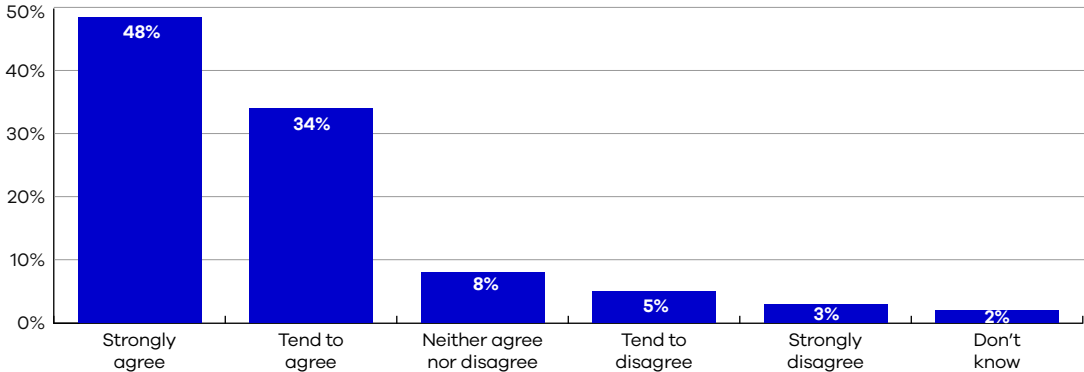


Access to financial data through open banking technology as an opportunity for businesses

Data is often considered the new oil; it should probably come as no surprise then that 82% of those surveyed answer in affirmative to PSD2 being an opportunity for their business, with 48% strongly agreeing. Within the group of fintechs, 93% agree that this is an opportunity for their businesses, with 63% strongly agreeing.

“[82%] see access to financial data as an opportunity for their business.”

Figure 10. Access to financial data through PSD2 is an opportunity for your business.



The arrival of open banking has signalled the beginning of the biggest transition in financial data rights across the EU, and a new era of innovation. The big opportunity currently being explored across industries is to become the preferred interface of customers, that being business-to-business or business-to-customer focused. This will be followed by further open banking innovation through account aggregation, access to a wider scope of financial data through premium APIs and payment initiation – allowing companies to offer tailored products and services based on financial data.

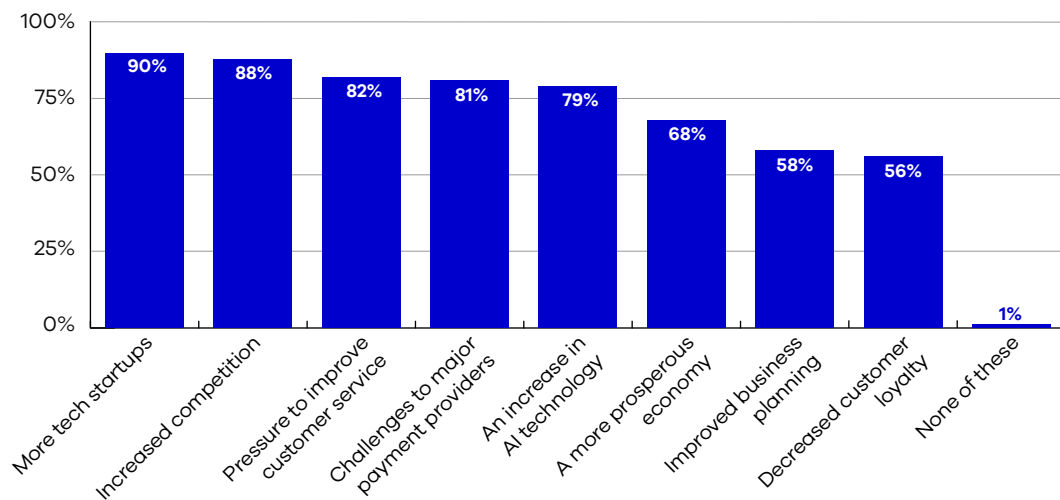
How will open banking change the business landscape in the Nordics

How do you think financial institutions opening their payment infrastructure and customer data to third parties will change the business landscape in the Nordics?

Decision makers in the Nordic financial institutions definitely believe that PSD2 and open banking will change the business landscape:

- Eighty-one percent expect PSD2 to bring challenges to major payment providers
- Seventy-nine percent expect an increase in AI technology
- Sixty-eight percent expect a more prosperous economy

Figure 12. How do you think financial institutions opening their payment infrastructure and customer data to third parties will change the business landscape in the Nordics? (Multiple choice)



The nature of PSD2 is clearly understood, with 81% of those surveyed expecting it to bring challenges to major payment providers. As we've seen with the changes that have already been made, the challenges witnessed and the appreciation that it is the consumer who will benefit most (as shown in Figure 5), it is perhaps no surprise that 82% expect pressure to improve customer service.

“[82%] of those surveyed expect pressure to improve customer service.”

The findings of the survey clearly add up to paint a positive picture of Nordic decision makers' attitudes and expectations towards PSD2 and open banking, and the coming opportunities of open banking and the innovation to follow. The arrival of PSD2 and open banking should be viewed as a

gateway to growth. The opportunities are clear for developing a more customer-centric and innovative offering, not just an operational necessity. Through collaboration and partnerships, it has the biggest implications for progression than any other regulation regarding financial data.

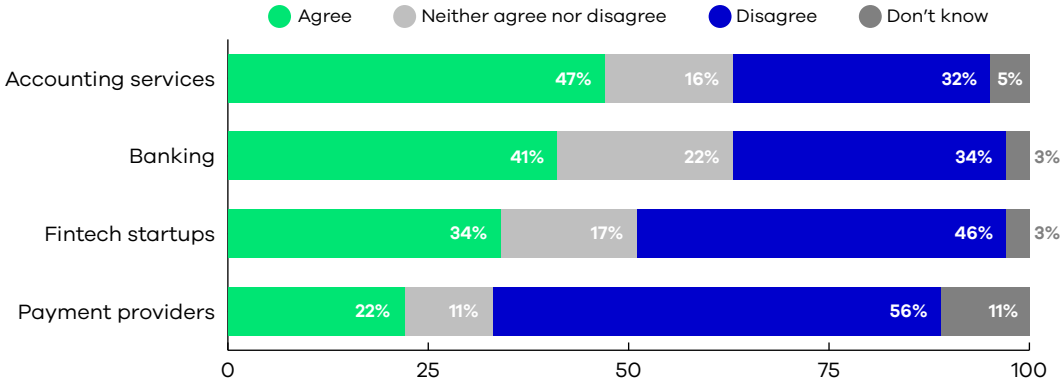
The Nordics are moving at a good pace in response to the directive

Have you had to implement changes to your business and/or product strategy due to PSD2?

Fifty-one percent of the surveyed businesses confirm that they have had to implement some kind of changes to business and/or product strategy as a result of PSD2. Unsurprisingly, within the group of surveyed banks, the percentage is significantly higher (72%).

- More than a third (36%) still disagree that they have had to implement any changes as a direct result of PSD2
- This rises significantly to nearly half (47%) of businesses with an annual turnover of up to 5M Euros

Figure 13. Your business has experienced challenges responding to PSD2.



“[51%] of the surveyed businesses confirm that they have had to implement changes as a result of PSD2.”

Based on those who have not implemented any changes, it comes as no surprise that a third of businesses with an annual turnover of up to 5M Euros (32%) strongly disagree that their business is finding it challenging to respond to PSD2.

- Nearly 4 in 10 (38%) agree that their business is finding it challenging to respond to PSD2
- Ten percent strongly agreeing
- Interestingly, 40% of those surveyed disagreed that PSD2 presented a challenge

In these early stages of PSD2, the Nordics are moving at a good pace in response to the directive, but these first 6 to 12 months will see most of the movements taking place in the background – becoming compliant, understanding the opportunities, building teams to respond, automating processes, developing interfaces and providing account aggregation externally as a minimum.

Resources are the biggest challenge across industries when answering to PSD2

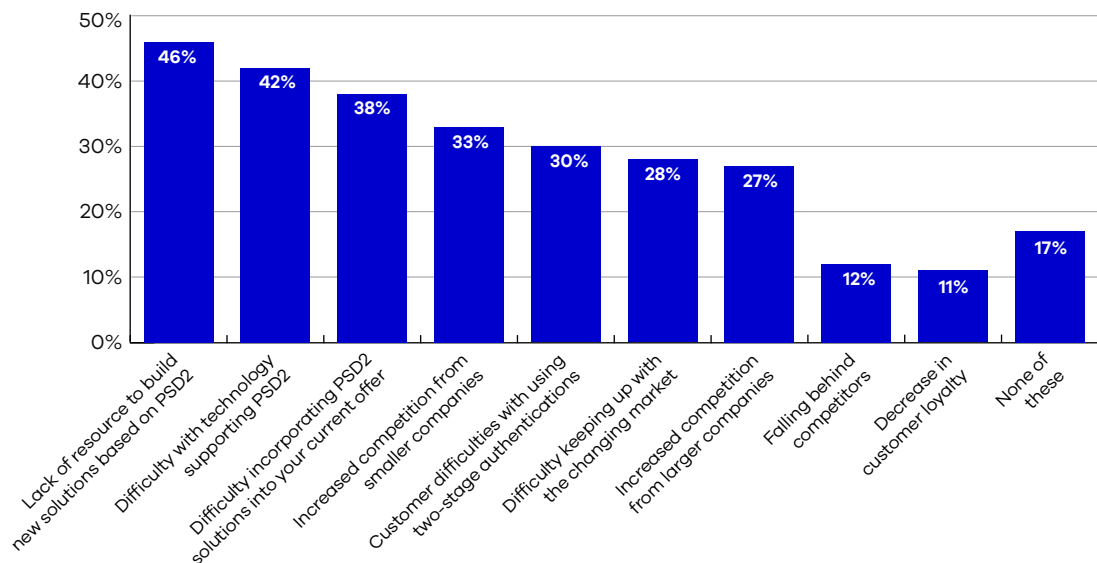
Which of the following challenges, if any, have you experienced as a result of PSD2 coming into effect?

Overall, 46% of those surveyed have been challenged by a lack of resources to build new solutions based on PSD2. We would expect to see the data around 'difficulty with tech supporting PSD2 and incorporating it into current offers' reduced within the next 6 to 12 months, as interfaces become much more competent and the market matures.

Interestingly, customer loyalty is less of a challenge at present, due to the lack of awareness amongst consumers. If the right interface offering the right convenience enters the market it could be the signal for a wave of migration, rendering customer loyalty atop the list of challenges. Again, acquisition strategies will drastically help bigger organisations respond to PSD2 in a more agile and digital-first way.

“[46%] of those surveyed have been challenged by a lack of resources to build new solutions based on PSD2.”

Figure 14. Which of the following challenges, if any, have you experienced as a result of PSD2 coming into effect? (Multiple choice)



Don't miss out on your open banking opportunities

About Aiiia

Founded in 2018, Aiiia is an open banking platform designed to support financial innovation by firmly connecting companies from all kinds of industries to bank data. To further build frictionless financial futures for all, Aiiia enables direct payments on behalf of users, and has received investment from the two leading banks in the Nordics, DNB and Danske Bank. Headquartered in Copenhagen, Aiiia currently employs over 60 people and has won Best Mobile Payments Solution at the Finovate Awards in 2020.


Learn more about how your business can build open banking solutions. Reach out to one of our Sales representatives today.

sales@aiia.eu

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Endnotes

- 1 <https://www.smartinsights.com/internet-marketing-statistics/happens-online-60-seconds/>
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- 26 <https://thepayers.com/interviews/whats-next-for-merchant-payments-ecosystem-in-2020--1240400>

The logo for 'aiia' is centered on a solid blue background. It features the lowercase letters 'aiia' in a white, sans-serif font. Above the second 'i' is a small graphic element consisting of a white circle partially overlapping a blue horizontal bar.

aiia