



WHITEPAPER

## PSD2 – Strategic opportunities beyond compliance

How PSD2 will open up the European financial landscape and strategies for how banks can take the leading positions

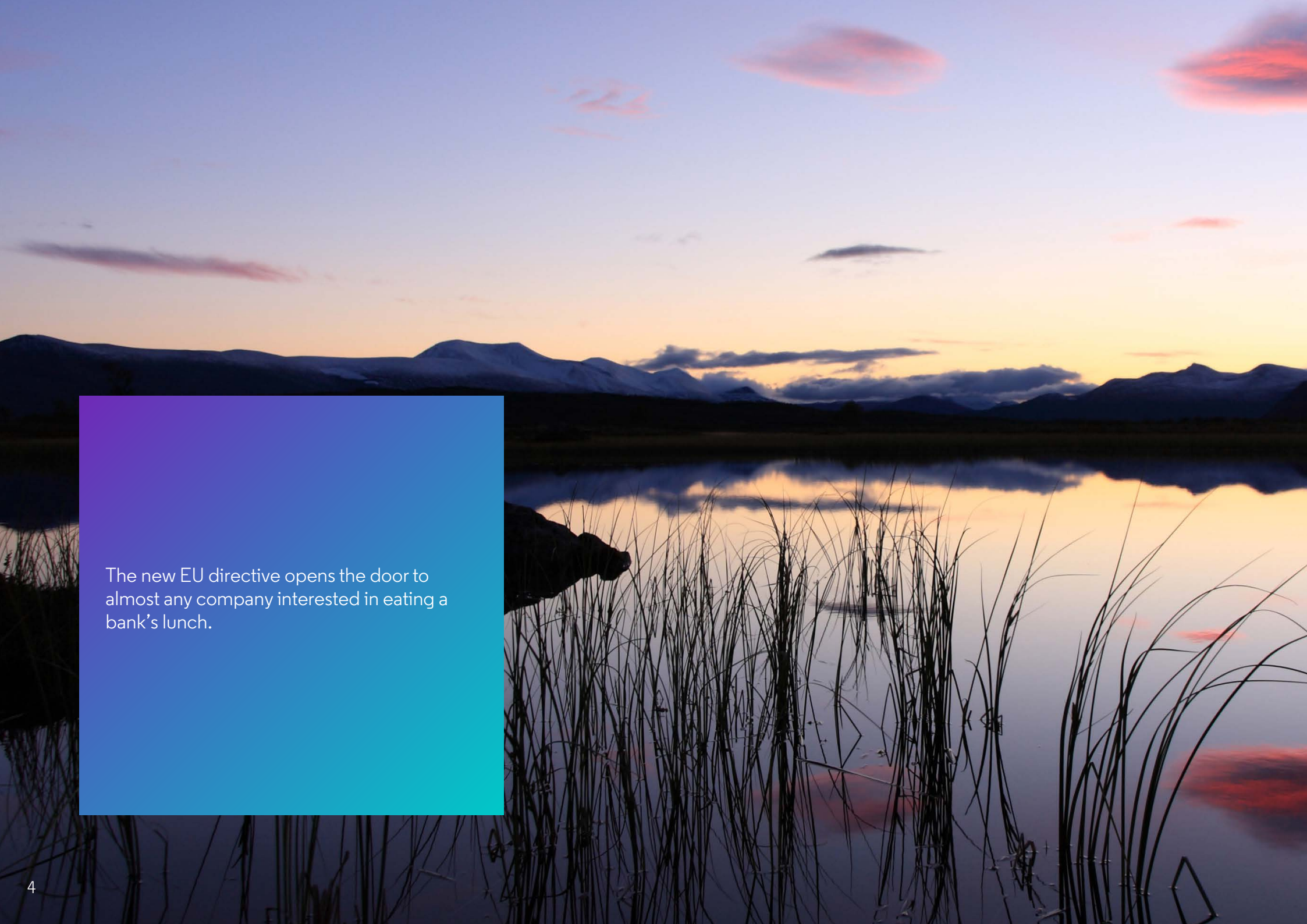
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The new EU directive opens the door to almost any company interested in eating a bank's lunch.



# 1. INTRODUCTION

- 1.1 Introduction to whitepaper
- 1.2 Introduction to PSD2
- 1.3 Background, timeline and key implications of PSD2
- 1.4 Why some banks are passively waiting for PSD2

## 1.1 INTRODUCTION TO WHITEPAPER

2018 is set to be a game-changing year for retail banking. As the PSD2 (Revised Payment Service Directive) becomes implemented across the EU and the European Economic Area, banks' monopoly on their customer's transaction data and payment services is about to disappear. The new EU directive opens the door to almost any company interested in eating a bank's lunch. And there are plenty of hungry fintechs out there.

The focus of this whitepaper is not on how to become compliant, doing the bare minimum required in order to go on with business as usual. This whitepaper aims to explore how banks can go beyond compliance, to prepare and build the necessary capabilities to achieve competitive advantages for the future financial landscape.

The whitepaper is build up by three parts: First, an introduction to PSD2, its key implications and why so many banks might be hesitant to take immediate actions. Second, a scenario analysis envisioning how the European landscape for financial services may look when the directive is implemented and effective. This is based on a framework analyzing whether the landscape will be primarily domestic or European, and to what extent non-banks will obtain market shares. And third, relevant strategies for how banks can achieve strong positions in the markets beyond PSD2 are explored: The value of data analytics and customer experience in banking, ways to obtain innovative capabilities and banks' potential first-mover advantage over non-banks.

## Assumptions

1. This whitepaper assumes that, in practice, a service could provide both account information and payment initiation, even if the provider is a bank. This means that the customer will experience the service as being provided by one company, regardless of whether there are one or several legal entities providing the services together.
2. Even though the PSD2 includes more elements than the access to accounts by third-party providers, this is the main focus of this whitepaper.
3. The provided strategies in this whitepaper do not take into account the available resources of the affected banks.



## 1.2 INTRODUCTION TO PSD2

PSD2 enables bank customers, both consumers and businesses, to use third-party providers to manage their finances. In other words, as long as the user consents, other companies than a user's bank will be able to do things previously reserved for banks. This means that in the near future, you may be using Facebook or Google to pay your bills, making transfers to friends and analyze your spending, while still having your money safely placed in your current bank account. Banks, however, are obligated to provide these third-party providers access to their customers' accounts through open APIs (application program interface). This will enable third-parties to build services on top of banks' data and infrastructure.

This means that banks will no longer be competing only against other banks, but everyone licensed to offer financial services. PSD2 will fundamentally change the payments value chain, the use of account information, what business models are profitable, and customer expectations. Through the directive, the European Commission aims to improve innovation, reinforce consumer protection and improve the security of internet payments and account access within the EU and EEA. It introduces two new types of players to the financial landscape: AISP and PISP.

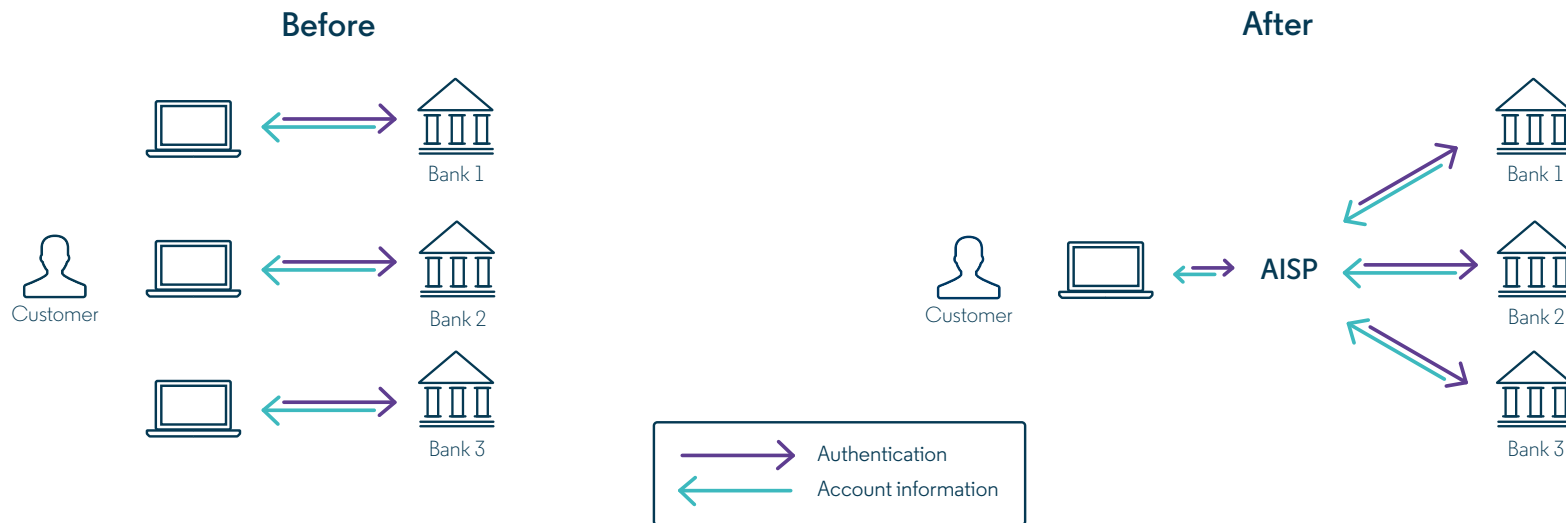




## AISP (Account Information Service Provider)

**AISP** are the service providers with access to the account information of bank customers. Such services could use transaction data to analyze a user's spending behavior or aggregate a user's account information from several banks into one overview.

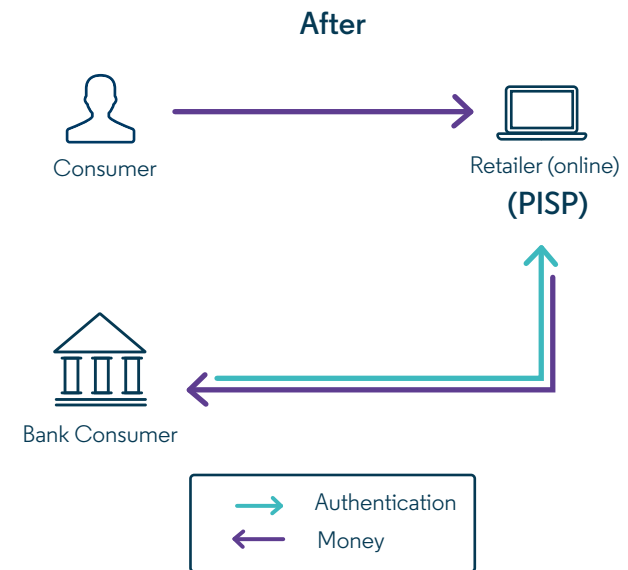
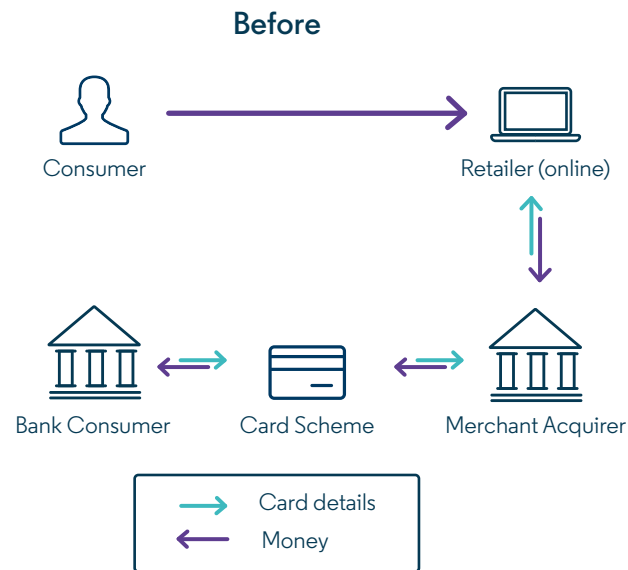
This ability is obviously beneficial for consumers, but will also have a great impact on businesses and corporations: AISP will improve the integration between a company's finances and relevant services, such as ERP functions and services within accounting and audit.



## PISP (Payment Initiation Service Provider)

Today, a retailer would typically be provided a customer's payment card details and then request and receive the payment through its bank, a card scheme and the customer's bank. A **PISP**, however, would create a software "bridge" between the customer's and the retailer's accounts where the necessary information is exchanged to make the transaction.

A PISP is the service provider initiating a payment on behalf of the user. This solution involves fewer parties and does not require the customer to reveal its payment card details. Peer-to-peer transfers between friends and bill payments are among the PISP services we are likely to see after PSD2 implementation.



For banks, PSD2 poses substantial economic challenges. IT costs are expected to increase due to new security requirements and the opening of APIs. 9 percent of retail payments revenues are predicted to be lost to PISP services by 2020<sup>[1]</sup>, a revenue stream which in 2015 made up a quarter of total European retail bank revenue<sup>[2]</sup>. And, if non-banks take over the customer interaction, banks will find it increasingly difficult to differentiate themselves in other ways than the lowest interest rate in the market for offering loans. This, in addition to changed customer expectation and increased digitalisation, may be why we today are witnessing more and more banks experimenting with their APIs, collaborating with FinTechs (financial technology companies), increasingly focusing on customer centricity and setting up innovation labs.

So are there any positive elements that PSD2 brings to the banks? Depending on how the directive is implemented across Europe, banks may have the possibility to become PISPs and AISPs, which will open a range of new business opportunities.

And as some opinion leaders have expressed about PSD2, the directive poses an opportunity for banks to build a banking platform, work closely with FinTechs and embrace new technologies<sup>[3]</sup>. But all of these opportunities are available to banks already today, and have been for a while. The German Fidor Bank has been a banking platform serving third-parties for years. The US-based FinTech Moven is collaborating with several banks to run its operations on top of the banks' infrastructure. And several banks are already exploring blockchain, artificial intelligence, big data and other emerging technologies.

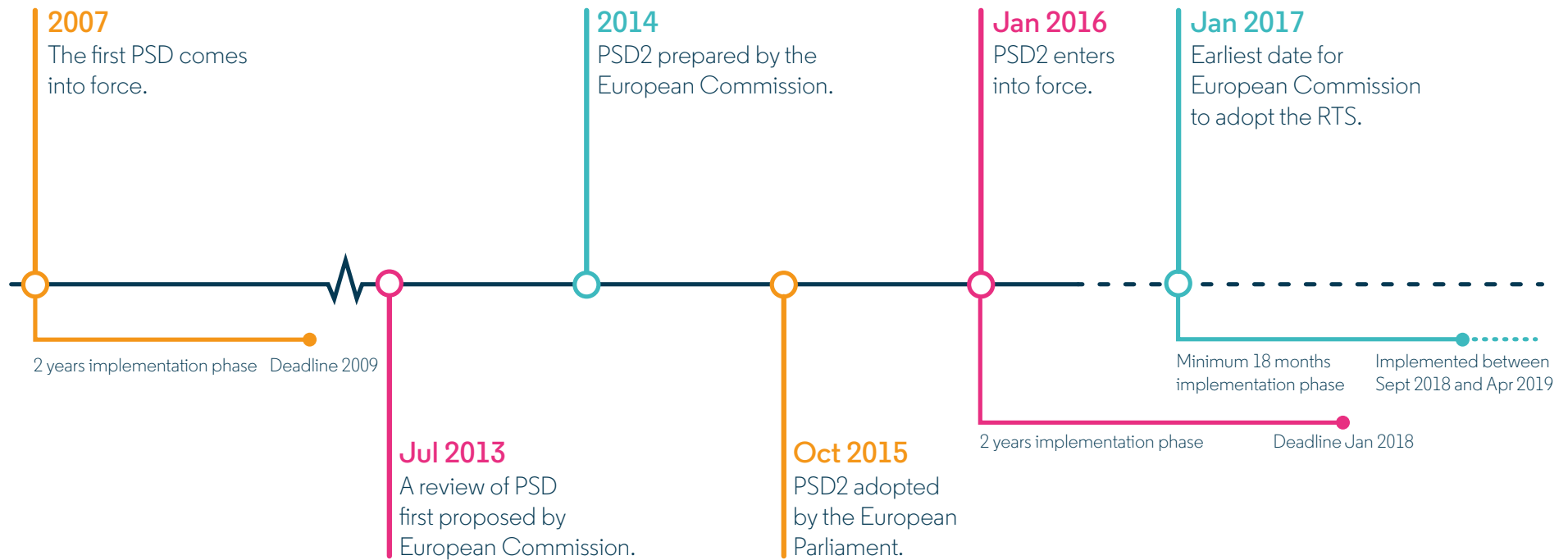
Banks do not have to wait until PSD2 has been implemented, they can start today. So at least, PSD2 will give the banks a not-at-all gentle push: An urgency to quickly start rethinking and redesigning their services and business models in order to fight for existing and new market positions. And as explained in later chapters, banks have the opportunity to start today, while the third-party providers must wait until the APIs are opened in 2018 or later.

<sup>1</sup> Accenture (May, 2016): *Seizing the Opportunities Unlocked by the EU's Revised Payment Services Directive*. Everyday bank research series.

<sup>2</sup> Deloitte: *Payments disrupted - The emerging challenge for European retail banks*.

<sup>3</sup> FinExtra, CA Technologies (March, 2016): *Preparing for the PSD2 - Exploring The Business and Technology Implications of the new payment services directive*.

## 1.3 BACKGROUND, TIMELINE AND KEY IMPLICATIONS OF PSD2





## 2007-2009

EU's first Payment Service directive, PSD, came into force in 2007 and was fully implemented in 2009. It set the foundation to common rules regarding electronic money transfer and payments in 30 European countries. This included harmonizing pricing and improving the security of payment processing across the European Union.

## 2015-2016

PSD2 was adopted by the European parliament in November 2015. After PSD2 was published in the official journal of the EU December 23rd it went into force 20 days thereafter – 12th of January 2016. The European member states have two years to transpose the legal text into national law (January 2018).

So far, the EBA has published a preliminary discussion paper for the RTS on security, strong authentication and communication. The best estimate is that the European Commission will approve the finalized version ultimo 2017. When the RTS have been adopted, the European member states

## 2013-2014

In 2013, the European Commission worked to review the first PSD to modernize it and take new types of payment services into account, such as Payment Initiation Services. PSD2 aims to improve innovation, reinforce consumer protection, improve the security of internet payments and account access within the EU.

## 2017-2019

To make electronic payments safer and more secure, the European Banking Authority (EBA) has been given the task to create the Regulatory Technical Standards (RTS) for PSD2. The RTS are six technical standards and five sets of guidelines, including security and communication between parties, for example, standards for open APIs.

have 18 months to implement the standards into national law. This leaves Sep 2018 – Apr 2019 as the best guess for when PSD2 including the RTS can be fully effective. <sup>[1]</sup> <sup>[2]</sup>

1 EUR-LEX: Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC

2 EUR-LEX: Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC

## Why PSD2

### **The main objectives of PSD2:**

- Contribute to a more integrated and efficient European payments market
- Improve the level playing field for payment service providers, including non-banks
- Make payments safer and more secure
- Reduce consumer costs

## Scope of the directive

### **PSD2 widens the scope of the first PSD to also apply to:**

- The carrying out of payment initiation services and account information services
- Improved consumer protection, such as stronger customer authentication system
- Ban on surcharging
- These rules will apply to all payments and accounts within the EU and the EEA, regardless of the currency.

THE MOST SIGNIFICANT CHANGE OF THE DIRECTIVE IS THE ACCESS TO ACCOUNT PRINCIPAL

Third-party providers will get the right to access the payment service user's account.

## Impact on the financial market

**PSD2 raises a number of challenges for banks both on an operational and strategic level:**

- How should banks balance access with security?
- How should banks prepare for the technical challenges before the release of the RTS standards?
- How should banks and non-banks prepare for new market entrants?
- What payment positions should a bank take in the future?

## Preparing for PSD2

**Banks need to:**

- Ensure compliance with PSD2 and the RTS including ensuring updating their IT systems.
- Collaborate with different departments, such as Risk and Compliance.
- Perform early analysis of the business impact and areas of business within a bank.
- Perform IT due diligence.
- Create documentation of compliance with PSD2 for regulators.
- Ensure compliance with the new security standards, that is two-factor authentication.

## 1.4 WHY SOME BANKS ARE PASSIVELY WAITING FOR PSD2

European banks are today facing a series of challenges aside from the future competitive impacts of PSD2. These challenges may explain why so many banks are choosing to sit on the fence, waiting for more PSD2 details to be revealed, instead of preparing for the new competition - strengthening the existing business area and exploring new ones - through innovation. In this article, three factors hindering the motivation of banks to prepare for PSD2 are illuminated: The uncertainty about PSD2 details, the regulatory tsunami, and the innovation paradox facing banks.





## PSD2 uncertainty

There are a lot of unanswered questions about PSD2. Not because the directive itself is unclear, but because all involved nations will have to implement it into each of their own national legal frameworks. Different nations may transpose it differently. In addition, the Regulatory Technical Standards (RTS) will not be ready and implemented in all countries until 2018-2019. So how will the regulations look like? Will the same company be able to be both AISP and PISP? Will banks be able to be one or both of them? We do not know until January 2018, and maybe not even until early 2019.

## Regulatory tsunami


After the financial crisis of 2008, banks have been experiencing a tsunami of new regulations. Counterterrorism financing and anti-money laundering (AMLD IV), capital requirements (CRD IV, and Basel III and IV), privacy and personal data protection (GDPR) and of course PSD2 are among the many topics of new or upcoming regulations facing banks. In addition, there is a threat of severe penalties for non-compliance. With increased costs of regulatory compliance, along with tight capital requirements (how much liquid assets a bank must hold at all times), European banks are struggling to allocate time and budget for innovation.

## Banks' innovation paradox

In addition, banks might be experiencing what David Gyori, author of the "Fintech Book", calls the Innovation Paradox<sup>[1]</sup>: On one hand, the main message from regulators to banks after the financial crisis of 2008 was this: Take less risk. But with the fast-evolving financial landscape with increasingly digital customer expectations and the threat of disruptive FinTechs, the main message from the public is this: Innovate. So banks are expected to both innovate and take less risk, while - at the same time - innovating will always involve taking risk to some extent.

These three challenges are all good reasons why some banks are being tempted to wait until PSD2 and the RTS are fully implemented before making their move. Even though it might appear understandable in the short term. However, banks are in the long run taking a risk when not preparing for the changed market conditions, going beyond compliance.

<sup>1</sup> David Gyori (September, 2015): *The Banking Innovation Paradox*.



PSD2 will impact the landscape of financial services in a number of ways. This part analyzes how this landscape will look like in the years after the directive has become effective.





## 2. SCENARIOS FOR THE FUTURE FINANCIAL LANDSCAPE

- 2.1 Introduction to framework
- 2.2 Will PSD2 unify the European market for financial services?
- 2.3 Will PSD2 be the end of banks' monopoly?
- 2.4 How will the change happen?

## 2.1 INTRODUCTION TO FRAMEWORK

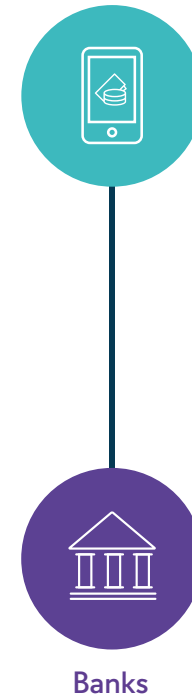
The entry of PSD2 requires that banks take a number of strategic choices. This is not an easy task, as the choices partly depend on how the payment landscape will evolve after PSD2. We envision four possible scenarios, based on the two variables explained underneath.



1. How domestic or European the financial market will be (horizontal line). Will consumers buy financial services mainly within their country or from international companies?

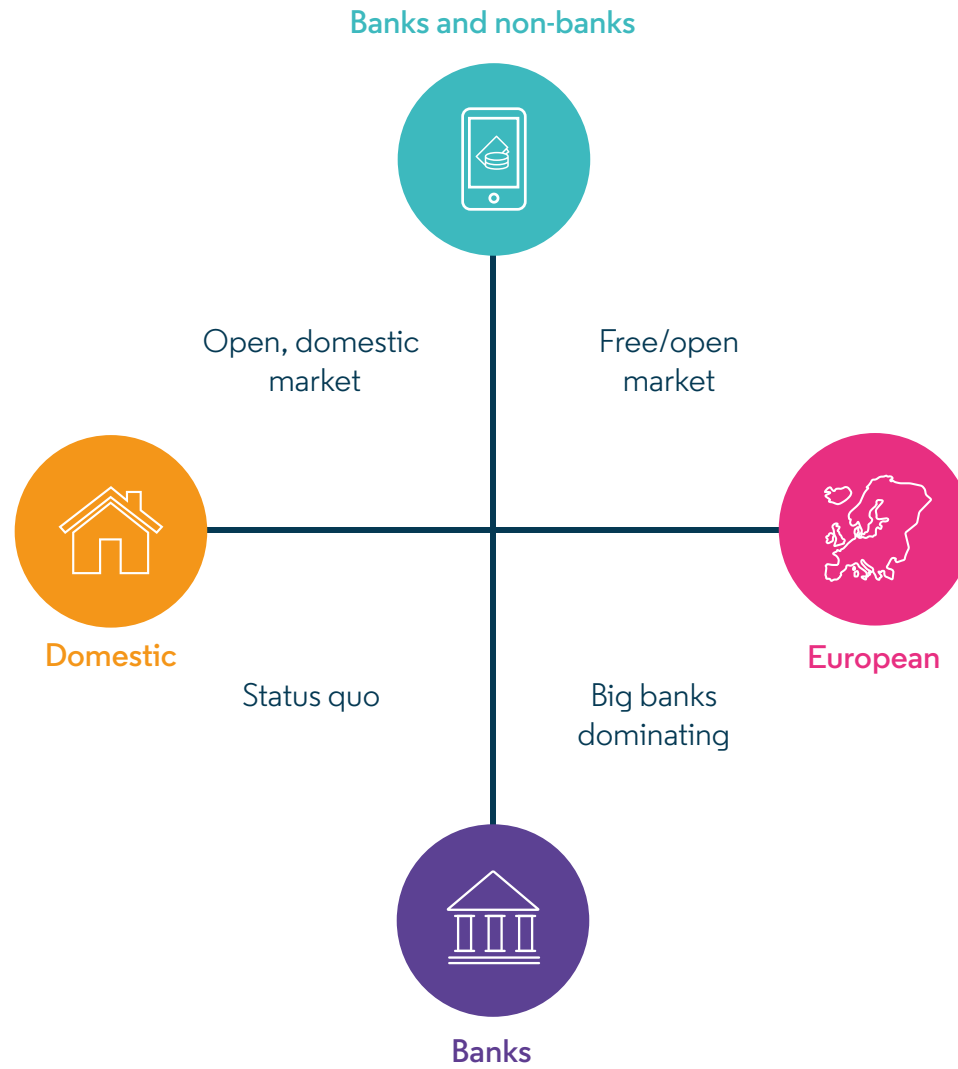
In the following chapters, we will take a closer look at these variables, discuss where we are today, and how the landscape might change in the future.

### Banks and non-banks



2. Whether the consumers will stick to traditional banks or use non-banks to a larger extent (vertical line). Will consumers trust FinTechs and similar companies with their money, or will they prefer banks?





## 2.2 WILL PSD2 UNIFY THE EUROPEAN MARKET FOR FINANCIAL SERVICES?

### The globalisation illusion

How global is the world today, really? Surprisingly little, many might say. Following figure 1, we rarely interact with people abroad<sup>[1]</sup>. And regarding financial services, as few as 3 % of European consumers have bought banking products from another EU country<sup>[2]</sup>. Of course, many consumers have a bank relationship to a branch of a foreign bank. For example, the Swedish bank Nordea has branches in Norway and the Spanish bank Santander has branches in Portugal. But then it is usually Nordea's Norwegian subsidiary and Santander's Portuguese subsidiary, and therefore not a cross-border banking relationship as we define it.

### Cross border activities

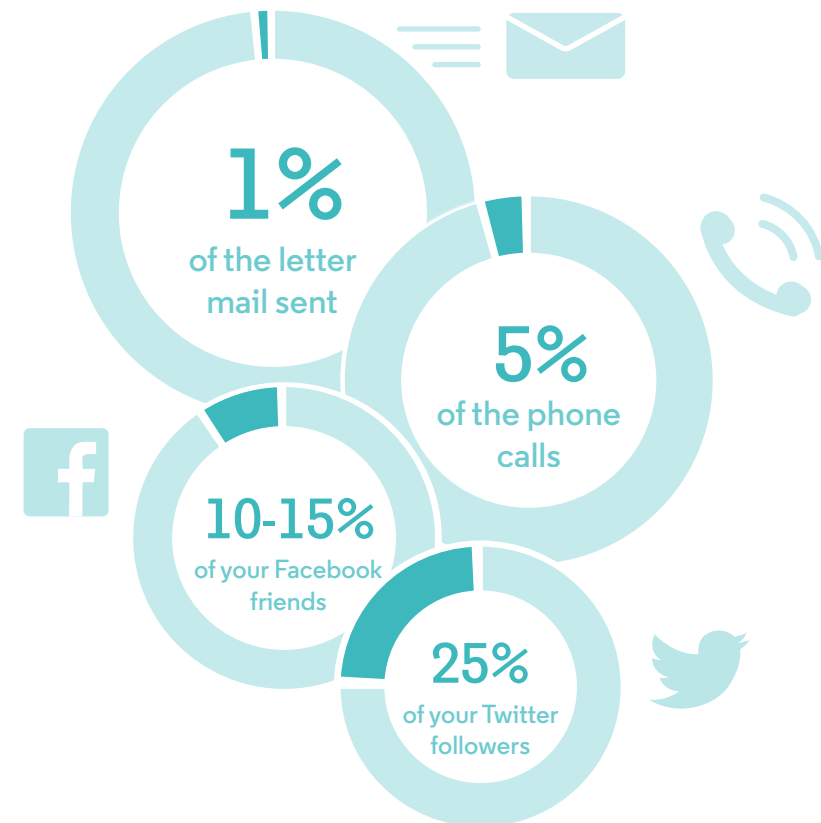
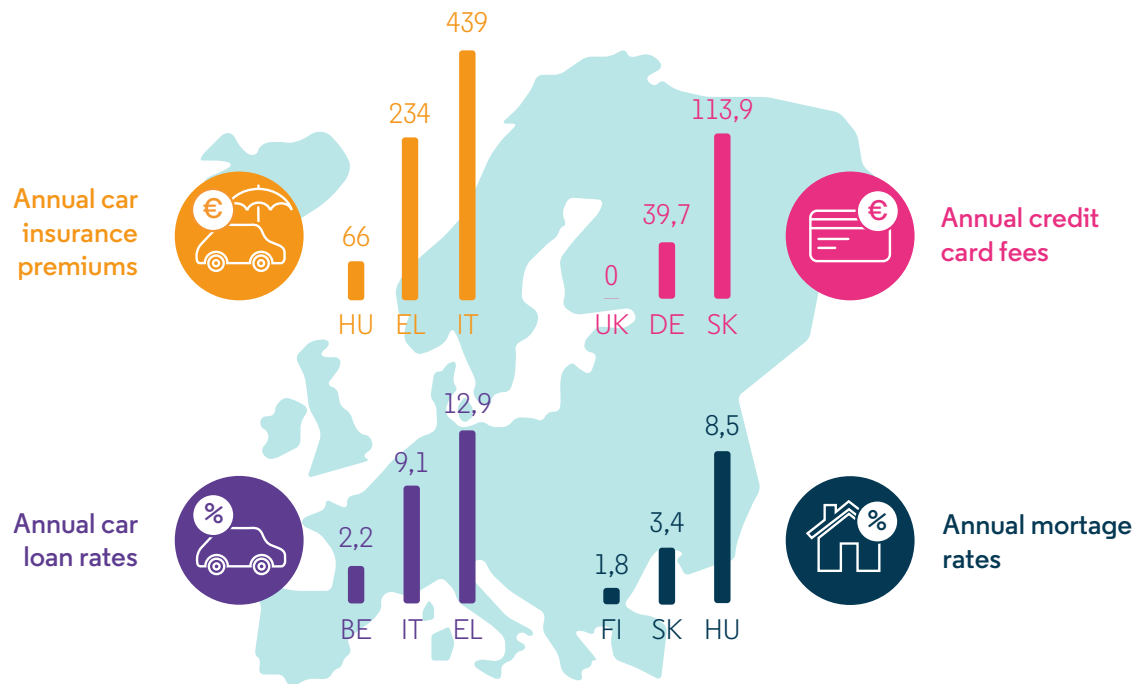


Figure 1 : Average level of activities across borders. Source: Ghemawat.com<sup>[1]</sup>

<sup>1</sup> Pankaj Ghemawat and Steven A. Altman (November, 2013): *Depth index of globalization 2013 and the big shift towards emerging economies.*

<sup>2</sup> European Commission: *Key facts on cross-border consumer finance in Europe.*



You might think that this is because the services and prices are homogeneous, that it does not 'pay off' to look beyond the borders of your current country. But the statistics in figure 2 shows otherwise: Average prices among four consumer finance products vary greatly from country to country. Despite this, consumers do not seem to have a cross-border bank relationship.

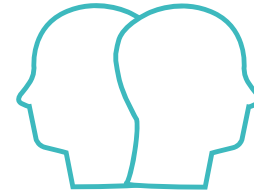
Figure 2: How financial product prices differ across Europe. Source: European Commission<sup>[1]</sup>

<sup>1</sup> European Commission: Key facts on cross-border consumer finance in Europe.

## So why is it like this?

A survey conducted by the European Commission revealed that 80% responded they would not consider buying a financial product in another EU Member State in the future because “they can purchase all the financial products they need in their own country, or they prefer to do so”<sup>[1]</sup>. This shows how far from a unified market the EU really is. We view this as a consequence of the European market lacking effective mechanisms supporting cross-border banking, such as communication of its benefits, smooth onboarding processes, and harmonized regulations.

Regarding the latter, differentiated domestic legal frameworks are identified as the main barrier for both providers and consumers to enter a foreign market by the European think tank CEPS<sup>[2]</sup>. The related costs of regulatory understanding and compliance might be seen by banks as too large compared to the potential revenues of the market, making the bank’s investment into a new country unattractive.



**Consumer preferences**



**Market mechanisms**



**Legal framework**

<sup>1</sup> European Commission (March, 2012): Special Eurobarometer 373. Retail Financial Services.

<sup>2</sup> Sylvain Bouyon and Karel Lannoo (December, 2015): Relaunching the European retail finance market. European Credit Research Institute

## Aiming to open up

The European Commission's commitment to unify the European market for financial services is strong and it is working with several initiatives aimed at harmonizing the domestic regulations<sup>[3]</sup>. For example, PSD2 lets third party providers of financial services operate in the entire EU as long as they are licensed by the financial authority of their country of origin. So even though banks still need bank licenses in each country they are operating in, the third party providers only need one.

The commitment of the European Commission to unify the markets for financial services in Europe is strong, as seen with both the first and the second payment service directive. The question is: If the European Commission succeeds in cutting the actors' compliance costs related to multinational retail banking, will that be enough? We believe that such a change of market conditions will trigger four other factors, which together will accelerate the transformation of the European market:

- 1. Bigger return:** As the European market grows from several autonomous markets into a unified big market, the aggregated profit gets a lot bigger. This will attract new entrants and new services as the reward goes up.
- 2. Scale:** It is cheaper for banks to operate in several countries when their legal frameworks are harmonized and the compliance costs are reduced.
- 3. Well-informed consumers:** As the competition in the unified market increases, the transparency in the financial services and prices offered by European banks will increase, which in turn will equip the European consumers with improved market information. This will likely motivate the consumers to consider offers from abroad.

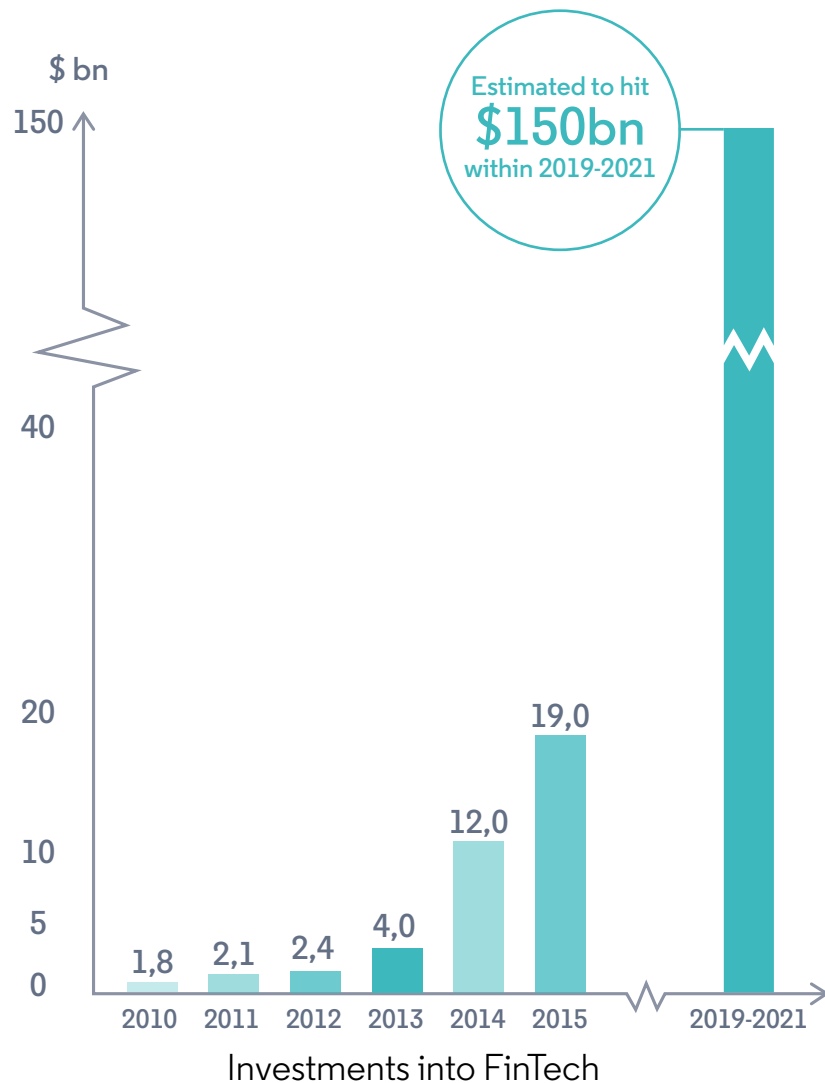
- 4. International e-commerce:** Consumers are increasingly more open towards online purchasing from international companies<sup>[4]</sup>. This shopping behavior could also influence the consumers' banking behavior.

Altogether, we expect to see an increase in investments into financial services targeting the unified European market. And remember: This will not only open up to European banks but also to other international banks and non-banks interested in getting a chunk of the European market for financial services.

So will this transition into a unified European market happen overnight? Of course not. But when we get there, the European financial ecosystem will be a lot different than the one we have today.

<sup>3</sup> European Commission (October, 2015): Payment Services Directive: frequently asked questions.

<sup>4</sup> Ecommerce Europe (September, 2015): Global e-commerce turnover grew by 24.0% to reach \$ 1,943bn in 2014.



## 2.3 WILL PSD2 BE THE END OF BANKS' MONOPOLY?

### Moving from banks to banking

The traditional way to think about banking and financial services is to think about banks as the main providers. This might be explained partly by the required bank licenses that make it difficult and troublesome for new entrants to enter the market, and partly by a low consumer trust towards third-parties. However, with PSD2 this might change as it will be easier for non-banks to enter the market with financial service solutions. The belief that non-bank fintech companies will play a significant role in the future financial landscape is well established in the investments markets. Cumulative investments globally in financial technology has increased more than tenfold the last five years<sup>[1]</sup> and is estimated to exceed \$150bn the next 3-5 years<sup>[2]</sup>.

### A changing financial market

The entrance of non-banks to the financial markets is predicted to become more efficient. We highlight these three: Open banking, innovation fuelled by technology and changed consumer preferences.

<sup>1</sup> Citi (March, 2016): *Digital Disruption – How FinTech is Forcing Banking to a Tipping Point*.

<sup>2</sup> PwC (March, 2016): *Blurred lines: How FinTech is shaping financial services*.





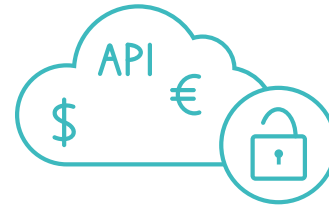
## Open banking

One way that PSD2 opens up banking for non-banks is through open APIs. By accessing banks' APIs non-banks can enter the financial market without the heavy compliance and infrastructure which banks are required to maintain. This opens up the financial market to new entrants with novel ideas about how to shape the banking experience. Some banks have already started making their APIs available. Examples are the Danish Saxo Bank, that opened up for their APIs in September 2015<sup>[1]</sup> and Capital One, a UK-based bank, that already now enables affiliates to benefit through their APIs<sup>[2]</sup>.

The UK government is currently working on an initiative similar to PSD2. It focuses on opening up banking through standardized and secure APIs. The initiative is estimated to be in place around the same time as PSD2, between 2018 and 2019.

<sup>1</sup> Saxo Bank (September, 2015): Saxo opens access to its trading infrastructure with the launch of OpenAPI.

<sup>2</sup> Capital One (March, 2016): Let's Start Something Together.



## Innovation fuelled by technology

The innovation within technology has been moving fast and it forces banks to keep up with the speed of change. Up until now, many banks have traditionally been hesitant with fully using new technology, as old business models gave them full control. However, 37% of European consumers say they would change their bank if it did not offer them up-to-date technology<sup>[3]</sup>.

One prediction in this perspective is that new entrants no longer will offer the full banking experience package to enter the financial market<sup>[4]</sup>. New entrants can now focus on offering just a single service and connect to other service providers through cloud solutions or APIs. Also, new improved services (e.g. contactless payments and mobile solutions) within payments are emerging, making banking both faster and easier.

<sup>3</sup> Fujitsu (2016): The Fujitsu European Financial Services Survey 2016.

<sup>4</sup> Let's Talk Payments (January 2012): T-Mobile launches Mobile Money an un-carrier style app, card, account, Personal Finance...



## Consumer preferences and trust

Consumers are becoming more digital and mobile<sup>[5]</sup>. These tech-savvy consumers are asking for financial service offerings that are faster, less formal, more personalized, easily accessible and cheap<sup>[6]</sup>. So far, non-banks have proven to meet these requirements in a more innovative and human-centric way than many traditional banks.

Consumers are slowly getting used to using non-banks for financial tasks and it seems like this trend is only continuing. Paypal has already existed for close to 15 years and has gained great consumer trust. Swedish Tink and the Danish Billy are companies that have also gained a great market share without a banking license. And every fifth European consumer says they would use by financial products from challengers such as Google, Facebook, and Amazon<sup>[3]</sup>.

<sup>4</sup> Deloitte: Payments disrupted - The emerging challenge for European retail banks.

<sup>6</sup> EVERY (2015): Engaging The Millennials.

## Increased competition?

It is arguable that the competition within the financial sector will be dramatically increased, due to the introduction of PSD2, technological innovations and changing customer demands. We see several reasons to this. One is, that new entrants in the form of non-banks will get easier access to the market after PSD2. The regulation removes some entry barriers to the financial market, and hence, more competitors are likely to emerge. Furthermore, customers can easily choose new financial service providers with the introduction to PSD2. This means, that customers will be enabled to create their own collection of smaller service providers instead of choosing one specific bank for all financial needs.

In conclusion, this increased competition along with consumers increasingly turning to non-banks for financial services, we might see an exponential growth in consumer trust in non-banks in the future.

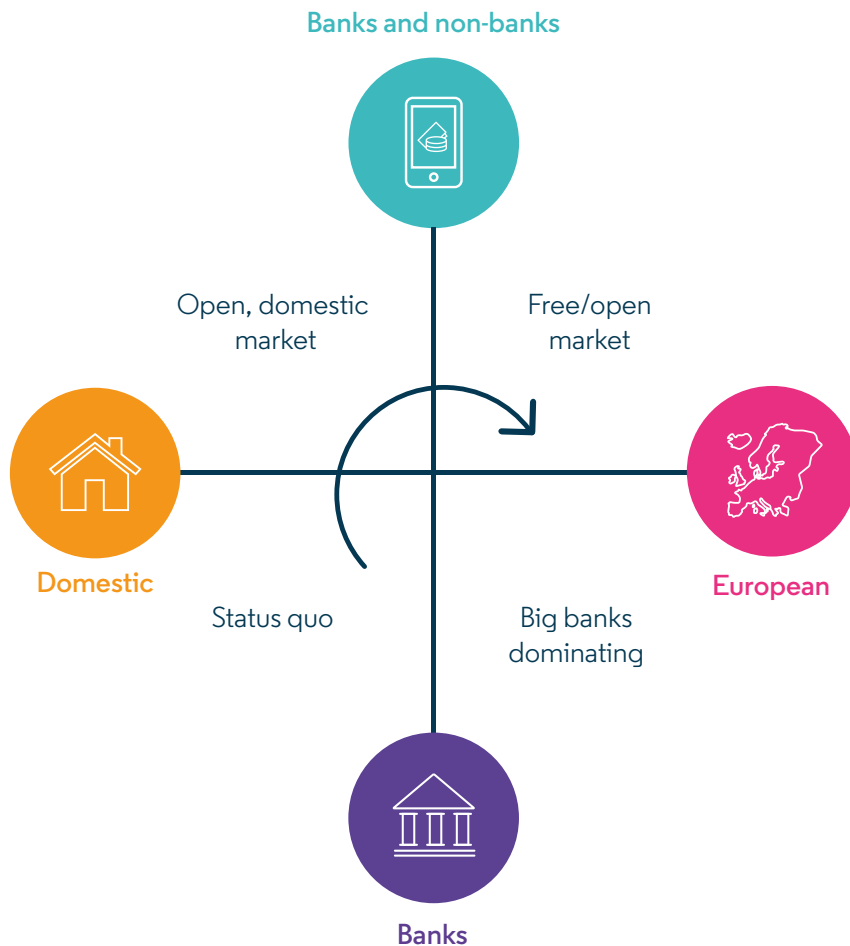
*“Banking is necessary;  
banks are not.”*

*(Bill Gates, 1990)*

## 2.4 HOW WILL THE CHANGE HAPPEN?

The framework we use to analyze the impact of PSD2 is based on two axes: multiple domestic markets versus one unified European market on the horizontal axis, and the presence of banks only versus banks and non-banks on the vertical axis. Based on this framework, we see four possible future scenarios for the financial landscape after PSD2 is implemented:

- 1. Domestic banking:** In this possible scenario, PSD2 will have only minor consequences for banks. Hence, the financial market will stay domestic, and the use of non-banks for financial services will not be widespread by consumers. This scenario fits with today's financial landscape in terms of domestic-oriented markets but is far more conservative regarding consumers' openness towards non-banks than what we are witnessing already now.
- 2. Open, domestic market:** Consumers will be more willing to use non-banks for financial services. However, the providers will mostly be national, and cross-border banking will not be common. Banks, fintech companies, and other non-banks will compete to provide the best and most specialized solutions to the consumers within the country. We see this scenario as having many similarities to today's reality.
- 3. Free market:** PSD2 will accelerate the trend towards a free market, where all players compete against one another; independent of banks and borders. There will be no barriers for consumers in choosing a bank or a non-bank or choosing a provider in the domestic or the European market. What matters is who creates the best solutions for the customers.
- 4. Predominantly big, European banks:** The European financial market will be unified, but consumer trust in non-banks will remain low. The banks with the strongest position will grow bigger and take a large share of the European market.



## What is most likely to happen?

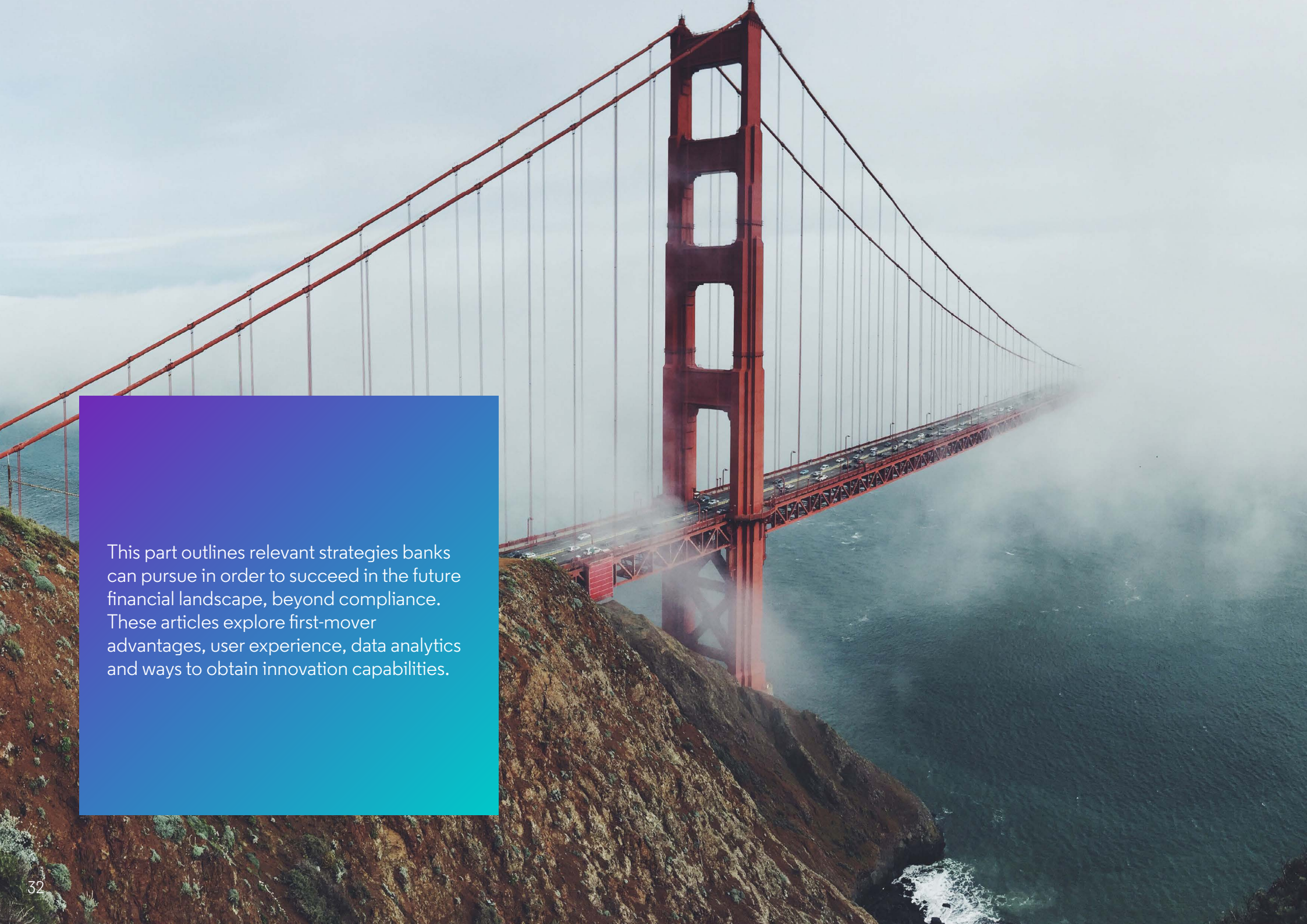
We can already today see a distinct trend that FinTechs and other non-banks are emerging and taking market shares within financial services. As PSD2 will increase the opportunities for companies without a banking license to enter the financial market, it is likely that the trend of increased consumer trust in non-banks will continue to grow.

Following our analysis, we picture that initially we will see the financial services landscape moving towards scenario 2, an open domestic market, and finally to scenario 3, a free market.

Customers' trust in fintech companies is increasing and we believe PSD2 will accelerate this even further. This will make an open domestic market a likely prediction for the near future. A unified European financial market is also a change we believe will follow PSD2. However, this may take longer as there are more factors at play here than consumer habits and what the changes in the EU directive can offer, as described previously.

A unified European market has been one of the desired outcomes for both the first and the revised Payments Services Directive for the European Commission. When this was not achieved through the first directive, the Commission tried again with the PSD2. Time will tell to what degree PSD2 will unify the European market and if we will see a PSD3 in the future.





This part outlines relevant strategies banks can pursue in order to succeed in the future financial landscape, beyond compliance. These articles explore first-mover advantages, user experience, data analytics and ways to obtain innovation capabilities.



### 3. STRATEGIES FOR TAKING ADVANTAGE OF PSD2

- 3.1 Are banks using their first-mover advantage?
- 3.2 Winning the battle of great user experience
- 3.3 Unlocking the value of customer transaction data
- 3.4 Strategic options to achieve innovation capabilities



### 3.1 ARE BANKS USING THEIR FIRST-MOVER ADVANTAGE?

When talking about what competitive advantages banks have over non-banks regarding PSD2, words like 'trust', 'customer relationship' and 'compliant' often comes up. Such arguments are very much subjective and leave out one major advantage that only existing banks possess: They do not have to wait until PSD2 is fully implemented to make their move in the market.

While the non-banks not cooperating with banks need to wait until 2018, banks can launch their new services today, winning the market space before the game has even begun for all players. And many European banks have already done so.





## Are banks preparing for PSD2 through new innovative services?

Lately, we have observed more and more banks stepping out of their comfort zones and launching more or less untraditional financial services. DNB launched Vipps summer 2015, which quickly became the most popular P2P transfer service in Norway, offering users to send and request money and splitting bills. Later, Vipps also offered mobile payments solutions for smaller merchants, a fund raiser service, and are planning to launch mobile payments solutions inside merchants' web shops and apps. With Vipps, DNB introduced the services which, perhaps, would be the most obvious PIS (Payment initiation service) related services to be offered by third-party providers after PSD2 launch January 2018.

As several banks in Europe have also launched similar services in their markets, they have used their first-mover advantage to take market positions strengthening their brands. If managed correctly, these banks will keep these market positions long after the implementation of PSD2.

Other more creative initiatives from banks aiming to extend the scope of banking services include Boligreisen and Sunday.dk. Both DNB's Boligreisen and Danske Bank's Sunday.dk are trying to give home buyers a smoother experience by not only focusing on the mortgage but the consumer's entire process of buying a home.

A similar effort to give the customers a better experience by extending the scope of services can also be found in the market for small, medium-sized enterprises. Barclays' data insight service SmartBusiness, Danske Bank's cash flow management system DynamicPay and BBVA's acquisition of the Finnish online business banking service Holvi are all good examples of new ways of adding value to banks' customer relationships.

The focus on the consumers and small- and medium-sized businesses is a clear trend within banking: 73 % of the cumulative investments into fintech companies globally are targeting these segments<sup>[1]</sup>. That is almost \$14 billion.



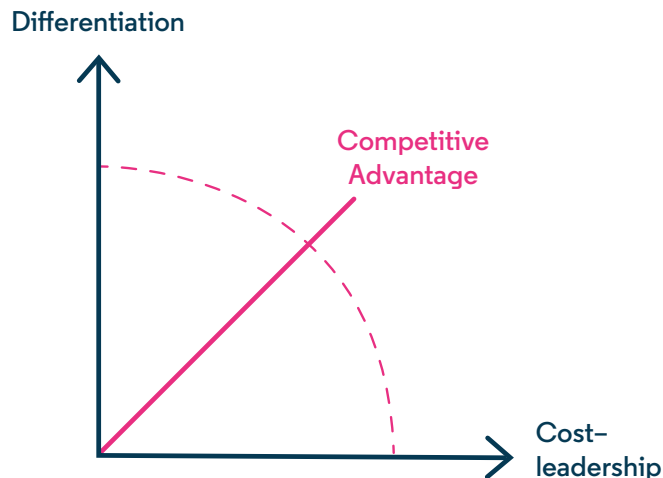
## Utilizing the first-mover advantage

Even though the launch of such new services may improve the banks' competitiveness in their current markets, it might also put them in a position less vulnerable to the disruption potentially posed by new non-bank players after PSD2 launch. By moving early and becoming a preferred provider before the market is even open to all players, banks are exploiting their first-mover advantage and giving the new entrants of 2018 a tougher starting point.

Following our scenario analysis in earlier articles, we believe that the market for financial services in the years after PSD2 will be very different than today's situation. Banks must ask themselves: How ready are they to face the competition after PSD2? If you are nervous of only becoming a bank platform for your new competitors, remember that you have the advantage of being able to act now.

## 3.2 WINNING THE BATTLE OF GREAT USER EXPERIENCE

Competitive business strategies are an essential part of banks. Not less so as we approach the implementation of PSD2. Banks have for many years been able to follow the same business models, but with increased use of technology and changing customer demands, banks will now need to revise old organizational habits. The business strategies used now and in the future need to be highly competitive, an example of this being through offering highly targeted services. This will aim at gaining competitive advantages by meeting customer needs and regain a higher level of loyalty.



Traditional business strategy theories suggest that competitive advantage is achieved by balancing differentiation and cost-leadership. One way to reach this goal could be to lower the internal costs. Another way to gain competitive advantages can be to increase innovation and offer more services targeting the needs of specific customer segments to gain differentiation advantages.

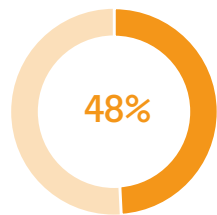
This last approach can be taken into account through the use of user-centered design for gaining a competitive advantage within great user experiences. By implementing user-centered design banks can become more agile and innovative, which are highly valued features to succeed with concept development and differentiation.

This article will describe three simple aspects of becoming more user-oriented: What tactics can banks choose to get there, how can this mindset be applied internally in the organization, and what can the positive outcome thereof be?

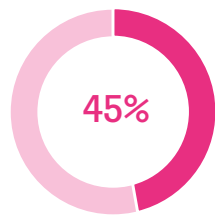
## Know the expectations and needs of your customers

As the consumers are becoming ever more tech savvy, the online banking experience should reflect this. Therefore, investing in your online user experience might affect your entire business positively. Research shows that an unsatisfying online user experience causes more than just a momentary glimpse of annoyance for the users, and even more so for the young users<sup>[1]</sup>. Many business developers have probably heard this already, but if the online banking user experience does not apply to user expectations, users are likely to:

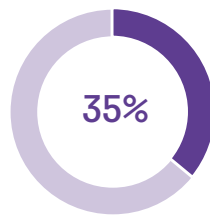
### Responses to Dissatisfying Web Experiences<sup>[1]</sup>



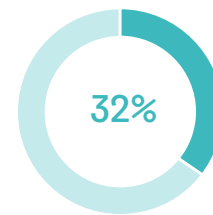
Abandon and visit another site



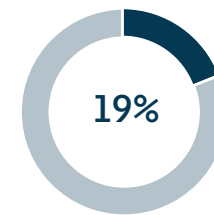
Less likely to return



Will have more negative perception of the brand



Less likely to make online transaction with company



Would tell friends/family members/co-workers about experience

<sup>1</sup> FICO (2014): Millennials and Their Banking Habits.

## How to approach this internally?

When planning on creating a more innovative and creative environment for concept development with the end users in mind, there are some different approaches that might come in handy.

### Build the foundation

Firstly, make sure to spend time on building the needed foundation for collaboration in the organization. For this, big organizations are great, as they leave space for many different areas of expertise to join forces. Everyone - also new employees - might come up with the next big great idea, and they might not be too pre-determined and affected by the company culture and previous ways of thinking.

*“Business goals determine the destination.  
User requirements steers the ship.”*

### Foster collaboration

Collaboration across disciplines on planning the product or service design is key for success. By bringing together a variety of areas of expertise, the outcome is more likely to meet the actual needs of the end-user instead of focusing on internal capabilities. Google Venture is a great example of a company that uses fast iterations for failing fast and pivoting. They created a 5-day sprint model that allows for projects to be tested through prototypes in order to be able to iterate fast and allow for more creative work methods. Also, IDEO is a popular example of where to gain more knowledge on collaborative workshops across teams.

User-centered products and services do not only require internal collaboration. A central part of delivering great user experiences is to leave the company to meet the end users. This is usually done through interviews and observations that can then be analyzed to lead to new and innovative products or services. Talking to your users and making them test your service might reveal new and unknown problem areas.

## Facilitate the mind-set

Assemble a multidisciplinary team: Use kick-off meetings to align the team's expectations for minimizing surprises later in the process. Also, this is a great opportunity for the team to be introduced and to align strengths and weaknesses. Make sure to have multidisciplinary skill sets represented at your kick-off meeting and keep your end-users in focus.

Conduct creative workshops: By facilitating a space where every team member can add knowledge and creativity to the group, team members can individually come up with suggestions for how to approach the set problem. Followed by work in plenum on these individual ideas, your team can now iterate through divergent and convergent phases to start the design thinking work process.

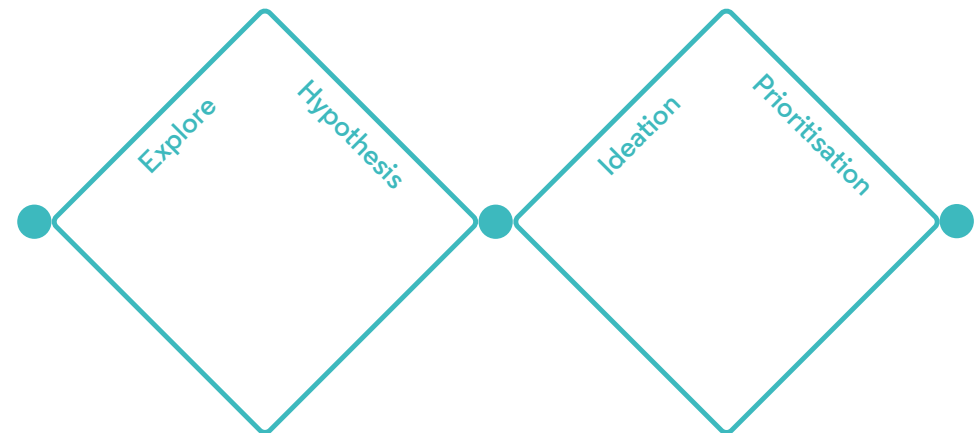
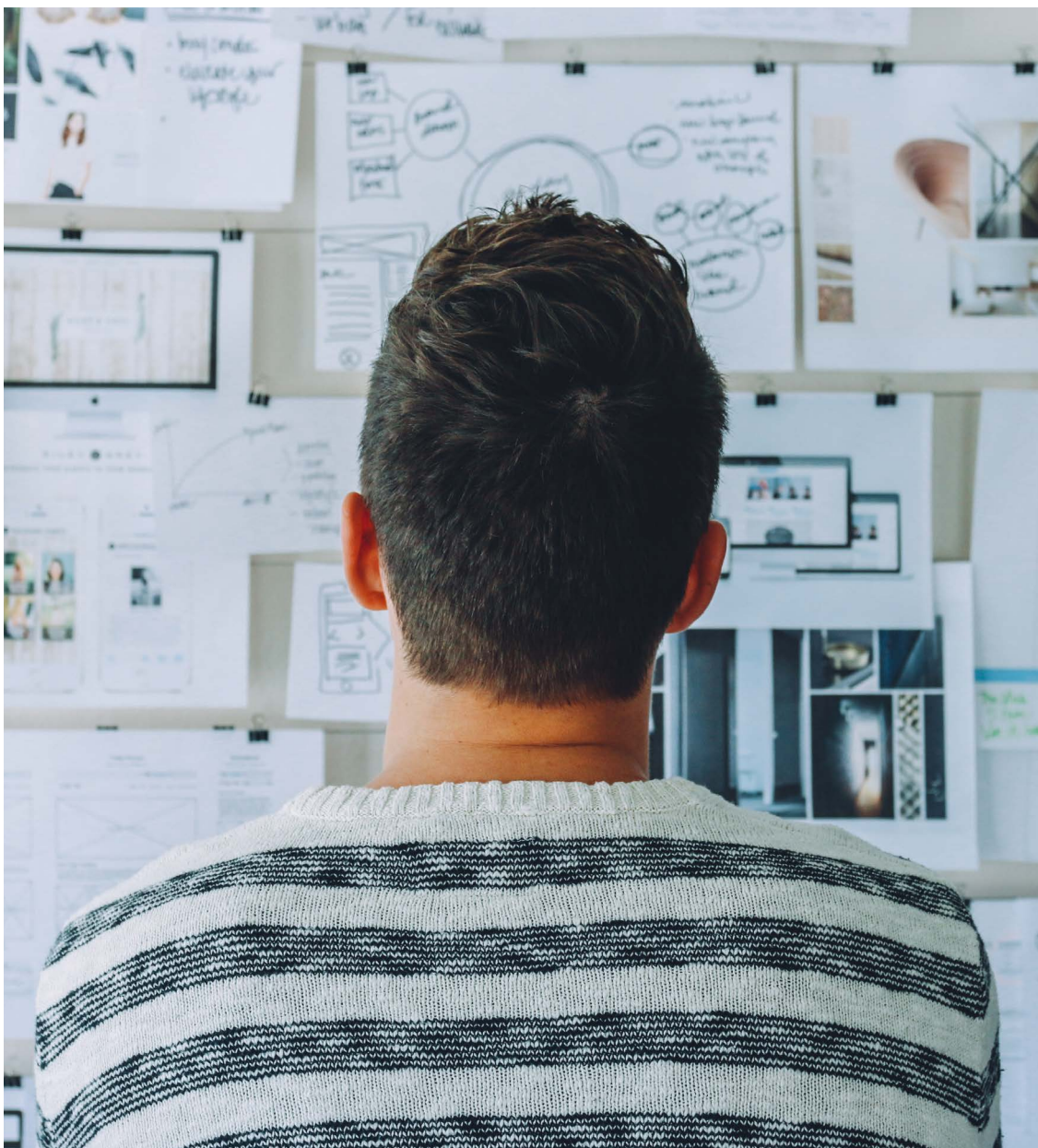


Figure 1 : Iterations of finding the right idea and finding the right solution



## Positive outcomes of being an UX expert

Even though the financial market is becoming increasingly competitive both due to higher customer expectations and also due to PSD2 opening up for tougher competition, banks still have many strategic solutions to lead them to strong market positions.

By providing great customer experience, banks can lower the risk of losing customers from poor customer experiences as well as lower the risk of getting bad publicity. Furthermore, great insight on customer expectations and user behavior can lead to better future concept development processes. Last but not least, this brings a competitive advantage to the banks, since they will get a better chance of attracting a talented workforce.

For the improved competition that will hit the market after the implementation of PSD2 banks are not necessarily doomed to be a Bank-as-a-Platform. By providing great customer experiences, banks can gain the advantage of being the preferred service provider of one or more financial services.

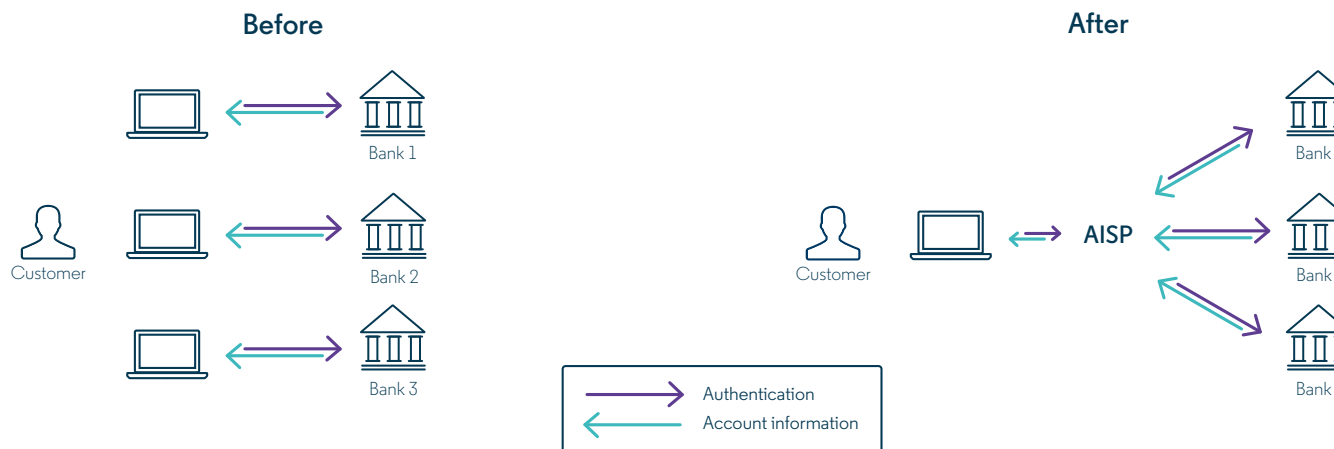




## 3.3 UNLOCKING THE VALUE OF CUSTOMER TRANSACTION DATA

When it comes to serving customers, a bank's customer data is perhaps its biggest advantage over rival banks. Today, the bank has a monopoly on both their customer transaction data and how this data is communicated back to their customers. PSD2 stands poised to erode this advantage through the proposal of Account Information Services (AIS),

which will enable third parties to view and capitalize on customers spending patterns and expenses. Data is identified as the “foundation for growth and long-term success” in financial services by Fintech thought leader Jim Marous<sup>[1]</sup>. Yet, only 8 of 21 Nordic banks say they have incorporated this to a minimal extent, 9 of 21 not at all<sup>[2]</sup>.



## From data to insights

In preparation of AIS, several banks are already moving to monetize their own data, trying to gain a first-mover advantage over potential rivals post-PSD2. Barclays, for instance, has just released its SmartBusiness application, a subscription service for SMEs to monitor their finances in comparison to their peers. By doing this, Barclays hopes to keep the entire data value stack: from raw data to applications.

Third parties hoping to use AIS to provide similar insight will be restricted to aggregating only those customers it can sign up to its service. This number is likely to be far less than the 500,000+ SMEs that Barclays already has direct access to. In short, banks can start selling value-adding services today to gain first-mover advantage and outcompete third parties even when they do launch.

“banks can start selling value-adding services today to gain first-mover advantage and outcompete third parties even when they do launch.”

## Expand the existing business model

Selling insights directly to customers, however, is not the only reason why third parties will be looking to use AIS. Google and its marketing empire will most likely want to use spending patterns to better target advertisements towards its users. Another technology company we expect to see as an AISP is Apple. It is in Apple's interest to maintain its AppStore dominance by providing its third-party developers the best tools to design and launch apps. One area Apple excels is its series of frameworks, such as the healthkit framework, which provides the tools necessary to securely store and share health data between apps and devices. Apple could develop a finance framework that allows for an easy and secure data connection and storage through AIS. This could potentially enable any developer to build professional looking user interfaces for personal finance applications.

## The value chain of data analytics

This new wave of finance developers, using a framework or otherwise, could potentially create a new market for analytical web services from banks. Data cleaning, wrangling and mining are all services on the value chain a bank could provide, which are far from trivial for small startups to do themselves. Data mining is a particularly interesting subject, but benefits range from which stores are frequently visited by the customer to how much money the customer can safely spend on any given day. These web services could also be made to support incoming information from other banks, allowing the third party to create a consistent experience regardless of their user's bank. Alternatively, high value premium analytics could be locked to a single bank, encouraging the user to swap banks to gain these premium services.

## Retailers' use of analytics

Retailers have been particularly successful in capturing data through loyalty cards and using analytics to deliver competitive services. A famous example is how Target figured out a teenage girl was pregnant before her father did. These types of analytics are so valuable, retailers such as Tesco PLC are selling them to third parties. However, despite knowing everything that happens in their store, these retailers are almost blind to what their customers are doing outside the store. AIS offers these retailers the chance to combine their already extensive customer knowledge with the customer's complete transactional history.

*“This could potentially unlock a new market of developers and third parties generating a new source of growth for the banks.”*

## Banks need to choose their strategy

The transactional data and insights offered by AIS is a huge opportunity for many companies, but ultimately, it is up to the customer to decide who has permission to view their data. To gain these permissions we are likely to see a wave of new more or less value-adding services using AIS, both within and outside the finance domain. Some of these will directly compete with the banks' existing services, such as displaying the customer's transaction history, while others will take existing services like marketing and enhance them through integration with AIS. At a minimum, the banks will need to offer these service providers access to customer data, but this runs the risk that the bank merely becomes a backend solution for the third party solutions.

There is, however, also the opportunity for banks to move early and develop skills in becoming data and analytics vendors, building a strong API ecosystem. This could potentially unlock a new market for developers and third parties generating a new source of growth for the banks.

## 3.4 STRATEGIC OPTIONS TO ACHIEVE INNOVATION CAPABILITIES

With the increasing amount of fintechs and the introduction of PSD2, there has been a lot of talk about the need for innovation in banking. Companies within financial services are looking into innovation to prepare for the changing market demands that will follow the implementation of PSD2.

But what exactly is innovation? Innovation is new ideas that are implemented and create value. They create value within the core competencies of the business and are different from what is usually done.

If banks focus more on innovation to be prepared for the implementation of PSD2, this can be done in numerous ways. Some of these ways might fit better with some organizations than others, depending on the overall business strategy. The different approaches to innovation vary from being internally focused to be externally involved.



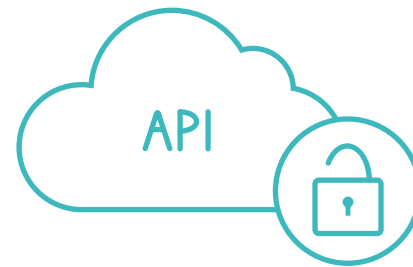
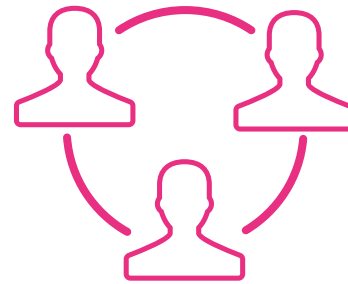


Figure 1 : Four strategic approaches to achieving innovative capabilities



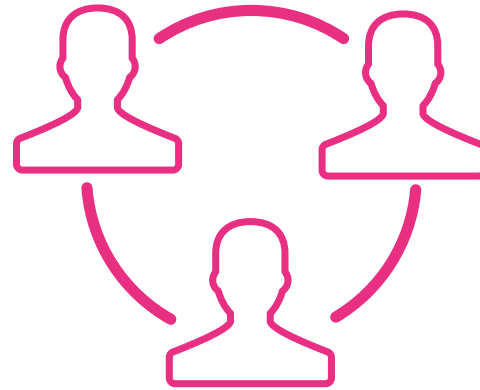
## Create innovation in-house

Some banks have already increased their focus on innovation internally in the organization. We see different levels of doing internal innovation, ranging from business units working on business development targeted specific organizational areas to autonomous innovation labs, only connected to the core business through values and strategic aims.

An example of the first method is the Norwegian bank DNB. DNB created Vipps, a mobile payment service that has gained great success in Norway. Vipps was developed internally as an integrated part of the bank.

Danske Bank in Denmark used a different approach when it in 2015 created an innovation department named MobileLife. MobileLife is branched off from the core organization, to work through new methodologies and focus on concept development and user centricity. So far, the concept Sunday.dk is a result of this alternative way of working.

Positive outcomes of focusing on innovation through in-house solutions are the high level of control as well as being the sender of the outcome. On the flip side, the outcome might turn out to be just tweaks compared to the existing concepts and services.



## External collaboration

At the other end of the scale, we see banks working with externally focused approaches to innovation. By focusing on innovative projects existing outside of the bank, they can foster creative and agile growth within startups and FinTechs. In the long run, this partaking in the processes of startups can result in a greater insight into market mechanisms and collaborations, or acquisitions of the strongest startups. Furthermore, it can kick-start a more agile and innovative internal environment.

One example of how this is happening is seen through Nordea's involvement in the startup environment. Nordea hosts accelerator programs and collaborates with startups on process and

service improvements. Positive outcome hereof is that it enables banks to keep focusing on running the processes and services that they have great expertise within, while having an eye on what happens externally. By letting startups and the surrounding environment create innovative financial solutions, every player is left doing what they do best.

Another way banks can innovate within their financial solutions is to get involved in already existing accelerator programs, fintech hubs or other startup networks. Startup Weekend is a worldwide startup accelerator program, that allows startups to kickstart their ideas in knowledge-infused environments.

Several financial institutions supported a fintech themed startup weekend in Copenhagen in 2016. This enabled banks to meet potential collaborative partners, while the startups could get feedback on their ideas from the banks.

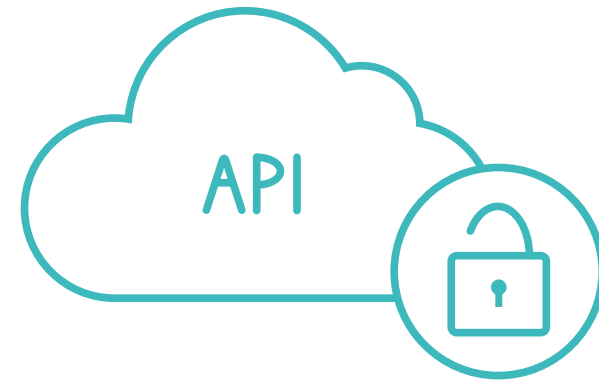
Another example is Fintech Factory in Oslo which Sparebank1 started collaborating with in 2016. Fintech hubs are present in many European countries, such as Innovate Finance in the UK, The Floor in Israel and Fintech Forum in Norway. In these established networks, banks get direct access to the FinTechs in an informal way.



## Acquisitions or partnerships

A third solution for increasing the focus on innovation is seen through the use of acquisitions or partnerships between FinTechs and banks. These acquisitions or partnerships can be highly rewarding for both the fintech and the bank as both players are allowed to focus on their core competency while gaining an advantage of shared data and costs.

This approach is getting well used in Scandinavia. Within a short timespan, Sparebank1 has acquired mCash, BBVA acquired Simple and Holvi, while Nets in Denmark partnered up with Coinify and Danske Bank in Finland with Invesdor. Common for these examples is that the value gained from the acquisitions or partnerships is an expansion of the existing value chain or service offering.



## Voluntarily Open APIs

With PSD2, banks are required to open up their APIs. However, some front-runners are already opening up their APIs to foster innovation based on external expertise.

The Danish bank Saxo Bank is a great example of such bank. They opened up their API back in 2015, with the aim to enable external partners, customers, and FinTechs to create new ways of optimizing their trading experiences. This leaves the bank with focusing on the core business while still improving the overall customer experience:

Likewise, the British Barclays' Accelerator program also grants access to the bank's API to chosen partnering companies. The accelerator program is focused on using competencies from FinTechs through the company called Techstars.

*“We should also share this API with our partners and third party application developers. I believe the very best solutions are made in collaboration where each contributor does what they do best, and APIs are an excellent way to make this possible.”*

(Benny Boye Johansen, Senior Director & Head of OpenAPI, Saxo Bank)

### What direction to take?

There are as many roads to innovation as there are innovations. This chapter has illuminated only four of them. As there is no one-size-fits-all strategy to how banks should approach innovation, every company must find out how they can maximize their return on innovation, both long-term and short-term. Some of the key factors to consider when choosing an innovation strategy are internal competencies, capital, customer base, company size, existing market positions, the lifecycle of existing service portfolio and the bank's vision.







## 4. CLOSING REMARKS

- 4.1 Conclusion
- 4.2 Contributors
- 4.3 Sources

## 4.1 CONCLUSION

The uncertainty on how the financial industry might look like after the implementation of PSD2 is huge. However, this whitepaper touches some of the possible scenarios, how banks may tackle them and why they should start doing so already now.

The scenario analysis found that the future of European financial services is likely to enter a great transformation in the 2018/2019. Non-banks will be trying to position themselves as providing the most innovative and value-adding services using the infrastructure of banks. Banks, on the other hand, will serve these third-parties account information and payment initiation through their open APIs. Some of them will compete against the non-banks, while others will aim to operate as cost-leading banking platforms. The analysis also forecasts a greater degree of both banks and third-party providers operating across borders, as the national legal frameworks are becoming more harmonized. This is all contributing to increased competition.

Uncertainty and risk are both inherent parts of investing into innovation and new business strategies. But there is also a great risk in focusing solely on compliance and not on preparing for the competition in the future landscape of financial services. Throughout the whitepaper, four very different strategic options and perspectives for approaching the implementation of PSD2 have been explored:

- Being a first mover
- Providing great user experience
- Improving the use of big data
- Building innovation

The described strategies in this whitepaper are not a complete list of options, but is meant to provide the reader with a wider perspective of what roles a bank can take. Paramount to this is that the individual bank must identify their biggest strengths and core values to develop a strategy that can match and reinforce these characteristics.

## 4.2 CONTRIBUTORS

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