Startup Beat/ #3

FINTECH UP NORTH

Proudly presented by TheFactory and Fintech Norway

Fintech map Norway



CREDITS

Creative Director & Chief Editor Hans Christian Bjørne

Project Team Daniel Isdal Furset, Fintech Norway Simon Ruud, TheFactory Academy Brent Verplancken, TheFactory Innovation

Visual Design Bjørn Reitzer Johannessen Femke Verplancken The Norwegian fintech scene is maturing steadily. In the years 2016-2019 the number of fintechs grew from around 30 to 120 companies, and has continued to grow to around 180 companies as of 2022. As one of the key players in the fintech industry experiencing this journey throughout the last 4 years, TheFactory put forward this magazine taking the pulse of the most exciting players, people, entrepreneurs, startups, investors, governmental players of the Norwegian financial industry.

The Norwegian fintech industry is in its maturing phase, and compiling this sector into one report has been a challenging - but also a rewarding task with input and help from the full industry. We have gathered information from thought leaders across the fintech sector.

The growth of the fintech sector in Norway has been driven by a highly digitalized banking and public sector, enabling technologies like AI, machine learning, blockchain and more, combined with new regulations in the financial sector.

EU's PSD2 regulation, for example, has paved the way for new players in the field. We have seen the emergence of fintech-focused accelerator programs and clusters in Norway. So far the sector comprises many small startups and early stage companies. Investments in Fintech have almost doubled in 2021, both in terms of invested capital and the number of financing rounds. 2.1B NOK was invested in Norwegian fintech in 2021, up from 950M NOK in 2020.

One sign that the industry is maturing is that Norwegian fintechs now have established their own industry organization Fintech Norway, which works to improve the industry's framework conditions. Compared to our Nordic neighbors like Sweden and Denmark, Norway does not have any fintech unicorns yet, but several companies are accelerating fast. In the payment segment, Vipps is by far the leading Norwegian fintech with more than 4 million users, amounting to 75% of the population. Vipps enables P2P payments, invoice management and settlements, and has become a leading payment player in the Nordic region.

The fact that few Norwegian fintech companies have yet to scale internationally is in part due to a less developed venture capital

Hans Christian Bjørne Co-Founder of TheFactory Accelerator & VC

industry compared to our neighboring countries. Finland is probably one of the countries that is most comparable to Norway in terms of number of companies and investments. Sweden reigns supreme with international successes and unicorn companies such as Klarna and iZettle and Tink (the latter recently acquired by Mastercard). Sweden has a highly developed venture capital industry and attracts substantial international capital. In recent years, Denmark has invested heavily in fintech, with Copenhagen Fintech Hub at the forefront and has succeeded in creating an ecosystem of international standards.

Differences aside, the Nordic countries combined comprise one of the most digitally advanced and innovative fintech regions globally. The fintech hubs of the region collaborate closely and contribute to a flourishing ecosystem. TheFactory has, as one of the founders of Nordic Fintech Alliance, worked closely with Copenhagen Fintech Lab (DK), Helsinki Fintech Farm (FI), NCE Finance Innovation (NO), Findec (SE), and Fintech Cluster (IS), to create cross-border opportunities for fintech startups and scale-ups. This alliance will work to promote the Nordic fintech industry towards a global industry in order to create global opportunities and alliances for the startups born in the Nordic region. To get a glimpse of the action, be sure to visit Nordic Fintech Week, Sthlm Fintech Week, Nordic Fintech Summit, Slush and Oslo Innovation Week.

This magazine takes a closer look at the fintech ecosystem of Norway.

We hope you enjoy it!



Findings and Fintech Trends

THE INTENTION BEHIND THIS REPORT is to present the Norwegian fintech landscape, the current players, the status quo as well as future trends. This way we would like to contribute in enabling the community to connect, navigate and understand how we can strengthen the ecosystem, support innovators and create future global successes together.

There is no doubt that we are moving towards a more digitized economy, a cash free society, where the customer expectations are increasing exponentially. This is also made clear by the ongoing work at the EU and European level. On the regulatory side we have examples like the eIDAS revision, the Digital Identity Regulation or Open Finance Regulation. Then you have ongoing projects like the Central Bank Digital Currency and the Digital Finance Platform.

This state can seem threatening for traditional financial institutions. At the same time, it is opening a land of opportunities, not only for the challengers, the agile tech companies, but also for established players who can embrace new technologies to improve internal processes and customer experiences. Traditional financial institutions are being challenged and we are happy to see more and more large corporations seeking collaboration with the fintech companies innovating in their space.

There has in particular been an increasing interest in crowdfunding platforms, payment solutions, and SME finance and wealth management, not to mention cryptocurrency and blockchain in recent years. As far as Crowdfunding news goes, the platforms reported another record breaking year in 2021. The industry as a whole went from carrying out campaigns of various kinds for 930M NOK in 2020, to 1.97B NOK in 2021, an impressive 113% increase. Whereas Firi, Norway's leading cryptocurrency exchange platform went from just being the founding members serving 523 verified users at the start of 2020, to now 63 employees serving 130.000 users in Norway by the start of 2022. In revenue they went from 2M NOK in 2020 to 60M NOK in 2021. A lot of other fintech's also reported impressive numbers in 2021.

Here are a few fintechs worth checking out:

- Folkeinvest Crowdfunding
- Kameo Crowdfunding
- Horde PFM
- Defero PFM
- Vipps Payments
- Quantfol.io Wealthtech
- Aprila SME financing
- Nansen.ai Blockchain
- Firi Cryptocurrency
- Dune Analytics Cryptocurrency



"THE NORDIC COUNTRIES ARE NOT MODERN, THEY ARE ULTRA-MODERN" - Dr.Kjell Nordstrom, Professor at the Stockholm School of Econmics

SUMMARY

Findings and Fintech Trends

Norway, in particular seems to gather conditions that are in favor of positioning the country on the international fintech scene, with factors like:

- A trust-based and transparent culture, teamed up with a well-developed digital infrastructure and a population of tech savvy, early adopters, allows the country to be a great market test for fintech companies. As an example, Norway is well above the European average in terms of broadband deployment, digital skills, actual use of the Internet, companies offering digital services as well as the actual usage of these digital services.
- High quality lifestyle, social benefits and safety have the ability to attract and retain talent
- Several incubators, accelerators, investors and public institutions are supporting the ecosystem
- A strong telecommunication infrastructure and a highly digital society, familiar with digital financial solutions, such as BankID
- The emergence of inclusive policies such as the Regulatory Sandbox initiated by ITC Norway and Finance Norway, and the early adoption of the PSD2 directive are creating a favorable legal environment for fintech startups to test new financial services
- The Norwegian Fintech industry is attracting several investor networks. In 2021, over 1,6B NOK has been invested in fintech startups in Norway
- A proactive traditional financial sector, forward thinking, interested in the startup scene

Large institutions such as DNB, Nordea, KPMG, SR-Bank, DLA Piper, to mention a few, have increased their involvement and initiatives towards the fintech startup scene. This has given entrepreneurs easier access to advisors and decision makers within these organizations.

The dialogue and collaboration between the public sector, large corporations and fintech players in the B2B space is particularly promising.

As we move towards an open API society where different services can access and initiate transactions, we foresee that many new fintech services will connect different industries and be the foundation for new business models and services. The real innovation will particularly happen when the power of large institutions and the creativity of the agile new challengers are brought together.

In addition, Norway has a well-functioning public sector and - compared to other countries - a public sector with high trust in the population. This creates great advantages when it comes to creating new business, and for existing business and the public sector to be able to take maximum advantage of the opportunity that lies in adopting new decentralized technological solutions.

The fintech landscape is definitely one to follow and Norway is well positioned to punch above its weight.



Hans Christian Bjørne Co-Founder of TheFactory Accelerator & VC

> Daniel Isdal Furset, CEO of Fintech Norway



TABLE OF CONTENTS

SUMMARY	
Fintech Map Norway	2
Foreword	3
Findings And Fintech Trends	4
OVERVIEW	
State Of The Norwegian Fintech Industry Fun Facts	8 9
Areas Of Fintech	9 10
FINTECH FOUNDERS	
Meet Fintech Founders	12
FINTECH LANDSCAPE	
Incubators & Accelerators	14
Investors In Fintech	16
Organizations And Unions	17
Organizational Insights	19
The Future Of Finance Today	20
New Fintech Initiative	22
Norwegian Fintech Top 40	24
Fintechs In Numbers	25
Investments In Fintech	26
Banking And Innovation	28
Crowdfunding	34
Cryptocurrency	36
Fintech Regulatory Sandbox	38
FINTECH FOR IMPACT	
Finterai On New Technology To Combat Financial Crime	40
CONTRIBUTORS	41
AROUT THEFACTORY ACCELERATOR & VC	19

The law firm dedicated to the fintech industry



Technology is redefining our daily life, the financial services sector and the way organizations interact with their clients and customers. Our clients are present throughout the ecosystem; from banks, financial institutions and venture capital funds looking to invest in new technology, to start-ups and emerging growth companies looking for funding and advice.

We also advise established players on harnessing and leveraging technological innovation, protecting and enhancing their technology and trade secrets and establishing efficient compliance with applicable law and regulation.

Learn more at dlapiper.no



Camilla Wollan, Partner +47 41 91 66 59 camilla.wollan@dlapiper.com Magnus Brox, Partner +47 41 91 66 44 magnus.brox@dlapiper.com

State Of The Norwegian Fintech Industry

On behalf of the Finance Sector Union in Norway (Finansforbundet), Ontogeny Group has made a comprehensive analysis of the emerging fintech landscape in Norway. The analysis focuses on financial progress and value creation for 171 Norwegian fintech companies from 2011-2020. For more facts and stats on the latest developments in the Norwegian fintech market check out finansforbundet.no

The Norwegian fintech industry has reached a critical mass of companies in 2020. Most companies compete within financial software, payments or security & compliance. See figure 1.



Figure 1: number of Norwegian Fintech companies from 2011-2020

The investment volume in Norwegian fintech companies has increased dramatically over the last decade. Some of the findings from the analysis also show that the companies that scale the most in terms of operating revenue are competing within digital banking, payments, and security & compliance. See figure 2.



Figure 2: Operating revenues for Norwegian fintech companies from 2011-2020

TRANSACTIONS FROM BANKAXEPT CARDS (Amounting to 557 billion NOK)

NEW RECORD-

140 BILLION NET SUBSCRIPTIONS IN MUTUAL FUNDS BY NORWEGIAN RETAIL CUSTOMERS IN 2020

FIRI ESTIMATES ABOUT

10%

OF THE POPULATION OR AROUND 540.000 PEOPLE IN NORWAY HOLD CRYPTOCURRENCY **BANKS ACROSS NORWAY** CURRENTLY

544.400 NORWEGIANS OWN PUBLIC SHARES

GILDESKÅL Sparebank

2020

Norway's official smallest savings bank with only 8 employees

94 local saving banks in Norway

638 local saving banks in Norway, the most there have ever been

Areas Of Fintech

WEALTH MANAGEMENT & SAVINGS

Traditionally, wealth management services were concerned with managing the wealth of the affluent. The startups within wealth management are making it easier and cheaper to save and invest. The area is largely dominated by algorithm based funds and investment strategies made available at a lower cost than similar products offered by banks.



CAPITAL RAISING

The fintechs within capital raising is mainly focusing on making it easier for SMB's to raise money for projects. On the other end, regular people have the opportunity to invest in projects that previously only were accessible to institutional investors. This type of funding is called crowdfunding, and spans funding through lending, equity and donations. In Norway, there are several companies focusing on crowdlending, but only two companies offering equity-based crowdfunding.

COMPANIES OF INTEREST: Funding



PAYMENTS

In the B2C area, Vipps dominates with over 2,9 million users. There are also several interesting companies within B2B, concerned with payments, receipt archiving and accounting. The large banks are showing their interest in this area, by investing and implementing new technology from startups.



INSURTECH

Insurtech refers to digital solutions in the insurance industry. New technology enables companies to measure risk in new ways. In Norway, there are several new insurance companies with a focus on digital and user friendly customer experiences.



DIGITAL BANKING

Digital banking is a broad term which refers to banking services delivered online. The companies within this sector challenges the banks with user-friendly solutions. With the PSD2 directive, the banks now have to make account information available for third parties. In addition, third parties can make payments on behalf of the account owner. Banks are responding to the directive by making their API open for developers, hoping that this will create new solutions.



Areas Of Fintech

CRYPTOCURRENCY / BLOCKCHAIN

E-cash was first introduced in the 1980s, but failed due to heavy reliance on a centralized intermediary. It wasn't until Satoshi Nakamoto launched Bitcoin in 2009 we got the first usable digital currency, or cryptocurrency. The crypto scene has changed drastically since, with an explosion of new cryptocurrency projects. By april 2022 we have 19.000 cryptocurrencies worldwide, and around 40 blockchain companies in Norway. The biggest trends we currently see are in exchanges and NFTs.

COMPANIES OF INTEREST: CF Firi kaupang

ENTERPRISE FINANCIAL SOFTWARE

The companies working in this sector focuses on solving problems for businesses. The focus is on automation of tedious and time-consuming tasks, leaving the customer with more resources to focus on the value-creating activities of the business.

COMPANIES OF INTEREST:



DATA & ANALYTICS

This sector is characterised by its broad use of artificial intelligence and machine learning. The companies within this sector are working to assist in the interpretation of data and decision-making. Many of the solutions are related to economic analysis, company profiling, financial and environmental reporting, ESG and AML, foreign currency trading and risk management, etc.



SECURITY & COMPLIANCE

In Norway, the field of security and compliance consists of solutions on identification, authentication and compliance. One example is BankID, now a service owned by Vipps, which has simplified payments and identification considerably. Cyber crime is unfortunately on the rise in Norway like it is in many other countries, as is the need for cyber security solutions. New regulations related e.g. to AML/KYC and ESG reporting are driving the demand for new automated solutions to help banks and businesses be in compliance.



Meet Fintech Founders

stack

MADELEINE BJØRNESTAD RØED is the CEO & co-founder of Stack by me - an investment platform for young people inexperienced in investing. Madeleine has 9 years experience in finance, mainly from the Pareto group, where she worked with investment banking and asset management.

"Stack makes investments fun and easy by combining e-learning and a social network on our investment platform. If you have the time and energy, you can watch our short 15 min. video courses, or participate in one of our regular webinars. If you do not have time, you can jump straight to connecting with your friends and show them what you stand for through your investments, and also see what they invest in. We call it the "Instagram for investments".





ALEXANDER SKAGE is CTO and co-founder of Finter banks to cooperate in the fight against financial co was previously an IT consultant in the research an and his work has featured in peer reviewed, international scientific journals. He has worked with highly sensitive data in several projects, including data in international central banks.

"Finterai will improve efficiency and cooperation in the fields of anti-money laundering (AML) and counter terrorist financing (CTF). The platform allows banks to learn from each other's data while staying GDPR-compliant, facilitates cross-bank R&D, provides plug-and-play open-source tools, and manages infrastructure and data engineering. Banks want to be banks. They should not have to be forensic investigation and IT development companies. In addition to reducing compliance costs and risks, we're helping banks focus on their core business – being banks."



Horde

ALF GUNNAR ANDERSEN is the CEO and founder of Horde, one of the fastest-growing fintech companies in Norway. He is a former Partner of an established financial firm with proven results, and an experienced Chief Financial Officer with a demonstrated history of working in the financial services industry. He currently also serves as Chairman of Fintech Norway

Horde wants you to be the boss of your own financials. The app gives you full overview of credit cards, consumer loans, "friend loans", and bank accounts and provides an easy way to cancel your credit cards. You can easily pay down debt and transfer between your accounts directly in the app.



Meet Fintech Founders



ANZHELIKA OSMANOVA is CEO and founder of Lendwill, a mobile application designed for young people to help them build globally verifiable credit history stored on the blockchain.

The application saves traditionally unofficial peer-to-peer lending on a blockchain ledger to give the world a globally verifiable proxy of trust and show people how not to get into the loop of debt using the model of responsible borrowing. Founded in 2018 in Oslo and based on the personal story with a genuine desire to help students manage their finances. The story was shared & nourished at TheFactory accelerator that later became supported by 500+ investors from all over the world.



Entity insights

PAUL AND ANDRÉ started Enin after having worked together as Business Intelligence consultants for several years. Their experience working for large corporates within AI and Big Data was what inspired Enin.

Enin makes it simple to analyze companies. They collect data from a wide variety of sources and use AI to turn that into to risk flags and actionable insights. Their customers include banks, investors, financial analysts and others.

tillit

ERIK SKAAR is the CEO and co-founder of Tillit, one of the fastest-growing Nordic Insurtech companies. Prior to establishing Tillit, Erik worked as an insurance agent and was soon baffled by the lack of customer-centric focus in the insurance industry. With a 10 slide powerpoint he got the attention of one of Norway's most prominent VCs and closed the company's first pre-seed investment from TheFactory.

Tillit is a digital neo-insurer with a great focus on repairing the things we insure and being able to offer customers a self-service and painless claim management process. They take only 20% of the premium income and spend 80% on paying actual damages, thanks to dynamic premiums that can vary from month to month based on collective damages.



FINTECH LANDSCAPE

O ne reason for the Norwegian fintech growth is that residents and citizens of Norway tend to be digitally savvy, with some of the highest percentages of new technology adoption and mobile banking usage in the world. The Norwegian fintech environment has developed rapidly since 2015. Back then, the Norwegian fintech scene comprised around 30 fintechs, counting startups and scaleups. We are counting around 179 fintechs in 02 2022. The fintech ecosystem has matured after many years of the PSD2 directive and the fintech sandbox, but there is still a long way to go.

In 2016, Norway got its first fintech startup accelerator FintechFactory (now TheFactory). In the beginning banks were skeptical and saw the new entrants as challengers, but this was about to change. EU's new PSD2 directive signaled that change would come and that banks would have to open up for third parties providing new services. In the years that followed we have seen new regulations and revisions of existing ones coming out of the EU so rapidly that many financial actors are calling it a regulatory tsunami. This does not seem to be ending any time soon either. The EU has announced several new regulations in the next few years, some of which are already underway, such as the new Consumer Credit Regulation (CCD), Open Finance Regulation, Digital Identity Regulation, and Markets in Crypto Assets Regulation (MiCA). Not to mention the revisions that are already underway or being planned in the same period, such as PSD2, eIDAS, and the Financial Regulation.

Since the launch of PSD2 back in 2019, we have seen many banks taking up defensive positions as they feared losing valuable customer interfaces and merely becoming infrastructure providers. This made it difficult for fintechs to engage with banks, and even more difficult still to deliver their products and services, as the banks were dragging their feet in terms of compliance with the new directive. The barriers created for fintechs by the incumbents eventually resulted in Norwegian fintechs banding together and creating Fintech Norway, an industry association meant to engage with regulators, politicians, banks and other relevant players on their behalf.



Daniel Isdal Furset, CEO of Fintech Norway

> Simon Ruud, CEO of TheFactory Academy

Other banks, however, started to realize that the industry was facing a digital shift, and that taking on a proactive approach was the best way to stay ahead in the game. As a consequence, several banks and financial institutions have entered into partnerships with accelerators and incubators to get closer to the cutting edge of innovation. There is an increasing interest and willingness to collaborate, as there are obvious wins to be made for everyone involved. Established players have come to realize that it is hard to keep up with the speed of innovation without engaging startups.

Recently, we have seen several fintech startups delivering B2B services to banks as customers and partners. And while established players may be slow, they do have a large customer base and plenty of resources. Many Norwegian fintechs see partnerships with banks and other financial institutions as beneficial and natural in order to reach wide distribution quickly. This trend is expected to continue to increase as Open Banking matures.

The Norwegian fintech scene is flourishing in 2022, much attributed to the rapidly growing startup ecosystem of Norway. Here is an overview of hubs, incubators and accelerators that are actively promoting and developing the fintech scene.

Ihe Factory



Incubators & Accelerators

Arkwright

ARKWRIGHT X is a tech incubator and early stage investor offering knowledge from Arkwright, the consultancy based in Oslo. Arkwright X has a current portfolio of 7 fintech and proptech startups.



NCE FINANCE INNOVATION is a finance cluster offering incubation programs. They currently have two hubs, one located at the Media City knowledge hub in Bergen, the other at MESH Youngstorget in Oslo. The incubator currently houses a handful of fintech startups.

STARTUP LAB

STARTUPLAB is Norway's largest technology-incubator, accelerator and early-stage investor (by number of investments). Over 100 startups are currently part of Startuplab's portfolio and are spread across Oslo Science Park and the "innovation district" Solheimsviken in Bergen. Since its start in 2012 Startuplab has incubated over 400 companies, providing guidance throughout their scaling process. Some examples of these companies are Kahoot, Remarkable, Ardoq, FundingPartner, Favr, No Isolation, Tise and Dune Analytics. Startuplab has invested in over 130 companies throughout Norway.

The Factory

THEFACTORY is a leading Nordic startup accelerator & early stage VC with its headquarters in the heart of Oslo. TheFactory invests in ambitious seed and pre-seed stage companies in Norway and the Nordics, runs Norway's larges early stage accelerator GründerA-cademy and offers startup services and corporate collaboration arenas. They have been awarded the Best Accelerator Program in the Nordics and have a large pool of qualified mentors, investors and industrial partners. Since 2016, TheFactory has accelerated more than 200 startups, invested in more than 50 companies mostly within fintech, proptech and impact. In the portfolio you will find up and coming fintech and proptech companies such as Firi.com, Enin.ai, Finterai.com, Empower.eco, Diwala.io, Zeipt.com, Propely. io, Paralello.io, Lendwill.com, and more.

Investors In Fintech

ANGEL INVESTORS

Acorn Capital **Aktia Ventures** Angel Challenge Assetto Capital ATG Industrier **BAN NorwayKolent** MNN MTI / Jarlsberg Partners NCNOR Nettuno Capital Nordic Change Nordic Touch Remis T:Lab **TheFactory Capital** TomorrowToday (2M2D) TRK Group AS **Tripod Capital Collective**

CORPORATE VENTURE

Arkwright-X DNB Ventures Evolver by BDO Finstart Nordic (SR Bank) NFT Ventures (Collector Bank) Nordea Ventures S'Banken Schibsted Growth SEB Venture Capital Sparebank1

VENTURE CAPITALISTS

Alliance Venture Argentum CoFounder **Eviny Ventures** Founders Fund Investinor Newmark Capital nFront Ventures North Venture Northzone Sagene Ventures Snö Ventures Scala Ventures **Skyfall Ventures** Tripod Capital Collective Victrix

Organizations And Unions

🗾 econa

FINANCIAL SERVICES NETWORK was established by the Econa (membership organization for MBA graduates) in the fall of 2018 to arrange relevant member arenas around innovation and the digital shift of the financial industry. The network co-arranged PSD2 Dagen and B2B in Financial Services in partnership with Oslo Fintech Hub and TheFactory.



FINANCE NORWAY (FINANS NORGE) is the interest organisation for the finance industry in Norway and represents around 240 businesses with more than 50.000 employees. They advocate the views of the industry towards different groups in Norwegian society; politicians, government, consumer authorities, international collaborators and decision makers and consumers.



FINANSFORBUNDET (FINANCE SECTOR UNION OF NORWAY) is a

nonpolitical trade union for employees in the finance sector. It takes care of wage settlements and negotiations between employees and major employers within the financial sector in Norway. As of today Finansforbundet represents over 32.000 members and has gathered more than 1.100 company representatives from more than 300 financial institutions.



FINTECH NORWAY is an industry association by and for independent Norwegian fintechs. By independent they mean fintechs who are not owned or governed by a bank. The association works to improve framework conditions and create a level playing field for fintechs operating in Norway. Their focus is on industry politics and regulation, where they are engaged with local authorities like the Norwegian Financial Supervisory Authority. They also engage with European regulators through their membership with the Europen Digital Finance Associtation.



ICT NORWAY is the interest organization of the ICT sector in Norway. The organization is working to improve regulations for ICT businesses included fintech companies. ICT Norway hosts FutureBank Forum and FintechForum several times per year, in addition to their large event - FutureBank - which they host in collaboration with Finance Norway. ICT Norway is the key architect behind the Norwegian fintech sandbox.

NCF

NORWEGIAN CROWDFUNDING ASSOCIATION is an industry association by and for the Norwegian crowdfunding platforms with the aim to share knowledge and engage in public debate. NCF also works to promote self regulation, as well as ensure quality and ethics in the crowdfunding industry.

▲ Finance Innovation

NCE FINANCE INNOVATION is a Norwegian non-profit fintech cluster. Their mission is to empower a thriving Norwegian fintech ecosystem by facilitating technological innovation and collaboration within finance and technology. The cluster has over 100 member companies and operates nationally through them. Members include banks, insurance companies, startups, academia, consulting, and investors. Together with their partners NCE works on solving industry challenges and aim to deliver important innovations to the market. NCE FI headquarters are located in Bergen, they also have an office in Oslo at Mesh Youngstorget and they recently opened an additional office in Trondheim.

NCE Finance Innovation is a part of the Norwegian Centre of Expertise (NCE) cluster program, supported by the Norwegian Government,















FINTECH LANDSCAPE Thoughts from ANCE A Finance A Innovation

How would you summarize your progress as a fintech cluster thus far?

The cluster currently has close to 100 members, runs several resource groups and projects on the topics of KYC&AML, Open Banking/Finance, and Sustainability, and hosts more than 40 events a year. We have also established a physical presence in both Oslo and Trondheim and will continue expanding the cluster's activities to other cities so we can be closer to our members where the real innovation happens.

How has the Norwegian fintech and banking innovation scene developed in the last 3 years?

Looking back at 3 years ago, we were on the cusp of PSD2 being introduced to the industry. All though it was a slow start, we are now starting to see an increase in providers challenging incumbent banks and targeting parts of their traditional value chains. Competitors are increasingly collaborating to face common threats and solve shared problems such as AML and KYC challenges, where many banks are hard-pressed to find innovative solutions and stay compliant with laws and regulations.

Crowdfunding and crowdlending has also seen a huge upswing, filling a gap in the market for funding, especially towards early-stage startups. This trend is probably also due to consumers exploring new ways of investing their money in the post covid economy, and the rise of PFM-services which are opening finance management to everyone. Where do you expect most innovation in the coming years within the Norwegian finance and fintech industry?

Norwegian Centre of Expertise

The ongoing debate about who will own the platforms for providing financial services towards SMEs is a trend we see going forward. In contrast to the consumer market, SME's has been an underserved market so far, where there is a lot of room for innovation. Previously banks have had a monopoly on providing financial services to SME's, but now fintechs and ERPs are becoming the preferred choice of a majority of customers. Besides that I would say the advancement of technology is accelerating the fight against money laundering and fraud detection. PFM, Open finance and embedded finance have gained considerable attention over the last few years.

Most recent developments such as the metaverse and web 3.0 could create a lot of opportunities for fintechs who are aiming to be ahead of the curve on that trend. The metaverse represents a huge virtual marketplace that fintechs can tap into to make innovative and profitable services.

Rea Parashar COO of NCE Finance Innovation



Organizational Insights

Fintech Norway: Improving the framework conditions for fintechs in Norway

What is Fintech Norway and why was it born?

Fintech Norway is Norway's official association for independent fintechs, meaning fintechs who operate independently from banks and other financial institutions. The association was born out of a necessity to serve the members needs and give them a stronger voice.

Before us, there was no clear voice of fintechs in Norway, and the ecosystem desperately needed someone who could unite them and help them get attention from regulators and local authorities. This is one of the primary functions of our association. We focus on the framework conditions and problems that concern all our members and make sure these issues get the necessary attention from regulators, authorities, politicians, and other relevant players.

Tell us about your mission.

We aim to gather the Norwegian fintech community to create impact and make sure the essential factors that are necessary for a well-functioning fintech market exists. This is for instance why we establish regular meetings with the Norwegian Financial Supervisory Authority (FSA) where the focus is on the regulatory framework, the compliance level of the incumbents and what the FSA does to ensure fair competition.

It is also why we actively participate in debates within the industry and during industry conferences. One of the key reasons Fintech Norway was created was to make sure barriers that hinder innovation and fair competition in the market are broken down. Participation in these forums are a vital part of ensuring this. Ideally, everything would work perfectly; regulations would not need amending, every market player would be compliant, and we would not need to exist. So, in a way, you could say my ultimate goal is to make my job and our association redundant. Let's see if it will ever happen!

How many members do you have?

Since we were founded in December 2020 by a handful of our first members, we have now grown to around 35 members and counting. In the beginning our focus was solely on PSD2 and other related issues, but our focus has since shifted to representing every fintech in Norway. We have especially grown our member base within crowdfunding, but also have members within crypto/blockchain, insurance and enterprise financial software to mention some.

What advantages and benefits do you offer your members?

First and foremost, we offer our members the opportunity to create the real and lasting impact that comes from standing together, pooling our resources, and sharing the costs. Given that all fintechs have to overcome many of the same barriers and hurdles, it makes much more sense to tackle these together, rather than struggling with them individually. Another great advantage of banding together, is that the outside world now has one single actor to communicate and work with, instead of 40+ individual companies. This has been especially well received by regulators and other authorities as well as the financial institutions who now have one dedicated and structured communication channel to all our members.

In terms of benefits there are several. One important one is the ability to influence the agenda when we sit down with local authorities, financial institutions, and other relevant players, both domestic and abroad, as we have established connections into Europe and Brussels. Another benefit is the ability to partake in our ecosystem. As our number of members grows, the collective knowledge and expertise in our ecosystem grows as well. Through this, we can offer our members sparring partners regarding a multitude of subjects, everything from AML, KYC, and Identification to PSD2, CBDCs (central bank digital currencies) and GDPR. The key is to focus on common ground where we can collaborate and collectively push our agenda forward.

What would you say is your modus operandi?

Collaboration is the new normal, and something we strongly believe in. Finding partners that can help you either deliver or improve your value proposition is a fantastic way to grow organically as a company and association, while simultaneously making sure you are not reinventing the wheel. We love to find like-minded players who are equally engaged in finding win-win propositions. Creating this report together with TheFactory is a fitting example of this. It is our shared hope that this report will give the Norwegian fintech scene some well-deserved attention and enlighten the market about our fast growing and highly digitalized ecosystem and the many opportunitites that exists here in Norway.

Where do you see Fintech Norway in 10 years?

In 10 years, Fintech Norway is representing every independent fintech in Norway. We are the organization anyone and everyone who wants to know about fintech in Norway goes to. Be it government officials, politicians, or other associations. In collaboration with strong partners we are a leader who sets the tone for what fintech is and where it is heading here up north.



Daniel Isdal Furset, CEO of Fintech Norway

FINTECH LANDSCAPE

The Future Of Finance Today

Interview with the Finance Sector Union of Norway

One only sees what one looks for. One only looks for what one knows.

The famous Goethe quote still rings true, even after all these years. With the immense speed of technological advancements and adoption, the need for competence and skills has never been higher. Although this applies to every part of society, this has proven to be particularly relevant for all those working in the financial sector.

More than 32,000 employees are organized with the Finance Sector Union (FSU) in Norway. They all work in finance and every day they come face to face with what increased digitalization and data-driven innovation actually looks like. These employees represent a sector which is particularly exposed to the challenges and possibilities of digital transformation.

The FSU represents employees' interests and advocate these views towards different groups in Norwegian society. Through collective agreements, political influence and other essential functions, the FSU aims to ensure that the rights of workers are maintained, as well as industry growth.

FSU President, Vigdis Mathisen, is clear on the importance of the Fintech ecosystem. - Our focus is very much on building competence and ensuring that we are a part of the discussion. Our members represent a sector in constant development and Fintechs are essential to this understanding.

A digital society and digital technologies bring new ways of working, and innovative solutions to many of the challenges we face today. However, there are still unanswered questions associated with digital transformation, which need to be addressed. – Society is not only moving forward in terms of technological advancements. In addition to this, we are also having to decide what kind of society we want to create in the future, says Mathisen. – And in order to do that, employees need to have the right competence and understanding.



Vigdis Mathisen President of the Finance Sector Union in Norway

FORBUNDET

The Future Of Finance Today

Interview with the Finance Sector Union of Norway

Despite rigorous regulatory demands, and a constant search for capital and investments, Norwegian Fintechs are booming with great ideas and new ways of seeing the finance world. - We see a lot of innovation happening both within the more established companies, but also collaboration happening between startups and corporations, Mathisen says. - By challenging the status-quo and re-examining business-models, Fintechs are a way of seeing the future of finance today.

As part of their work, the FSU publishes yearly reports on the state of the Norwegian Fintech Industry. – We see that the investment volume in Norwegian fintech companies has increased dramatically over the last decade, says Ingeborg Frøysnes, policy adviser for digital issues.

- Some of the findings from the analysis, conducted by Ontogeny Group, also show that the companies that scale the most in terms of operating revenue are predominantly operating within digital banking, payments, and security & compliance, Frøysnes adds.

Through these insights and close dialogue with every part of the finance ecosystem, the FSU aims to secure that the interests of employees are represented in the different aspects of digital transformation.

-The employees' voice is essential in ensuring that digitalization brings value to both the industry and the society in general, Mathisen ends.

Want to learn more about the Finance Sector Union in Norway? Visit: www.finansforbundet.no



Ingeborg Frøysnes Policy Adviser at the Norwegian Finance Union



FINTECH LANDSCAPE

New Fintech Initiative

NORDIC FINTECH IS BOOMING; from 2018 to 2021 investment into the space increased from 4B to 30B NOK, making it the largest and fastest growing vertical in the Nordic startup ecosystem. On a per capita basis, Norway is not far behind its neighboring countries in building fintech startups, but when one looks at those succeeding at scaling internationally, the majority are non-Norwegian — and this is where Startuplab wants to contribute.

Startuplab is Norway's largest tech startup incubator, enabling technologies within all fields to amplify their potential. They have supported some of Norway's most successful tech scale-ups, including Kahoot, Remarkable, and FundingPartner. At Startuplab the main motto is "Founders First". Based on the founders perspective we collaborate and support all initiatives that make the founders journey easier and more successful.

NEW FINTECH INITIATIVE

Startuplab has so far had four industry programmes into which it places additional resources: Energy and Mobility — sectors where Norway has a unique advantage — complemented by DeepTech and Hardware. The Startuplab Fintech industry programme officially launched in May and is supported by DNB, Microsoft, Schibsted, SpareBank1 Østlandet, Sparebank1 SMN, SANDS Legal Services and Fremtind Insurance. According to Christina Wiig, head of Startuplab's corporate partnership, the goal of this initiative is to support the creation of more robust and scalable tech companies with global ambitions within the financial sector. TheFactory is a significant player in the Fintech Norwegian space and will be an important collaboration partner for Startuplab Fintech.

A stronger ecosystem is good for the founders The essence of the industry programs is to further this support by connecting Norway's most innovative corporate leaders, academics, government entities, and founders within specific sectors - resulting in more relevant knowledge sharing, pilots, and commercial partnerships between startups and corporations.



"Startuplab has over the past years experienced growth in the number of startups within Fintech. In 2022 the market is more mature for collaboration and new value chains are being established. New technology creates opportunities that were simply not there before. New regulation, particularly within sustainability, create new needs and opportunities for founders". - Per-Einar Dybvik, CEO of Startup lab

Agile recruitment specialist



AvantGarde aims to be the driver for more modern and agile recruitment services in what has become a conservative industry. We see ourselves as a true specialist and only recruit for technology start-ups and scale-up, and since the start in 2019 we have had the opportunity to assist some of Norways⁻ most ambitious and fastest growing technology companies with their recruitment needs. In order to become specialists we have individual teams each recruiting within their own niche.

Management positions | Technical positions | Product | Sales | Marketing |Design | Operational



avantgardesearch.no

efh@avantgardesearch.no

Norwegian Fintech Top 40

Editor's watch list (2022)

The companies are selected because of their traction or innovativeness

APRILA BANK BILLKILL **CELSIA DEEP INSIGHT** DEFERO DINTERO DUNE **EMPOWER** ENIN **EXABEL** FAVRIT **FINTERAI** FIRI FIXRATE FOLIO FRID HORDE HUDDLESTOCK **IGNITEPROCUREMEN**

KRON LENDWILL MEAWALLET MYVOICE NANSEN.AI NEONOMICS NORQUANT QUANTFOLIO SAFETYWING SEMINE SETTLE **SPENN TECHNOLOGIES SYSTIMA TILLIT FORSIKRING** TWO **UNITE GLOBAL VIPPS Z-DATA ZTL PAYMENTS** ZWIPE

Fintechs In Numbers

NUMBER OF NORWEGIAN FINTECHS ACROSS DIFFERENT SECTORS (2021)



Investments In Fintech

Investments Disclaimer: The data includes publicly disclosed deals gathered through desk based research from Crunchbase.com, Shifter.no and DN.no and other news sources. Not including accelerator investments.



INVESTMENTS IN FINTECH (NOK)



NUMBER OF DEALS



"Five factors within the current Norwegian fintech market may present challenges for startups and scaleups in this sector, contributing to a slight decrease in dealflow. First of all, the limited size of the Norwegian market. Launching a product in this market is not comparable to someone starting their company in the US for instance. Companies are faced with the question of international expansion when they are still quite small. Secondly, there are no international business networks and no "street cred". Norwegian fintechs cannot leverage an international business network, or leverage domain credibility, because financial services are not a Norwegian export sector, compared to for example energy or shipping. Thirdly, new companies lack the chance to piggyback on larger players' network. There are no large Norwegian financial institutions with significant international presence that the companies could piggyback on to go abroad. Fourthly; Norway's digitalisation. Norway is a digitalised nation, from banking to government services, and being disruptive in this environment is challenging. And finally, a stricter regulator. To the extent the company's business is regulated, the Norwegian regulator tends to be stricter and slower than its European counterpart. This creates a handicap compared to companies operating under EU or US regulations."

> Anders Østensvig Investment Manager at DNB Ventures



Banking And Innovation

From Open Banking to Open Finance by Christoffer Hernæs

OF ALL THE TRENDS AND TECHNOLOGIES predicted to change the landscape of financial services, open banking has proven to be the most transformational. Even as the dust has settled after the implementation of PSD2, leading banks show no sign of slowing down their efforts towards an open banking future. With another regulatory push toward open finance looming on the horizon, how should financial institutions prepare to stay ahead of the curve?

Even though PSD2 is no longer a headline in the industry and has had somewhat of a bumpy road towards widespread adoption among banks, the directive has become a force to be reckoned with over time, as banking APIs are finally becoming reliable and predictable (although first after the FSA got involved towards laggard banks).Since it was implemented there are, according to a survey by Tink, more than 500 TPPs registered across the European Economic Area (and the United Kingdom) indicating a year-over-year growth of 53%. The attention to open banking is also a top priority, with 83% of executive respondents to the survey stating that open banking is having a revolutionary effect on the industry.

FROM THE EARLY STAGES OF OPEN BANKING, incumbents have matured and evolved from collaborating at the fringes of banking, to integrating core products in own channels as best exemplified through the collaboration between DNB and Aprila Bank, which allows DNBs SME customers to access Aprila Banks credit products.

Bank-to-bank collaboration is not the only channel disrupting the traditional channel for credit distribution. The distance between accounting software and banking is ever decreasing. In addition to simplifying accounting operations through seamless API integration, leading accounting systems providers such as Fiken and 24SevenOffice are also offering various credit products seamlessly integrated into the accounting system, utilizing the ability to leverage both accounting- and banking data shared between credit provider and accounting software.

For both incumbent banks and fintechs, open banking represents an opportunity to either remain or become specialized, while still being able to have a wide offering of banking products, provided by either complementary financial institutions, fintechs or companies from adjacent industries. Just like PSD2 once acted as a catalyst that ignited a paradigm for open banking, the proposed open finance framework is looming on the horizon to stir things up once again.

WHAT ARE OUR KEY TAKE-AWAYS FROM THE INITIAL PHASE OF PSD2 AND OPEN BANKING, AND HOW SHOULD WE PREPARE FOR THE UPCOMING OPEN FINANCE FRAMEWORK?

As of now, little is known in detail of the open banking framework other than the fact that it is supposed to be announced in more detail sometime mid-2022, and is expected to be in place by 2024. The framework is part of the digital finance strategy in the EU, where data-driven innovation is one of the key topics.

There are some indications of what we should expect from the upcoming legislative framework. The open finance framework is expected to be proposed as a successor to PSD2, building on many of the same principles, but extending its reach beyond payments, thus the name open finance rather than PSD3. With this as a backdrop, this is what we should assume (based on rumors) that open finance will not only affect banks but also include asset managers, insurance companies, and other financial institutions. It is also rumored that the framework will include sectors that closely



interact with financial services, such as utility companies. Even though a level playing field for increased competition through innovation remains one of the key goals from the European Commission, we should expect that open finance will be considered a "second-tier" regulatory framework, where financial stability, KYC/ AML, cyber security, data protection, and privacy concerns will be the primary focus for financial institutions.

Just like PSD2 was no open door to payment data, the open finance framework is expected to follow the same rulebook, where access is authorized, given that only the owner of the data or a third party allowed by the owner can reach the data. Additionally, due to the risks and sensitivity of financial information, there must be a level of control around the access to the data which is possible through contracts, qualified certificates, or other methods.

Although the final scope of the open banking framework is yet to be announced, the general outline tells us the upcoming open finance framework is set to rewrite the playbook for open banking strategies. As open finance extends beyond payments, we should expect that certain banking-as-a-service-strategies could become commoditized as what is offered today as premium APIs could be included under the open banking framework. It is however a topic for discussion whether commercial agreements regulating API access should be included in the framework.

There are still too many unknown factors to have a precise prediction on how the upcoming framework for open finance will play out. And perhaps the biggest uncertainty is whether or not the open finance framework will become mandatory, after all, the proposal reads framework, not directive, and that might indicate that compliance would be recommended, and not mandatory by law. What we do know for sure is that open finance will extend far beyond payments, and financial institutions need to reiterate their open banking strategies with the open finance framework in mind.

> Christoffer Hernæs CDO of Skanska

Banking And Innovation

Perspectives on Bank-Fintech Collaborations - an interview with Ramtin Matin SR-Bank's Head of Innovation

BRIEFLY DESCRIBE SR-BANK

SpareBank 1 SR-Bank is the second largest Norwegian bank in Norway and the largest bank part of the SpareBank 1 alliance. We currently employ approximately 1.500 employees with 230B NOK in gross lending and more than 350.000 retail and corporate customers. Our main markets are on the western shores of Norway ranging from Vestland and Bergen in the west, Agder and Kristiansand in the south and Oslo in the East.

PLEASE DESCRIBE YOUR ROLE AND HOW YOU ARE ORGANIZED IN THE BANK?

As Head of Innovation I like to get my hands dirty on a wide range of strategic issues, concepts and tasks such as:

- How we can use machine learning to optimize and increase efficiency in operations
- How to deal with technological advances from emerging technologies, such as Distributed Ledger Technology (DLT), Internet of Things (IoT), Quantum Computing, Artificial Intelligence (AI) etc.
- How to prioritize main trends and movements within the incumbent, fintech, proptech and regtech markets
- General shifts in the industry (M&A), markets, trends.

Differentiation and competitive advantage are also important topics I spend a great deal of time on. On my watch I must ensure that the group management doesn't miss out on potential opportunities, and that there is a clear understanding of the main threats in a 6-12-month horizon. Staying informed is key to creating value for the financial group.

WHAT DEFINES SR-BANK - THE BANK'S IDENTITY?

I would say strong ties and presence to the local communities. We have a saying that "vi er der når det blåser", which roughly translates to "we'll be there during tough times". This has propagated itself as a cultural artifact to enable the willingness to push ourselves to find a solution for the customer. Together with extremely well-built digital interfaces on both mobile and web I believe that makes out some of the most important foundations of our identity.

ARE BANKS KNOWN TO BE INNOVATIVE - WHY OR WHY NOT?

In my opinion the short answer is no, and we need to look at the driving forces and trends in the industry to understand the "why". It's well known that the financial industry has homogenous products

and services and that the driving force is competitive parity. By default this removes much of the risk-taking appetite since taking above-market risk (without expected outcome) reduces the bank's performance over time. As such Return-On-Equity and the Cost-Income ratio are important metrics that many banks are measured by over time. That said, innovation within the financial industry is a costly operation. Not only does it require heavy CAPEX investments, but it also impacts existing operations and requires OPEX investments over a long period of time.

SO WHY IS THIS IMPORTANT?

It's important because working with innovation we need to understand the conditions that we are given and operate in. If not, we are not able to succeed with our initiatives. As such banks are well aware of their strengths and weaknesses within the conditions they operate in and use that to their advantage. That is why we have seen the trends and the uprise of the fintech industry the past 10 years simply because banks use their main asset, capital, to get access to innovations and technology, with assuming the lowest amount of risk and impact on daily operations as possible.

A final point to this matter is that innovation comes in many forms and shapes. And even continuous improvement can be defined as innovation. And that is an area the incumbent banks are excelling in. Optimizing existing operations and cutting down cost is (given our market conditions) an important foundation for the entire industry. An effective bank is a profitable bank. Therefore much of the focus is on keeping operation costs to a minimum and making the operation as scalable as possible.

It improves attractiveness towards investors and enables the bank to shift human capital towards more customer-value driven operations which is one of the main trends I believe we will see more of in the coming years.

ARE YOU ANY DIFFERENT FROM COMPETITION? HOW?

If I'm to generalize, challenge the industry, SR-Bank and myself a bit I would say no. Banking products are per definition homogenous and very small nuances differentiates the banks in Norway. It doesn't matter whether your credit card is yellow, blue, green or black, it more or less has the same properties. Some provide a loyalty club to earn points, some provide cashback schemes, and some have free currency exchanges. Same goes for mortgages. Simple differentiation strategies give us the options to differentiate on price, product,



service, relationship etc. But it seems most banks have chosen a relationship strategy given the fact that product, services and distribution model is more or less identical.

That is where I ask the question; what is a differentiation strategy worth, if the entire industry is doing the same thing?

ARE FINTECHS PUSHING THE BOUNDARIES AND FORCING BANKS TO INNOVATE FASTER?

Pushing boundaries; most definitely, forcing banks to innovate; possibly. But more related to the single/isolated products of the banks, such as payments, credit lines (including credit cards), savings and placement, budgeting and robo advisory. We have seen some fin- and proptech companies challenging the way we provide mortgages and own our houses, such as Obos and Co-Owner. But looking at Norwegian banks most of the revenue streams originate from interest rates from mortgages and loans. Which again reduces the threat to the core business model. Full-service banks offer a wide range of products and services that have evolved over many decades. It takes time for fintech companies to build the same broad spectrum of infrastructure, products and services and not to neglect trust among their customer base.

WHAT ARE AREAS WHERE YOU BELIEVE BANKS WILL BE CHAL-LENGED AND FORCED TO INNOVATE OVER THE NEXT 3-5 YEARS?

Short answers and focused on the Norwegian market; Proximity to the customer (physical and digital and the hybrid UX) Buy Now Pay Later (BNPL) as a proxy for competition with non-banks Regulation of technology (Defi and AI) Shift from owning assets to renting/leasing

SHOULD BANKS AND STARTUPS/SCALEUPS BE FRIENDS AND COLLABORATE?

I believe there is room for a symbiosis in the fintech/incumbent banking landscape. We have seen the past 5-6 years both incumbents and fintech companies finding their ideal role in this symbiosis. fintechs are way ahead when it comes to technology adoption and UX development. But they lack distribution and market presence. Which is where the incumbent banks historically and currently play a dominant role. This makes out a powerful combination which ultimately brings out better services and products for the customer. It makes sense to collaborate in this complementary area. Which also points back to harnessing the strength of both incumbent banks and fintech.

IN WHAT DOMAINS DOES COLLABORATION MAKE SENSE?

As mentioned earlier, fintech companies are extremely good at producing technology and services that outperform traditional banking interfaces when it comes to UX, onboarding, state of the art technology platforms and mobile. This is an area that historically and to this day is a weak point for many traditional banks. It makes a great deal of sense to collaborate and create a symbiosis in these areas where the strength of the fintech fills the gap of the incumbent banks and vice versa.

> Ramtin Matin Head of Innovation SR-Bank

Banking And Innovation

Mastercard: Open Banking is growing up

TWO YEARS AFTER PSD2 CAME INTO EFFECT IN EU, we are starting to see traction in the kind of services that are being powered by open banking data. Meaning, we are moving beyond account aggregation and personal finance management (PFM), towards a stronger eco-system and more advanced services.

Personally, I have never believed that we would see pure open banking services in the sense that they would be branded as such, or that the consumers would be able to pinpoint them as open banking services. So instead of counting users of open banking data, or people switching banks, we should look at the overall picture and the development of open banking in the market in general. From this perspective, open banking progress and success can be measured by what kind of companies that make use of the APIs and for what purpose. Are the APIs only used by e.g. startups and banks for account aggregation, or do other companies also embrace the possibilities? Another important measure is to what extent the APIs are made available in a cost-effective way to startups, banks and corporates alike.

Two renowned companies that have started offering open banking based payment services last year are Tesco Bank (UK) and IKEA (initially in Austria). Tesco Bank has enabled their users to pay their credit card bills through a payment solution, while IKEA uses it in their check out solution. Another very exciting example is Norway's mobile wallet provider, Vipps, who has entered into a PSD2 connectivity deal with Mastercard with the goal of using it in their peer-topeer service. These are all consumer payments examples, but I am sure that in 2022 we will see a number of exciting cases in the B2B space.

In the beginning the connectivity space was dominated by national and regional players, often startups. In the last year this has changed. Mastercard has, for example, done several strategic acquisitions; amongst others Finicity and Aiia. One can expect that these and similar deals will help mature the business and provide companies that want to utilize the opportunities in open banking with new and better services.

Despite the positive development, open banking has lately received criticism from important players such as the UK challenger banks Monzo, Startling and Tide. The criticism mainly focuses on limited uptake and lack of innovation. I have to question this criticism. I am not sure if the people who have gotten better insight and control over their finances, or have gotten access to services they didn't have before, or access to services more tailored to their needs and a better customer journey will agree to this. Not to mention everybody who now can get a credit score better reflecting their financial situation.

It might be that open banking has had a limited effect within a certain market or for a specific user group or use case, but we need to look beyond that. We need to look at the bigger picture. I don't know what people expected would happen, but open banking is still in its infancy. Some financial institutions expect it to take a decade to complete their open banking objectives. Hopefully, it will not take that long. We have Open Finance and Open Data that we also want to spend time on.

Georg Olav Ramstad, Open Banking Mastercard



Banking And Innovation

Interview with fintech PFM scaleup Horde

WHAT IS YOUR GOAL AND WHAT IS YOUR INNOVATIVE APPROACH?

By opening up to new players, the PSD2 directive was meant to create competition, new business areas, and increased user-friendliness in the payment services market. The implementation has been far from painless, and there is still some way to go until we can say that PSD2 has been a success. There is a lot of focus on payments, but access to transaction data can open up an array of entirely new, more exciting, innovative services.

Horde is one of these new players. "Our goal is simple, to allow everyone to become the boss of their finances. Our innovative approach to consumer finance has brought us close to 200.000 users since our launch in late 2019. By utilizing PSD2, we simplify the process of paying down debt and create services to benchmark your finances against similar individuals".

WHAT DO YOU SEE AS THE NEXT BIG THING AND HOW WILL IT AFFECT YOUR BUSINESS?

"The next significant shift will be going from Open Banking to Open Finance, and we anticipate this to be a huge game-changer. Giving consumers even more control over their financial data and whoever they want to share it with could potentially disrupt traditional financial services as we know them. We predict that some players will focus on core financial activity, others will fight for the customer interface. Hopefully, it will be easier for consumers to pick and choose different providers and tailor their financial solutions".

> Alf Gunnar Andersen CEO and Founder of Horde



THE BEAT OF Crowdfunding Interview with DLA Piper

CROWDFUNDING has become a serious contender in the business of capital raising. Crowdfunding applies the capital of a large number of individuals to finance projects or new ventures. The individual may donate money or receive compensation for the money they have invested. In the field of equity-based crowdfunding, investors are rewarded securities in return for their investments. Through crowdlending, people or businesses can borrow money from private investors for a predetermined rate of return. This is the area of crowdfunding with the most players. Donation-based crowdfunding may be familiar to most from international platforms such as Kickstarter and Indiegogo. In return for their donation, the backer of the project may or may not receive a reward in the future.

CROWDFUNDING IN NORWAY

IN NORWAY, THERE ARE CURRENTLY 16 CROWDFUNDING PLATFORMS. Most of the companies operate within crowdlending area, while only two companies offer equity-based crowdfunding. A license to handle equity is necessary to operate in the latter, which may explain the limited amout of players in the market. Norway has one of the strictest rules on crowdfunding in the EU and the platforms are calling out to the Norwegian FSA to regulate the industry. In typical Norwegian fashion, real estate projects make up the majority of crowdfunding projects, but we haven seen a growth in all areas across the board in recent years.

BANKS AND CROWDFUNDING

The banks in Norway are watching the crowdfunding platforms with interest. There are many examples of banks investing and partnering up with the companies. Sparebank1 SR-Bank now owns Monio, which provides both crowdlending and equity-based crowdfunding. DNB has invested in FundingPartner through DNB Ventures, while ABG Sundal Collier has invested in both Kameo and Kredd.

DLA PIPER ON CROWDFUNDING

THERE HAS BEEN SOME MOVEMENT in the regulatory area of crowdfunding in Norway. We are in the process of implementing the EU regulation on crowdfunding service providers for business (EU) 2020. The Norwegian consultation paper was sent on hearing in December 2021 (NOU 2021:10). The EU regulation will be implemented by reference which means that the Norwegian implementation will be fully harmonized with the EU regulation. We note that the rules applicable to service providers of crowdfunding for consumers has been put on hold awaiting the new updated version of the EU consumer credit directive.

The new crowdfunding rules will provide an overall better framework for the service providers, rules on conduct of business, better protection for the investors, more extensive disclosure rules and some interesting new features relating to buying and selling loans. It will also be possible for the service providers to operate on a cross-border basis in EU based on a single license.

There is no timeline on the Norwegian implementation process, so until the new EU crowdfunding regulation is in force in Norway, the current rules in the Financial Undertakings Act and the Securities Trading Act allowing crowdfunding services within certain limits will live on. It will be interesting to see how the regulators and politicians will tackle crowdfunding for consumers moving forward and when we can await the legislative proposal for national rules implementing the crowdfunding regulation.

Camilla Wollan
DLA PIPER Partner
DLA Piper



THE BEAT OF Crowdfunding Interview with the Norwegian Crowdfunding Association

INTERVIEW WITH ROTEM SHNEOR, CO-FOUNDER AND BOARD-MEMBER OF THE NORWEGIAN CROWDFUNDING ASSOCIATION.

Why was the norwegian crowdfunding association started?

The mission is for all of the players to have a meeting point and to share knowledge, ideas and solve problems together. Everybody is dealing with the same challenges. All of the companies are young and quite small, but together they form a meaningful mass that can engage in dialogue with authorities and initiate activities to promote the concept of crowdfunding. NCA is a self-regulating organisation to ensure quality and ethical behaviour in a young industry that is open and only recently started to be properly regulated.

What do you consider to be the most promising form of crowdfunding?

I'll split the answer between attractivity and impact. In terms of attractivity, Lending is most interesting. This is just a different way to do an old thing. This is where the big money is now. Thanks to careful checks by platforms, this is a well performing investment product that presents relatively good returns and low risk. In terms of impact, equity crowdfunding is really revolutionizing the market by releasing badly needed early stage capital that has largely been absent and difficult to obtain in markets with less developed venture capital sector like Norway. The banks have limited interest and resources for investing in all of the opportunities that are out there and there's a lot of companies that do not get funded. It is about enlarging the cake and not splitting it differently. How should the crowdfunding platforms be regulated?

The new European Crowdfunding Service Provider regime presents good regulatory framework for business investment crowdfunding, both equity and lending. We hope it will be implemented fully and in line with its spirit in Norway as soon as possible. The biggest problem remains with peer-to-peer consumer lending. We need to protect people from taking on loans they do not need, but I find it hypocritical that we have all these banks where you can just click a few buttons online and get amazing loans for a crazy interest rate. At the same time, you don't allow people to give each other loans for much lower interest rates and better conditions. In this respect, today's laws reduce consumer welfare and protects predatory lenders.

Rotem Shneor Co-Founder and Board Member of the Norwegian Crowdfunding Association



Cryptocurrency Interview with Firi

HOW HAS THE CRYPTOCURRENCY LANDSCAPE DEVELOPED IN NORWAY AND THE NORDICS THE LAST COUPLE OF YEARS?

In 2019, new regulations were introduced in Norway, and we can finally say that the cryptocurrency landscape is established and thriving. There are a few actors within the field of crypto in the Nordics, and Firi is looking to expand from Norway to Denmark this year. The Norwegian crypto space is still striving to become as mainstream as in the US, and we are happy to say that we are accelerating at a rapid speed. We believe this is due to the lockdown of the world during the corona crisis, when many Norwegians found interest in crypto. It is very interesting to experience and be a part of the current public discussions about crypto in the mainstream media. We are only at the beginning, both when it comes to adoption of cryptocurrencies and the needed regulations concerning crypto.

How has your journey been in the same period?

Firi's journey has been unbelievable. In the beginning of 2021, our project was still a pet-project with 0 paid employees. Today, our company has 60 full time employees. Our growth is purely based on our expanding customer base and the ever increasing workload that comes with it. By the end of 2019, we had about 100 customers. Fast-forward to the end of 2021, and 120.000 people own crypto with Firi. We don't see the interest and thirst for crypto stopping anytime soon.

How do you see the cryptocurrency landscape develop towards 2025?

With new regulations getting pushed out from the EU - Markets in Crypto Assets (MiCA) - there will be a huge shift for everyone who wants to offer cryptocurrency services in the Union and areas related to them. A much stricter regulation (more than the current AML regulation) will be in place protecting the investors more but also making regulation more predictable for the whole space. In a way, this is a win-win because it also shows that the EU now takes cryptocurrency seriously by investing a lot of time to try to regulate it properly. It is very interesting to see the changing discourse about bitcoin and crypto. The narrative has changed from "being a currency for terrorists and black markets" into discussions on how crypto could change the current economy, and actual changes - e.g. El Salvador's acceptance of bitcoin as a legal tender.

> Thuc Hoang CEO and Founder at Firi

GFiri

What are Firis ambitions for the future?

Firi aims to become the ultimate investment- and knowledge platform for crypto investors. We continuously strive to build intuitive and accessible solutions towards a more financial inclusive future. Crypto should be for everyone.



Cryptocurrency Interview with DLA Piper

DLA PIPER ON CRYPTO AND BLOCKCHAIN

AS A TECHNOLOGY, BLOCKCHAIN HAS ITS ADVANTAGES. It is fascinating, and as a network you have the shared responsibility through the transparency of the blockchain. Crypto is a bit controversial, but it is slowly being integrated into the traditional economy and we see that the stakeholders mature and facilitate the crypto eco-system. Now, the requirement to register exchange platforms and wallets with the authorities move the sector forward.

The EU proposal to regulate markets in crypto assets (MiCA) regulation, introduced in 2020, provides a sound legal framework for crypto-asset markets to develop within the EU by clearly defining the regulatory treatment of crypto-assets that are not covered by existing financial services legislation. We are still in the early days and the Norwegian implementation process has not yet started. We have clients using blockchain as core technology, especially within supply chain and tech startups.





The Norwegian law is technology agnostic, so there are no obstacles for blockchain legally speaking. But you need to find and nurture the advantages. The technology itself is great for value transfer, but there are regulations concerning ways of conducting your business that create obstacles. We can see sectors where there will be a demand for more fundamental changes in terms of the regulations before utilizing blockchain, but at the same time it should be easily accessible, eg. stock exchange and transfer of securities, property transactions and cash management as well as other value transfers.

I believe it would make sense to establish a greater degree of trust between the financial authorities and fintechs, because we should not underestimate the value of the innovative force in startups. Then, we as professional advisors, and the authorities, should educate and support the startups to enable them to create robust services and digital platforms. That is our job. I am sure that we can all agree on the importance of innovation and fostering the competitiveness of the Norwegian financial sector going forward.

Camilla Wollan Partner DLA Piper



THE BEAT OF ...

Fintech Regulatory Sandbox

FIRST EXPERIENCES FROM THE REGULATORY SANDBOX

ONE OF THE MAJOR OBSTACLES fintechs face when developing digital services in the financial space, is the burden of compliance, rules and regulations. For small startups to medium sized enterprises, the width and depth of regulatory requirements can be stifling. Even the biggest banks with large legal departments have their hands full understanding, adapting and complying to changing requirements.

A regulatory sandbox for fintechs was launched on the 12th of december 2019.

The Norwegian fintech community looked to the UK when the regulatory sandbox was launched by the Financial Conduct Authority (FCA) years ago. ICT-Norway, the association for the IT industry, had been contacting politicians and policy-makers and started lobbying for a Norwegian version of a fintech sandbox. The industry needed a space where new services could be tested before all regulatory requirements were met. With a regulatory sandbox, they would have a framework for testing under guidance and supervision from regulatory authorities.

The Norwegian regulatory sandbox for fintechs, supervised by the Norwegian Financial Supervisory Authority, has now been through its first year of operation and has seen the first companies emerge out of the sandbox.

WE SAT DOWN WITH THE NORWEGIAN FSA FOR A QUICK CHAT ON FIRST EXPERIENCES, LESSONS LEARNED AND WHAT COMES NEXT.

How many companies have been through the sandbox as of today (February 2022)?

So far 3 companies have been through our regulatory sandbox. These have been related to the following topics:

- 1. Sharing of information between companies subject to reporting under the Money Laundering Act
- 2. Robot advice
- 3. Audit certificate on blockchain

Project plans and final reports from these projects are published on our website. This is so that the entire industry will gain insight into the most important learning points from each individual project. It is a goal that the entire industry should benefit from the sandbox, not just the companies that are taken up.

How many candidates do you accept in each round, and when will the next round be?

We can take up 1-2 companies in each pool. Currently, we are preparing to launch our third pool. Two companies applied, and we are now assessing these against the established criteria for participation in the sandbox.

The two companies are Poqyt Financials AS and R8me AS. Poqyt calls themselves "Europe's first Islamic Finance P2P lending", while R8Me is developing a solution for automated measurement of sustainability within SMEs and already has an MVP in place. Their solution provides both the enterprise itself and its stakeholders with a clear overview of the impact the company's work has on an economic, social and environmental level.

What was the main drive behind establishing the sandbox on the part of the Norway FSA?

The Norwegian FSA's assignment is given in a letter from the Ministry of Finance on 12th. November 2018.

The initiative from the government came, among other things, after input from the industry, like ICT Norway, represented by Liv Freihow. The background is, among other things, the rapid digitalisation, driven by new technology, new regulation and new players, which entails an increased need for regulatory guidance for fintech companies.

What new knowledge has the sandbox given you?

Our impression is that the sandbox has provided useful clarifications for the companies and the industry. The projects have covered different areas and technologies, and the FSA has gained increased insight into the various technologies and questions related to the current regulations. New technology can challenge existing regulations, even if the regulations are basically technology neutral. The sandbox has also provided a new meeting place where we get closer to the industry than we normally do. One purpose of the sandbox is for us to learn from each other.

What are the next steps (will there be a version 2.0)?

Our impression is that the regulatory sandbox has generally worked well. There are few formal guidelines for the work, which means that the implementation can largely be adapted to the individual projects. At the same time, there are always opportunities for improvement. Here we are open to input from the industry.

Is the sandbox limited for players with a PSD2-license, or is it relevant for other players who work with financial innovation unrelated to PSD2?

The sandbox is not reserved for companies that have a license within PSD2 or are subject to supervision by the Financial Supervisory Authority of Norway. This follows from the established criteria for participation in the sandbox.

> Vidar Nordtømme Former Coordinator of the Fintech Sandbox FSA Norway

Finterai On New Technology To Combat Financial Crime

Throughout recent years Anti Money-Laundering (AML) and Counter Terrorist-Financing (CTF) have had a significant global impact on our world on a political, technological and economic scale.

Statistics describing the problem have become frequent headlines. Financial crime costs the world trillions of dollars, around 2-5% of the global economy and only 1% of illicit funds are recovered. Money laundering even contributes to climate change, with damages worth around 250 billion dollars annually. These statistics are alarming and set the stage for further implementation of AML and CTF systems. This implementation has created a rising trend in which financial institutions see their AML and CTF costs grow exponentially each year. This trend should be viewed in light of current spending, where estimates indicate that banks spend around 150 billion dollars globally on AML.

The geopolitical importance of AML and CTF provides governments with clear long term strategic incentives to strengthen both the regulatory framework and the industry effectiveness in these fields.

The EU is working to improve the flow of information through common regulations, essentially establishing a transnational entity for managing AML and CTF across the union. Several technological tracks are being developed to reduce the workload burden of these regulatory requirements, while simultaneously increasing effectiveness. Possibly the most consequential developments lie in the fields of Artificial Intelligence (AI) and Privacy Enhancing Technology (PET).

In the AML-CTF workflow, the key determinants of workload are transaction monitoring and information retrieval. The AI subfield of Machine Learning (ML) has already been successfully applied to reduce workload in both fields. This leads to fewer transactions flagged, more thorough analysis, and no loss in monitoring accuracy.

At Finterai, we currently believe Federated Learning (FL) to be the most promising technology for improving AML and CTF outcomes. This technology essentially allows multiple organizations to learn from each other's data without sharing that data. Instead of exchanging information, machine learning models are exchanged. If implemented correctly, FL is therefore GDPR-compliant. Accordingly, the approach opens the possibility of harnessing "The Unreasonable Effectiveness of Data" at a truly global scale for AML and CTF, promising radical improvements in this space.

Finterai believes that Federated Learning is the PET that best balances costs, ease of use and information security in the AML/CTF use case. Together with the Norwegian Data Protection Authority (NDPA) Finterai

has analyzed Federated ligence. You can find th page and at Finterai.co

sible artificial intelon the NDPA home-



Alexander Skage, CTO and Co-Founder, Finter.ai Alf Gunnar Andersen, CEO and Founder, Horde Anders Østensvig, Head of Investments, DNB Ventures Anzhelika Osmanova, CEO and Founder, Lendwill Camilla Wollan, Partner, DLA Piper Christina Wiig, Head of Corporate Partnerships, Startuplab Christoffer Hernæs, CDO, Skanska Daniel Isdal Furset, Secretary General, Fintech Norway Erik Skaar, CEO and Founder, Tillit Forsikring Financial Supervisory Authority of Norway Georg Olav Ramstad, Director Open Banking Partnerships, Mastercard Hans Christian Bjørne, CEO and Co-Founder, TheFactory Innovation Ingeborg Frøysnes, Policy Advisor, Finance Sector Union Norway Jørn Haanæs, former Startup Director, Oslo Business Region Kjell Nordstrom, Professor Doctor, Stockholm School of Economics Madeleine Bjørnestad Røed, CEO and Co-Founder, Stack by.me Paul I. Huse, CEO and Co-Founder, Enin Ramtin Matin, Head of Innovation, SR-Bank Rea Parashar, COO, NCE Finance Innovation Rotem Shneor, Professor and Co-Founder, Norwegian Crowdfunding Association Simon Ruud, CEO, TheFactory Academy Thuc Hoang, CEO and Founder, Firi Vidar Nordtømme, Former Coordinator of the Fintech Sandbox, FSA Norway Vigdis Mathisen, President, Finance Sector Union Norway

THE FACTORY

Startups: Ready To Grow?

THEFACTORY'S founders are entrepreneurs at heart and offer programs and services to help your startup grow! We are proud to be awarded Best Nordic Startup Accelerator twice by the Global Startup Awards and to be a Global Accelerator Network member. Join our family today to get the best start possible!

THEFACTORY CAPITAL

TheFactory Capital is TheFactory's investment arm and seed fund, and one of Norway's most active early stage investors. Having passed 50 investments, TheFactory Capital invests in early stage within Fintech, Proptech, Retail & Logistics, and more with investments randing from 100K NOK to 3M NOK per deal. Contact Ingar S. Bentsen (Ingar@thefactory.no) for more information.

THEFACTORY GROWTH

TheFactory Growth is our community for supporting long term growth of startups. As a member you get access our large

network of partners, investors and the expertise you need to grow your company. We help with capital raising, public funding, board assistance, recruitment, accounting, VC advisory and introductions, and more.

Contact Marinette Hexeberg (Marinette@thefactory.no) for more information.

THEFACTORY ACADEMY

TheFactory Academy runs Norway's largest accelerator program GründerAcademy for early stage startup teams twice per year together with SR-Bank and local partners across Norway. Around 80 new startups are accepted into program every year. With our new FastTracks program we also help Norwegian and Nordic scaleups accelerate their growth and enter new markets in the Nordics and abroad.

Contact Simon Ruud (Simon@thefactory.no) for more information.

THEFACTORY INNOVATION

Digitalization, sustainability and changing consumer demands are are reshaping industries. At TheFactory Innovation we facilitate network-based acceleration. We connect partners with future opportunities, and the best entrepreneurs and technologies to accelerate innovation and business. Become a partner to interact with startups and scaleups, other corporate innovators, and let us help you find solutions to take you into the future!

Contact Hans Christian (Bjørne hc@thefactory.no) for more information.

The Factory

WORKING WITHIN BANKING, FINANCE, REAL ESTATE OR RETAIL?

Join TheFactory community to:

- Be a part of the vibrant Nordic startup ecosystem
- Challenge yourself and interact with our world-class entrepreneurs
- Identify new business opportunities and stay in front of competition
- · See where your industry is headed
- Share your knowledge and expertise at our many events
- Invest in the future and new exciting opportunities
- Strengthen you brand, knowledge and positioning
- Learn to innovate like and with startups

The Factory



TheFactory is a leading Nordic startup accelerator & early stage VC with HQ the heart of Oslo. TheFactory invests in ambitious seed and pre-seed stage companies in Norway and the Nordics, runs Norway's larges early stage accelerator GründerAcademy and offers startup services and corporate collaboration arenas. TheFactory has been awarded the Best Accelerator Program in the Nordics and has a large pool of qualified mentors, investors and industrial partners. Since 2016, TheFactory has accelerated more than 200 startups and has invested in more than 50 companies mostly within fintech, proptech and impact. In the portfolio you will find up and coming fintech and proptech companies such as Firi.com, Enin.ai, Finterai. com, Empower.eco, Diwala.io, Zeipt.com, Propely.io, Paralello.io, Lendwill.com, and more. TheFactory Group consists of:

TheFactory Academy provides mentorship lead, early-stage development programs for startups.

TheFactory Growth provides growth services to our member base.

TheFactory Capital invests in seed stage startups in the Nordics.

TheFactory Innovation works with industry partners to help facilitate corporate-startup collaboration opportunities.

For further inquiries, please contact: hello@thefactory.no