PART 1

Introduction

Nordics.vc is an online resource dedicated to providing information about the Nordic VC scene.
Welcome to the first edition of nordics.vc

We’re a new online resource dedicated to providing information on the Nordic VC scene.

Recent years have seen a revival of the Nordic venture scene with more than €3 billion raised by VC funds in the Nordic region over the last five years. Companies founded in the Nordics attract VC investments increasingly both from within and outside of the region. Over the past five years, a total of €2.7 billion has been invested into Nordic startups.

Today, the Nordics can more than stand on their own for both investments and exits on a European and global level.

Findings of this publication show strong market optimism. 59% of Nordic VCs view the future more positively today compared to just twelve months ago. Two thirds of VC optimism is driven by a growing number of prominent Nordic startups and thus, high-quality investment opportunities.

However, work remains to be done. At the Nordic venture capital associations, we’re taking measures to contribute to making the Nordics a central hub for global capital flows, talent, and growth companies.

As one of our initiatives to boost the Nordic VC market, this publication is dedicated to providing information on the development and opportunities in the Nordic VC market. It is meant for anyone within the Nordics and abroad interested in venture capital.

We hope you enjoy the read.
PART 2

The Nordic VC Market
Venture capital in the Nordic countries is flourishing

The US, along with the growing markets in China and Japan, account for most of the world’s VC assets under management. In the Middle East, Israel remains among the most active VC clusters globally, while the UK and Germany lead the way in Europe. However, foreign fund investors are turning to the Nordics for new opportunities as rising prosperity is emerging across the region.
The Nordics can more than stand on their own for both investments and exits on a European and global level. So, let’s drop the “per capita” rhetoric once and for all. Let’s start talking about having 10+ billion dollar exits, not about having 27 million people.

– Neil Murray, Founder of The Nordic Web

**Market optimism is strong**

VCs in the Nordics are increasingly optimistic about the future of venture capital in the region - 59% of investors view the future more positively than they did 12 months ago.

Are you more or less optimistic about the future of Nordic VC today than you were 12 months ago?

Two thirds of VC optimism is driven by high-quality investment opportunities

In case you are more or less optimistic, what part of the process of running a VC fund does this especially relate to?
The Nordics are among the leaders in breaking new ground worldwide

*Source: The Global Innovation Index 2018 by Cornell University, INSEAD and the World Intellectual Property Organization (WIPO)*
Strength in numbers

Below is a world ranking of the Nordic countries based on selected parameters and combined averages of Denmark, Finland, Norway and Sweden. 140 countries were analyzed in total.*

*Note: a high ranking is indicated by being close to the outer circle. Source: World Economic Forum Global Competitiveness Report 2018

The entire ecosystem in the Nordics has matured significantly. Entrepreneurs are more experienced, teams are more complete and have stronger international connections from the start. We see solid growth in the number of startups, the VC market is more coherent and we expect the market to grow a number of unicorns in the years to come.

– Christian Motzfeldt, CEO at the Danish Growth Fund
Finnish satellite maker ICEYE soon the first to image all of Earth’s land and ocean every hour

Many know what satellites generally do: map the universe, track weather forecasts and take pictures of objects floating around in space. Few have paid attention to the not-so-shocking fact that making satellites has mostly been the privilege of a few governments. Even fewer can name a company that’s building one at one-hundredth of the cost of satellites before.

“At the forefront of the commercial satellite business is ICEYE, a company that’s building the world’s largest constellation of Synthetic Aperture Radar (SAR) satellites. “With our first satellite, ICEYE-X1, we’ve already created technology that no one else in the world was able to produce. We’ve not only shown the whole world that our technology for that kind of imaging is feasible, but it’s going to happen,” says Rafal Modrzewski, founder and CEO at ICEYE.

SAR is a type of radar technology that creates two- or three-dimensional pictures of any surface. ICEYE uses SAR to capture images of Earth’s land and ocean. It does so by lighting up a specific area and shooting radio wave pulses at that target. After
After hitting the surface, the pulse echoes back to the satellite, and from that, ICEYE is able to create a high-resolution image of the target.

According to Modrzewski there are three problems relating to Earth observation data: reliability, timeliness and access. To address these issues, ICEYE's radar constellation lets companies and government make better decisions by providing access to timely and reliable Earth observation data. This is particularly useful for monitoring massive pipeline systems, flood damage, crops, coastal security and icebergs — practically anything that requires immense resources to observe regularly.

ICEYE launched its first satellite into orbit in January 2018, which is already sending SAR images to Earth. Now, the company is on track to sending 18 luggage-sized satellites into space that together are able to take images of anywhere in the world every hour. Most satellites observing Earth use cameras or spectroscopes that rely on good weather conditions and sunlight to take clear pictures. But unlike most satellites, ICEYE's technology can see through clouds and generates high-resolution pictures regardless of weather conditions.

The constellation is built in stages after each successful launch, and ICEYE has managed to improve its SAR technology at unprecedented speed, as building a satellite with these mechanisms that weighs under 100kg is extremely complex and was still unheard of not too long ago. The determination and ability to execute was the reason for the company's early backers to get involved too.

"Rafal and Pekka have been exceptionally successful in attracting high quality personnel, advisors and investors, and the launch of its first satellite in January was naturally the last proof for us showing that ICEYE delivers what it promises,\" says Jussi Sainiemi, Investment Director at Tesi, a state-owned investment company in Finland.

"For any VC, there's always a confluence of factors you look for, and in space, you can think of it as taking the components that go into a mobile phone and try turning them into a satellite,\" explains James Bruegger, Managing Partner at Seraphim Capital, a UK-based venture fund specialized in the space sector. "Just ten years ago, you'd need $100 million to build a satellite that would've been the size of a small car. For a startup, that's pretty difficult to pitch, whereas ICEYE found a way to build satellites for less than one hundredth of the cost of satellites before. That's why we're backing them now."

ICEYE plans to send a total of 18 satellites into orbit by the end of 2020, making it the largest constellation of SAR satellites that any company has ever built on its own. Bruegger characterizes the latest achievements of the satellite company as essentially being a preserve of a handful of very rich governments who primarily use SAR for
their own defence and intelligence requirements. Today, ICEYE is still the only company in the world that has been triumphant in launching a super small, low-cost and high-performance radar satellite.

**What**
Building the world’s largest constellation of synthetic aperture radar (SAR) satellites, capable of imaging anywhere in the world within an hour

**Founded**
2012

**HQ**
Helsinki, Finland

**Founders**
Rafal Modzewski and Pekka Laurila

**Employees**
80

**Total Funding Raised**
€45 million

**Investors**
Lifeline Ventures, Tesi, True Ventures, Draper Associates, Seraphim Capital
PART 3

Fundraising
More than €3 billion has been raised by VC funds in the Nordics over the last 5 years

EQT Ventures, the largest VC in the Nordic countries, launched a €566 million fund in 2016, contributing to the exceptionally high number for the year.

The Nordic region has seen an extraordinary number of success stories in recent years. A new generation of ambitious entrepreneurs are starting new businesses and reinvesting into the ecosystem. The capital provides necessary leverage that can be used to further fuel economic growth.

– Ekaterina Gianelli, Investment Director at Inventure
The average size of an investment in the Nordics is €1.2 million. The European average is considerably higher at €1.7 million. Despite active fundraising in the region and growth in fund sizes, VC funds in the Nordics remain smaller on average than Western European and US counterparts, resulting in smaller investment tickets.
Furthermore, 71% of Nordic VCs believe there is room for larger VC funds in the region.

In your opinion, is there room for larger VC funds in the Nordic market?

Xeneta

Xeneta breathes new life into the antiquated shipping industry

Patrik Berglund and Thomas Sørba have a flair for realizing, and acting on, the inconveniences that plague the old-fashioned shipping industry. Their company, Xeneta, has brought price transparency to the industry and allows cargo owners to track the performance of their trade routes and negotiate better deals. Founded in 2012, Xeneta has received €18 million in funding, and already serves top Fortune 500 companies like Unilever, Nestlé and Lenovo.

According to Jan-Erik Hareid, Managing Partner at Alliance Venture and one of Xeneta’s early backers, Patrik and his team accomplished a feat that was unthinkable
just a few years ago, as they were able to develop the leading ocean freight rate
benchmarking and market intelligence platform to transform the shipping and logistics industry. “The team is in many ways exceptional with deep industry knowledge:
their business model is unique, it represents a natural monopoly, and has the potential to disrupt a large, global industry,” says Jan-Erik.

Here, Patrik speaks about why Xeneta was founded, what freight forwarders think about them, and what’s his goal with the company, among other things.

Why did you found Xeneta?

Indices existed for oil, grain and electricity to show how the markets move — but container boxes were lacking such price visibility. It’s extremely inefficient for a company to always collect price quotes to see where the market is. We pitched our former employer that we should make the market transparent so that our customers could see they had competitive prices with us and stay loyal. They didn’t like it, as it was seen as potentially eating up their margins. If they had the chance to bill a customer double the amount, why would they tell them where the market was?

We thought this was idiotic and short-sighted, and expected at some point the market would become transparent and every supplier in the industry should start positioning itself for that future. Since we couldn’t make the market transparent from within, we left to found Xeneta.

Since we couldn’t make the market transparent from within, we left to found Xeneta.

Who benefits the most from your service?

There are three main players in the industry: cargo owners, freight forwarders and the shipping lines. Only cargo owners have the desire for this market to be transparent. Before Xeneta, they’ve had to show the volume they think they’ll be booking over the next year and ask for prices on specific trade routes. For a global company shipping thousands of boxes, that’s quite a lot of Excel sheets.

What did the freight forwarders say about you collecting the data of their customers?

During the first years they were saying we weren’t allowed to have that data and they’d sue us if we used it. We said listen, you gotta go to your customer and tell them they can’t give Xeneta that data. But keep in mind when you go to your customer and say this, you’re also telling them not to give the data because you’re ripping them off. In the end, the customer decides everything. That’s why it’s a beautiful play. If they want to put in that data, they will.
How has the data collection process been?

We had the classic chicken and egg problem. First, nobody wanted to give their proprietary data, and it felt like we were always stuck on a treadmill. Now we’re past that. As soon as you start getting the data from the companies, it’s in their self-interest to give more of it. It took us many years to grow at first. It took us three and a half years to get to ten million trade route prices, but then it took off in 2016 and today we’re at over 75 million.

It took us three and a half years to get to ten million trade route prices, but then it took off in 2016 and today we’re at over 75 million.

So will you continue to grow your data almost 10x in the future?

That’s a super interesting question. Our data points are only valuable to a certain extent. When you have no data, every single data point is extremely valuable. But at some point, when you have all the data you need between Shanghai and Hamburg, it only becomes a pure cost to rake in additional data. So we’ve peaked for many trade routes already. That used to be our main challenge — building and scaling the business. But that’s no longer the case.

What worries you?

Now, it’s all about how can we really build a truly scalable sales and marketing machine. That’s a massive challenge. A massive one. But it’s a very different one. It has already been solved by many people, but getting the data had never been done before in our industry. You always go onto the next problem, right?

You were well-funded since the start. Why did you stay in Norway?

There are many benefits from staying here. The country is perceived as a shipping nation, even though we don’t have any container shipping lines. So that’s sort of a paradox, which we played to our advantage. Norway is also perceived internationally as a trustworthy country, as you see a great level of loyalty here. On top of that, we’ve been able to attract exceptional talent. Out of our 85 employees, about 15 are Norwegian and the rest are from 26 different countries. I hate the notion that it’s not possible to build a tech company here — there’s plenty of arguments to stay here and build a great company.
Norway is also perceived internationally as a trustworthy country, as you see a great level of loyalty here. On top of that, we’ve been able to attract exceptional talent.

What’s your goal with Xeneta?

That’s a difficult question. I mean, I’m already super proud of our entire team and where we are now. Just the way in which we built this company in this industry. It’s a very old-fashioned one, and we were able to persuade the world’s biggest brands to join us in our journey. But altogether, if we accomplish what we’ve set out to do, to modernize procurement in this industry, while building a global tech company out of Oslo, then I can be happy about it. That’s my personal ambition to be honest.

**What:**
Built an ocean freight rate benchmarking platform to bring price transparency to the shipping industry

**Founded:**
2012

**HQ:**
Oslo, Norway

**Founders:**
Patrik Berglund and Thomas Sørbo

**Employees:**
85

**Total funding raised:**
€18 million

**Investors:**
Creadum, Alliance Venture and Smedvig Capital
Increase in high-quality investment opportunities brings a new wave of optimism

When raising funds, access to high quality startups in the region is the single most important success factor for Nordic VCs, apart from the promise of great returns.

What is the single most important success factor, besides the promise of great returns, when raising funds for a Nordic VC firm?
We have a large number of highly-educated and experienced pre-founders that have worked at top companies of their fields worldwide. We also have a history of great tech companies and a large number of the world’s leading researchers. Moreover, the cultural change and increasing exchange of people and ideas between startups and investors from abroad has led to an increase in very high potential tech startups in the Nordics.

– Riku Seppälä, Partner at Icebreaker.vc

When it comes to scaleup density, the Nordic region outperforms the rest of the European continent

The Nordics are home to nearly 1,000 scaleups. This amounts to 3.4 scaleups per 100,000 inhabitants. In terms of scaleup density, it is by far ahead of the European average of 1 scaleup per 100,000 people.*

*Tech Scaleup Finland 2018 Report, SEP Monitor

Healthy public finances, well-functioning institutions, a vibrant entrepreneurial ecosystem and a highly educated workforce have all been key enablers of the Nordic region as a hotbed of technology enabled growth.

– Bjarne Lie, Managing Partner at Verdane Capital
Tobii

After propelling his company to the leader in eye tracking, founder John Elvesjö maneuvers to VC to fuel Nordic tech entrepreneurs

At the turn of the millennium, early developers in eye tracking technology believed that people would be willing to keep their heads still when interacting with computers. In 2001, a 23-year-old John Elvesjö had a different view, and assumed people would never adapt to the solutions that were being developed. He founded Tobii, a company that went from a three-man startup to the world leader in eye tracking, eventually IPOing at a valuation of €214 million in 2015 and currently an employer of 1,100 people.

Today, Tobii has become the dominant player in the industry. It supplies technology to people with reduced abilities to speak and communicate, provides eye-tracking solutions to studying and understanding human behavior, and integrates its tech into consumer electronics and other volume products.

Now, John reflects on his early days as a founder, why Tobii became so successful, how have the Nordics produced multiple billion-dollar exits over the years and why he chose venture capital as his next chapter in life.

How did you start Tobii?

I was studying engineering physics at the KTH Royal Institute of Technology in Stockholm and ended up being recruited over to a research institute. I was working
on a mathematical modeling of sensor signals and that led to the basic innovation behind the company, as well as the early technology and IP starting points. After receiving some public soft funding for the innovations, I decided to use some of the money to hire my first co-founders.

What is eye tracking and how does it work?

A device with eye tracking technology knows precisely where your eyes are focused. Lights are projected onto the corner of the eye, and as the signal bounces back, it’s like a fingerprint. It can determine your level of focus, consciousness and many other mental states. There aren’t many machines that wouldn’t benefit from knowing who you are, where you are, your orientation, your state, and what you’re looking at.

Who can benefit from it in particular?

It’s particularly useful for people with disabilities. With eye tracking technology, they can communicate with people through a screen. Or take an orchestra for example. For a violinist or any other instrument, instead of using their hands each time to flip through the pages, all they need to do is follow the notes with their eyes. We know the density and the time spent on the documents, so it’s very easy for us to make sure it’s always centered. So, there’s an enormous amount of applications like that, just making machines smarter in a passive way, without you even knowing anything is happening.

Why was Tobii so successful in its early days?

I think it was a combination of things. First, we were successful in taking the correct approach. Our approach was based on many assumptions of how people would want to use technology at the time, and we were ultimately correct with those assumptions. The majority of applications back then assumed that people were willing to hold their heads in one position in front of a screen. We just didn’t believe users would accept this. Today it’s easy to say that’s ridiculous, why would anyone do that? But that was just the nature of the time. It was much easier to build tech if a head was locked in one position than allowing it to move around freely.

Another major driver was our people, the entire team. We managed to attract unbelievable talent early on and this ultimately allowed us to achieve market leadership over the years.

I’d say the third significant reason was our geographical location. It’s easy to set up a company in Sweden, easy to hire people, easy to be an employer. People are ambitious and we have some of the greatest universities. Tremendous talent and just tremendous respect for entrepreneurship. So it’s not by chance that the Nordic region and Stockholm have done so well in terms of fostering young tech companies. It might not be clear at first, but everything put together, it’s clear.
So it’s not by chance that the Nordic region and Stockholm have done so well in terms of fostering young tech companies. It might not be clear at first, but everything put together, it’s clear.

The Nordics have produced more billion-dollar exits per capita than any other region. What do you think are the reasons for this?

It’s a mix of many things. The culture is right, people are ambitious, people are also caring for their life outside of work, who we involve, how we question things — the culture is just right. That’s the most important driver behind innovation and entrepreneurship here. But of course you have more tangible things, like government support, the infrastructure of higher education, communication, they’re all in place. The VC market is big and available for many, so that helps a lot.

After taking Tobii public, why did you choose VC as your next career path?

It wasn’t an easy choice. I really love building companies and the only way to do it is to put everything else aside, then dedicating 100% of yourself to building the company. It’s just that hard, but I love doing it. A while ago, I realized the broader picture and with the role I’m in now, starting Brightly Ventures with my colleagues, I can help so many people. I can meet so many young companies, and I’m in a good position to help my investors find the right companies. I know where to look for and how to support them. I can leverage what I’ve learned at Tobii and other companies. At the end of the day, being a VC allows me to make a real difference.

I can leverage what I’ve learned at Tobii and other companies. At the end of the day, being a VC allows me to make a real difference.

**Tobii**

- **What:** World leader in eye tracking technology
- **Founded:** 2001
- **HQ:** Stockholm, Sweden
- **Founders:** John Elvesjö, Henrik Eskilsson and Mårten Skogö
- **Employees:** 1,100
- **IPO:** Went public in 2015 with a valuation of €214 million. Listed on Nasdaq Stockholm (TOBII)
PART 4

Investments
Companies founded in the Nordic countries already attract investments both from within and outside of the region.

Annual investments relative to GDP are significantly higher in the Nordics than in other European countries.

Nordics
Investments per GDP

Western Europe
Investments per GDP
The Nordic startup and venture capital growth success story during the last decade is expected to continue as all the fundamentals support it; the innovation and engineering levels are high, the past successes have fueled and encouraged even more talent into the entrepreneurial scene, and the ecosystem and societies in the Nordics are holistically favorable and support entrepreneurial activity.

– Tero Mennander, General Partner at Ventech
A total of €2.7 billion has been invested into Nordic startups over the last 5 years

Non-Nordic VCs have invested €1 billion into Nordic startups over the last 5 years
Nordic VCs have invested a total of €3.3 billion into startups over the last 5 years.

The Nordics are undergoing what I call the entrepreneurial renaissance: the best talent is flooding into startups, successful founders are proud to give back to build the ecosystem, and society values entrepreneurs highly. With the Nordic ‘global from day one’-attitude and generally high skill levels, we continue to see an overproportionately high share of unicorns from the Nordics.

– Timo Ahopelto, Founding Partner at Lifeline Ventures
OrderYOYO

Danish startup OrderYOYO is shaking up the online food ordering industry

Ever since Thor Angelo, founder and CEO at OrderYOYO, realized that 80% of orders through current online food portals were coming from returning customers, he’s been on a relentless pursuit to give back autonomy to local takeaway restaurants.

"Whenever you order takeaway through a portal, the restaurant isn’t able to connect with the customer to welcome them back — it’s the portal that thanks you for the order of pizza and then you go back to Just Eat or some other portal and order over and over again,” explains Thor. He details how online food portals have kept raising their prices over the years and have sequentially become monopolies. For him, it’s incomprehensible how current online food portals take a 20-30% cut from each order that comes from returning customers. That’s just not good business for the restaurants. “You can be sure that the restaurant is already thinking ‘why don’t I get my own system’,“ says Thor.

Just Eat and the other portals are convenient for discovering new places. That’s perfectly fine. We don’t want to compete with that. We’re making sure we can provide the best experience and loyalty setup for those 80% who are returning to the same restaurant time and time again.
OrderYOYO is reshaping the ultra-competitive online food ordering industry by providing restaurants with their own order management system and a consumer facing app through which returning customers can order food, allowing restaurants to save more money.

The company offers a tailored app for the restaurants to interact with customers together with a back office tool to manage orders. The service is subscription-based, with a restaurant paying a monthly fixed fee starting at €59. The fee has a few different levels (gold, silver, bronze) depending on how much turnover the restaurant gets through their own ordering system provided by OrderYOYO.

Despite the rigorous hunt for luring customers away from larger online food portals, Thor is convinced their new model can coincide with current market participants. “Just Eat and the other portals are convenient for discovering new places. That’s perfectly fine. We don’t want to compete with that. We’re making sure we can provide the best experience and loyalty setup for those 80% who are returning to the same restaurant time and time again.”

Thor believes the most defining thing for them has been timing, as technology has become both cheaper and faster to build. Today’s food ordering portals hit a sweet spot a decade ago when they made the ordering and delivery of food possible for restaurants who couldn’t otherwise afford to build and maintain their own systems and apps. But times have changed, and OrderYOYO is positioned to be in the vanguard of development in the online food ordering industry.

“Thor believes the most defining thing for them has been timing, as technology has become both cheaper and faster to build.

“They’re [established portals] trying to ignore us, even though we’re taking a big chunk of their turnover. They should copy us, but they can’t — the reality is that if they did what we’re doing, they’d lose a lot of money in the process.”

OrderYOYO was founded by Thor Angelo and Thomas Paulsen in 2014 in Copenhagen, Denmark. Today, the company has grown to 100 employees serving over 3,000 restaurants in Denmark, the UK, Ireland and Germany. In March 2018, OrderYOYO secured its series A round, bringing the total amount of venture-backed funding to €11 million. With the new investment OrderYOYO will have a presence in 5-6 countries in Europe — covering over 60% of the full potential of Europe’s takeaway turnover.
What
Providing an online white label takeaway ordering system for local restaurants to communicate and connect directly with customers

Founded
2014

HQ
Copenhagen, Denmark

Founders
Thor Angelo and Thomas Paulsen

Employees
100

Total funding raised
€11 million

Investors
VF Venture, SEED Capital, Preben Damgaard, Jesper Johansen and Thor Angelo

Examples of large funding rounds in the Nordics 2018

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A growing number of investment opportunities are emerging in the Nordic countries and across Europe

Nordic VC funds see sizable investment opportunities not only within their home countries, but in neighboring Nordic countries as well as other European countries.

Norwegian and Finnish VC funds are particularly optimistic about opportunities in their home country. Several Swedish VC funds are highly optimistic about opportunities in other European countries, which might be explained by a larger number of later stage, international funds in Sweden, as compared to other Nordic countries.

Startups in the Nordic ecosystem are getting stronger and we see many new companies being founded in the Nordics that have global potential. Furthermore, the Nordics create more unicorns per GDP than any other region in the world — including Silicon Valley.

– Tommy Andersen, Managing Partner at byFounders

High-quality investment opportunities are increasingly opening up

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Varjo

With its human-eye resolution VR headset, Varjo takes a colossal stride in the development of virtual reality

Varjo caught the entire world of virtual reality off guard when it publicly demonstrated its VR headset prototype for the first time in December 2017 — a piece of technological marvel that wasn’t expected to be created by a one-year-old startup. As if that wasn’t enough, Varjo secured a €27.2 million backing led by Atomico, Europe’s leading tech investor, and by now has shot its way to the top of VR hierarchy.

“Design professionals across all industries have dealt with bad quality VR and have waited for someone to fix this for the past 20 years,” says co-founder Urho Konttori. Urho and his team answered the call by introducing the world’s first and only human-eye resolution VR / XR (virtual reality and mixed reality) headset for professionals.

Founded in 2016, Varjo has advanced at remarkable speed. The headset — at 20x higher in resolution than existing consumer and professional headsets like Oculus Rift or HTC’s Vive Pro — has four displays, or two per eye to be exact, inside that allows it to imitate the human eye. Together they form what Varjo’s coined the Bionic Display™, where one area is in normal VR resolution that shows the entire view of the virtual world. The other is the focus area, and is as sharp as the human-eye can see, but just like when we normally look at something, it only covers a small area of the view. Varjo combines these four displays so that you only see one virtual scene that comes out as a little fuzzier around the edges but is perfectly sharp in the center.

“Unlike existing consumer-oriented devices, we’ll sell into everything from
from architecture to aerospace. For professional designers, this means the way of working doesn’t change, but the speed at which iterations are made and seeing the world change around them will be significantly faster,” details Urho.

A designer can instantly check how a particular object or building looks like in daylight or at night; can change colors, shapes and sizes, and maintain overall symmetry in human-eye resolution. This has a fundamental impact on how things are designed in the future. Not only will the speed of making iterations be faster, but professionals will be tempted to make more courageous moves and test more, as they won’t have to wait for weeks to have a clay model delivered. Just a few clicks and it’s right there in front of you.

This has a fundamental impact on how things are designed in the future. Not only will the speed of making iterations be faster, but professionals will be tempted to make more courageous moves

As former Nokia and Microsoft employees, Urho and his co-founders were responsible for developing some of the most advanced technology of the time that was used in consumer products. This meant making VR headsets for Xbox and leading the development of the operating systems for the Nokia N900 and its successors N9 and high-end Lumias. After leaving Microsoft, the team remained closely in touch and felt they were at the stage in life where they could radically change computer technology as we know it.

"With Varjo, we want to be the company that’s at the forefront of the next computer revolution,” says Urho, leaving little room for doubt. “The latest one was the cell phone race, which was started by Nokia but eventually won by Apple. At Varjo, we see that we’re taking the right angle now and are positioned for the next big shift.”

The team put a demo together within a couple days and demonstrated to Lifeline Ventures (a Helsinki-based VC) what the future of XR would look like. Overwhelmed by the response that the demo received, Varjo secured a seed investment from Lifeline to develop the product further. “At the time, the idea was to continue with XR, but after about 200 company visits, 90% of them didn’t have any actual business use for it yet. We were advised to focus on making the best possible VR, since companies globally had been using VR for a long time but were still lacking high quality VR. Looking back, that was exactly the wake-up call and validation we needed from the market.”

Varjo is developing the entire package in-house — both hardware and software — just like Apple did with its products. Urho believes it’s crucial to think of it as one piece, “The fundamental reason for their success was because they [ iPhones] were built simultaneously together. So we quickly realized we have to start doing the hardware ourselves too, if we were to achieve the software experience we had envisioned.”

Although the working cultures of software and hardware teams are remarkably different, Urho wants them to work closely together from the start. This isn’t typical in
the industry, and Urho recounts the times at Nokia and Microsoft when software and hardware teams were placed on different floors of the building, remaining completely secluded from each other. This regularly caused multiple headaches at every level. “It was just too inefficient to request something from the other teams because it felt like we lived in two different worlds. That was a big problem and led to many failed projects.”

Heading into 2019, Varjo faces a challenge that’s typical for any company that has come so far so fast. “We had less than 20 people in summer 2017, today we’re at almost 100 and we’re welcoming a new employee in every week. Once people have heard about us, they’re drawn to the opportunity to work with cutting-edge technology. People have realized that Helsinki is a great place to live and work even compared to Tokyo or Silicon Valley. But the challenge is how can we provide an environment for everyone to maintain their working styles and allow the culture to evolve in a way that nurtures success for everyone.”

Urho’s years at Nokia and Microsoft taught him that everything has to be done with grandeur and attention to detail. “We need to be world-class at everything we do — that’s how you get people to come to you. And everyone who has come to us has understood this very fast. But one thing’s for certain, we’re not looking for people with huge superstar egos. None of us founders have big egos, we’re pretty down to earth guys.”

Varjo will start selling its first VR headset in early 2019. Plans for an AR/XR add-on are scheduled for summer 2019. Its latest €27.7 million Series B investment will go to scaling its software and hardware teams to over 200 people over the next year, and to financing the global launch and go-to-market of its first product.
Deeptech and healthcare stand out as the most prominent future domains in the Nordics

In my opinion, the most prominent future domain in the Nordics is

The Nordic countries possess stunning know-how to build businesses around both software and hardware, and combined with our world-class academia, renowned healthcare system and strong push towards digitalization, we’re well positioned to develop solutions that can support medical professionals in their work and preserve the population’s health and wellbeing.

– Annastiina Salminen, Investment Director at Maki.vc
PART 5

The Nordic Way
The Nordic countries have always prevailed in showing their relevance with the world

The region is a leader in transformative social change and ethical issues, driving innovation and demonstrating how openness and transparency can work across borders.

Social and ethical impact play a significant role when making an investment decision

Nearly half of Nordic VCs consider the potential social and ethical impacts when investing in a company.

Social and ethical impact of a company plays a significant role in my decision to invest
Nordic founders are making an impact

75% of VCs in the Nordic countries believe that entrepreneurs are addressing societal challenges more than ever before. Nordic early-stage entrepreneurs will increasingly address societal challenges throughout the next decade.

Above all, Nordic companies are seen as drivers of innovation

Swedish VCs unanimously believe portfolio companies will have the largest impact on innovation, whereas Danish VCs expect almost an equal impact on economic growth. In Finland and Norway, VCs believe companies will contribute to job creation and sustainability in addition to innovation and economic growth.

Nordic portfolio companies will have the biggest impact over the next decade on

[Bar chart showing the percentage of impact in Nordic countries on innovation, economic growth, job creation, and sustainability]
The Nordics are unquestionably one of the hottest tech startup hubs in the world. The companies are forerunners and strong in tech and have international ambitions from day one. The seed stage ecosystem in the Nordics is very dynamic and provides an attractive breeding ground for growth stage or later stage investors.

– Tero Mennander, General Partner at Ventech

Nordic VCs are committed to openness and transparency

An overwhelming 80% of investors reveal that openness and transparency are of increasing importance to them.

Openness and transparency towards our investors, portfolio companies and general public are of increasing importance to our firm.

However, work remains to be done.

The industry is collectively committed towards making improvements. For instance, just as everywhere else, women remain underrepresented in Nordic venture capital.
Representation of women in Nordic & UK VCs

Over 70% of VCs in the Nordic countries say diversity is positively reflected in their firm’s employee composition and hiring policies going forward.

Diversity is positively reflected in my firm’s employee composition and hiring

- **Nordic VC**
- **UK VC**

- Women as investment professionals
- Women as decision makers

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Gender diversity is not just a ‘nice to have’ for an organization. There is a clear business case that diverse teams outperform those lacking diversity. For an industry such as private equity that is driven by performance it is important to attract diverse talent to avoid ‘groupthink’ and deliver robust decision-making which will help to deliver strong investment performance.

– Jeryl Andrew, CEO at Level20

CathVision

CathVision has taken up the reins to help patients suffering from heart arrhythmia

Mads Matthiesen, founder and CEO at CathVision, was a bachelor student in engineering back in 2009 when he attended an entrepreneurship seminar as an exchange student in the US. After meeting a cardiology doctor who described his frustration with the methods used to treat patients with heart arrhythmia — a condition that affects 2% of the world’s population in which the heart beats either too fast, too slow, or irregular — he was determined to go back home to Denmark to fix
the problem that the doctor had been so articulate about.

“People with cardiac arrhythmia feel uncomfortable, dizzy and even faint when they are not treated properly. Even worse, if the blood isn’t flowing normally during prolonged arrhythmia, it can cause blood clots and cause strokes. Too many people die from strokes every year and this could be prevented if arrhythmia patients were offered a cure,” explains Mads.

“When doctors repeatedly complained about ‘noise’, I went to the investors and said ‘look, you should invest in CathVision because we’re experts in understanding the procedure and problem.’

To treat heart arrhythmia, a doctor inserts a thin catheter into the heart through blood vessels located in the leg. Still today, 50% of treatments of prevalent heart arrhythmia (e.g. atrial fibrillation) are ineffective because the doctor doesn’t have a clear picture of where to treat inside the heart. The field is moving into a direction of interpreting large data sets and pointing the doctor to so-called ‘drivers’ of the arrhythmia. The problem is doctors only have access to very noisy signals of the heart, and is left with a crude picture of the activity in the patient’s heart. It’s extremely difficult to find a local area to treat, as the signals are very small and can’t be visualized because of all the extra noise caused by the cables and other equipment. Patients need to return after a while for new treatment and some even die in the middle of waiting if they haven’t been properly cured.

Mads became obsessed about the problems that doctors were facing and observed hundreds of procedures. “I was less concerned about which final product we would arrive at. Rather, I wanted to go deep into the procedure details, workflow and patient outcomes. When doctors repeatedly complained about ‘noise’, I went to the investors and said ‘look, you should invest in CathVision because we’re experts in understanding the procedure and problem.’

“For us, CathVision is a candidate for being at the top of venture performance.”

One of those who took a liking to Mads and his team early on was Tonni Bülow-Nielsen, Managing Partner at VF Venture, a division of the Danish Growth Fund that makes equity investments in high-potential Danish companies. “Mads is an excellent profile of leadership,” explains Tonni. “They had done a lot of clinical tests and research to develop the product and tech. They had an attractive and clear value proposition. For us, CathVision is a candidate for being at the top of venture performance.”

Mads and his team came up with the CathVision Cube, an amplifier box that seamlessly connects to the existing devices in a procedure room. It may be the world’s most advanced signal amplifier, with advanced technology for high performance amplification and filtering. The Cube allows doctors to visualize signals that aren’t otherwise visible, through the heart catheter electrodes and on to monitors.
in the operating room. Most notably, it eliminates noise of the critical endpoint signal and helps doctors see where the diseased tissue is located. This in turn helps guide therapy to cure more patients. The company is now certified to manufacture and sell medical devices in general, and is submitting for approval to sell the full system in 2019.

The entire team feels more determined than ever to get the CathVision Cube out into the market and finally be able to help the millions of patients dealing with the condition. “It’s sometimes frustrating, with a product like ours out in the market, you just have to wait for certain things. Even if it were already safe to use in a hospital, we still need nine to twelve months to collect all documentation, pass formal tests and wait for regulatory approval. That’s frustrating. But we need to accept it as we have to be 100% sure the patients are getting the best treatment possible.”

**What**

Developing a low-noise electrophysiology (EP) recording system to guide ablation therapy more efficiently

**Founded**

2013

**HQ**

Copenhagen, Denmark

**Founders**

Mads Matthiesen, Rune Paamand and Rune Ørndrup

**Employees**

4

**Total funding raised**

€3 million

**Investors**

VF Venture and Borean Innovation
PART 6

Exits
High performing Nordic startups are vying for exits

Around half of divestments in the Nordics happen through IPOs or trade sales. However, there is a certain level of heterogeneity across the region. In recent years, over 60% of exits have been through IPOs or trade sales. Both Sweden and Denmark have seen a relatively large share of IPOs, partially due to an active micro and small-cap IPO market. Finland and Sweden have had a relatively sizable share of exits to other PE/VC firms.

Past returns of Nordic VC funds slightly below the average of other European funds

Historically, the average performance of Nordic funds has been below other European funds. However, recent industry development in the Nordics suggests VC funds will outperform other European funds in the future.
VCs in the Nordic countries are confident about future fund returns

50% of VCs say they are more optimistic about their fund returns than they were a year ago, while the other half expects equivalent returns over the next twelve months.

Are you more or less optimistic about your fund returns than you were 12 months ago?
Good companies always end up well. The quality of the company is the defining factor in the exit, not the location.

– Timo Ahopelto, Founding Partner at Lifeline Ventures

Nordic unicorns

Twelve unicorns have emerged from the Nordics since the early 2000s, with a combined value of €60 billion.
VCs in the Nordic countries see more exit opportunities emerging

30% of investors expect better exit opportunities for portfolio companies over the next twelve months, while the rest forecast exit opportunities to hover around similar levels as in the past.

We see a very strong deal flow both in quality and quantity in the Nordic countries. In addition to the general global M&A exit routes, we have well-functioning capital markets in the Nordics that also allow for local IPOs.

– Ingrid Teigland Akay, Managing Partner at Hadean Ventures
Spotify

A decade of Spotify — where it all started and how the Swedish music streaming giant became a household name

Spotify celebrated its 10th anniversary year in fashion by going public in April 2018 with a valuation of €26 billion. Although founded in 2008, the idea started brewing in CEO and founder Daniel Ek’s mind already in 2002. At the time when Kazaa was dethroning Napster in the race for file-sharing dominance, Ek realized that it was impossible to legislate away from privacy. Laws definitely helped, but problems would always remain. Ek thought the only way to work with the problem was to create a service that was superior to piracy and would compensate the music industry at the same time.

Fast forward to Q3, 2018, as Spotify had a presence in 65 countries and territories, with 191 million users — 87 million of whom were paying for the premium service, which Spotify estimates to be nearly double the scale of its closest competitor, Apple Music. Its premium subscribers grew 40 per cent year-over-year and its monthly active users — referring to both premium and freemium users — grew 28 per cent year-over-year.

But how did the Swedish startup turn free music into a streaming behemoth? Not too long ago when Spotify was still in its infancy, people were juggling around with
towers of CDs, deliberating whether to spend or not to spend 99 cents for each song downloaded from iTunes, or just not giving a heck and downloading free songs from shady peer-to-peer file sharing sites that skipped profit sharing with artists altogether.

Spotify came in at the right time, giving consumers a straightforward user interface that allowed customers to seamlessly coordinate hundreds or even thousands of playlists. On top of that, early on it stayed mostly consistent throughout all devices and operating systems. So if you were switching between iOS, Android and Windows, you knew how to operate it. It also kept ahead of competition with a large catalog of at least 40 million songs, terrific playlist recommendations and most of all a joyful experience where users contributed to virality by sharing and liking each others’ playlists and following their favorite artists.

It was also relentless in getting its service supported by most smart devices, making it universally available on all platforms. Spotify provides users with offline listening for both mobile and desktop, which definitely has helped its climb to the top of streaming services.

The path for Spotify was never an easy one though, at least during its early days. People were already listening to a lot of music, but the market was ripe for a more efficient way for artists to monetize their music, while consumers were looking for legal and effortless ways to listen. Nevertheless, it was awfully difficult to develop a service and launch it, especially when the value chain of the music industry was robust, well-organized and heavily guarded by four dominant record labels that had a firm grip on the whole industry.

The only way to thrust its way through everything and democratize the industry was to secure massive upfront investments and build something hard to mimic that couldn’t be copied with modest investment and a handful of skilled developers. But after sidestepping the fundamental challenges it faced in the beginning, it laid a relatively easy path for global domination. Today, with only a few taps people have access to most of the music that has ever been made.

"Did I ever believe that we are going to be alone? No. And that’s fine."

Despite its record IPO, Spotify faces immense competition from all sides. The threat from the likes of Apple Music, Google Play Music, Amazon Music and Tidal is real and isn’t going away. But Spotify remains confident its mission to unlock the potential of human creativity and giving the chance for over a million artists to live off of their music will come to fruition in the future.

In an interview with Fast Company in 2018, Ek explained why he believes Spotify still has an edge over everyone else, “Did I ever believe that we are going to be alone? No. And that’s fine. Competition really drives development. Apple is one of the biggest, incredibly successful in a lot of things. But everything we do all day, all night is about providing a platform for musicians and fans around the world. We have thousands of people who are focused [on that], and I believe that ultimately that focus, that clarity is the difference between the average and the really, really good.”
According to Ek in the long run, even though Spotify has laid itself quite a defense, success for them will be decided by their ability to move faster than anyone else in the space and just keep on innovating.
The data in this report has been gathered with the help of Invest Europe and Copenhagen Economics. We also gathered information by sending out surveys to VC funds and their decision-makers across the Nordics. If you have any questions regarding the methodology, send a message to us at info@paaomasijoitajat.fi