INNOVATION Ambitious circular economy market

PEOPLE

Culinary tradition with an urban twist

ISIS NAND

TECHNOLOGY Risto Siilasmaa on machine learning

FUN Finns love spending time in the forest

Young startup talent

ROCKSOLID DEAMORIA

2019–2020

ISSN 2343-2624



SUOMI FINLAND FEELING FINLAND **By** Marina Ahlberg **Photo** Roope Permanto

WHO IS THE FIRST TO THE TOP?

Music, art, exercise, adventures... Many Finnish day care centres emphasise exciting themes. But it all comes down to having a good childhood.

A group of excited toddlers enter a forest near their day care centre in Helsinki. The group is already familiar with their play area in the forest, and the children climb nimbly on and over big rocks and tree stumps. The CEO of Taiga Child Day Care Centres, Susanna Suutarla, explains the routines of the nature-themed centre:

"For us, nature is comparable to indoor spaces and we enjoy spending time outdoors around the year, come rain or shine. We spend many hours outside every day and we often even eat outside."

"Taiga Child was founded 20 years ago. We worked together with Suomen Latu – The Finnish Outdoor

Association to create a concept called Luonnossa kotonaan – At home in nature, which emphasises playing and moving safely in nature, as well as spending time and doing things together without being in a hurry."

Children learn how to use their bodies outdoors and also how to move in uneven terrain. The natural environment feeds the child's imagination and through playing a curious child observes and learns from his or her surroundings.

"In the forest, children learn very concretely how to separate a spruce from a birch and to take care of their environment. You wouldn't leave the playroom untidy after playing indoors and the same applies to the outdoor play area. We cherish the values of a sustainable lifestyle," says Susanna Suutarla. 🕒

(
taigachild.fi, suomenlatu.fi/en

There is room to run and play outdoors. It is safe for children to play in nature's own jungle gym and an adult is always nearby.



EDITORIAL

Inka Mero Startup investo

MEANINGFUL **HAPPINESS**

Did you know that Finland ranks among the top nations globally across many metrics – not only in education, healthcare, equality, environment, safety and cross-country skiing, but also in happiness and entrepreneurship? This is a major thing for us Finns, because we don't take our place in the global economy for granted, and we recognise that competition for skilled professionals is tough.

In this magazine, we want to show you some of the things that make everyday life in Finland great. We also share inspiring local

stories on high-tech entrepreneurs and digital startups disrupting global industries. Why? Because entrepreneurship and innovation matters. For any nation, big or small, talent equals innovation. Innovation, by its nature, equals economic growth, entrepreneurship and privileges such as free public education, social welfare and a purpose-driven society.

My own story as a growth entrepreneur and startup investor started over 20 years ago, when being an entrepreneur was far from fashionable. Today, it is among the top most desirable professions among our university students. Our startup ecosystem is thriving and attracting top-tier global investors. Thanks to unicorns like Supercell and Rovio, the gaming scene is creating massive opportunities, but in addition, thousands of new health-tech, bio, and software companies have founded their home in Finland.

It has required both small miracles and major steps from society to put Finland on the global map as one of the leading startup nations. Major contributing factors include the inclusive society with a relative lack of hierarchy; the world's most active angel investor and student entrepreneurship networks; and startup-friendly public R&D funding. Serial entrepreneurs and investors participate in coaching new entrepreneurs. Startup visas are provided for new talent moving to Finland. Society respects individuals stepping up. It truly has taken a village.

The rise of new talent is only beginning to shape global industries. Innovation and entrepreneurship make this happen.

So welcome to Finland! It's a land of happy people, growing new companies and fostering talent. 🔵

*The chair Kuusi palaa – Six pieces in steel and aluminium was designed by Pinja Koskelin for Stockholm Furniture Fair 2018 as a study project by third year BA students of Furniture Design from Aalto University.

This is FINLAND Magazine

Available in English, Chinese, French, German, Russian and Spanish. To read the magazine online or order free paper copies, please visit toolbox.finland.fi. For paper copies you can also contact the nearest Finnish embassy.

EDITOR-IN-CHIEF Mika Hammarén EDITORIAL BOARD Hetta Huittinen, Laura Kamras, Joanna Kumpula, Peter Marten, Meira Pappi, James O'Sullivan, Petra Theman, Sari Tuori EDITORIAL STAFF Otavamedia OMA PRODUCER Anneli Frantti COORDINATOR Marina Ahlberg LAYOUT DESIGN Linda Macken COVER PHOTO BY Anu Kovalainen PRINTED BY PunaMusta PUBLISHERS Ministry for Foreign Affairs of Finland. um.fi

Business Finland, businessfinland.fi Finnfacts, finnfacts.fi Finnish National Agency for Education EDUFI, oph.fi Sitra sitra fi ISSN 2343-2624 (PRINT) ISSN 2343-3272 (ONLINE)

SUOMI **FINLAND**



Stories illuminated

This magazine is printed on Finnish LumiSilk – a woodfree, multicoated silk paper. It is made of virgin wood fibre from Finnish woods and produced in StoraEnso's Oulu mill in northern Finland. LumiSilk has PEFC certificate and fulfils the Nordic Swan criteria





FACTS ABOUT FINLAND

POPULATION: 5.52 million TOTAL AREA: 338,435 km², of which 10% is fresh water BIGGEST CITIES: Helsinki (capital), Espoo, Tampere, Vantaa, Oulu and Turku **OFFICIAL LANGUAGES:** Finnish and Swedish **GOVERNMENT:** Independent republic since 1917 **CURRENCY:** Euro

IOINED THE EU: 1995 GDP PER CAPITA: €40,638 (2017) TOP SECTORS FOR FOREIGN INVESTMENT: Business services, ICT, healthcare and wellbeing, retail, cleantech TOP AREAS OF EMPLOYMENT: Services, financial and

business services, trade and hotel, manufacturing, transport and communications

THIS IS FINLAND 2019-2020

SOLUTIONS FOR 6 **A HEALTHIER PLANET** The circular economy will ensure prosperity in the future 9 Valtavalo sells lighting as a service **MEET & GREET FINLAND** 10 The Finnish year is full of events for all ages and to suit all tastes 12 WE MAKE IT WORK In Finland, startups are admired and encouraged 15 AI that recognises video content 16 Track your own stress hormone levels 17 Esports games for mobile devices 18 COLUMN Stable platform for scientific research by Johanna Ivaska 20

STREET GALLUP What's the best thing about Finnish libraries?

22 **CHARTS & FACTS**

33

38

30

32

What do Finns do in their spare time?

24

KNOWLEDGE DRIVEN

Eco-consciousness and business in the Arctic region 28 Why I studied machine learning by Risto Siilasmaa

HIGH LIFE Into the wild Finnish brands – designed to last







KEEP IT SHORT

From 5G to 6G, Space Finland International Gender Equality Prize 2019

SOCIAL CONTEXT

The power of forests

IN TOUCH

Finnish food culture, restaurants and food events







THE CIRCULAR ECONOMY **WILL ENSURE PROSPERITY IN THE FUTURE**



in a linear economy, where goods are manufactured from raw materials, sold in the largest possible quantities, and eventually discarded.

This model no longer works, now that it has become clearer that natural resources on the only planet available to us, Earth, are finite. The climate crisis and loss of biodiversity mean that we will have to leave some natural resources unexploited.

BUSINESS INCENTIVES

In the circular economy, products are shared, with services being purchased rather than goods. Materials are reused

SOLUTIONS FOR 7 A HEALTHIER PLANET

By Samppa Haapio Photo Roope Permanto

The goal of the circular economy is simple: to halt over-consumption so that we can still afford to be prosperous in the future.

> he circular economy's key idea is to detach growing prosperity from the over-exploitation of virgin natural resources. We are used to living

several times over and products are designed to be long-lasting. Material in single products is reused when they reach the end of their lives or an intermediate production phase. Minimal waste is created during production and product use.

"In many public discussions, the circular economy is only about recycling," says Mari Pantsar, a Director at Sitra.

Sitra is a Finnish agency focused on the future. As a fund, Sitra is building the thriving Finland of tomorrow and accelerating sustainable business.

"We have already partly made the transition to the circular economy but our patchy, if well-functioning, recycling and reuse of products is just the first step."

Pantsar believes that the key challenges lie in creating economic incentives to drive the use of recycled materials.

8 SOLUTIONS FOR A HEALTHIER PLANET



In the circular economy, products are shared, with services being purchased rather than goods. City bikes are shared bicycles available to everyone. In Turku, the bikes are available all year round and in winter they are equipped with winter tyres.

"Products made out of recycled materials are often more expensive, or market entry is difficult. Choosing products made out of recycled materials should make more financial sense for everyone," says Pantsar.

"There is not much unique about circular economy activities: they were practiced in pre-modern times, because they made financial sense. Products were shared, long-lasting and many were reused as a matter of course. It just wasn't known as the circular economy. Today these practises are combined with digital platforms that enable sharing practises."

FINLAND A PIONEER IN MANY WAYS

Finland aims to create the world's most ambitious circular economy market, which encourages investment and the creation of new solutions.

The world's first circular economy roadmap was announced in Finland in September 2016. Following Finland's example, nine other EU countries have drawn up similar action plans since then. The first event to highlight the world's best circular economy solutions, the World Circular Economy Forum 2017, was arranged in Finland. More than 1,600 private sector delegates, decisionmakers and experts attended from over 90 countries. The event fostered international cooperation in transforming the world's economy. The 2018 forum was held in Japan.

Sitra's list of key examples of circular economy businesses has been a popular awareness-raising tool.

"We hope that as many companies as possible go through the list and ponder

whether it contains new ideas for doing business. Companies are queueing up to join the list, which has attracted interest elsewhere in the world."

The circular economy is being widely taught in schools: a generation of Finnish youngsters have already learned about the phenomenon.

"We want to challenge teachers to teach the circular economy to children in every grade. Our aim is that all people, irrespective of their sector, understand how to realise the circular economy, ending the need for actual circular economy 'experts'."

"WE WANT TO CHALLENGE TEACHERS TO TEACH THE CIRCULAR ECONOMY TO CHILDREN IN EVERY GRADE."

VALTAVALO: LIGHT AS A SERVICE

Valtavalo, a manufacturer of LED tubes, sells lighting as a service, rather than lamps as products. This is an excellent example of the circular economy concept, based on buying a service rather than a physical product.

THIS IS HOW WE DO IT

Lighting is a major consumer of energy, and fluorescent tubes, in particular, have to be continuously replaced. Replacing them with a LED light significantly reduces life cycle costs and creates direct energy savings.

"In addition to poor energy efficiency, the problem with the old fluorescent tubes is the tendency of the frames to deteriorate due to heat, UV radiation and the frequent need to change the tubes," says CEO **Markku Laatikainen**.

"In addition to poor energy

efficiency, the problem with

the old fluorescent tubes is

the tendency of the frames

to deteriorate due to heat,

UV radiation and the fre-

quent need to change the

tubes," says CEO Markku

Laatikainen.

Valtavalo manufactures replaceable LED light sources, i.e. LED tubes, in Kajaani. The company moved its production from China to Finland in 2012. As a substitute for fluorescent tubes, LED tubes are a standardised, longlasting and energy-efficient light source. The LED tubes of different manufacturers also tend to be compatible irrespective of the lamp, which means that the lamp does not need to be changed for decades. At the beginning of the current decade, this also gave Valtavalo the idea of providing light as a service.



"Our products were originally designed to be very long-lived, but we found ourselves designing a product that was even a little too durable. We were unable to convince our customers that our LED tubes could genuinely last for over 15 years," says Laatikainen, with a laugh.

"So we decided to create a business model based on lighting as a service, in which we bear the risk of the product's durability. Kone, the lift manufacturer, was a positive example in this respect."

The Valtavalo light service model lowers the customer's threshold for purchasing high-quality, energy-saving lighting. The goal is for the customer to pay for the service from the accumulated savings, since the service can easily cut their lighting costs by up to half. With installation and maintenance outsourced, no unexpected repair costs are incurred by the customer. An integral part of the solution is a financing partnership, whereby Valtavalo is paid upfront for the products sold as a service. Valtavalo also handles the products' recycling. ●





By Päivi Leinonen **Illustration** Päivi Rücker

EXPERIENCE FINLAND!

Culture, design and business - the Finnish year is full of events for all ages and to suit all tastes. Try one of these in 2019!

BE INSPIRED BY SÁMI CULTURE

St Mary's Day in Hetta, Enontekiö 22 to 24 March

Celebrating St Mary's Day in Hetta, Enontekiö, is an old Sámi tradition. The Sámi people were already gathered there for weddings, christenings and funerals in the 16th century. The local Sámi Cultural Association, Johtti Sápmelaččat, has been arranging activities and programmes for the event since 1971. The program consists of a wide range of cultural events: seminars, exhibitions, concerts, workshops, dance and sports.

marianpaivat.fi

A RACE IN THE FOREST

The Jukola relay. Kangasala 15 to 16 June

The Jukola relay is the world's biggest orienteering relay competition. It is open to the world's elite, as well as amateur orienteers. In the two relay competitions, around 20,000 competitors head into the forests of Kangasala. In addition, the Jukola relay begins close to midnight. The weekend also includes amazing experiences for the public, as the competition center is like a small town with pop-up cafes and sports shops, a forest church and a range of events.

MODERN ART WITH A FRESH PERSPECTIVE

Mänttä Art Festival, Mänttä 16 June to 1 September

The festival has been organised by its founding association, 'Mäntän kuvataiteen ystäväť, since 1993. This is one of Finland's leading summer reviews of contemporary art, with a new curator bringing a fresh perspective to the exhibition every year.

mantankuvataideviikot.fi/en.php

IN THE MOOD FOR METAL?

Tuska Open Air Metal Festival, Helsinki 28 to 30 June

The Tuska festival has been arranged since 1998. In a country with a huge number of metal bands, the festival became a big success in its early years. A total of 34,000 metalheads made their way to Suvilahti in 2018.

tuska-festival.fi/en

HOW DO FINNS LIVE? Housing Fair 2019, Kouvola 12 July to 11 August

OULU

The Housing Fair is an annual event that showcases ongoing and future trends in the housing industry. The event is set up in an area where actual houses are built for the audience to visit. After the fair closes, families will move in and live in the houses.

asuntomessut.fi/english

phenomena:

finland.fi/category/ arts-culture

27 to 30 June

The Medieval Market is more than just a market. Visitors can experience the medieval atmosphere of five venues: the Medieval Market in the Old Great Square. Turku Castle, Turku Cathedral, the Horse Tournament at the Rohan Stables, and the Aboa Vetus & Ars Nova museum. en.keskiaikaisetmarkkinat.fi

NFTWORK

Nordic Business Forum, Helsinki 9 to 10 October

Autumn in Helsinki is the season of business opportunities. The Nordic Business Forum in October is one of the world's key business conferences.

mbforum.com

∰ jukola.com/2019/en



SEVEN DIFFERENT FESTIVALS

Oulun juhlaviikot, 1 to 31 August

The Oulu August Festival will fill Oulu with arts and culture. The month-long celebration will feature: a jazz and rhythm music festival, a chamber music festival, a literary art festival, the Koiteli Elää Music Festival by the Koiteli rapids, the Oulu Arts Night, the Oulu Music Video Festival and the Air Guitar World Championships.

@oulunjuhlaviikot.fi/en

More about Finnish cultural events &

HISTORY COMES TRUE

The Medieval Market, Turku

UPDATE YOUR BUSINESS

DESIGNED FOR LIVING

Habitare, Helsinki 11 to 15 September

Habitare is Finland's largest furniture, interior decoration, and design event. It includes exhibitions of contemporary design, design classics, materials and interior decoration solutions. At the same time, the Antiques event, the Hifi event, and Habitare Pro for professionals, will be held at Messukeskus.

habitare.messukeskus.com

ART IS FOR EVERYONE

Helsinki Festival 16 August to 1 September

The largest arts festival in Finland aims to make art accessible for all. The programme line-up features classical and world music, theatre, dance, circus and visual arts as well as a range of urban events including The Night of the Arts. Helsinki Festival is honored with the EFFE Label 2017–2018 by The European Festivals Association (EFA).

helsinginjuhlaviikot.fi/en

WORLD'S LEADING STARTUP FVFNT

Slush. Helsinki November-December

In winter, during the coldest and darkest season of the year, leaders of the global startup and tech scenes get together in Helsinki for Slush.

slush.org

HUMBS UP FOR STARTUPS

In Finland, startups are admired and encouraged. If they get off the ground, everybody wins.



12 WE MAKE IT WORK

By Leena Koskenlaakso Photos Juuso Haarala. Anu Kovalainen and interviewed companies



"Е

and good market potential."

stablishing a company in Finland is easy and affordable, and if you do it online, it only takes one hour. Getting your company registered may

take a while though," says Ville Heikkinen, co-founder and partner of Butterfly Ventures, a Finnish venture capital firm. "Butterfly Ventures invests in early stage startups with a technology and science focus. We are looking for fast-growing and scalable startups that have a strong team

In his work, Heikkinen meets hundreds of new startups and listens to them pitching. He says the industries where Finnish startups have outstanding expertise are medical technology, gaming, artificial intelligence, wireless

communication and the Internet of Things.

STRENGTH IN TECHNOLOGY, MODESTY IN MARKETING

Typically, Finnish startups have excellent skills in their own technology, but are less skilled in marketing and sales. Modesty is a Finnish virtue, and praising our own pond does not come naturally to us.

"But the recent years' efforts to build strong and supportive ecosystems are starting to bear fruit, and occasionally I meet young entrepreneurs who show amazing courage and maturity. The startup mindset is moving from secretive nondisclosure thinking to a more Silicon Valley type of pay it forward attitude where companies help one another," Heikkinen notes.

14 WE MAKE IT WORK

COUNSELLING AND FUNDING

To get started, you can get counselling from ELY Centres (Centres for Economic Development, Transport and the Environment). If you come from a country outside the EU you can apply for a Finnish Startup Permit via Business Finland. Once established, you can apply for e.g. Tempofunding from Business Finland.

"If you have an innovation-driven startup with no revenue stream but potential for fast scalability, you can seek venture capital, whereas SME-driven startups with slower scalability but existing customer revenue can apply for a bank loan," Heikkinen explains.

UNIVERSITIES AND BUDDING ENTREPRENEURS

"The Finnish government is endorsing entrepreneurial education in universities. Innovations and enterprises are fundamental to the success of a sparsely populated country," says senior lecturer and project manager **Anne Määttä** of Kajaani University of Applied Sciences (KAMK). Her duties include advising students who want to become entrepreneurs.

"All our students have a mandatory basic business skills study module, on top of which you can opt for a longer business course. Our Young Entrepreneurship Startup studies involve a trial year when you can develop business ideas with mentors. If you decide to set up a business, you can use the services of our Business Accelerator unit, which assists you with funding applications, commercialisation and internationalisation," Määttä explains.

Määttä says foreign students are most welcome to Finland. "There is a wide choice of academic studies available for them. At KAMK alone, we offer five English-taught degrees, the newest one being esports."

KAMK has given rise to many gaming spinoffs. The startups in the Kajaani gaming cluster employ a lot of local talent, making them a source of much pride for the region.



Finns may be modest but they also have *sisu*, a mindset of strength, determination, courage and willpower. A perfect quality for startup talents!

Read more about sisu: finland.fi/arts-culture/sisuwithin-finnish-key-life-lovesuccess

*Finland emoji #sisu. See all our national emojis at () toolbox.finland.fi



CASE

AI THAT RECOGNISES VIDEO CONTENT LIKE A HUMAN

Valossa is a Finnish startup with roots in the computer science and machine vision labs at the University of Oulu. Founded and based in Oulu since 2015, Valossa develops AI software that recognises video content like a human: seeing, hearing and understanding who and what is in it, and what the video is about.

"Our content intelligence software makes a comprehensive deep analysis of video content, identifying all persons, visual objects and sounds, recognising speech and profiling the content according to the topics involved. It compiles a summary of the famous people appearing in the video, and makes the results searchable by name," explains Valossa's co-founder and CEO Mika Rautiainen.

"We are an independent company with video recognition technology that can be deployed in the cloud or on premises.



"OUR YOUNG ENTREPRENEURSHIP STARTUP STUDIES INVOLVE A TRIAL YEAR WHEN YOU CAN DEVELOP BUSINESS IDEAS WITH MENTORS."

- ANNE MÄÄTTÄ

According to senior lecturer and project manager Anne Määttä of Kajaani University of Applied Sciences, foreign students are more than welcome to Finland. KAMK offers degrees taught in English, amongst others, in esports.



"My research team and I had the required scientific vision, it was only a question of whether we dared to transform ourselves into entrepreneurs. The final choice was catalysed by our company co-founders pulling us to jump to the commercial side," says Valossa's co-founder and CEO Mika Rautiainen.

Our clients include big European and US broadcasting companies as well as video marketing and advertising businesses. MTV3, a privately owned Finnish media and broadcasting company, is among our media clients."

CONTENT COMPLIANCE IS A HOT TOPIC

Valossa has released a video content compliance solution for identifying and reporting potentially inappropriate content, such as nudity, violence, substance abuse and bad language. In addition to online content regulation, there is a pressing need to identify illegal content, fake news and hateful material.

Two years after securing a seed investment of €400,000 in 2015, Valossa raised a further \$2M from British and Finnish venture capital investors.

"Five years from now, we want to be the world's leading independent video recognition platform," Rautiainen says. CASE

TRACKING YOUR OWN STRESS HORMONE LEVELS

Inme, a Turku-based startup founded in 2017, has developed a mobile app for people worried about the impact of stress on their health and wellbeing. The app is used together with a saliva-based self-measurement kit that indicates your cortisol level. Cortisol is known as our stress hormone.

"Our solution is based on 20 years of know-how in diagnostics research in the Department of Molecular Biotechnology and Diagnostics at the University of Turku," says Etvi Juntunen, co-founder and CTO of Inme.

EASY-TO-USE SELF-MEASUREMENT

Using the stress tracking system is easy. You just take a saliva sample with a measurement strip, slide the strip into a small metering device, take a photo of the meter reading with your smartphone camera, and use Inme's mobile app to see your current stress level. For long-term stress management, repeat on a regular basis.

"Our first beta testing devices were launched in late 2018, with the affordable final product version coming to shop shelves in 2019," Juntunen says.

The test is meant for home use, but is also suitable for occupational health clinics, fitness centres and spas.

WORKING IN A RENTED LAB

"We have rented fully equipped laboratory facilities at business hotel Werstas, which is run by Turku Technology Properties and is partly owned by the city of Turku. The unique rental concept allows us to focus on product development, without having to invest in lab infrastructure," Juntunen explains.

Next, Inme plans to develop a salivabased testosterone level measurement kit for middle-aged men. They are also working on a saliva-based hormonal level tracking kit for menopausal women.

> "It is hard to predict what investors and consumers will find interesting, so you have to be agile and keep your business concept flexible," says Etvi Juntunen, co-founder and CTO of Inme.

"Working in a startup is exciting and rewarding. We are driven by passion for our work, but the challenges are huge – especially how to acquire, retain and monetise users," says Critical Force's development director Tommi Krogerus (right), here with his team, Dawid Chemloul (left) and Nicky Pelupessy.

CASE

COMPETITIVE ESPORTS GAMES FOR MOBILE DEVICES

Established in 2012 and based in Kajaani, Critical Force is one of only a few companies in the world that makes electronic sports games played on mobile devices. In October 2018, their online first person shooter game title Critical Ops had been downloaded over 45 million times worldwide.

"Competitive online multiplayer games are typically downloaded by 18 to 24-year-old and even younger males. They love the competition, challenge and social interaction that online gaming provides," says Critical Force founder and CEO Veli-Pekka Piirainen.

The roots of the company are at Kajaani University of Applied Sciences, where Piirainen used to work as a senior lecturer. In 2006, he founded the university's game development curriculum, which supplies the company's multicultural 80-person team with young talent.





KOREAN INVESTMENT AND FINNISH FUNDING Mobile esports is still a niche market but it has lots of potential, with top-grossing games making up to \$2M revenue per day. In 2016, Critical Force raised a €4M seed investment from big South Korean video game publisher NHN Entertraisment whem they later partnered with This led

from big South Korean video game publisher NHN Entertainment, whom they later partnered with. This led to the establishment of a subsidiary in Seoul. "NHN Entertainment saw the potential of our game

especially for the Asian market. They are going to publish a retailored version of it to suit the Asian taste," Piirainen says.

In 2018, Critical Force raised €5.4M in funding from Business Finland. The funds will be used to develop the company's technology and organisation further.

"Five years from now, we want to be a recognised and respected brand and a trendsetter for competitive mobile game titles," Piirainen concludes.

18 COLUMN

By Johanna Ivaska

Academy Professor of Biochemistry at the University of Turku Head and Vice President of Oncology Research at Orion Corporation

Editor Päivi Brink

Photo Suvi Elo

STABLE PLATFORM FOR SCIENTIFIC RESEARCH

My work is profoundly international and the scientific community I personally feel part of is located in many parts of the world.



olleagues and partners exploring the same research areas as my team and people I have met at international conferences, are all

building a global puzzle together in the field of cancer cell biology.

Nevertheless, my own team that we call Ivaska Lab is my closest community and we work together in Finland, at the Turku Centre of Biotechnology. My internationally recognised team has 18 members including myself. The members are all at different stages of their careers. Some of them are writing their master's theses, some are working on their doctoral theses and others are post-doctoral researchers. They are men and women from eight different countries with different backgrounds, religions and mother tongues. Together, we form a multidisciplinary research group of equals. We are interested in understanding how integrins contribute to almost every step of cancer progression.

Finnish universities offer a genuinely English speaking working environment

for foreign researchers. All scientists and even the support personnel at universities speak fluent English. Most of the bureaucracy can be dealt with online and

in English. The everyday conversations at the lab are also in English, which enables integration irrespective of an individual's background and also provides the staff

"FINNISH UNIVERSITIES OFFER A GENUINELY ENGLISH SPEAKING WORKING ENVIRONMENT FOR FOREIGN RESEARCHERS."

- JOHANNA IVASKA

with good practise in discussing their topics at conferences and writing papers.

I specialise in the role of cellular changes in metastatic development of cancer. Recently, I was chosen to lead the oncology team at Finnish pharmaceutical company Orion. Finnish universities have increased their cooperation with business, which provides researchers with access to new forms of funding. The pharmaceutical companies do not do basic research, but they utilize the results of the research done at universities. We are still working on the rules of this co-operation, since the scientists need to publish their results, even if it is not in the interest of the company.

The Finnish society is one of the most stable in the world and it functions well. It is an equal society where everyone is offered a good education and health care that is almost free. Even if researchers do not earn top salaries, we still enjoy a good standard of living and a pleasant living environment. Affordable English speaking day care facilities and free international schools are a clear advantage for anyone with children working in Finland. Finland does not have big cities, but if you enjoy nature and small town living, this is a great place to live in. Many of the foreign researchers I persuaded to join my team, have ended up staying for years.



TOP 3 REASONS TO DO SCIENCE IN FINLAND

1. FIRST-CLASS RESEARCH GROUPS

that deliver significant results. Recognised team leaders, state-of-the-art equipment and funding possibilities in Finland and EU.

2. LARGELY ENGLISH SPEAKING

SOCIETY. Equality is an important value in the Finnish society and the welfare state offers affordable health care, child care and free schools.

3. NATURE is always nearby and is easily accessible.

By Päivi Leinonen, Helena Forsgård, Tuija Sorjanen, Marina Ahlberg Photos Päivi Leinonen, Armi Särkelä, Anton Reenpää, Helena Forsgård, Marina Ahlberg and Juha Kauppinen

> ABDULLAH MIRZAEI, STUDENT, TURKU

"I use the Turku Main Library for

Finnish. I come here every day

studying mathematics, English and

during the academic year. It's quiet

here, and the location in the city

centre is great."

THE LIBRARY IS CALLING!

Modern libraries are like living rooms that provide both experiences and learning. We asked people up and down the country about the best aspect of their local library.

libraries.fi/en

20 STREET

GALLUP



MIIA ALHANEN, JOURNALIST, 45, KAARINA

"Our Uusi Kaarina Library is a wonderful, multi-purpose facility. In addition to books, there is a music room, reading corner, art exhibitions and a large hall for events."

SCHOOLGIRL, 12, MÄNTSÄLÄ "My library is a mobile library which visits

MEERI SÄRKELÄ.

my home village of Ohkola every other week. It also drops by my schoolyard and the pupils pop in during the school day."



MIA WREDE, PSYCHOLOGIST, 32, AND HER DAUGHTER BODIL, 1, ÅLAND ISLANDS

"We love it here at the Mariehamn Library. There is plenty of room for children. In addition to the children's section, there is an attractive and quiet storytelling room."



MOSSE WALLÉN, RETIRED JOURNALIST, 67, ÅLAND ISLANDS

"In addition to a huge selection, I appreciate the beautiful building of the Mariehamn Library. Guest writers are the highlight of the Mariehamn Literature Days held here every year."

OYELOWO OYEDAYO, STUDENT, 24, HELSINKI

"I like the comfort and selfservices in the Helsinki University Kumpula Campus Library, which give me the feeling that I am at home with almost every learning resource I need!"

Mariehamn Helsinki



A NEW LANDMARK BUILDING!

In the heart of the city, the new Helsinki Central Library Oodi offers a public space open to all, seven days a week. (f) oodihelsinki.fi/en

TERTTU RISSANEN, PENSIONER, 80, IVALO

"The Ivalo Library has amazingly good service. A pensioner can't afford many newspapers, so I read them in the library. I'm now going to ask for help with sending a picture by mobile phone. You can also borrow sports equipment here."

DIANA TÖRNROOS, HEAD OF CUSTOMER TEAM, 57, HELSINKI

"The Käpylä Library provides a feeling of urban community, as well as literature. I love the monthly writer visits and small surprises – last time, I found myself in the middle of a wonderful art exhibition."

JOHANNA KALJA, STUDENT, 29, IVALO

"There's a good selection here. I borrow books from the Sámi-language section for my child, who speaks Skolt Sámi. There is a good Northern Sámi selection, but there are fewer books in the Skolt Sámi language."

mauri kunnas iânnaitie'm

põõrtâst



By This is FINLAND editorial staff Photos Riku Pihlanto and iStock

What do Finns do in their spare time?

LIFELONG LEARNING

There are a total of **181** adult education centres in Finland, operating across the length and breadth of the country. The centres are open to everyone, regardless of educational background. Every year, more than one in ten Finns attend courses, and the fees remain highly reasonable as they are subsidised by central government and local authorities. Tuition is offered in a wide variety of subjects, including languages, IT, arts and crafts, music, sports, cooking and wellbeing.

kansalaisopistot.fi/english

POPULAR WAYS TO SPEND LEISURE TIME

Reading books	56%
Walking	49%
Exercising in nature	48%
Travelling abroad	36%
Solving crosswords/sudoku	32%
Travelling in Finland	31%
Spending time at	
summer cottages	28%
Self-access learning	27%
Cooking as a hobby	25%
Gardening	24%
-	

WHAT SPORTS DO **FINNS WATCH?**

Ice hockey	39%
Athletics	36%
Soccer	26 9
Motor sports	25%

The respondents were given more than one option, which resulted in a total percentage of more than 100%.

Source: Kantar TNS Oy, TNS Mind Atlas 2018

ESPORTS RISING IN POPULARITY

Young Finns are interested in electronic sports. In a survey conducted in September 2017 that measured the popularity of **63** different sports, only ice hockey was considered more interesting than esports by persons between the ages of 18–29. Other age groups are also interested: 14% of the population indicated an interest in esports.

Source: ePressi/Sponsor Insight

FINNISH **VOLUNTEERS**

In a survey taken in 2017, almost every third Finnish person over the age of 15 had done volunteer work during the past 12 months. The volunteer work may have been collecting money, coaching sports, keeping lonely people company, or participating in any other organised activity. This work was not always organised by registered associations. Men and women participated in volunteer work in equal amounts and with equal frequency.

Source: Statistics Finland

Art





Say it loud, say it proud: Finnish expertise in all things Arctic is second to none.





t's not just the polar bears that are feeling the heat nowadays. Arctic regions are extremely vulnerable ecosystems and require a decidedly delicate touch

- along with smart, sustainable solutions. That is not to say that the Arctic doesn't offer also business potential to go with the snow and ice.

How can eco-consciousness and business thrive together? One obvious key is deploying sustainable, responsible practices. With this in mind, The Arctic Council Expert Group on Black Carbon and Methane (EGBCM) met in Helsinki on 20–21 September 2018. The group's aim is to raise awareness of climate-warming black carbon and methane emissions and give recommendations on how they can be reduced.

Black carbon particulars and methane gas are powerful climate pollutants, despite their relatively short lifetime in the atmosphere. By reducing their emissions, it is possible to achieve rapid results in the fight against climate change. Black carbon, or soot, has a great impact on the Arctic Region as it accelerates melting.

KEEPING THE COURSE STEADY

Black carbon was only one of the themes on Finland's agenda, as it assumed the chairmanship of the Arctic Council in 2017. During the two-year stint as chair, Finland is looking to strengthen Arctic cooperation and its continuity, right up to the highest political level.

René Söderman, Senior Arctic Official, says that so far, Finland has been successful organisations.

The Arctic Council Chairmanship rotates among the Arctic states (Finland, Iceland, Russia, Norway, Denmark, Sweden, Canada and the USA).

says Söderman.



By Sami Anteroinen Photos Kaisa Rautaheimo / Otavamedia. interviewees, companies and iStock

in meeting the target of improved collaboration – as well as advancing its own priorities.

"The Finnish priorities are

environmental protection, meteorological cooperation, connectivity and education," says Söderman, adding that Finland has made progress especially in meteorology.

In addition, there are 40 observers in the Arctic Council, either countries or

"During the last ten years, we have clearly seen a trend where non-Arctic states and organisations have shown an increased interest towards the Council,"

"It is clear that climate change is making a lot of different countries pay attention to Arctic issues." he adds.

CONTROVERSIAL TREASURE

Obviously, there is also high global interest in the natural resources (oil, gas and minerals) of the Arctic Region. Those resources are becoming more easily available due to shorter winter periods and reduced ice coverage caused by climate change – but, on the other hand, drilling for Arctic fossil-based energy seems like a bad move for the planet.

Sidestepping that issue for a minute, it is clear that also new sea routes - such as the Northeast and Northwest Passages – are becoming viable. Again, year-round navigation in the vulnerable Arctic Region is ripe with both opportunity and risk.



"CLIMATE CHANGE IS MAKING A LOT OF DIFFERENT COUNTRIES PAY ATTENTION TO ARCTIC ISSUES."

- RENÉ SÖDERMAN

26 KNOWLEDGE DRIVEN



"FINDING ROBUST, DURABLE SOLUTIONS FOR OPERATING IN FREEZING AND FRAGILE CLIMATES IS NO SMALL FEAT."

- JAAKKO HEINONEN

VTT Principal Scientist Jaakko **Heinonen** agrees that one has to be extremely careful in the North. Finding robust, durable solutions for operating in freezing and fragile climates is no small feat – but Finns have plenty of expertise to draw from. Still, there is much benefit to be gained from increased collaboration. Heinonen points out.

"With this in mind, we're launching Arctic Operations, a new type of innovation ecosystem, that combines resources of maritime companies, researchers and authorities." Heinonen explains.

POLAR PLATFORM

According to the grand vision, viewing Arctic seas as a "multi-platform" for a range of activities (such as renewable energy production, transport, trade, tourism and fishing) means that the role of the Arctic may enjoy a good degree of diversification in the coming years. At the same time, there is a stated need to act responsibly every step of the way.

"A key issue here is how we can build a good foundation for sustainable future business," Heinonen comments. While climate change is causing ice to melt and seas to rise, it's true that there are freakishly cold winters, too.

"2011 was a tough ice winter on the Baltic Sea."

NORTH WIND BLOWING

One potent area could well be Arctic offshore wind parks. In August 2017, the world's first offshore wind park for icy conditions, Tahkoluoto I, was launched. Tahkoluoto is also Finland's first offshore wind park built on offshore foundations.

"Tahkoluoto is a great example of Finnish know-how in renewable energy facing demanding, Arctic conditions," Heinonen says, adding that the wind

park is likely to lead to other similar breakthroughs. Actually, VTT already has a wind park design portal to facilitate the next generation of offshore parks. The design portal is already used inside the organisation and will be made available to the public in early 2019.

"It is a useful tool for companies when they are considering the scope of their investment and need data for the decision-making process."





Starkice

THIS IS HOW WE DO IT

Starkice provides intelligent de-icing systems and safe winterisation. "Winterisation" is a term for solutions needed in vessels, platforms and equipment to function efficiently in freezing conditions. The company's Intelligent De-Icing System (IDS) includes – in addition to the heating element – intelligent software and a control unit. This system brings cost savings, because heating is only activated when it is needed. It also means increased safety because walking and working areas are not slippery, and it frees people from control functions and manual de-icing work.

"Arctic Maritime is our focus. Our solutions improve energy efficiency, operational safety and capability in icy conditions," says CEO Ilkka Rantanen.

KINE Robot Solutions

KINE Robot Solutions has created innovations that resonate well with the maritime industry. AirNow is an automatic ship remote emissions monitoring service, created to help authorities and ports control the new air pollution rules at sea set by the International Maritime Organization (IMO).

Boxbot is a digital cargo load planning service for ports, terminals and logistics centres. "Ships can use Boxbot to optimise their general cargo packing as a whole; to maximise cargo intake; to minimise ballast water intake; and to minimise fuel consumption per delivered cargo ton mile," explains Jyrki Vilo from KINE. ●



Navidium

Navidium is a Finnish Maritime CleanTech company which has a wide range of new, innovative internet-of-things (IoT) products for the maritime industry. Janne Tolonen, Vice President, Business Development IoT, believes that the North holds great potential that has yet to be explored.

"We see great opportunities in the Arctic. The solutions we have developed serve ships performing on the ice in an unprecedented way."

For example, the company's unique IceTrail management system optimises vessel routes and minimises risks in ice conditions.



Norsepower

With wind conditions typically stronger in the Arctic region, companies such as Finnish Norsepower are presented with considerable opportunities for growth in the Arctic maritime industry. "Norsepower's Rotor Sail solution is a modernised version of the Flettner rotor which uses the Magnus effect to harness wind energy into forward propulsion," explains Tuomas Riski, CEO of Norsepower:

"The technology is fully automated and can deliver fuel savings and emissions reductions for ships sailing in the Arctic – where the environment is more vulnerable," he says.



UNDERSTANDING THE NUTS AND BOLTS OF TECHNOLOGY



was fascinated by artificial intelligence during the end of the 80s and spent numerous hours working on Natural

Language Processing challenges using a weird and wonderful programming language called Lisp. The effort didn't really amount to much, but at least I could forever after claim I had worked in the hallowed field of AI.

In 2006, the cybersecurity company I founded back in 1988 started using neural networks to identify malicious applications. Though F-Secure didn't immediately enjoy much success with it – as often happens when you're just a little bit too early with a new technology – it was my second brush with AI and my first with machine learning.

Third time lucky? The current renaissance with machine learning took off around 2012, and I continued to feed my fascination with the promise of intelligent machines through books and meetings with researchers on the topic. As chairman of Nokia, I was fortunate to be able to worm my way into the calendars of the movers and shakers of the AI world. I only understood bits and pieces, and initially believed the topic was so difficult that it would take ages to truly comprehend. But I also became frustrated with my discussion partners, some of whom seemed more

intent on showing off their own advanced understanding of the topic than explaining what they knew in plain, comprehensible language.

So, I spent some time complaining. Where could I find good material explaining how machine learning works in terms that would speak to anyone who loves to understand how things work?

"MACHINE LEARNING REALLY IS JUST MATH. AND RELATIVELY SIMPLE MATH AT THAT." - RISTO SIILASMAA

Then I remembered what being an entrepreneur meant. An entrepreneurial mind does not just complain to others, but always considers fixing the issue oneself. As a longtime CEO and chairman, I've gotten used to having things explained to me. Somebody else does the hard work and I can focus on figuring out the right questions.

Sometimes CEOs and chairmen may feel that understanding technology is in some way beneath their role, that it's enough for them to focus on things like "creating shareholder value". Alternatively, they may feel that they can't learn something seemingly complicated and therefore don't consider trying. Neither one is the entrepreneurial way.

So I thought: Why not study machine learning myself and then explain what I learned to others who are struggling with the same questions? With a quick internet search I found Andrew Ng's courses on Coursera. I started with Machine Learning and had a lot of fun getting reacquainted with programming. Andrew turned out to be a great teacher who genuinely wants people to learn.

Fun aside, it didn't take long before I was able to appreciate both the shortcomings and strengths of the current state of machine learning. It turned out to be both much less than I had expected, but at the same time, in many applications, more powerful and much more fascinating than I had dared hope.

Over time I gained enough understanding to explain what I felt were the most important aspects of machine learning to CEOs, politicians, academics (in other fields) and frankly, any decision makers. Inspired by Andrew Ng, I wanted to provide them with intuition on, for instance, why machine learning is so topical right now and why it is dangerous to ignore machine learning.



DID YOU KNOW?

• Machine learning is not programmed: it is taught with data. The value you get from it is a function of the quality of the data you feed it.

• **Because the intelligence is** really just numbers and the architectures relatively simple, it is not truly intelligence at all. Machine learning systems do not really understand. So far.

• Machine learning is a one-way street. You can have a neural network recognise faces, but you cannot ask it to describe any of the faces it knows.

• **If you teach** a machine learning system two skills, it cannot combine them to create a third skill. There is no autonomy in the systems.

• We are barely scratching the surface with applying machine learning. The revolution is under way, but only starting to gain speed.

Risto Siilasmaa is the Chairman of the Board of Directors of Nokia Corporation and an entrepreneur at heart. In addition to leading Nokia's recent transformation, he is founder and Chairman of the Board of F-Secure. Risto Siilasmaa is a well-known business angel, investing in several technology startups and serving on their boards.

KEEP IT SHORT

By Päivi Brink



FROM 5G TO 6G

In January 2019, Finland launched a 5th generation mobile network, one of the first countries in the world to do so. The technical leap compared to 4G is massive. 5G will enable up to ten times faster wireless connections to the Internet with various devices, enabling the Internet of Things. The University of Oulu has already started the Academy of Finland's Flagship programme 6Genesis. According to the university, the future society is going to be "increasingly digitised, hyper-connected and globally data-driven". The 6G network will be developed via international co-operation.

@oulu.fi/university/6qflaqship

SPACE FINLAND

Finland is known for its technical know-how and has innovative companies in space technology. too. Already thirty of them work in co-operation with the European Space Agency ESA. Solar Foods produces proteins using only air and electricity as the main resources. Their goal is to develop a system to produce proteins in a bioreactor tank for space flights to Mars and for colonies on Mars. Business Finland helps Finnish businesses go global and supports and funds innovations. Its space programme is called New Space Economy. Over the next five years, Business Finland would like to see 50 new companies in Finland connecting to the space business.

) spacefinland.fi solarfoods.fi



WORLD PARA SNOWBOARD **CHAMPIONSHIPS AT PYHÄTUNTURI**

The World Para Snowboard Championships are held in Finland for the first time from 25.3.–1.4.2019 at Pyhätunturi in Finnish Lapland. The current men's world champion in cross and banked slalom, Matti Suur-Hamari, will attend the World Cup along with a hundred more of the best snowboarders in the world. Finland has been one of the most successful countries in the Paralympic Games. In the Winter Games, Finland is at the very top and it has even been among the top 11 countries in the Summer Games.

paralympic.org/pyha-2019



INTERNATIONAL GENDER EQUALITY PRIZE

INTERNATIONAL GENDER EQUALITY PRIZE 2019

The receiver of the second International Gender Equality Prize will be announced in Tampere in autumn 2019. The prize, established in 2017 in honour of the 100th anniversary of Finland's independence, was first awarded to Federal Chancellor Angela Merkel of Germany. She chose the Nigerian NGO SOS FEVVF as the cause that received the prize money. The prize is awarded every second year to a person or an organisation that has advanced gender equality in a globally significant way. The prize money has been increased to EUR 300,000. The deadline for nominating candidates was 31 December 2018.

(f) genderequalityprize.fi/en



Singer-songwriter Juice Leskinen was among the first to be selected to the Hall of Fame at the new music museum. Juice was one of the most prominent pop artists in Finland in the late 20th century.



MOTHER LANGUAGE DAY IN FEBRUARY

UNESCO's International Mother Language Day is celebrated in Finland, too, on February 21st. Finland has two official languages, Finnish and Swedish. The third most common language in Finland is Russian. The Sámi languages have official status in Finland in the Sámi native region. UNESCO emphasises the role of mother tongues in education and promotes linguistic and cultural diversity and multilingualism. In Finland, learners starting school in 2019 will be the first who will all have access to learning foreign languages starting in Grade 1.

() un.org/en/events/motherlanguageday



In the autumn of 2019, Music Museum Fame will open at Tripla Centre in Pasila, Helsinki, Fame is a museum dedicated to Finnish music, where modern virtual technology enables an entirely new kind of experience. The museum will offer interesting information about music and an opportunity to enjoy and perform music. At the heart of the music museum is an honorary gallery, the Hall of Fame. Major Finnish composers and musicians ranging from Sibelius to Juice Leskinen will be selected annually and added to the gallery. Nightwish became the 11th member of the honorary gallery in October 2018.

finnishmusichalloffame.fi/en

By Marina Ahlberg, Jaana Kalliokoski, Päivi Leinonen **Photos** The interviewees

32 THE SOCIAL

THE POWER OF FORESTS

The saying 'Finland lives off its forests' is as true now as it ever was. Many Finns are employed by the forest industry, in addition to which the forest is a living environment, a recreational venue and a source of inspiration.





"The forest used to be my playground as a child, now it's my workplace. I became a

reindeer herder like my father and the forest gives me my daily bread. And not only the forest, but the whole northern nature including fells, rivers and lakes. That's where I get reindeer and game meat, catch fish and pick berries. My family and I can see the effects of climate change, which has made reindeer herding more difficult."



SANNA VÄHÄMAA Ilmajoki

"The forest is important to me. Walking or riding in the woods, accompanied by my dog, provides a good counterbalance to my work as a nurse. I have two horses, which I keep in a forest garden surrounded by fir trees a stone's throw away from home. The forest is just outside my back yard. I am also gualified as a forester by occupation, but I only work there as a hobby nowadays."



YRJÖ TURUNEN Kuusamo

"My childhood home was in North Karelia. In addition to farming, my father made a living as a forester. Since the age of ten, I have been involved in lumber work, stripping the bark off trees. The scents made a strong and lasting impression. I do forestry work every year. It's great to follow trees growing from the nursery stage. Forests are also ideal for recreation; I do a lot of hiking."



GERRY MACKEN Turku

"Finnish forests to me mean peace and quiet: being able to get away from the usual busyness of everyday life. Before I moved to Finland, I had always lived in towns and cities. Here in Turku I am never very far from trees and forests. That means a lot to me. Even when I am not walking in the forest, if I can see trees in the distance, it gives a sense of their grandeur."



CHEUK LAI Helsinki

"I had already heard about the Finnish forests before I came to Finland. The trees look healthy and tall. I have been in the forest only once this autumn and I have been surprised by the beauty of the leaves surrounding the forests. The air is refreshing and the temperature perfect. The Hong Kong 'forests' cannot compare with the Finnish ones because we do not have 'real' forests, only countrysides with many trees. There are fewer trees as we need more land for housing. Thus, I really like the nature in Finland.



CULINARY PLEASURES

Gastronomy is trending strongly in Finland. Food innovators combine Finland's culinary tradition with an international, urban style. The focus is on local food and ecological values.



N TOUCH 33

ENIOY PURE, NATURAL FLAVOURS In Finland, people can enjoy the natural environment without the permission of a landlord, i.e. they can roam in forests and around lakes and rivers on foot, horseback or by boat, can camp out in the wild for short periods, and pick delicious berries and mushrooms. This is referred to as 'Everyman's right.' mparisto.fi/en-us/nature/everymans_rights



AN OASIS OF GOOD FOOD AND FLAVORFUL DRINKS Just a stone's throw away from Kastelholm, a stately medieval castle on the shores of the Åland Islands, you can find Smakbyn, an inspiring place in the archipelgo, where you can enjoy a good meal and refreshing drinks made of local ingredients. You can also take part in cooking classes or visit the local distillery. smakbyn.ax/en



TAMPERE'S OWN TRIBUTE TO GOOD FOOD Tamperrada – inspired by the Tamborrada Festival in Spain - is Finland's biggest food festival. Over five days, restaurants in the Tampere region serve delicious local versions of small Spanish snacks called pintxos. In 2019, Tamperrada takes place from 19–23 August. tamperrada.fi/brief-inenglish



ORGANIC PRODUCTS DIRECT FROM THE PRODUCER Almost every city or town has a market where small producers sell freshly baked products, berries, root vegetables and fish. Younger sellers, in particular, speak English and will be happy to tell you about their products. You can identify Finnish products by the words "suomalainen" or "kotimainen". Find inspiration for your food adventure at: wisitfinland.com/ nungry-for-finland



SMAKU INTRODUCES LOCAL TASTES OF PORVOO Smaku is a food festival organised in the city of Porvoo, east of Helsinki. At Smaku you can taste signature dishes from different local restaurants in the form of small treats. Each restaurant creates a tasting version of at least one appetiser, main course or dessert, and visitors can vote for the best dish. The festival culminates in a food feast at the Porvoo Art Factory on 24 August. Smaku 12–24 August. 🌐 smakuporvoo.fi



SEE AND TASTE THE LAPLAND WILDERNESS The Kitchen Sky restaurant offers wonderful views and food inspired by the Lapland wilderness, from the top of the Ounasvaara Fell. The menu combines northern purity, frost, sun and soundscapes into a trendy package. kitchensky.fi/en

kaskis.fi/en



WARM-HEARTED SERVICE

Kaskis, which was chosen as restaurant of the year in 2018, is located in Turku. Kaskis specialises in organic and local food featuring many plants found in the wild. Some are gathered by the chefs themselves.





36 IN TOUCH

HISTORY AND GASTRONOMY

Once a base for clearing and storing naval mines, the island of Lonna is an attraction in itself, but it also happens to have the best summer restaurants in Helsinki. The island can be reached by ferry, which will also take you to the island fortress of Suomenlinna, from May to September. Implementation of Lonna.fi/en



ENJOY FOOD IN HISTORICAL SURROUNDINGS Fiskars Village, founded in the 17th century, is known today as a centre of Finnish art and design. The village has a strong culinary tradition with a varied local and organic cuisine. Fiskars Brewery produces artisan beers to be enjoyed with or without food. fiskarsvillage.fi/en





Farmors Café (Grandmother's Café) is a picturesque summer café on the island of Högsåra on the southwestern coast. The old red cottage, which is surrounded by a lovely garden, is an idyllic summer delight where visitors can enjoy freshly baked cakes and tasty summer dishes. farmorscafe.fi/en

FROM WASTE TO FOOD

Restaurant Loop in Helsinki produces high-quality vegetarian dishes from left-over raw materials collected from merchants and producers. Loop donates 70% of the retrieved food to charity. The restaurant also helps unemployed young persons and immigrants to enter working life. Loop serves lunch every weekday and brunch on weekends.

ravintolaloop.fi





LOCAL FOOD FROM A WISE OLD OWL The Pöllöwaari (Old Owl) restaurant in Jyväskylä offers lovingly prepared menus and à la carte dishes made from topquality, seasonal ingredients. The restaurant is located in the Boutique Hotel Yöpuu. All 26 rooms in the hotel are uniquely decorated. () ravintolapollowaari.fi/

en/1/ravintolapollowaar



EXPERIENCE FOOD, ART AND DESIGN





By This is FINLAND editorial staff Photos The manufacturers

INFO THEWILD

The northern natural environment invites us to test our limits. The products on this spread are designed to withstand the toughest conditions; durability is the new hallmark of style.











..... INFO

01. Ursuit, Gemino Venture, 1,550 €. *ursuit.com* / 02. Marttiini, Kierinki, 79.90 €. *marttiini.fi* / 03. Sunglasses, 248 € *lankkushop.fi* / 04. Jalas, JALAS® ZENIT EVO next generation safety shoes, 169 €. *ejendals.com/jalas* / 05. Suunto, Suunto 9 Baro White, 599 €. *suunto.com* / 06. Halla Halla, Classy one piece – Liani, 84 €. *hallaxhalla.com* / 07. Paapero, Siimes coat for kids, 109 €. *en.paapero.fi* / 08. TAFFER, Lifting grips, 64.50 €, Wrist wraps 29.95 €, Olympia lifting straps, 29.95 €. *taffershop.com* / 09. Wheelström, Kaveri, 1,350 €. *wheelstrom.com* / 10. Savotta, Backpack 101 – design by Harri Koskinen, 129 €. *finn-savotta.fi/en*

01.





More things you should and shouldn't know: tinland.fi

HI, I'M ON CAM!

WILDLIVE, BY WWF FINLAND, BRINGS NATURE CLOSER TO YOU.

World Wide Fund for Nature Finland's live cameras share images of wonderful but rare Finnish species. Wildlive is intended to bring nature closer to people and inspire viewers to participate in nature conservation. Thanks to active conservation work, the Saimaa ringed seal population has increased, now numbering approximately 390 animals.

Iuontolive.wwf.fi/en