



FINLAND A GLOBAL LEADER IN FUTURE HEALTH INNOVATIONS

BENEFIT FROM WORLD-
LEADING TECHNOLOGIES
AND A UNIQUE
R&D ENVIRONMENT

FINLAND
HEALTH
FACTBOOK 2021

#INVESTINFINLAND

FINLAND SMART, EFFECTIVE AND HIGH-QUALITY HEALTHCARE

ARE YOU LOOKING TO FUEL
INVESTMENT IN HEALTH AND WELLBEING?

Welcome to Finland Health Factbook 2021! This digital booklet presents you with the emerging business opportunities in the field of Health & Wellbeing in Finland. If you are on the lookout for the Next Big Thing, we warmly invite you to take a moment – and to explore the many ways Finland can contribute to the success of your business.

Finland often ranks among the leaders in various international comparisons. The information in this booklet is backed by facts and statistics from reliable third parties. What's more, you can also hear what business leaders and experts have to say about doing business with Finland.

Finland is a global leader in value-for-money healthcare and in quality and equality of healthcare services. In fact, we rank #1 in availability of latest technologies, scientists and engineers. Healthtech is Finland's largest hi-tech export segment.

We at Business Finland know that each business is unique, and that every investment requires careful analysis and planning. We hope that this Factbook provides you with the basic information about the Finnish Health & Wellbeing industry that you need – and gives you some ideas and inspiration, too.

We would be happy to discuss with you, in more detail, just what it is that we can do to support you on your journey.

For more information and contact details, visit investinfinland.fi/health.

Please don't hesitate to reach out!

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FINLAND IS THE
GLOBAL LEADER
IN VALUE-
FOR-MONEY
HEALTHCARE.



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FACTS ABOUT FINLAND

POPULATION

5.5 million

Independent country since 1917
Multi-party democracy
Member of the EU since 1995
Member of the Eurozone
Business languages: Finnish, English, Swedish
Corporate tax rate 20%
Credit ratings: Fitch (AA+), Moody's (AA),
Standard & Poor's (AA+)

BIGGEST CITIES:

Helsinki Metropolitan Area (Helsinki, Espoo, Vantaa)	1,200,000
Tampere	230,000
Oulu	200,000
Turku	190,000
Jyväskylä	140,000

TIMEZONE

UTC+2:00 (EET)

DISTANCES

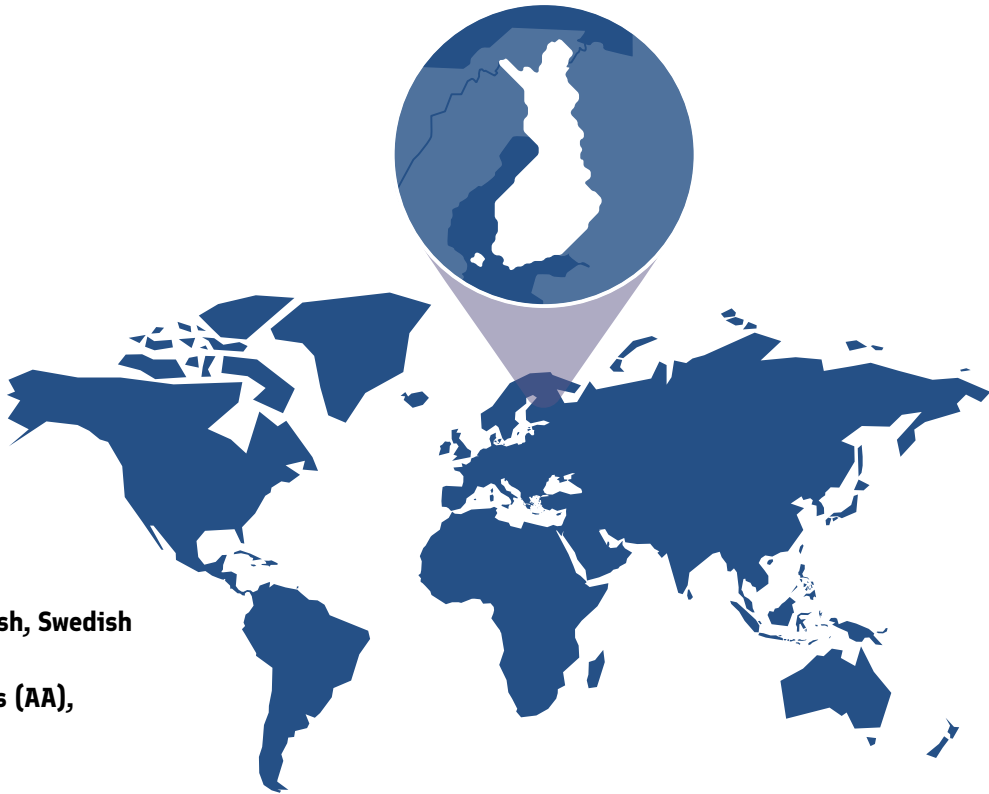
1,160 km from south to north
540 km from west to east

NEIGHBOURING COUNTRIES

Sweden
Norway
Russia
Estonia

AVERAGE FLIGHT TIMES TO HELSINKI

New York	8 h 45 min	Berlin	2 h	Bangkok	9 h 45 min
San Francisco	10 h 35 min	Stockholm	55 min	Singapore	11 h 45 min
London	3 h	Moscow	1 h 30 min	Beijing	7 h 40 min
Brussels	2 h 40 min	Delhi	6 h 30 min	Shanghai	9 h 45 min
Frankfurt	2 h 35 min	Seoul	8 h 50 min	Hong Kong	9 h 40 min
Copenhagen	1 h 40 min	Tokyo	9 h 40 min		



10+ REASONS TO EXPAND TO FINLAND

#1

**BEST BUSINESS
ENVIRONMENT
IN THE WORLD**

GLOBAL INNOVATION INDEX 2019

#1

**HIGHEST DIGITAL
COMPETITIVENESS
IN THE EU**

DIGITAL ECONOMY AND SOCIETY
INDEX 2019

#1

**MOST STABLE COUNTRY
IN THE WORLD
FOR THE 16TH YEAR
IN A ROW**

FUND FOR PEACE, FRAGILE STATES
INDEX 2021

#1

**LEADER IN
NUMBER OF FDI
PROJECTS IN THE NORDIC
COUNTRIES**

EY'S NORDIC ATTRACTIVENESS
SURVEY 2019

#1

**IN AVAILABILITY
OF LATEST
TECHNOLOGIES**

WEF GLOBAL COMPETITIVENESS
REPORT 2017-2018

#1

**BEST
COUNTRY FOR
EXPATRIATES**

FAMILY LIFE INDEX 2019

#1

**IN PROVIDING
FUTURE-SKILLS
EDUCATION
FOR YOUTH**

THE ECONOMIST INTELLIGENCE UNIT &
YIDAN PRIZE, WORLDWIDE EDUCATING
FOR THE FUTURE INDEX 2018

#1

**COUNTRY TO CONTRIBUTE
MOST TO THE GREATER GOOD
OF HUMANITY IN THE WORLD
RELATIVE TO ITS SIZE**

GOOD COUNTRY INDEX 2019

#1

**HAPPIEST COUNTRY
IN THE WORLD
FOR FOURTH TIME
IN A ROW**

UNITED NATIONS SUSTAINABLE
DEVELOPMENT SOLUTIONS NETWORK 2021

#1

**IN DIGITAL
ECONOMY
AND SOCIETY**

DESI 2020

#2

**SECOND MOST SKILLED
WORKFORCE
IN THE WORLD**

WORLD ECONOMIC FORUM, GLOBAL
COMPETITIVENESS REPORT 2019

INNOVATION CHAMPION

CONSUMER TECHNOLOGY
ASSOCIATION 2019

ATTRACTIVE PLACE FOR HEALTH COMPANIES

FINLAND'S TRADE IN HEALTH TECH KEEPS BOOMING.
WHAT MAKES FINLAND SUCH AN ATTRACTIVE
COUNTRY FOR HEALTH COMPANIES?

BOOMING HEALTH TECH SECTOR

Looking at health technology figures, Finland has achieved long-term export growth while generating significant, and growing, trade surpluses. Over the last two decades, the value of health tech exports has increased five-fold to over €2.4 billion and the net trade surplus has increased ten-fold to over €1.1 billion.

Over the long-term, the annual growth in the value of Finland's health technology exports over the period 1996–2019 has averaged 5.7%, the same rate as the growth recorded in 2018–2019. For comparison, the global market for medical technology is forecast to grow in the range 4.0–5.6% (sources: EvaluateMedTech, 2018; Fitch solutions, 2019; Research and Markets, 2019).

In 2020, the value of Finland's exports of health technology products rose to €2.43 billion, an increase of 0.5% over the previous year despite COVID-19. Actually, spurred on by COVID testing, exports of In vitro diagnostics led the pack last year, rocketing 27.3% to reach €830 million. Health technology represents the single largest high-tech product export segment of Finnish industry.

A PIONEER IN PERSONALIZED HEALTHCARE

One of the current megatrends of healthcare is that the treatment is being transformed from mass-oriented care towards individual care. Identifying individual effects through e.g. genetic research enables the move from 'one disease – one drug' thinking in the development of medicines into identifying the individual effects of treatment.

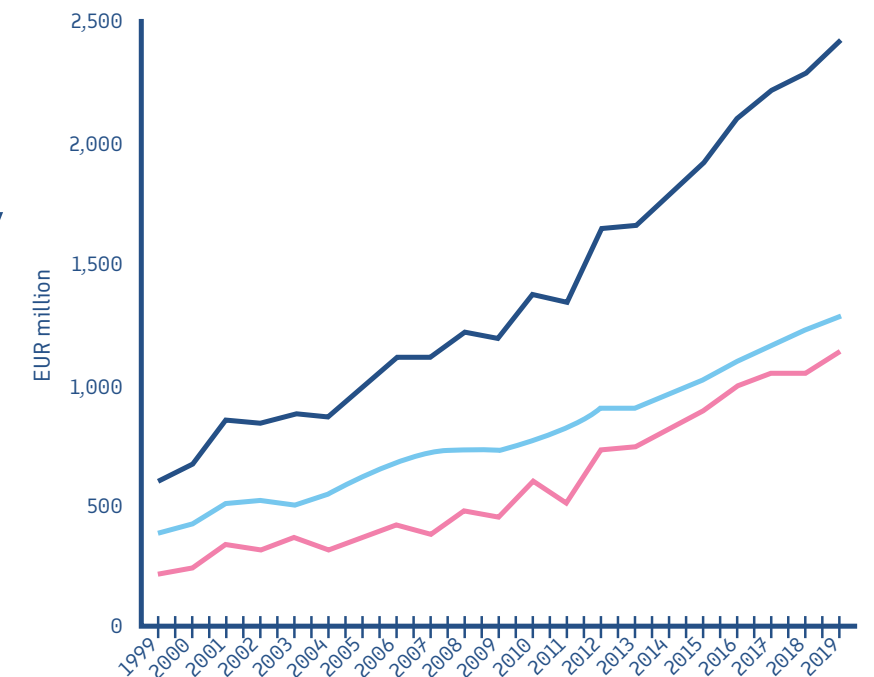
Personalized medicine gives you the opportunity to anticipate and prevent diseases as well as secure the right care at the right time for the right people.

For several decades, significant public funds have been invested in health research and Finland frequently sits at the top of international life sciences rankings. However, the challenge here is to translate research effort and investment into real societal benefits. To this end, the Finnish government is driving innovation in personalized medicine, with the world-class biobank ecosystem at its core.

The Finnish government put together the Health Sector Growth Strategy for Research and Innovation (2014), which is being implemented jointly by three ministries. In addition to the biobank ecosystem, the Strategy relies on other strong national areas such as cancer research, genetic data and drug development.

FINLAND'S TRADE IN HEALTHCARE TECHNOLOGY 1999-2019

— Exports
— Trade balance
— Trade balance



For Personalised Health - Finland was ranked number 1 out of 34 European countries in an independent study funded by the global pharma giant Roche. This proves Finland to be an ideal piloting environment for personalized health solutions.

THE PERFECT LOCATION FOR R&D

Finland offers a unique position as a research and development location for a number of reasons. First of all, there is the well-functioning healthcare system which creates a solid "platform" for all activity. The Finns themselves are engaged and committed to the improvement in healthcare and very much pro-science and tech-savvy.

As a result, digital health solutions are rapidly advancing in Finland. Innovation is often rooted on valuable information and Finland's genomic data biobanks offer a "treasure trove" that many other countries can only dream of.

Add to the mix: solid, long-term government backing which makes sure that the capable industry players, be they big and small, can thrive.

“

FINNISH HEALTH TECH EXPERTISE

is very much anchored in hard science: We've had a lot of spin-off companies emerge from university campuses. Furthermore, the health tech companies have always been able to grow and adapt with the times, always looking new opportunities.

SAARA HASSINEN
MANAGING DIRECTOR
HEALTHTECH FINLAND

HIGH-QUALITY HEALTHCARE FOR EVERYONE

THE FINNISH
HEALTHCARE
SYSTEM PRODUCES
QUALITY CARE
WITH RELATIVELY
LOW COSTS

Finland provides universal healthcare for all citizens. In Finland, there are three different healthcare systems which receive public funding: municipal healthcare, private healthcare and occupational healthcare.

Municipalities are responsible for funding and organizing social and healthcare services. This means, in essence, that the services are financed by municipal tax revenue and a central government subsidy.

Municipalities can also charge user fees which presently cover about 7% of the expenditure. Municipalities may also purchase services from private sector.

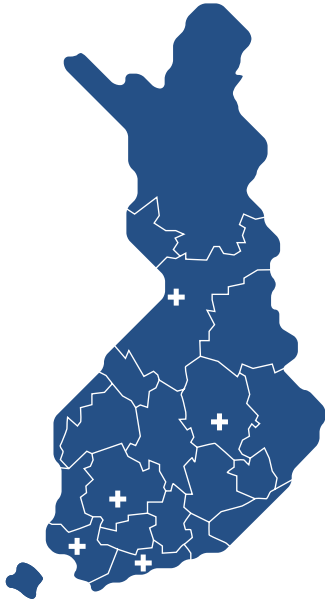
The municipal social and health expenditure is about 57% of total municipal budget.

Prevention of illness and promotion of health are the main focus areas of the Finnish healthcare system.

CURRENT HEALTH
EXPENDITURE (CHE)
PER CAPITA IN PPP



The average amount spent on health per person in comparable countries (\$5,280) is roughly half that of the U.S. (\$10,224).



“

For a company like ours, Finland is the ideal base to do research, both from a local and a global perspective. For example, we have our global R&D function here in Finland; it is the fifth largest within the Bayer Group. What we especially utilize is the availability of health data. In Finland, we have the health register and biobanks, as well as the openness of society – a very open environment for doing research and development. We use that to conduct clinical research. Combined with the mass of available data dating back to the 1960s, this gives us great opportunities for research.”

MIRIAM HOLSTEIN

CEO,
NORDIC REGION BAYER,
GERMANY

**5 university hospitals provide
highly specialised tertiary medical
care**

**20 hospital districts provide
secondary medical care**

**Certain specialities are centralised
to ensure high-quality treatment**

**Largest hospitals also offer on-call
social services**

SOCIETY OF TRUST

FINNS HAVE GREAT CONFIDENCE
IN SCIENCE AND A WILLINGNESS
TO HELP WITH HEALTH
TECHNOLOGY INNOVATIONS

The Finnish people are educated and research-friendly. The citizens have great confidence in science and the healthcare system – and this trust is crucial for the development of the data-based healthcare innovations now and in the future.

Finns also demonstrate considerable willingness to take part in medical research, convinced that such research is done for the betterment of society.

The Finnish attitude towards digital health records is equally practical and benign in nature: instead of potential privacy violators, the records are seen mainly as a vehicle to develop better treatment.



LEADING THE DIGITAL REVOLUTION

FINLAND IS A FORERUNNER IN DIGITAL HEALTH – WITH 100% ELECTRONIC MEDICAL RECORDS DIGITALLY ACCESSIBLE

With the digital revolution in full swing, Healthcare is fully leveraging the trend – and Finland is a global leader in digital health. Health tech is the largest and one of the fastest-growing export segments of the hi-tech industry in Finland.

International comparisons show that health tech companies engage in extensive research and development in Finland and manufacture most of their products here, too.

The health industry as a whole uses the latest technologies, including industrial internet or the Internet of Things (IoT), artificial intelligence (AI) and robotics as well as expert services associated with clinical research and regulations, for example.

As it stands, Finland has the best availability in the world of the latest technologies, scientists and engineers. Finnish life-saving innovations utilize exponential technologies, like AI, XR and 3D, now more creatively than ever.

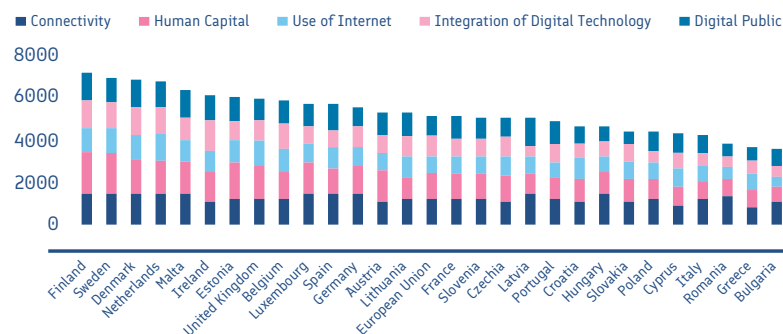
Finland's flexible business environment, strategic government support and buzzing startup culture allow the

growth of innovations. For several years now, Finnish startups have been among the most attractive VC investment targets in Europe.

Finland has data registries dating back to 1953 and biobank data from the 1920s, all fully digitized and accessible. It has 100% EMR (electronic medical records) penetration and the only EMR in the world where clinical, social care, prescriptions, patient reported outcomes, and social determinants of health are fully integrated.

FINLAND IS A EUROPEAN LEADER IN DIGITALIZATION

Digital Economy and Society Index 2020



European Commission, The Digital Economy and Society Index (DESI) 2020

UNIQUE DATA FROM BIOBANKS

Finland has exceptional conditions for a genetic research covering the whole population. Finland has an internationally unique Biobank Act that makes collections of hospitals and research institutes available for all researchers. Combined with the other strengths of Finland – comprehensive registers, electronic medical records and a research-friendly population – it enables extraordinary opportunities for new research and business.

What's more, Finns share a unique genetic heritage which allows for faster and more effective analysis of genomic data compared to populations of more heterogeneous origins. This exceptional setting significantly improves the chances of breakthrough findings.

Fingenious is unique biobank service, online portal to access samples and data in practice. There are over 11 million samples, nearly 500 000 samples genotyped and pre-pooled patients for recontacting.

The Finnish Biobank Cooperative (FINBB) connects all six university hospital biobanks as well as two

national biobanks. FINBB's Fingenious service is one-stop gateway to Finnish Biobanks and biomedical research.

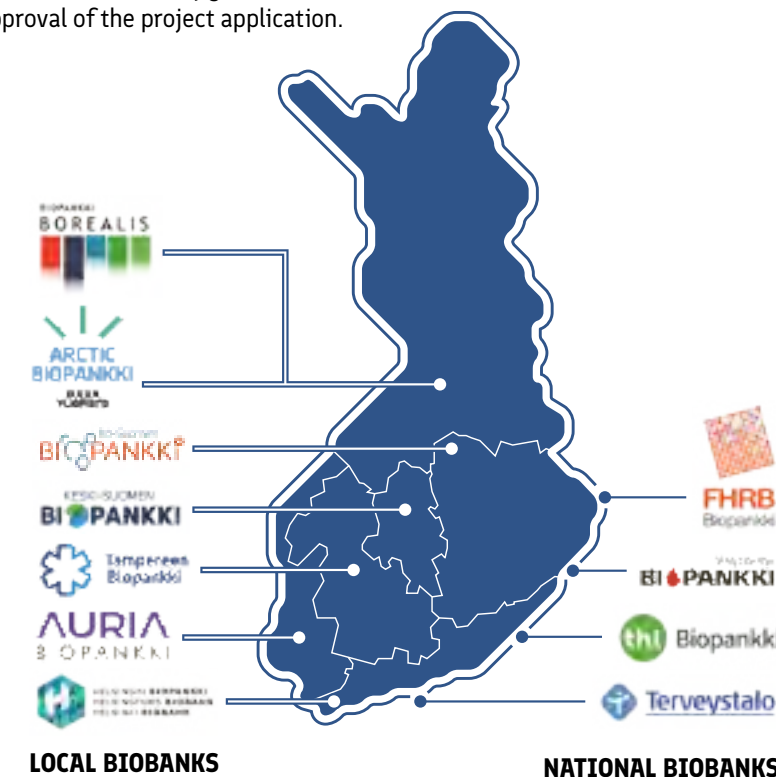
Access to biospecimens and associated health data are available for public and commercial R&D, given ethical approval of the project application.

“

Finnish biobanks are very well positioned to meet the growing demands of the evolving healthcare industry. By leveraging their strengths and tapping into the opportunities, Finnish biobanks can differentiate themselves in the marketplace to provide a unique value proposition – and to increase their competitive standing with customers.”

SAMPO SAMMALISTO

CEO,
PROGRAM MANAGER,
PERSONALIZED HEALTH FINLAND,
BUSINESS FINLAND



TOP RESEARCH TO BOOST INNOVATION

FINLAND HAS FOUR NATIONAL CENTERS OF EXCELLENCE, WHOSE TOP-NOTCH RESEARCH FUELS THE HEALTH SECTOR INNOVATION

Four Centers of Excellence are poised to take Finnish Health & Wellbeing related research to the next level. These Centers of Excellence are the Genome Center, Comprehensive Cancer Center, Neurocenter Finland and Drug Development Center.

The establishment of Centers of Excellence in Finland is rooted on progressive national growth strategy. The Health Sector Growth Strategy for Research and Innovation Activities was published already in 2014 and each new Government has renewed its commitment to deploying the strategy. The latest Roadmap to implement the strategy is launched for 2020–2023.

The Roadmap outlines that decisive steps will be taken to develop research and innovation activities in the health sector between 2020 and 2023. On the basis of know-how, measures will be taken to improve people’s health and wellbeing through the opportunities offered by research and technological development.

The objective of the Health Sector Growth Strategy is that Finland will be a model country for health promotion and a forerunner in personalized healthcare in the 2030s and an attractive target country for health sector investments.

UNIQUE LEGISLATION AND GOVERNMENT SUPPORT

Finland has pushed through significant new legislation on health, including a first-in-world law of the secondary use of social and health data and the genome law.

It all started with the research-advancing Biobank Act which been in force since 2013. The Biobank Act secures the rights of the donor and authorizes the collection of samples and biodata with the donor’s consent to be saved in biobanks and used for future research purposes.

In 2019, another important piece of legislation took effect in Finland, laying down the guidelines on the Act on the Secondary Use of Health and Social Data.

The Law relating to secondary use of health data enables companies to access and utilize digital health data for developing data-driven health innovations, quite often jointly with leading hospital and research institutions in Finland. This is a unique law that gives Finland a very competitive advantage from an international perspective.



Internationally speaking, the Act on the Secondary Use of Health and Social Data is a unique law that allows companies to use health data for R&D and innovation purposes. While previously you had to wait for permission for, say, six months, now you can proceed a lot faster.”

SAARA HASSINEN
MANAGING DIRECTOR,
HEALTHTECH FINLAND

The purpose of this legislation is to facilitate the effective and safe processing and access to the personal social and health data for steering, supervision, research, statistics and development in the health and social sector. A second objective of the law is to guarantee an individual’s legitimate expectations as well as his/her rights and freedoms when processing personal data.

**FINDATA – A ONE-STOP PERMIT AUTHORITY FOR
THE SECONDARY USE OF HEALTH AND SOCIAL DATA**
THE OBJECTIVES ARE TO:

- 1. IMPROVE DATA
SECURITY AND THE
DATA PROTECTION
OF INDIVIDUALS**
- 2. SPEED UP AND
STREAMLINE THE
UTILIZATION OF
SOCIAL WELFARE AND
HEALTHCARE DATA
RESOURCES**
- 3. DECREASE THE
DUPLICATION OF
WORK IN PERMIT
PROCESSING**
- 4. DEVELOP DATA
DESCRIPTIONS FOR
THE SOCIAL WELFARE
AND HEALTHCARE
SECTOR TOGETHER
WITH THE CONTROLLERS**

**FINDATA OPERATES UNDER THE PERFORMANCE
GUIDANCE OF THE MINISTRY OF SOCIAL AFFAIRS
AND HEALTH.**

THRIVING HEALTH ECOSYSTEMS

THE INNOVATIVE ECOSYSTEMS BRING TOGETHER
THE BEST EXPERTISE FROM COMPANIES,
UNIVERSITIES AND RESEARCH INSTITUTES

FINNGEN

FinnGen is one of the very first personalized medicine study projects at its scale – and the public-private collaborative nature of the project is exceptional in also international comparison.

The study combines genome information with digital healthcare data. The project aims to improve human health through genetic research, and, ultimately, to identify new therapeutic targets and diagnostics for treating numerous diseases.

CLEVERHEALTH NETWORK

CleverHealth Network (CHN) is a unique, dynamic co-development commercialization platform located in Helsinki University Hospital (HUS). It is Europe's only "fast track" for creating, validating, and commercializing digital health and well-being ideas.

CHN delivers new product and service concepts based on the world-class health research and data infrastructure at Helsinki University Hospital, HUS. CleverHealth Network Ecosystem applies AI and machine learning algorithms and studies their feasibility in future healthcare, as well as creates healthcare solutions scalable to international markets.

CANCER IO

Cancer IO is a new cancer immunotherapy-focused collaborative research and innovation project. It is one of the largest IO-focused (immune-oncology) research & innovation programs in Europe.

Cancer IO boosts Finnish immune-oncology capabilities by supporting top-level research, business competitiveness, individualization of care and competence in capturing real-world evidence. Cancer IO brings together a broad range of expertise – from big pharma companies to small enterprises and from academic research to patient advocacy.

ICAN

iCAN study is a large, prospective cross-indication cancer study aiming to collect and analyze 5,000 samples by 2022 and 15,000 by 2026.

Majority of profiling is financed with public funding which will be complemented with private funding. Thus iCAN is building a true consortium, providing companies with an interesting research collaboration opportunity which targets breakthrough discoveries as well as improved treatments.

PROVEN RESULTS FROM RELIABLE TESTBEDS

FINNISH NEXT GENERATION
TESTBEDS ALLOW PROFESSIONALS TO
DEVELOP THEIR SOLUTIONS
RELIABLY IN REAL ENVIRONMENTS

Testbeds serve companies of all sizes
in every phase of innovation process,
from idea (e.g. proof of concept)
to development (e.g. prototype,
professional consultancy, simulations)
and testing (e.g. user testing).

Testbeds are located in university
hospitals, in biggest cities and in
universities of applied sciences.

5 HEALTHCARE TESTBEDS IN FINLAND

OuluHealth Labs

Testbeds in a university
hospital, healthcare centers
and homes, simulation
labs, 5G network

Kuopio Living Lab

Living labs in a university
hospital and healthcare centers
and homes, e.g. senior care
and home care

HealthHUB Tampere

R&D, simulation, testing
and training platform for
co-creation purposes,
university hospitals
RDI center

HUS Testbed

University Hospital, e.g.
operating room and New
Children's Hospital

Health Campus Turku

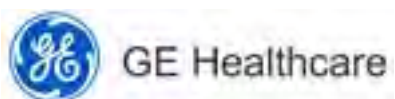
University hospital,
pediatric testbed,
PET center



THE HOTTEST PLACE FOR R&D

INTERNATIONAL COMPANIES ARE DRAWN TO FINLAND FOR THE COUNTRY'S HIGHLY EDUCATED WORKFORCE, SOCIAL STABILITY AND OUTSTANDING INFRASTRUCTURE FOR R&D

EXAMPLES OF INTERNATIONAL COMPANIES WITH RESEARCH AND DEVELOPMENT ACTIVITIES IN FINLAND



ThermoFisher
SCIENTIFIC

REVENIO



ORION



HEALTH TECHNOLOGY

400 companies
Revenue 3 billion €
10,000 professionals
Mostly export companies

HEALTHCARE AND WELFARE SERVICES

19,000 companies
Revenue 5.5 billion €
67,000 professionals
Mostly operating in the Finnish market



PHARMACEUTICALS

100 companies
Revenue 2.5 billion €
5400 professionals
Net importers, large R&D investments in Finland (preclinical and clinical research)

HEALTH IT

200 companies
Revenue 5 billion €



ROOTED IN HARD SCIENCE

UNIVERSITIES, RESEARCH INSTITUTES
AND UNIVERSITY HOSPITALS
SERVE THE ECOSYSTEM AS
PUBLIC HEALTH R&D PLATFORMS.

AALTO HEALTH PLATFORM

Aalto University has a strong, decades-long track record in Health & Wellbeing (H&W), in both research results and in facilitating commercialization. H&W is one of Aalto University's strategic focus areas, with such key areas as Biomedical Engineering, Neuroscience and Neurotechnology, Biotechnology, Biomaterials, and Chemistry in H&W.

UNIVERSITY OF HELSINKI

The high-quality medical research conducted at Faculty of Medicine ranges from biological basic research to clinical applications. For instance, the Academic Medical Center Helsinki (AMCH) is an internationally renowned medical campus, comprising the

Faculty of Medicine of the University of Helsinki, the HUS Helsinki University Hospital and the Institute for Molecular Medicine Finland (FIMM), which is part of the Helsinki Institute of Life Science (HiLIFE).

UNIVERSITY OF JYVÄSKYLÄ

Research at the Faculty of Sport and Health Sciences, the only one of its kind in Finland, focuses on the interaction and promotion of physical activity and health.

Jyväskylä Centre for Interdisciplinary Brain Research (CIBR) provides research facilities and support for neuroscientific research across different disciplines.

UNIVERSITY OF EASTERN FINLAND

Institute of Biomedicine aims to understand, treat and prevent chronic diseases. The internationally recognized research ranges from population-based studies and molecular medicine to uncovering basic mechanisms behind Alzheimer's disease, cancer, type 2 diabetes and cardiovascular disease. The A.I. Virtanen Institute for Molecular Sciences is a research institute that responds to the global health challenges created by the aging of the population and changes in lifestyle by focusing on the research of cardiovascular and brain diseases.

UNIVERSITY OF OULU

Centre for Health and Technology creates and develops strategic connected health RDI entities and pathways towards data driven healthcare; the Faculty of Medicine and Health Technology (MET) pursues world-class research and delivers high-quality education in the fields of biomedical engineering, biotechnology, medicine and health technology; Vaccine Research Center carries out clinical trials of vaccines in co-operation with the pharmaceutical industry

UNIVERSITY OF TURKU

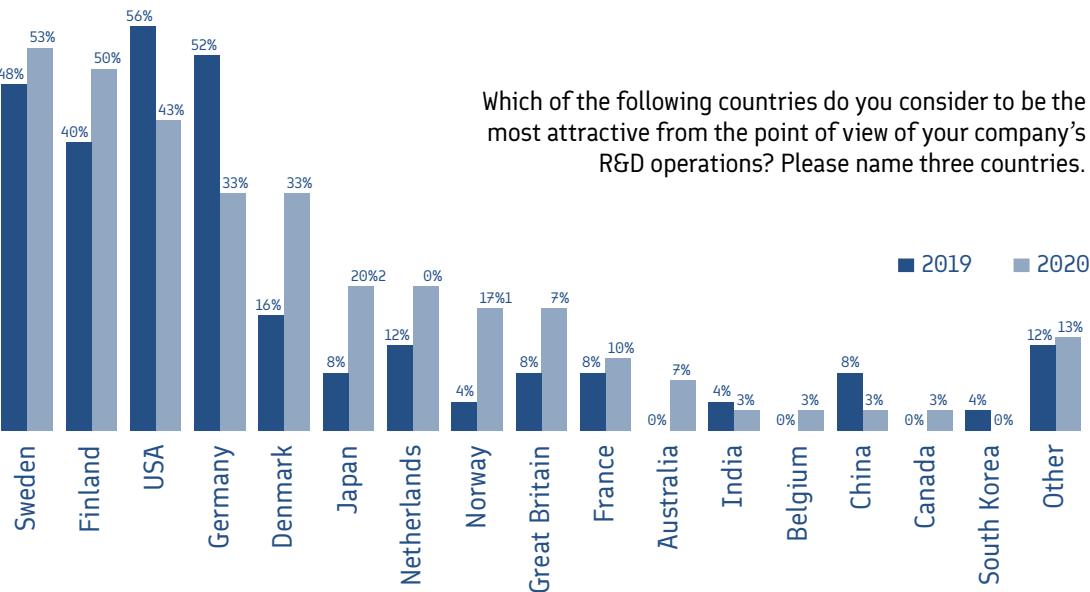
Turku Bioscience Centre is an advanced core facility and research center hosted jointly by University of Turku and Åbo Akademi University. Focus areas include e.g. Cancer Cell Signaling, Cancer Proteomics, Cell Adhesion and Cancer, Computational Biomedicine and Cytoskeletal and Survival Signaling. Turku PET Centre is a Finnish National Research Institute for the use of short-lived positron emitting isotopes in the field of medical research. All facilities are located in the University campus and clinics. The Centre consists of Accelerator Laboratory, Radiopharmaceutical chemistry laboratory, Preclinical and Clinical imaging laboratories.

VTT, TECHNICAL RESEARCH CENTER OF FINLAND

VTT is actively involved in the Finnish Smart Health ecosystem, supporting the utilization of the health data compiled in national registers for the development of new treatment methods, drugs and well-being products.



ATTRACTIVENESS OF FINLAND HAS INCREASED
FROM THE PERSPECTIVE OF SETTING UP R&D

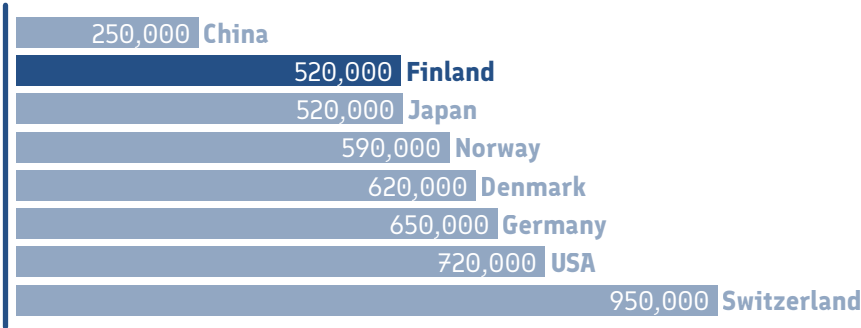


Source: Sailab

FINLAND IS ONE OF THE WORLD'S MOST
COST-EFFICIENT LOCATIONS FOR R&D ACTIVITIES

Setting up a Healthcare R&D Center in Europe can be expensive, if you consider the payroll. Looking at statistics, it is evident that one can launch that R&D center in Finland with half the labor cost of your typical Swiss set-up – in fact, Finland offers the best price in all of Europe. It turns out that as Financial Times searched for FDI benchmarks in 2020, they had to go to China for a rival who could beat the Finns.

COST OF A CLINICAL
RESEARCH R&D TEAM



Job title (Head count): Assistant Scientist (1), Clinical Research Associate (1), Facilities/Office Services Specialist (1), Head of Research and Development (1), Laboratory Specialist (1), Laboratory Technician (1), R&D Team Leader (1), Scientist (1), Senior Scientist (1)

All costs shown in EUR. Source: fDi Benchmark from Financial Times Ltd 2020

MANUFACTURING
WITH TOP NOTCH
TECHNOLOGY

MANY FINNISH MANUFACTURERS ARE
INDUSTRY PIONEERS IN BIG DATA ANALYTICS,
3D MODELING AND IOT SOLUTIONS.

THE FINNISH MANUFACTURING KNOW-HOW
RUNS DEEP

Finnish process know-how in manufacturing and process industries is world-class. Fully embracing digitalization, Finnish manufacturing in the 2020s deploys high accuracy censoring and sensor networks, data acquisition and collection solutions as well as advanced system integration

Many manufacturers are industry pioneers in big data analytics and visualization, 3D modelling and/or Internet of Things solutions. At the same time, the local application development and service design scene is quite robust and life-cycle services for machinery and processes are going equally strong.

INCREASED EFFICIENCY
AND REDUCED COSTS

What kind of cost savings can manufacturers achieve in Finland? – First of all, there is broad capability to utilize secure data collection sensors for real-time monitoring and analytics. Metering, for e.g. consumption and performance, as well as condition monitoring and process optimization, are in fine form, too.

Remote monitoring, diagnostics and preventive maintenance make sure that industrial operations run smoothly; scalable, secure, hardware-independent connectivity guarantee that data keeps flowing.

For strategic elevation, one can use simulation and visualization tools with predictive algorithms for optimizing and streamlining production processes and the entire supply chain.

BOOSTING INNOVATION WITH THE LATEST AI

FINNISH LIFE-SAVING INNOVATIONS USE AI,
XR AND 3D MORE CREATIVELY THAN EVER

FINLAND'S AI STRATEGY DRIVES INNOVATION FOR HEALTH & WELLBEING

Finland aims to be a leading country in artificial intelligence. As a technology superpower, Finland is able to fully utilize all the possibilities of AI throughout industry and society.

Finland initiated one of the world's first national AI strategies and action plans in 2017 to boost research and education in the field of AI. The public sector is already integrating AI into its operations to increase efficiency and improve services.

Finland offers top-level AI education in universities and raises the awareness of its citizens through public online courses, such as Elements of AI.

STARTUPS LEAD THE CHARGE

Finland has a long tradition in AI research which has led to cutting-edge expertise. Large Finnish companies have built their own AI development units, but the driving force is the hundreds of innovative startups with their roots in universities and research. These innovators are successfully applying AI in various business verticals, most commonly in healthcare, manufacturing, business tools and services.

TRANSFERRING AI KNOWLEDGE

The Finnish Center for Artificial Intelligence (FCAI) and regional initiatives, such as the Tampere AI Hub and the AI Academy at the University of Turku, drive AI commercialization by effectively transferring knowledge and findings to startups and established businesses. Technology Industries of Finland has its own AI accelerator, FAIA, to speed up the deployment of AI. Finland's wide offering of data pools is available for businesses, for instance, in healthcare to speed up AI development and adoption.



INCREASING INVESTMENTS

FINLAND IS THE #1 VC MARKET IN EUROPE WITH
A HEAVY INFLOW OF INTERNATIONAL INVESTORS

During 2010's, the Finnish VC market has matured drastically with international investment volumes increasing fifteenfold. For example, the report 'Investing in Europe: Private Equity activity 2019' discovered that Finland leads the pack in Venture Capital (VC) investments in relation to GDP: Finland boasts the figure of 0,120%, being way above the European average (0,060%). Finland ranks above the silver and bronze medalists, the UK and Denmark, which are well known for their active venture capital industries

According to the statistics of Finnish Business Angels Network (FiBAN) and The Finnish Venture Capital Association (FVCA), in 2020 startups and growth companies raised a new, all-time record amount, 951 million euros. Healthcare and Medtech was the top sector in attracting angel funding in 2020.

2020 was an active year for angel investors in Finland despite the global pandemic, as angel investors poured 36M€ investments into 321 startup companies.

There was also a powerful shift in focus from new investments to follow-on funding rounds: as many as 79% of the startups that received

angel funding were follow-on funding rounds, compared to 44% in 2019

Despite a strong showing during the past decade, Finland is still a relatively small VC market located in the corner of Europe – and historically rather overlooked by international VC investors.

However, the local VC ecosystem has "grown up" and deal flow has improved greatly during the 2010's. First real wave of international VC investors, mostly focused on ICT, found the market at this time. Similar trend is catching on in other sectors, too.

Since Life Sciences venture investments have been a rising funding trend in Europe since 2012, the same waves are felt in Finland, as well. Still, lack of a local early stage investors as well as true lead investors appear to be holding back the development.

When there are VC investments made in Finnish Health & Wellbeing, they tend to focus on Healthtech that is rooted on strong IT prowess.

“

After Nokia's success years, there is plenty of engineer expertise in Finland that lends itself well to the building of an entire digital health ecosystem – and this is something that investors do understand. On the other hand, it may be more difficult to launch drug development here, as investors know more about ICT than therapeutics.”

JONI KARSIKAS
INVESTMENT DIRECTOR,
TESI

“

In the coming years, the entire Health & Wellbeing ecosystem is likely to grow, not just health tech.”

JONI KARSIKAS
INVESTMENT DIRECTOR,
TESI

VC ASSOCIATIONS

FiBAN

FiBAN is a Finnish non-profit association of private investors that aims to improve the possibilities for private investors to invest in unlisted potential growth companies. The FiBAN network is one of the largest and most active business angel networks in Europe with over 650 approved members.

FVCA

FVCA is the industry body and public policy advocate for the venture capital and private equity investors in Finland. As the voice of the Finnish VC and PE community and the entrepreneurs they fund, it demonstrates the positive impact of the industry on the Finnish economy and provides e.g. market intelligence and specialist training.

VC EVENTS

European Healthtech Investment
Forum EHIF

Arctic15
Slush

Polar Bear Pitching
HIMSS & Health 2.0 Europe

INCUBATORS, GROWTH PROGRAMS AND STARTUP HUBS

TERKKO HEALTH HUB

Terkko Health Hub is a startup community, a co-working space and an event venue focusing on health and life sciences. Terkko houses an accelerator and an incubator, providing various services and events in collaboration with local and global partners.

HEALTH INCUBATOR HELSINKI

Health Incubator Helsinki is a comprehensive incubator program for research-based early stage teams and start-ups operating in the health sector in Finland and abroad.

PROHEALTH GROWTH PROGRAM

ProHealth Growth Program is a Finnish national business growth program with focus on products or services within professional, regulated healthcare – direct consumer business and general health & wellness are excluded.

SPARK FINLAND

The mission of the Spark Finland program is to advance scientific and clinical competencies towards practical solutions in health tech and life science space as well as push the renewal and growth of these industries.

“

Finnish VC investors are, for the most part, generalists, but the list above contains VCs that have made at least some investments into Health & Wellbeing. For some entities on the list, health related investments may account for only 5% of the total investments – for us at TESI that share is about 25%. As it stands, the list includes about half of Finland's present VC ecosystem.”

JONI KARSIKAS
INVESTMENT DIRECTOR,
TESI

HIGHLY EDUCATED AND SKILLED WORKFORCE

FINLAND IS THE #1 COUNTRY IN THE WORLD IN AVAILABILITY OF SCIENTISTS AND ENGINEERS.

Thanks to the very advanced education system, and perhaps the curious, tech-oriented, early adaptor mindset of the people, Finland is the world's number one country in the availability of scientists and engineers.

This appreciation of education and science is fully reflected in the high density of researchers in the country – and Health & Wellbeing has always been a Finnish forte.

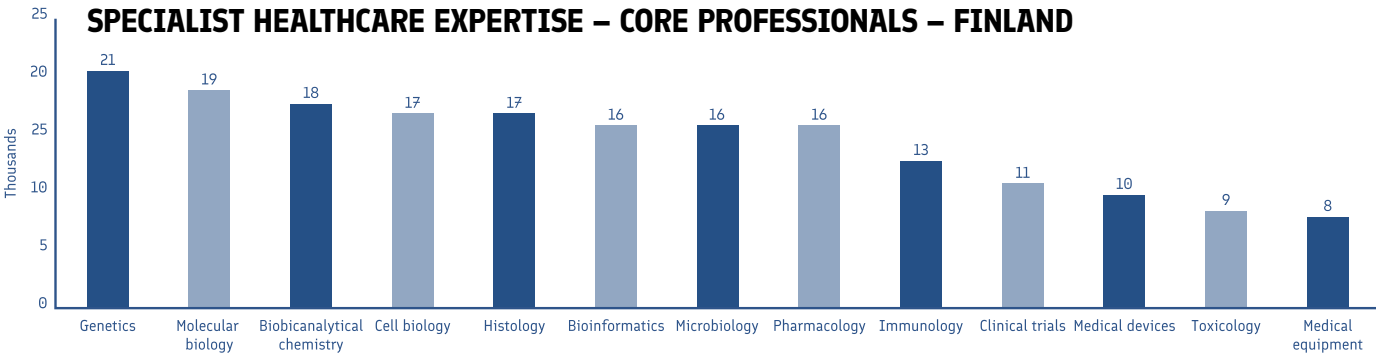
In fact, almost every tenth person (9%) of the workforce in Finland has solid technical health tech skills. The key competences include biochemistry, bioinformatics, genetics, microbiology, molecular biology, histology and immunology.

The Finnish workforce is also quite cost-efficient in international comparison.

SPECIALITIES – MULTI-DISCIPLINED RESOURCES

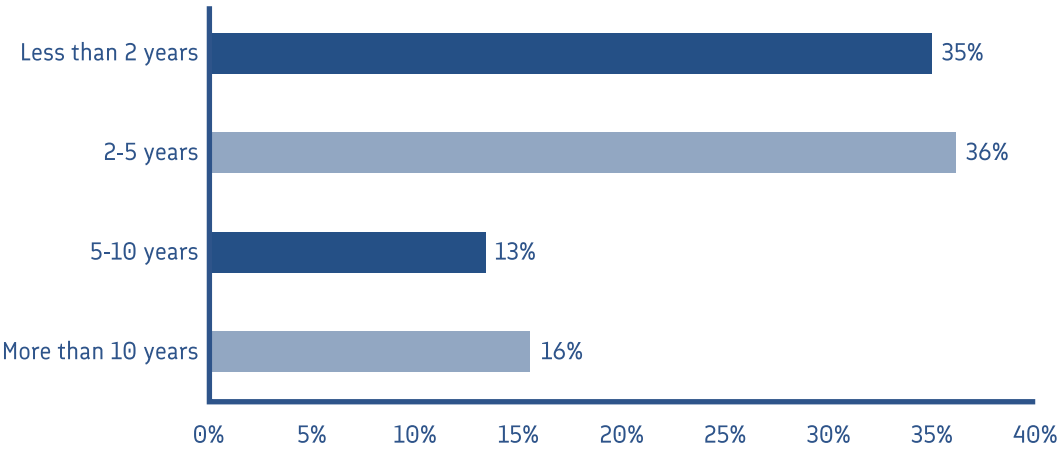
9% of the workforce in Finland has technical health tech skills. Bioinformatics, gene therapy, personalized medicine and digital health are key growth priorities in Finland.

Almost 50 % have at least a Masters degree. Finland has the excellent life sciences talent pool – a great mix of experienced and younger talent and also multi skilled competence. Healthtech professionals have good technical knowhow of other fields too such as cleantech, IT, and strong overlap with engineering.



Source: MCJ Lemagnen Associates 2021

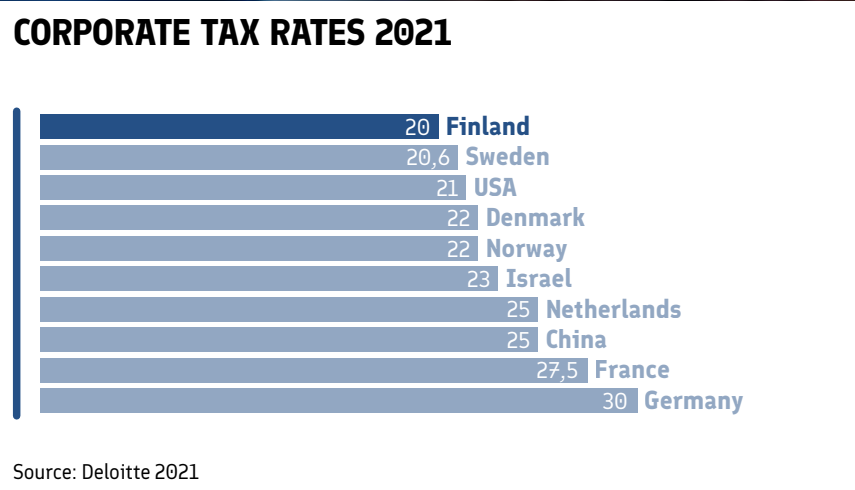
EXPERIENCED AND NEW TALENT AVAILABLE



Source: MCJ Lemagnen Associates 2021

INCENTIVES FOR FOREIGN-OWNED COMPANIES

FOREIGN-OWNED COMPANIES
IN FINLAND ARE ELIGIBLE
FOR A WIDE RANGE OF
GOVERNMENT AND EU INCEN-
TIVES ON AN EQUAL FOOT-
ING WITH FINNISH-OWNED
COMPANIES.



R&D INCENTIVES

R&D&I incentives from Business Finland

Business Finland’s innovation funding provides low-interest loans and grants to challenging and innovative projects with potential for global success stories. We offer funding for research and development work carried out by companies, research organizations, and public sector service providers in Finland. In addition to funding technological breakthroughs, Business Finland also emphasizes service-related, design, business and social innovations. Companies of all sizes can benefit from these incentives, including startups.

INVESTMENT, LAND & INFRASTRUCTURE INCENTIVES

Business aid from ELY Centers

Business aid to companies operating in Finland is coordinated by the Centers for Economic Development, Transport and the Environment (ELY Centers), with 15 regional offices providing advisory, training, expert services and funding for investment and development projects.

Foreign-owned companies in Finland can benefit from several different types of aid, especially in certain regions of Finland (Development areas 1 and 2).

Growth capital from TESI

TESI (Finnish Industry Investment) is a 100% state-owned equity investor. TESI’s mission is to invest in growth and develop Finland’s venture capital industry. It is a profit-seeking limited liability company with an independent

Board of Directors responsible for investment decisions. In a single investment project, TESI’s share of the total investment is up to 50%. The private investors’ share must be at least 50%. The investment criteria are the same as the criteria for private venture capital and private equity investors.

Loans and guarantees from Finnvera

Finnvera is a specialized state-owned financing company and Finland’s official Export Credit Agency (ECA). Finnvera strengthens the operating potential and competitiveness of enterprises in Finland by offering loans, domestic guarantees, export credit guarantees, and other services associated with export financing. The risks included in financing are shared between Finnvera and other financiers.

TRAINING AND EMPLOYMENT INCENTIVES

Training & employment services from ELY Centers’ TE Services

The services offered by ELY Centers cover recruitment, improvement of business efficiency and management skills, updating of staff skills, and training of new employees.

Employment services

Regional TE Offices can help you with recruitment. TE offices know the labour force and the job market in the area, and can help you find just the right skilled employees for you.

Training

TE Services plan and implement vocational training in cooperation

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Some European countries have similar government funding schemes in place, but there are big differences from country to country, and in certain aspects, Finland can be significantly more beneficial to foreign companies. The fact that companies are treated fairly and impartially regardless of their origin has been very appealing and important to us from day one.”

DR GUOPING LUO
DIRECTOR
HUAWEI FINLAND

with employers. In the joint training projects, the TE Centre and the employer share financing and the employer participates in the selection of students. With joint training, the company can:

- Seek skilled workers when the skills required by the company are not completely acquired through other education
- Provide tailor-made basic or advanced vocational training for your staff
- Assist and support workers who have been laid off with finding a new profession

INVEST IN FINLAND

ENABLING YOUR BUSINESS TO PROSPER

As the country’s official investment promotion agency, Invest in Finland offers a wide range of useful services for international companies and investors. Our mission is to help your business to grow and prosper in Finland.

Invest in Finland provides industry insights, tailored recommendations and practical support to meet your needs when planning, establishing or expanding your operations in Finland. From opportunity analysis to

information on different kind of investments, mergers and acquisitions, research partnerships and access to Finland’s lively innovation ecosystems, we have the expertise and contacts to support your business all the way. Invest in Finland’s industry experts help you with getting to know the Finnish industry clusters, companies, research institutes and universities. Our professional services are confidential and complimentary.

Invest in Finland works nationally and in close cooperation with our regional partners. We are part of Business Finland – the Finnish innovation funding, trade, investment, and travel promotion organization. Headquartered in Helsinki, Business Finland is fully owned by the Finnish Government and employs 600 experts in 40 offices globally, as well as 20 regional offices around Finland. Business Finland is also part of the Team Finland network.

OUR FREE SERVICES

TAKE THE FAST
TRACK TO BUSINESS
OPPORTUNITIES
IN FINLAND



DATA COLLECTION
& ANALYSIS



NETWORKING



OPPORTUNITY
ANALYSIS



LOCATION
MANAGEMENT



ADVICE FOR
SETTING UP
A BUSINESS



AFTERCARE
SERVICES

“

Right from the beginning, Invest in Finland helped us in setting up some research projects. They helped us get into the networks, during Slush but also outside it. So it helped us a lot to get initial business contacts, through which we were also able to leverage business.”

DIRK HOFMANN
CEO
DAIN STUDIOS, GERMANY

“

“

Invest in Finland has been my right hand, from explaining the DNA of cities in Finland and dynamics of different neighborhoods to choosing local partners.”

ANDRAS HOLCZER
SENIOR DEVELOPMENT AND
FEASIBILITY MANAGER
MEININGER HOTELS, GERMANY

We got a lot of help for settling ourselves here, as well as a lot of guidance and connections. We have been funded by Invest in Finland with certain grants. The collaboration is open and fruitful. There are a lot of professionals on the other side, and there is a great network that we can benefit from.”

JAAKKO KAIDESOJA
PRESIDENT
IMAGINE INTELLIGENT
MATERIALS, AUSTRALIA

BUSINESS FINLAND

FACTS ABOUT FINLAND

INDEPENDENT COUNTRY
SINCE 1917

POPULATION 5.5 MILLION

BUSINESS LANGUAGES:
FINNISH, ENGLISH, SWEDISH

NEIGHBORING COUNTRIES:
SWEDEN, NORWAY, RUSSIA,
ESTONIA

MULTI-PARTY DEMOCRACY

MEMBER OF THE EUROPEAN
UNION SINCE 1995

MEMBER OF THE EUROZONE

CORPORATE TAX RATE 20%

CREDIT RATINGS:
FITCH (AA+), MOODY'S (AA),
STANDARD & POOR'S (AA+)

INVESTINFINLAND.COM

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