RDI GUIDE

Southwest Finland

BUSINESS TURKU

Varsinais-Suomen liitto
Egentliga Finlands förbund

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Introduction

More research, development and innovation (RDI) activity is needed throughout Finland to maintain competitiveness, including in Southwest Finland.

Finland's government aims to significantly develop Finland as an environment for research and innovation and reverse the decline in research and development funding. The Parliamentary Working Group on Research, Development and Innovation has set a national target of **four per cent of gross domestic product** by the year 2030.

Finland's total RDI expenditure was 3.09 per cent of the gross domestic product in 2023. This represented year-on-year growth of 0.14 percentage points, so the general trend is already good.

RDI spending in **Southwest Finland** increased by 0.7 per cent from 2022 to 2023. The change in the region's **universities** has been more substantial: expenditure has risen by 9.8 per cent. Unfortunately, **RDI spending within companies** fell by 5.9 per cent in a challenging economic climate.

The **RDI Compass** project helps in reaching RDI investment objectives. The Regional Council of Southwest Finland has funded a project executed by Business Turku to strengthen the region's research, development and innovation activities and boost collaboration between companies, universities and other bodies. The project supports the development and growth of the region's key themes – the green transition, digitalisation, health and wellbeing.

This guide is one of the tangible outcomes of the RDI Compass. Its purpose is to provide a clear and practical overview of the opportunities for RDI activities in Southwest Finland and support companies and experts, particularly in initiating and enhancing RDI collaboration.

The many benefits of RDI activities for companies

RDI activities benefit companies in many ways. They offer tangible avenues for growth, renewal and strengthening competitiveness. They can also help develop new products, services or operating models, streamline processes and respond to changing customer and market needs. At the same time, RDI opens the door to funding, expertise and networks, both nationally and internationally. If we want to build sustainable future businesses, RDI is not just an opportunity, but a necessity.

The strong culture of collaboration that previously prevailed in Finland seems to have tailed off in recent years, and this needs to be addressed.

Maija Lönnqvist, Senior Advisor, Industrial Affairs, Ministry of Employment and the Economy

Universities are ready to strengthen their collaboration with businesses, as long as suitable research topics can be identified.

Teija Kekonen, Director of Research Affairs, University of Turku

We want to lower the threshold for ordinary companies to embark on growth.

Linda Fröberg-Niemi, Chief Operating Officer, Business Turku

The importance and role of RDI activities in Southwest Finland

Research, development and innovation (RDI) activity is significant for companies and society as a whole. It is a prerequisite for competitiveness, renewal and sustainable growth. RDI activity leads to new products, services and operating models, supports the development of skills, and creates the conditions for the emergence of new jobs.

RDI activity significantly advances Southwest Finland's key themes of the green transition, digitalisation, health and wellbeing. RDI activity creates new growth and internationalisation opportunities for SMEs. It also plays a vital role in supporting export-driven industries, such as the maritime cluster and the pharmaceutical and technology sectors.

The region's universities of applied sciences provide companies with valuable expert support and development platforms for commercialising ideas. RDI activity draws investments, expertise and international partnerships to the region. RDI is not just about laboratories and pilot projects – it is an important element in the vitality and future of Southwest Finland.

RDI roadmap toward competitiveness and a sustainable region

One of the objectives of the Regional Programme of Southwest Finland 2022–2025 was to draw up a regional research, development and innovation roadmap. The RDI roadmap was prepared for 2024–2029 to clarify the profile and target level of the region's RDI activities.

The Southwest Finland RDI roadmap brings together the region's strengths, objectives and actions. The region's joint plan is to strengthen research, development and innovation activity, which will increase RDI investments, enhance expertise and support the renewal of the business sector.

The roadmap focuses on Southwest Finland's strategic priorities: **the green transition**, **digitalisation**, **health and wellbeing**. The RDI roadmap will help build a competitive and sustainable region where research, enterprise and education work in close collaboration.

RDI activity is not just about innovation
– it is also about developing everyday life and the region.

Kaune

It is essential to keep your eye on the ball in development. A product is never so good that no one else can improve on it. I think that when you lose your drive to develop, you are sitting on a time bomb.

Kalle Saksi, Chief Executive Officer

Research, development and innovation activity is at the heart of regional and national economic development

RDI activity plays an important role in the development of individual organisations, regions and the entire national economy. It is the key driver of growth, competitiveness and sustainable development.

Why is RDI activity important, and what does it mean for Southwest Finland?

Boosting competitiveness and productivity

RDI activity enables the development of new products, services and production methods. This enhances the competitiveness of companies, both nationally and internationally.

Creating new jobs and businesses

Innovative activities bring new solutions to the market and create new businesses and employment opportunities, especially in high-skill areas.

Solving societal challenges

Research and innovation activity can address major societal challenges such as climate change, population ageing or digitalisation.

Raising the level of education and skills

RDI activity is closely linked with universities and research organisations, which enhances the knowledge base and creates opportunities for lifelong learning.

Enhancing appeal and retention

Regions with strong RDI activity attract talent, investments and companies. They also offer opportunities for existing operators to develop.

Vahterus

When you talk about growth regularly, it becomes part of the company's everyday life. As people become more ambitious, they understand that development requires the courage to do new things.

Valtteri Haavisto, Director of Technology and Development

Jyri Arponen, Regional Mayor of Southwest Finland, presented the region's figures at an RDI review in November 2024.

The future of RDI and the region's growth strategy

Research, development and innovation activity is a key feature of Southwest Finland's growth strategy. It lays the foundation for sustainable economic growth, a revitalised economy and international competitiveness. The region aims to strengthen its position as a pioneering, appealing, intelligent and green region, and RDI activity plays a crucial role in this.

RDI supports competitiveness now and in the future

RDI makes the region's economy more flexible, agile and attractive to international investments and talent. RDI activity supports faster business development and the companies' ability to innovate by producing new knowledge, technology and expertise. Innovation enables companies to respond rapidly to evolving customer and market demands and identify new export opportunities.

Several significant trends guide future RDI activity. These include the green transition, the march of digitalisation, the use of artificial intelligence, data-driven innovations, and the need to address broader societal challenges, such as climate change and population ageing. RDI activity is increasingly multidisciplinary and built on extensive collaboration networks in which companies, universities and public bodies develop solutions together.

Southwest Finland is already a strong player in areas such as sustainable industry, health technology and digital solutions. The region is building future growth through roadmaps, competence networks and strategic cooperation. Southwest Finland will remain a competitive and attractive region through investments in competence development, continuous learning and RDI.

Everything you need for a good life in Southwest Finland

Southwest Finland offers everything you need for a balanced life. The region has a strong ecosystem for research, development, and innovation activity, creating diverse career opportunities, particularly in the fields of green transition, digitalisation, health, and wellbeing. RDI activity underpins business renewal while providing local residents with a vibrant, sustainable and smart environment. Innovative solutions manifest in everyday life as seamless digital services, sustainable mobility solutions and technologies that support wellbeing. Southwest Finland's RDI investments draw experts, companies and investments to the region. They boost the region's vitality and generate more opportunities for everyone.

Southwest Finland offers residents a high quality of life: good public services, high-quality education and healthcare, a safe living environment, a rich cultural life and unique nature. Housing is affordable, and there are options to suit people at any stage of life – from the hustle and bustle of the city to the tranquillity of the archipelago.

RDI activity and a good life are not mutually exclusive concepts – they go hand in hand. RDI activity creates sustainable growth, while a good living environment attracts skilled professionals to the region.

Southwest Finland: a home for international experts

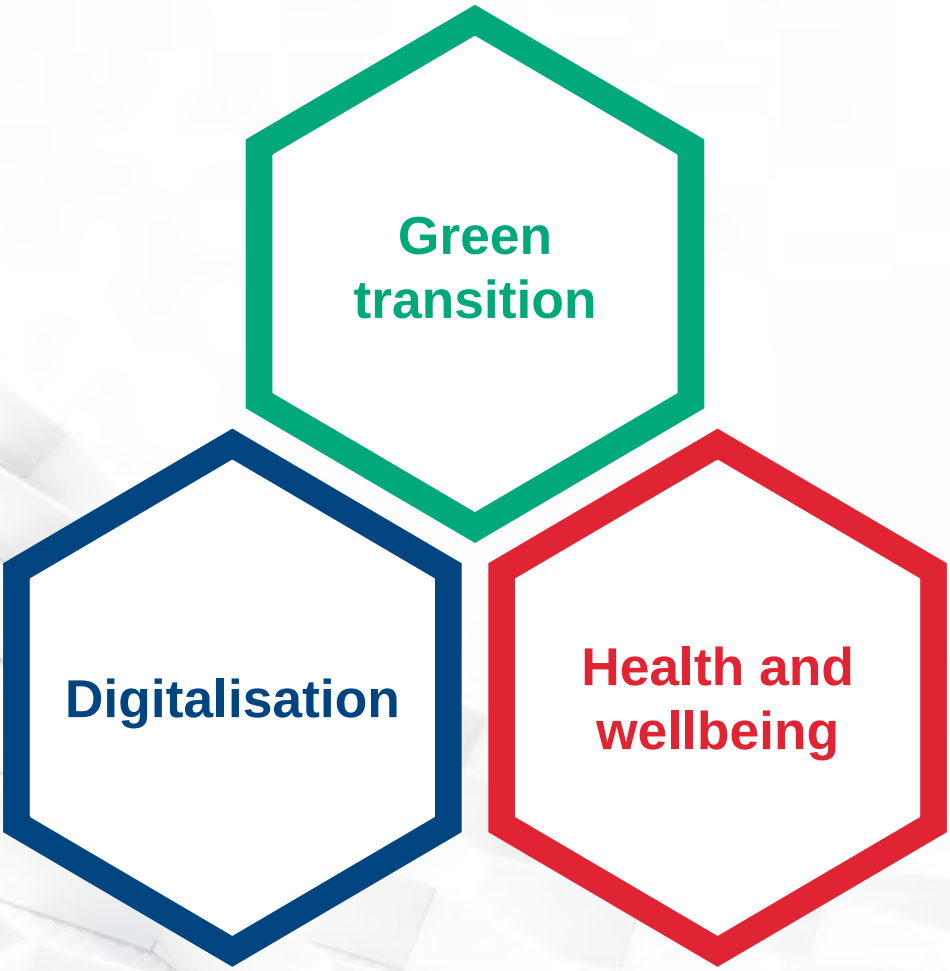
Turku and its surrounding towns, including Raisio, Naantali, Lieto and Kaarina, offer excellent services for international experts. The region has reasonable living costs and plenty of housing options, whether you are looking for the hustle and bustle of the city, the tranquillity of the countryside, or the rugged beauty of the archipelago.

Finland’s excellent childcare, education and healthcare are especially attractive for international experts. Southwest Finland’s trump cards include reasonable housing costs, a vibrant cultural life and interesting archipelago nature.

Pemamek

RDI funding enables the birth of innovations that cannot be anticipated in advance.

Teemu Tolonen, Director of Technology



Key themes in the region – strategic priorities for the region

Southwest Finland's key themes are strategically selected focus areas in which there is strong expertise, growth potential and international significance. These sectors are the **green transition**, **digitalisation** and **health and wellbeing**.

The key themes guide research, development and innovation (RDI) towards solutions that address regional and global challenges. They connect enterprise, research and education into clusters of expertise that promote sustainable growth and a revitalised economy in Southwest Finland.

InterControl

You should not rest on your laurels; keep moving forward. We can see big opportunities here.

Ari Tikakoski, Sales and Product Manager

The green transition – sustainable development to drive the economy and society

The green transition is a broad, system-level change affecting every sector of society with the aim of realising a carbon-neutral and sustainable welfare society. The impetus is the challenge of global sustainability, including climate change, overconsumption of natural resources, loss of biodiversity, and the degradation of ecosystems. To rectify the situation, the European Union has launched the Green Deal, which aims to modernise the economy and maintain competitiveness in an environmentally sustainable manner.

The green transition is manifested in the development of the hydrogen economy, circular economy, bioeconomy and clean technology, as well as growth in the related industries and businesses. The aim is to create new, scalable solutions that use raw materials and energy more efficiently, enable more closed material and energy cycles, and reduce emissions and dependence on virgin natural resources. This will also help preserve valuable natural entities and support biodiversity.

The EU allocates significant investments to research, development and innovation activity to promote the green transition. Indeed, RDI activity is crucial for developing and adopting new technologies, making it a key tool in supporting structural changes in the economy and enabling sustainable growth.

RDI activity is crucial for developing and adopting new technologies.

Strong sectors in the green transition in Southwest Finland from the perspective of RDI

Energy

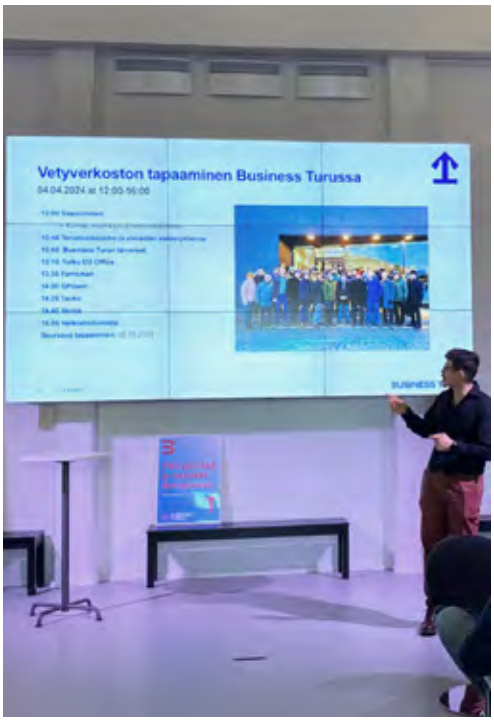
Southwest Finland possesses strong expertise in the electrification of machinery, transport, and equipment, as well as solar power and battery technology. **Sandvik**, **Epec**, **Valmet Automotive** and **Ioncor** are among the world's top operators in machinery electrification. **Valmet**, **TM-Systems** and **Vahterus** develop innovative industrial solutions for energy efficiency. In addition, large companies in the energy sector, such as **Neste**, **Fortum** and **Wärtsilä**, have significant operations in the region.

The universities support developments in the sector by providing extensive education to meet the energy industry's needs in disciplines such as energy, process, mechanical and materials engineering. The active Energy Network, which is led by Business Turku, accelerates collaboration between companies and research institutions in the region. The Energy Network already has over 60 member companies.

Hydrogen economy

The hydrogen sector in the Turku region is expanding rapidly, and the region is positioning itself as a manufacturer of high-value-added products in Finland's hydrogen economy. Companies such as **Green North Energy** and **Liquid Wind** promote the production and use of green hydrogen, highlighting the region's commitment to sustainable energy. Turku's universities educate professionals in the field, and a strong network connects companies and researchers, attracting investments and innovations.

The sector is supported by Business Turku's Hydrogen Network, in which companies, universities and stakeholders meet every other month to discuss the latest developments in the field and create new collaboration patterns.



Bioeconomy and circular economy

Southwest Finland's universities possess high-level expertise in the bioeconomy and the circular economy. The Åbo Akademi University has provided education in chemical engineering for over a century, and the process chemistry engineers and doctors who graduate from there have found employment in the industry. Today, this expertise is leveraged for the transition to a bio-based industry, which favours bio-based materials over fossil raw materials, in line with the green transition. Pioneering biorefinery companies in the region include **CH-Bioforce**, **Boreal Bioproducts** and **Metgen**.

The region has robust, broad-based expertise in the circular economy. Examples include **Fortum Battery Recycling**, which has developed recycling technology for electric vehicle batteries, and **Rester**, which focuses on textile recycling. The Turku region is a strong leader in textile recycling networks.

The **Smart Chemistry Park innovation platform** has supported the growth of the region's bioeconomy and circular economy enterprises for 10 years. The Smart Chemistry Park is also a physical location for companies in the industrial area belonging to Raisio, a food company. Business Turku has worked with companies to create a growth platform for the region and support the growth of technology companies from laboratory scale through piloting to industrial scale.

Turun Teknologiakiinteistöjen AkvaCity, kokonaan puusta rakennettava kiinteistökokonaisuus.

Sustainable construction

Southwest Finland possesses robust expertise and leadership in the field of sustainable construction. Operators in the region are developing innovative, energy-efficient solutions to respond to the transformation of the construction industry and mounting sustainability requirements.

Low-carbon construction and the circular economy are promoted in close cooperation, and the region is making substantial investments in recycled and environmentally friendly building materials. Demolition and reuse businesses are developing solutions to extend the lifecycle of building materials and reduce waste. Low-carbon building materials, energy efficiency and sustainable design are at the heart of the industry’s development.

Business Turku’s Sustainable Construction network accelerates collaboration between companies and research institutions by bringing together industry businesses, universities and operators to develop solutions, create new business opportunities and promote sustainable growth.

Pocadel

Our innovation activities would be much smaller in scale without these grants. Such projects also help us organise our thoughts and get things done.

Sami Luoto, CEO

Digitalisation – intelligent development and a facilitator of growth

Like the green transition, digitalisation is a highly transformative force that supports nearly every sector and enables sustainable development solutions. It acts as a key facilitator of the transformation of industry and the intelligent development of services. Digitalisation in Southwest Finland is strengthened by high-level research activities, particularly supported by the Turku University of Applied Sciences and Tech Campus Turku, which was established in 2018. This collaboration platform has strengthened cooperation between universities and the research and business fields, accelerating the application of new knowledge into practice.

The region's specific strengths include artificial intelligence, natural language processing (NLP), software technologies, and Industry 4.0 solutions such as additive manufacturing, augmented and virtual reality (AR/VR/XR), edge computing, digital twins and simulations. Further areas of strength include cybersecurity, IoT solutions and autonomous and remotely controlled systems, supported by advanced wireless communication.

Digitalisation is not just about technology; above all, it is about utilising intelligent solutions in production, services and the structures of society. It is precisely here that Southwest Finland has much to offer and develop.

> *Digitalisation is not just technology;*
> *it is the utilisation of intelligent solutions.*

Key sectors of digitalisation in Southwest Finland

Software industry

Southwest Finland is well known for its strong software and ICT ecosystem. Software, consulting and related activities take place in over 1,000 locations, accounting for nearly 3,000 jobs and over €500 million in revenue. The software industry is one of the region's rapidly expanding sectors. It is closely linked to other industries, such as manufacturing, maritime and health technology, and the service business.

Software companies constitute the largest group of startups in Southwest Finland. The region's universities educate hundreds of IT professionals each year, and the large number of software industry experts underpins strong growth in the sector. Turku has a wide range of communities aimed at software developers, representing an important factor in attracting talent to the area.

Semiconductors and microelectronics

Southwest Finland has strong expertise in semiconductor and microelectronic research, especially in materials technology, smart systems and optoelectronics. The University of Turku and Åbo Akademi University produce experts in the field, and Turku University of Applied Sciences has also strengthened its investments in areas such as embedded microelectronics and the Internet of Things.

International companies such as **LG** and **Nordic Semiconductor** operate in the region, and there are several research infrastructures, including the Materials Research Laboratory at the University of Turku, the Wihuri Physical Laboratory, and the Euro-BioImaging Hub. Pull factors include high-quality research, an expert workforce and ecosystems such as Tech Campus Turku and Health Campus Turku.

Smart manufacturing and production

The smart production and manufacturing ecosystem includes many industrial companies and universities that together develop digital and automation-based production solutions. These companies include **Meyer Turku** and **Bayer** in Turku, **Valmet Automotive** headquartered in Uusikaupunki, **Pemamek** and **Dinolift** in Loimaa, and **Ioncor** in Salo.

According to Statistics Finland, nearly 3,500 industrial companies in Southwest Finland employ over 30,000 people. The region’s higher education institutions, which include the University of Turku, Åbo Akademi University, Turku University of Applied Sciences and Novia University of Applied Sciences, collaborate closely with industry, providing research, development and innovation services, particularly in the areas of smart manufacturing, robotics, IoT and data utilisation.

Smart maritime industry and shipping

Southwest Finland is the country’s leading region in the maritime industry, and also a global market leader in several key sectors. **Meyer Turku** builds the world’s largest and most advanced top-class cruise ships. Its network includes a wide range of specialised suppliers, from design bureaux to equipment, systems and turnkey suppliers.

The region’s special strengths are the development of intelligent automation solutions and autonomous vessels. There are about 400 companies in the maritime industry, and the turnover of the maritime sector is approximately €2.6 billion. The maritime industry employs about 6,500 people. The ports of Turku and Naantali offer efficient shipping connections, especially to Sweden, but also to other parts of the Baltic Sea region.

Artificial Intelligence and IoT

Artificial intelligence (AI) is a rapidly growing and evolving industry in Southwest Finland, where Turku serves as a major hub. The area has several companies and research institutions specialising in artificial intelligence, which work closely with local businesses.

A significant number of artificial intelligence experts graduate in the region each year, and artificial intelligence applications are utilised in healthcare, industry and logistics. Investments and innovative projects related to artificial intelligence make Southwest Finland an attractive place for the development of artificial intelligence.

Cybersecurity

Cybersecurity is an evolving and strategically important sector in Southwest Finland, which particularly supports the region’s software industry, maritime industry, healthcare sector and public bodies. Southwest Finland is home to several companies and expert organisations specialising in cybersecurity, and research and education actively strengthen the expertise in this field.

Turku’s universities train cybersecurity experts and have several cybersecurity research projects. The region’s multifaceted economy generates demand and a development platform for solutions in the field.

Data economy and analytics

The data economy and analytics business ecosystem of Southwest Finland supports the digitalisation of industry, healthcare and logistics. Examples of companies include **Pemamek**, which designs and manufactures automated welding and production solutions; **Cadmatic**, which provides 3D design and information management solutions for the marine, process and construction industries; and **Carina Solutions**, which focuses on development, logistics and production solutions for the maritime, construction and product industries.

Turku's universities support the data economy in many ways. The University of Turku and Åbo Akademi University invest in data science and research into artificial intelligence and health data. Turku University of Applied Sciences focuses on the deployment of data analytics, artificial intelligence and IoT in projects in areas such as health and wellbeing technology, smart manufacturing and energy data analysis.

Game industry and educational technology

Southwest Finland's game industry is young but growing rapidly. Several indie studios and developer collectives operate in the region, supported by **Turku Game Hub**, which offers workspaces, mentoring, and events for game developers. **The Game Lab at Turku University of Applied Sciences** and **game research at the University of Turku** are important centres of expertise and education, where games are developed for entertainment and more serious applications.

In the field of educational technology, Southwest Finland is strongly characterised as a developer of gamification, digital pedagogy and learning analytics. The universities work closely with schools and businesses to create new learning experiences.

Airfi

A certain type of financing allows us to embrace unconventional approaches. It makes room for innovation. Without funding, the company may be tempted to remain in its safety zone, missing the opportunity to explore new areas.

Izabella Lundberg, CEO

Health and wellbeing – a strong area of high expertise and international cooperation

Southwest Finland has a nationally and internationally significant cluster of expertise in the health sector, where high-level research, diverse education, strong business activity and advanced research infrastructure combine. The region's smart specialisation focuses on the fields of pharmaceutical development, imaging, diagnostics and health data, where top international expertise and functional collaboration networks are already available.

Health technology has strong growth prospects, especially in the utilisation of health data for research and innovation. Another focus of expertise in the region is biomedical imaging, which has attracted interest among international companies and generated ongoing collaboration between research and industry. The Finnish Drug Discovery Centre in Turku strengthens the health sector as a whole.

The research and development of biomaterials are an important aspect of the region's RDI activity, with several biomaterial exporters operating in Southwest Finland. At the same time, infrastructure for the sector is being developed to further strengthen research and innovation activity.

Health and wellbeing also extend to the development of nutrition and food products. Interdisciplinary research and education are conducted in medical and engineering faculties in Southwest Finland, and several companies operate in the region, covering the food chain from primary production to product development. For example, the development of plant proteins is seen as an important future solution to nutritional and ecological challenges.

Collaboration between research, education and enterprise makes Southwest Finland a unique environment for RDI in terms of health technology and welfare.

> *Southwest Finland has a nationally and internationally significant cluster of health sector expertise.*

Strong sectors of health and wellbeing in Southwest Finland

Drug development

Southwest Finland is the absolute centre of pharmaceutical development in Finland: 21 of the 23 drugs developed in Finland were developed in the Turku region. By combining top-level research, a strong business sector, and a thriving ecosystem, the region hosts the major pharmaceutical operator **Bayer** and the **Finnish Drug Discovery Centre**, which supports the development of promising drug candidates from research to clinical phases. There is special expertise in the field of women's health, supported by **Women's Health Hub Finland**, a national centre of excellence.

Several innovative companies operate in the region: **Faron Pharmaceuticals** develops advanced cancer treatments and immunotherapies, and Orion has concentrated its early-stage product development activities in Turku. The latest advances in drug development technology involve **using quantum computing in the early stages of drug development** in a network led by Business Turku that connects pharmaceutical companies, algorithm developers, quantum computer developers and academic research groups.

The region's strength is also reflected in the fact that as much as 75 per cent of Finland's pharmaceutical exports come from Southwest Finland.

Diagnostics

Southwest Finland has robust expertise in the diagnostics field, especially in vitro diagnostics. Several leading companies operate in the region, such as **Revvity**, **Uniogen**, **HyTest**, **Radiometer** and **ArcDia**, which develop and manufacture diagnostics solutions for international markets. The companies employ hundreds of experts in the region and strongly support export-driven growth. As much as 50 per cent of Finland's in vitro diagnostics exports come from Southwest Finland, highlighting the region's international significance in the field.

Health and wellbeing technology

Over 100 companies in Southwest Finland are developing digital health and wellbeing technology solutions. The region's strengths include close cooperation with the Turku University Hospital, the University of Turku and research organisations, as well as the availability of skilled labour. Among other things, companies are developing remote consultation, mobile and artificial intelligence solutions to support health and wellbeing. For example, **Abomics** and **Misvik Biology** offer tools to support decision-making related to individual medication, and **StellarQ** provides tools for monitoring personalised treatments.

Digital health is expanding particularly rapidly in the region, with many companies aiming to break into international markets at an early stage. Business Turku's Forum for Health Tech Companies also supports businesses in the sector by providing a venue for discussions and open meetings with activities built around the needs of enterprises.

Biomaterials

The research and development of biomaterials play a significant role in Southwest Finland, especially in the Turku region, where several companies and research institutions operate. For example, **Bonalive Biomaterials** develops and manufactures bioactive glass, which is used as a bone substitute and in the treatment of infections. The region is also home to the **Turku Clinical Biomaterials Centre (TCBC)**, which provides state-of-the-art infrastructure for biomaterials research. It also works closely with businesses that are developing new medical devices. This strong collaboration between research institutions and companies promotes growth and innovation in the region's biomaterials sector.

Health and wellbeing data

Southwest Finland is a pioneer in the production and utilisation of health data for RDI.

Biobank activities

Finland’s first biobank, **Auria Biobank**, operates in Turku and promotes medical research and healthcare. The biobank has collected about one million paraffin-embedded tissue samples at Turku University Hospital since 1930. Twenty-five per cent of the samples are related to cancer diseases, and twenty-one per cent are related to inflammatory diseases.

The biobank is also Finland’s first FINAS-accredited biobank. The **Finnish Biobank Cooperative – FINBB** has operated since 2020 and is coordinated in Turku. FINBB has also been chosen as the national coordinator of the European biobank network (BBMRI-ERIC).

Health data

Auria Clinical Infomatics, operating as part of the Wellbeing Services County of Southwest Finland, is Finland’s first EU Digital Innovation Hub focusing on digital health data. It provides services across Europe. Auria Clinical Infomatics provides high-quality datasets, advice on interpreting data, and software solutions that accelerate scientific research. It also offers Auria Atolli, an environment suitable for processing data that requires information security.

Auria Clinical Infomatics is the only Finnish organisation to be accepted as part of the European Medicines Agency's EMEA Darwin EU network. Auria Clinical Infomatics is responsible for producing data compatible with the OMOP Common Data Model for the network to use.

Business Turku coordinates **HealthHub Finland**, a national European Digital Innovation Hub, which focuses on supporting businesses that depend on digital health data in the EU area. Auria Clinical Informatics, a member of the hub, provides services based on synthetic health data to European customers. The University of Turku, Auria Clinical Infomatics and Turku University of Applied Sciences have engaged in long-term collaboration on developing synthetic health data. Together, they constitute Finland's leading network focused on the development of synthetic health data as part of Health Campus Turku.

Health Campus Turku

Health Campus Turku is a multidisciplinary competence network that brings together all the universities in the region (University of Turku, Åbo Akademi University, Turku University of Applied Sciences, and Novia University of Applied Sciences), the wellbeing services county, and the economic policy actor Business Turku. Health Campus Turku provides expert services from all of these organisations and a range of testing platforms to support research and development in the social and health sectors. The services are provided to companies and research organisations through the campus' Terttu service based on a one-stop-shop principle. Examples of services include the analysis of RNA sequencing data and the services of LiiLab, a laboratory focusing on exercise and functionality capacity.

Imaging

Southwest Finland is Finland’s leading region in research and development for imaging, thanks to the cluster of expertise around Turku University Hospital and the universities. Advanced imaging technologies for medical research and drug development are made in the region.

Turku PET Centre is one of Europe’s leading positron emission tomography (PET) research facilities. It offers top-grade infrastructure and expertise for studying the biodistribution and mode of action of new drugs. The centre is a national specialisation centre that employs about 200 experts. In 2022, the PET Centre introduced a whole-body PET scanner that enables even more accurate and efficient imaging of the entire body.

Euro-BioImaging, a pan-European research infrastructure for biological and medical imaging, also operates in Turku. It allows researchers and companies to access advanced imaging technologies and expertise. The Euro-BioImaging Hub in Turku actively collaborates with around 45 companies annually, and the amount of business collaboration has increased by 88 per cent in four years. The collaboration covers the development of drugs, technologies and services and strengthens Turku’s position as an internationally significant imaging innovation hub.

Food

Southwest Finland is Finland's most significant food production region. The food supply chain employs over 16,000 people in the region. The region is home to several large and innovative food companies, including **Raisio**, **HKScan**, **Lunden Jalostaja**, **Eckes-Granini Finland** and **Leipomo Salonen**. In addition, the University of Turku is known for its research into functional foods, and its food development centre of expertise works closely with the food industry.

The Turku region has also developed internationally recognised functional foods, such as **xylitol** and **Benecol**, which are examples of the area's strong research and innovation activities. The region focuses on sustainable development and the circular economy, which strengthens its position as a pioneer in the food sector.

A centre of expertise in health and wellbeing

Three strong higher education institutions operate in the Turku region – the **University of Turku**, **Åbo Akademi University**, and **Turku University of Applied Sciences**. Together, these institutions educate hundreds of experts in the health and wellbeing sector each year. The region educates professionals in areas such as pharmaceutical development, bio and health sciences, nursing and health technology. A diverse educational offering directly supports growth and innovation in companies and research organisations.

The **Innovation Ecosystem based on the Immune System (InFLAMES)**, a flagship research project of the University of Turku and Åbo Akademi University, is at the forefront of research in the region, combining immunology, medical research and business. InFLAMES promotes impactful research and commercialisation and provides a top-class research environment that attracts international experts and supports the continuous development of competences.

Lingsoft

Development projects allow us to learn new things and gain new partners.

Juhani Reiman, CEO

The big problem in Finland is that we do not seem to know how to go out into the world together and create service products that are replicable and scalable.

Ossi Tuusvuori, Senior Advisor

Southwest Finland’s universities – cornerstones of RDI expertise

Five higher education institutions operate in Southwest Finland; the region is a major centre of education and research in Finland. The two academic universities in the region are the University of Turku and Åbo Akademi University, and the universities of applied sciences are Turku University of Applied Sciences, Novia University of Applied Sciences, and Humak University of Applied Sciences. These institutions provide education in a wide range of disciplines, such as humanities, natural sciences, medicine, engineering, business studies, education and arts. The University of Turku alone has eight faculties offering over 70 degree programmes and more than 130 subjects.

Southwest Finland’s higher education institutions have approximately 40,000 students and researchers each year. This is a significant number on a national scale, and Southwest Finland’s universities are among the largest in the country. Internationality is an important aspect of the operations of Southwest Finland’s universities. The region is home to students or researchers from over a hundred different nationalities. The presence of international students and researchers enriches the culture of educational institutions and promotes the emergence of global networks.

The universities in Southwest Finland collaborate closely with each other, as well as with the region’s businesses and public bodies. This lays a strong foundation for research, development and innovation, benefiting the economy and society as a whole.

Every year, 40,000 students and researchers are involved in Southwest Finland’s universities.

Universities help in RDI

Southwest Finland’s universities are key players in research, development and innovation in the region. They offer companies diverse opportunities for collaboration, which can promote the development of new products, services and processes and boost competitiveness.

Collaboration opportunities in RDI projects:

- Companies can participate in joint research projects with higher education institutions to combine academic expertise with practical business needs. This enables the latest knowledge to be harnessed for business development.
- Companies can leverage students’ skills through thesis work, internships or project work. This provides fresh perspectives and innovative solutions to the company’s challenges.
- RDI ecosystems have been established in Southwest Finland to serve as environments for joint development between companies and universities. These ecosystems allow companies to network, share expertise and develop innovations in collaboration.

The universities also provide companies with assistance in terms of competence development and infrastructure. Collaboration with universities enables employees to refresh their competences and gain new skills, which is essential in rapidly evolving business environments. Companies can also take advantage of higher education institutions' research equipment and facilities, allowing for a cost-effective way to utilise top-grade infrastructure without large investments.

Southwest Finland's RDI roadmap for 2024–2029 underlines the importance of collaboration between businesses and universities in promoting the region's competitiveness and wellbeing. The roadmap defines eight action areas and 40 measures aimed at raising RDI spending to four per cent of gross domestic product by 2029.

Companies are encouraged to collaborate with universities actively, as partnerships can lead to significant innovations and business growth. Universities can offer valuable resources and expertise for the development and success of businesses.

Langh Tech

Finland may be best known around the world for having great ideas and inventions that we cannot sell. Perhaps we should invest in driving research and development projects forward to commercialisation and make sure they result in products we can sell.

Laura Langh-Lagerlöf, Managing Director

Networks to support RDI

Businesses, universities and other actors in Southwest Finland know each other well and find it easy to identify new collaboration opportunities. The region's business promotion and vitality bodies accelerate networking by creating growth opportunities for companies by organising networking events, arranging personal meetings and maintaining regional industry networks.

Below are some examples of the networks created by Business Turku, which provides business and innovation services in the Turku region. Business Turku's services make it easy to reach out to the region's universities and your future international partners.

Highlights of the region's vibrant business networks

- **Robocoast** accelerates the digitalisation of companies by promoting the adoption of new digital solutions.
- **HealthHub Finland** offers services to companies that are developing digital health and wellbeing services.
- **The forum for health technology companies** is a venue for discussions and meetings.
- **Women's Health Hub Finland** invites developers of health solutions focusing on women's health to come together.
- **Health Campus Turku** is a multidisciplinary cluster of expertise in medicine, the social and health sector, and technology.
- **The Turku region's hydrogen network** aims to boost the hydrogen business in the Turku region.
- **The Turku region's network of energy operators** is open to all companies and operators who wish to develop new sustainable businesses and RDI activities related to the energy transition.
- **The Turku region's bio and circular economy network** promotes the establishment of businesses aligned with the principles of the bio and circular economy.
- **The Enterprise Europe Network** supports small and medium-sized enterprises in reaching their internationalisation goals.
- **Tech Campus Turku** makes the expertise of the region's universities of applied sciences available to local businesses.

BUSINESS TURKU

Production: Business Turku 2025

Sources: Business Turku, Regional Council of Southwest Finland, City of Turku, Finnish Cultural Foundation, University of Turku, Åbo Akademi University, Turku University of Applied Sciences

Photos: Business Turku, Rabbit Visuals, Mama Creative, Brave Teddy, Heidi Pelander, Jarno Hiltunen, Opiskelijakaupunki Turku, Turun kaupunki, Terri Vahtera, iStockphoto, Business Finland

Produced as part of the RDI Compass project funded by the Regional Council of Southwest Finland.

Varsinais-Suomen liitto