Investment opportunities in Life Science

Region Östergötland

Linköping

Norrköping

ÖSTERGÖTLAND

Östergötland is a strong Life Science region with world-leading research at Linköping University in visualization, simulation, and image analysis, particularly connected to biomedical imaging. The region is one of seven nodes in Genomic Medicine Sweden and drives the development of precision medicine, supported by AI and advanced data analytics.

Research in neurotechnology, digital health, and circulation and metabolism contribute to new treatment methods and improved diagnostics. Cancer research brings together around 40 research groups in an interdisciplinary network between Linköping University and Region Östergötland.

Around 40 Life Science companies, including Sectra and AMRA, form an innovation-driven ecosystem, while the regional innovation support system – with actors such as LiU Innovation, LEAD, Norrköpings Science Park and Linköping Science Park – provides support from idea to establishment.

Content

Disclaimer: This information is not exhaustive but provides examples of research, companies, and innovation-promoting actors in Östergötland.

Values that Östergötland can offer companies in Life Science

Region Östergötland, together with the regional innovation support system, has developed a value proposition for companies considering establishing operations in the region.

This offer is designed to provide meaningful support through access to key support functions, research environments, strategic partnerships, and other resources that help businesses establish themselves in Östergötland. This value proposition includes, among other things, the following benefits:

- **Access to excellent expertise in the field**, built on years of research and development at Linköping University.
- **Access to high clinical competence**, thanks to the proximity to Linköping University Hospital.
- **Access to a large and diverse network of stakeholders**, such as clinicians, researchers, entrepreneurs, innovation systems, and users.
- **Access to a cohesive ecosystem where actors across the entire chain** – from idea/need/early research to implementation/patient benefit – collaborate through networking activities and points of contact with existing industries and potential partners.
- **Opportunities to use local clinical testbeds for research and development.**
- **Access to strong research environments** and participation in ongoing projects and initiatives.
- **Support for innovation development**, commercialization, internationalization, production, and processes through the region's innovation and business development systems.

Regional strengths

Biomedical imaging – Visualization, simulation, and image analysis

Östergötland has a long tradition of leading research in visualization, simulation, and image analysis. The region is now globally recognized for its expertise in visualizing complex data and developing methods and techniques to image the anatomy and functions of the human body and its organs – e.g., analysis and quantification of image information and image-based biomarkers.

Precision medicine

Region Östergötland is part of a national initiative to implement personalized care and treatment, known as precision medicine, which promotes individualized decisions in healthcare. Region Östergötland and Linköping University are one of the seven nodes in Genomic Medicine Sweden (GMS Southeast). Artificial Intelligence (AI), which can identify patterns in complex biological data, may further support the development of personalized healthcare. For instance, researchers at Linköping University have developed AI-powered methods applicable to various medical and biological challenges.

Neurotechnology

Research is conducted at the intersection of engineering and neurosurgery, focusing on minimally invasive instruments, modeling and simulation, clinical implementation, and evaluation. Neurotechnology is an interdisciplinary research field that integrates engineering and neuroscience. Topics include deep brain stimulation (DBS), neuronavigation, optical measurement techniques, brain microcirculation, neuroimaging, and neural modeling.

Digital health

Digital health and eHealth are strength areas at Linköping University and Region Östergötland. The aim is to conduct internationally recognized research with practical applicability in healthcare and business. Biomedical modeling and informatics integrate medicine and computer science to manage and analyze biomedical data. Advanced algorithms interpret large datasets to understand complex biomedical processes, develop new treatments, and improve diagnostic tools.

Circulation and metabolism

Linköping University and Region Östergötland have a shared focus on circulation and cardiovascular-related metabolic risk factors. The aim is to strengthen research and improve the prevention and treatment of cardiovascular disease. The network includes researchers from both the medical and technical faculties at Linköping University and Region Östergötland.

Cancer

This joint research network between Linköping University and Region Östergötland includes approximately 40 research groups focusing on cancer diagnosis, pathogenesis, and treatment. The network is unique in involving researchers from a variety of disciplines – from clinical practice to engineering. The goal is to improve patient outcomes by building a strong interdisciplinary research platform.

Advanced manufacturing

Östergötland has a unique position with extensive knowledge in advanced manufacturing techniques and materials. The region conducts leading research and has high competence in developing and utilizing advanced materials and creating new manufacturing methods for existing ones.

Exploring the human body at Visualiseringscenter C in Norrköping.

Smart, secure, and robust connected products and systems

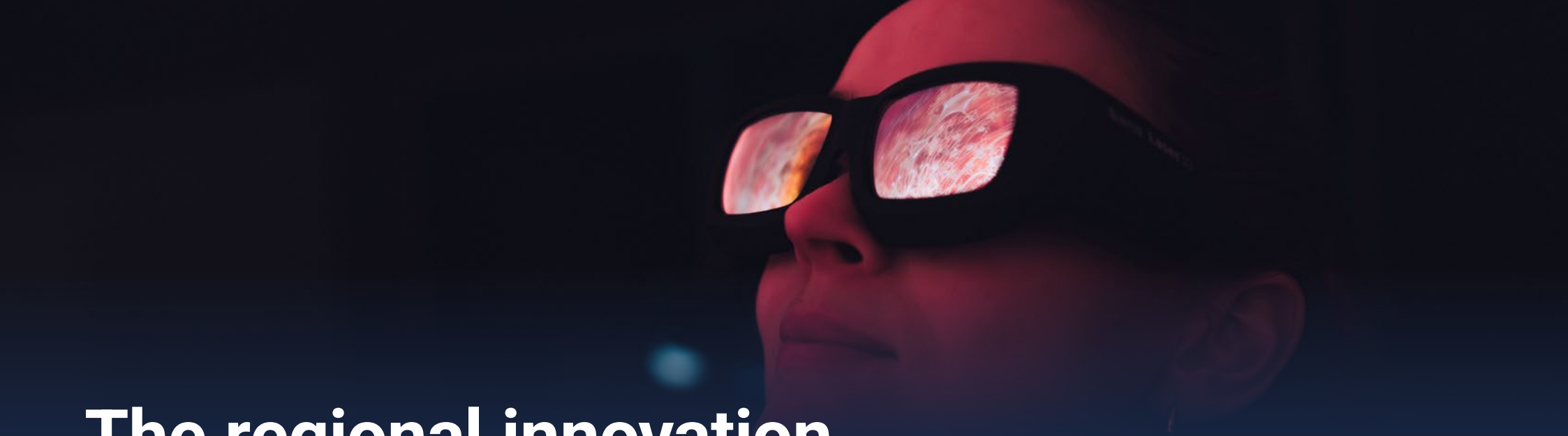
Internet of Things (IoT), sensors, and AI are examples of areas where researchers and companies in Östergötland hold strong expertise. This area is based on a combination of leading research and high-tech companies.

Industrial structure

The structure of the business sector in the Life Science area is an important part of the ecosystem.

In Östergötland there are many companies and organizations which together form an industrial infrastructure that creates innovations ranging from research tools and pharmaceuticals to diagnostics and medical technology. In the region currently (2024) there are about 40 companies that together generate a turnover more than 5 billion SEK and employ a significant number of people in the region.

Some examples of Life Science companies in Östergötland include larger firms such as Sectra AB and Amra AB as well as several smaller companies: Context Vision, Cambio, SyntheticMR, Worldish, Nordic Biomarker (Medirox), Dynamic Code, Clinical Trial Consultants, among others. The global company Neo4j (headquarters Silicon Valley) was developed by university students and developed in the regional innovation system.



The regional innovation support system

Östergötland's innovation support system is well developed and built on a long tradition of collaboration between academia, industry, the public sector, and entrepreneurs. The support network includes a wide range of actors offering assistance throughout the innovation journey — from early ideas to internationally established companies.

- **LiU Innovation** provides advice and support to students, researchers, and employees on idea development, business creation, and financing.
- **LEAD Business Incubator** offers programs and resources for entrepreneurs seeking faster and more secure growth, whether through research-based spin-offs or new startups.

Key actors strengthening Life Science development in the region include:

Linköping Science Park is a municipally owned company that supports the growth and development of more than 350 companies with around 6,500 employees. It brings together high-tech, innovative, and successful firms with international reputations, most of which have strong connections to research at Linköping University.

Norrköping Science Park provides an attractive environment where companies in the field can establish their first commercial production and grow together.

LiU Holding AB and LiU Invest AB facilitates commercialization and investment by collaborating with Linköping University, the municipalities of Linköping and Norrköping, and Region Östergötland. Its mission is to ensure that the university and the regional innovation system are perceived as active and innovative players in society.

Examples of areas where the innovation support system can assist include:

- Identifying potential innovations in research projects.
- Supporting entrepreneurs in both early-stage and scale-up phases.
- Identifying public funding opportunities.
- Analyzing production processes and value chains.
- Evaluating and developing business models.
- Facilitating contacts with researchers, public actors, and other relevant stakeholders for planned establishment.

Research at Linköping University

Linköping University is a strong national hub for life science, combining leading research in biomedicine, biotechnology, and medical technology with close collaboration with healthcare and industry. The university excels in areas such as regenerative medicine, precision medicine, bioelectronics, and visualization, supported by advanced infrastructures like the Center for Medical Image Science and Visualization (CMIV). Strong partnerships with Region Östergötland ensure rapid translation of research into clinical practice, while a vibrant innovation ecosystem fosters new solutions for health, diagnostics, and medical devices.

Education

Linköping University has about 45,000 students across four campuses, including ca 20 000 distance and off-site learners. The university offers 135 degree programs — 32 of which are international — and about 700 standalone courses. With exchange agreements with 400 universities in 50 countries, LiU hosts around 1,700 international students annually and awards about 2,600 bachelor's and 3,100 master's degrees each year. Linköping University is the only university in Sweden to offer an English taught civil engineering programme with an international profile and inbuilt studies abroad. Since many years Linköping University ranks number one in Sweden on both having the highest percentage of students successfully entering the job market upon graduation and doing it quickly.

Research and doctoral education

Linköping University has 364 professors and 1,300 doctoral students. Each year, an average of 28 licentiates and 161 doctoral degrees are awarded. This reflects the university's strong research environment and active doctoral training.

Departments relevant to Life Science

- **Department of Medical Technology (IMT)** is since 1972 a national center for research, doctoral training, and undergraduate teaching in medical technology, in close cooperation with the medical technology industry and medical clinics.
- **Department of Biomedical and Clinical Sciences (BKV)** acts as a core life science hub by bridging molecular biology and clinical application in fields like genetics, neurobiology, and regenerative medicine. They focus on translating fundamental biological discoveries into innovative therapies and diagnostics through integrated collaboration between academic research and the healthcare sector.
- **Department of Computer Science (IDA)** develops AI and data analysis methods for biomedicine, bioinformatics, and health data. They collaborate interdisciplinarily with medicine and biotechnology to understand biological systems and improve care and treatment.
- **Department of Health, Medicine and Care (HMV)** conducts research on human health, disease, and healthcare, with a focus on medical biology, clinical research, and the development of new diagnostic and treatment methods.
- **Department of Physics, Chemistry and Biology (IFM)** conducts research on biological, chemical, and physical processes, focusing on biomaterials, molecular biology, biophysics, and the interface between materials science and biotechnology.
- **Department of Science and Technology (ITN)** is active in life science research through the development of sensors, medical technology, and organic electronics for health monitoring, diagnostics, and biological analysis, in close collaboration with medicine and engineering.
- **Department of Management and Engineering (IEI)** conducts leading research and doctoral training in healthcare logistics and additive manufacturing (3D printing). The department combines engineering, management, and sustainability perspectives, and collaborates closely with healthcare providers, industry partners, and public organizations to develop innovative solutions that enhance efficiency and resource use in healthcare and manufacturing systems.

Centres and major initiatives

Östergötland hosts a number of research centers, major initiatives, and testbed environments that support collaboration between academia, industry, and the public sector.

Examples of such initiatives and environments in Östergötland include:

The Centre for Medical Image Science and Visualization (CMIV), Analytic Imaging Diagnostics Arena (AIDA) & the Visualization Centre are examples of strong research environments in imaging and visualization aimed at Life Science. CMIV carries out interdisciplinary research at the intersection of medicine/biology and engineering to solve tomorrow's clinical challenges. CMIV is initiated by Linköping University, Region Östergötland, and Sectra AB. AIDA is a national arena for research and innovation in medical image analysis, with interdisciplinary collaboration aiming at implementation in health care. Academia, health care, and industry meet and translate technical advances into clinically useful tools. The Visualization Centre at Linköping University uses advanced 3D visualization and interactive simulations to analyze biological systems, medical data, and complex life science processes, supporting research and education in life sciences.

Wallenberg Centre for Molecular Medicine (WCMM) is a joint effort by the Knut and Alice Wallenberg Foundation, Linköping University and Region Östergötland. It focuses on the intersection of medicine and engineering and builds on the university's already strong research areas in materials science, image analysis, technical biology and medicine.

Science for Life Laboratory (SciLifeLab), Linköping, is a local hub of the national research infrastructure SciLife-Lab, with unique technologies and expertise in health, environment, and data-driven life sciences. It is available to all academic life science researchers in Sweden, as well as other stakeholders in healthcare and industry both nationally and internationally.

The National Supercomputer Centre (NSC) has for more than 25 years been one of Sweden's leading providers of high-performance computing and data storage. (Also, the National Academic Infrastructure for Supercomputers in Sweden, NAISS.)

Skills supply

Linköping University ranks among the top 2% of universities worldwide in several international rankings. The university has a strong focus on engineering education.

Programs relevant to Life Science include, among others:

- Medical Program
- Nursing Program
- Master's Program in Medical Science
- Physiotherapy Program
- Experimental & Industrial Biomedicine
- Biomedical Analyst Program
- Bachelor's programs in Biology

Linköping University also offers customized professional education tailored to organizational needs.

Financing

Sweden's innovation and support system for research, development, and investments is structured at both national and regional levels and is complemented by specific investment and transition programs for industry.

National level

At the national level, the state and government agencies are responsible for creating frameworks, funding, and guidelines for innovation and commercialization. This includes, among other things:

- Research funding
- National innovation programs and collaboration platforms
- Specific investment support for transitions, commercialization-ready projects, or pilot-scale initiatives

Examples of programs supporting companies and investments include:

- **Klimatklivet** – an investment support program aimed at companies, municipalities, regions, and organizations for measures that reduce greenhouse gas emissions (such as charging infrastructure, biogas production, circular flows), thereby contributing to the climate transition.
- **Industriklivet** – a support program targeting industries that need to transition to fossil-free or negative-emission solutions; it supports feasibility studies, pilot and demonstration projects, as well as investments in technologies for industrial transformation.

Regional level

Regions have their own regional development funds and play an important role in implementing the European Regional Development Fund (ERDF). The ERDF aims to promote various development initiatives linked to innovation and business. Support can be provided to companies for R&D activities, as well as to actors within the innovation support system who, in turn, can help develop companies, industries, and value chains.

Additionally, Almi Företagspartner, besides offering business development services, can provide financing in the form of loans and venture capital.

The conditions for different types of innovation and investment support can change quickly, so actors interested in various support opportunities are encouraged to seek up-to-date information on the respective authorities' websites.

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