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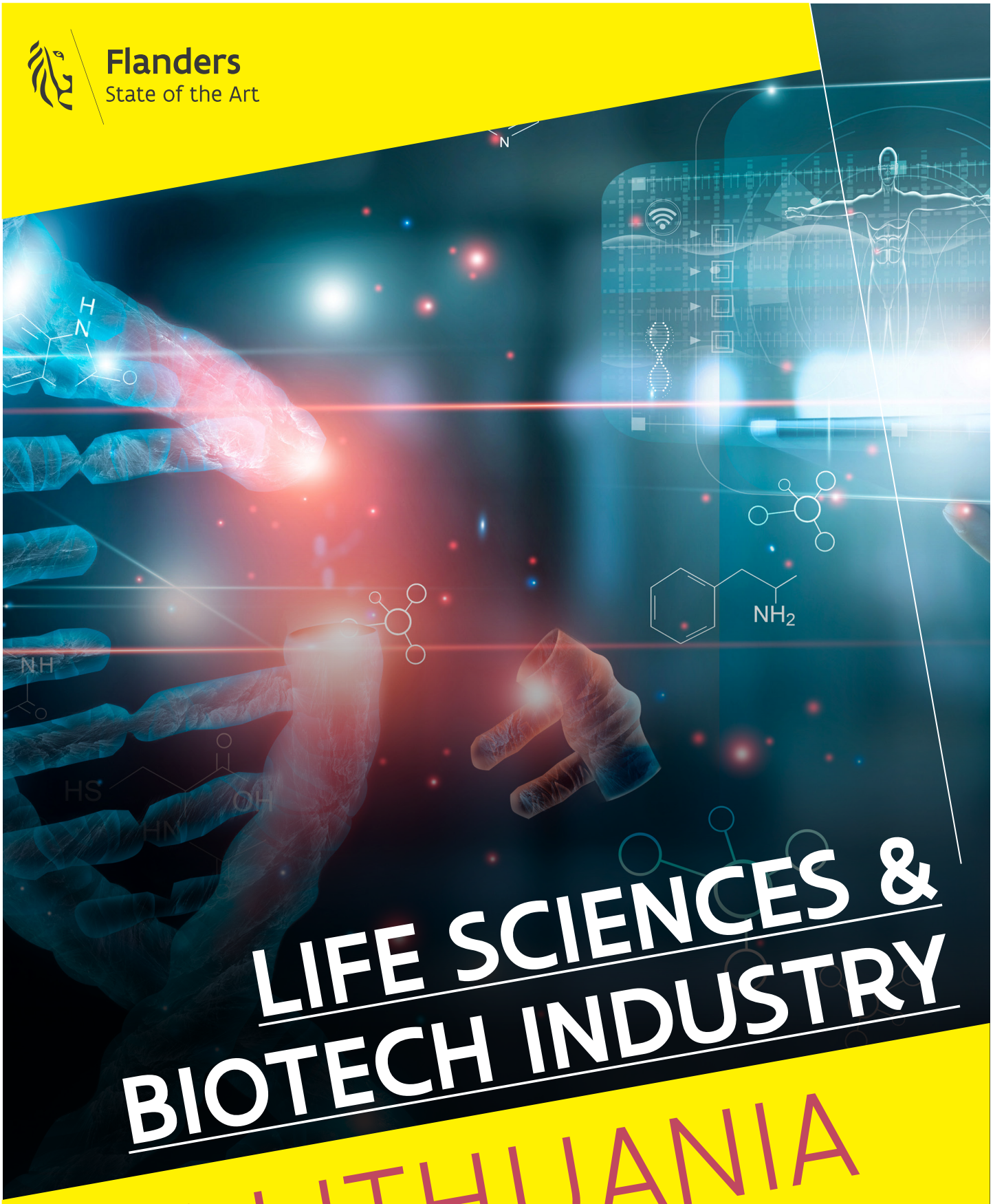

LIFE SCIENCES & BIOTECH INDUSTRY

IN LITHUANIA

FLANDERS INVESTMENT & TRADE MARKET SURVEY

FLANDERS
INVESTMENT &
TRADE

Market study

Life Sciences & Biotech Industry in Lithuania

May 2023

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Vlaanderen
is internationaal
ondernemen

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1. Executive Summary

Lithuania boasts a thriving Life Sciences and Biotechnology landscape, focusing on cell & gene therapy, proteins, advanced MedTech, and drug delivery. It benefits from a well-balanced ecosystem of international and local companies in the sector. The academic side is also strong, with seven universities and seven colleges offering programs dedicated to life sciences. The government actively supports R&D infrastructure by investing in scientific valleys and the broader innovation ecosystem.

Every two years Life Sciences Baltics, the flagship event for the sector in the Baltics, takes place in Lithuania, where the latest advancements and innovations are showcased to an international audience. The conference brings together industry professionals, researchers, and entrepreneurs to foster collaboration, share knowledge, and explore new business opportunities.

The sector has experienced rapid growth, with revenues reaching €2.6 billion in 2021, accounting for 3.6% of Lithuania's GDP. This growth has led to an increased need for venture capital funding to support the further development of life sciences scaleups. Local VC firms have been actively investing in the sector, with a total of €20.7 million invested in life sciences start-ups in 2020 – a 109% increase from 2018. State and private support organisations and accelerators also contribute to the 'ecosystem's growth. Despite the progress, the sector faces challenges related to funding diversification and centralisation of the Lithuanian innovation ecosystem. This lack of centralisation hinders inter-organisational collaboration and cooperation, essential for fostering innovation and streamlining the growth of start-ups.

The Flemish biotech sector can benefit from Lithuania's vigorous life sciences industry. Lithuania offers a cost-effective location for life sciences R&D, with favourable tax incentives and government support for large-scale projects. As 90% of Lithuania's life sciences output is exported worldwide, companies are typically established with an export-oriented mindset, further encouraging the possible collaboration between the Lithuanian and Flemish biotech sectors.

2. Introduction

This sector study provides insight into the Lithuanian Life Sciences sector and Biotechnology. The main parts of this study are:

- Relevance and job-creating potential for the Flemish economy;
- Structure of the Industry, academic side, geographical conditions, and state regulations;
- Notable companies related to the life science sector;
- The upcoming Life Sciences Baltics 2023 event;
- Valuable contacts and future opportunities.

This study contains publicly available information and does not contain commercially sensitive or confidential information.

Given this sector‘s size, this study‘s scope is limited to the Biotech and Medtech sectors. Therefore, this study will not focus on the parts related to, e.g. agriculture or healthcare.

Do not hesitate to contact us with any questions about this sector. Moreover, if you would like to receive a similar analysis for Latvia or Estonia- you can reach us at vilnius@fitagency.com

3. Relevance of the Lithuanian Life Sciences for the Flemish Economy

Biotechnology in Flanders, with internationally renowned hubs such as Ghent and Leuven, is a thriving sector at the forefront of innovation in life sciences, pharmaceuticals, med tech, healthcare, and more. According to the federal government, as of 2022, **7%** of **Europe's biotech** companies are based **in Belgium**. They account for **16% of the EU's** entire turnover and almost **10%** of its **R&D expenditure.**

- Sector-specific exports in Belgium doubled in 2010-2020, reaching more than €83 billion in 2021, which accounts for 17.8% of total Belgian exports that year.
- The number of workers in the biotech and biopharma sectors in Belgium rose by 41%, which marks a total of 10,000 'employees' growth.
- The sector's exports increased by 50%, while R&D spending more than doubled, amounting to €5.1 billion in 2021.
- In 2021, nearly 40,000 people were employed in Belgium's biotech and biopharma sectors, 1,500 more than in 2020.
- The latest data also indicates a positive upward trend for value-added, reaching €11.6 billion in 2020.

Meanwhile, Lithuania's biotech sector can be seen as a potential partner for international expansion due to its rapid domestic growth and limited local footprint.

This means it is looking for global expansion by tapping into other ecosystems or by tapping into its domestic growth potential, illustrated by the following statistics:

- The Lithuanian biotechnology sector has consistent growth, with revenues of companies reaching **€2.6 billion in 2021**, accounting for **3.6%** of total 'Lithuania's **GDP**.
- Between 2011 and 2016, 'Lithuania's life sciences sector **grew** by an annual average of **22.1%.**
- Private sector workers in the Industry generated approximately **€0.95 million** of income **per FTE** in 2021, an increase from €0.78 million in 2020.
- The number of **people working** in the private sector in this area increased to **2,790** in 2021, which is 565 more employees than two years prior.

According to Romualda Stragienė, director of The Lithuanian Innovation Agency, the Life Sciences sector is healthy. Two large companies are on the market – *ThermoFisher Scientific* and *Biotechpharma*. However, they are not dominating. As stated by Andrius Šliužas, key account manager Innovation Agency, the Lithuanian life sciences industry is a well-balanced ecosystem with international and local names. It

mainly consists of micro and small enterprises with 85 life sciences companies active in manufacturing or R&D operations. Approximately 90% of all output goes to export to more than 100 countries. The Lithuanian Life Sciences sector aims to reach a 5% GDP share of the Lithuanian economy by 2030. The rapid development of Lithuanian biotech naturally calls for foreign expansion and cooperation - hence Flemish biotech sector can gain from this rapidly growing Baltic Industry.

> "Life sciences in Lithuania have been a priority for the government for over a decade, and this strategic focus has finally paid off positively. The government's investment and commitment to the sector have led to significant gains, fostering growth and innovation within the country."
>
> Andrius Šliužas, Key Account Manager,
> Innovation Agency

4. Lithuanian Life Sciences Landscape

Structure of the Lithuanian Life Sciences Sector

The Life Sciences sector in Lithuania is divided into two main subsectors: biotechnology and medical devices/ MedTech. The strengths include cell & gene therapy, proteins, MedTech, drug delivery, and optical devices.

Biotech and its innovations

Lithuania's biotechnology competencies lie in the cell and gene therapies, enzymes, and pharma subsectors, offering companies a rich talent pool in a still unsaturated market. The most promising subsector - cell and gene therapies - emerged over recent years, with most businesses having strong ties to the Vilnius University Life Sciences Centre.

Three Bioscience institutes at Vilnius University and the Centre for Innovative Medicine form a hub for cell and gene therapy competencies in Lithuania. It is also a home for local start-ups, including *CasZyme*, the company established and led by **Prof. Virginijus Šikšnys**, winner of the 2018 Kavli Prize 2018 for the **CRISPR-Cas9 gene-editing nanotool**. Another homegrown company, *Froceth*, develops frozen cell therapy solutions for cancer immunotherapy, tissue regeneration, and the treatment of multiple sclerosis.

Since 2015, students from **Vilnius University** have competed with teams from more than 250 of these leading universities, including MIT, Harvard, and William and Mary University, at iGEM, the world's largest synthetic biology competition. In 2017 and 2020, the Vilnius team triumphed over the international competition by winning **the Grand Prize** and gold medals in Best Project in the Field of Environmental Protection and Best Synthetic Part Collection.

"Groundbreaking innovation of CRISPR-Cas9 gene-editing technology allows scientists to edit genes with unprecedented precision and has opened up new possibilities for treating genetic diseases and conducting advanced research."

Virginijus Šikšnys, founder of CasZyme

MedTech and its innovations

Competencies in medical diagnostics – particularly in imaging, 3D printing, sensors, IT, and laser technologies – make Lithuania an attractive location for MedTech projects. The country's artificial intelligence ecosystem continues to expand rapidly, with more and more AI start-ups emerging. Research into medical technologies in Lithuania includes the areas of biomedical diagnostics and monitoring systems, as well as research into the efficiency of electronic security systems, the analysis and synthesis of electronic devices, and the quality of electronic systems.

Lithuania's laser industry occupies more than **50% of the global scientific market** for ultra-short pulse lasers. Lasers created in Lithuania can be found on almost every continent**.** Laser technologies are increasingly widely used in MedTech. The most well-known applications are in the therapeutic areas of ophthalmology, dermatology, and dentistry and in treating cancer and cardiovascular diseases. In 2020, researchers at the Lithuanian University of Health Sciences (LSMU) and specialists from Brolis Semiconductors developed a unique laser technology for measuring blood parameter*s*. The technology is expected to complement existing clinical methods, providing a non-invasive way to collect real-time information on changes in the blood – without the need for a needle. This innovation is indispensable for patients with diabetes and other chronic diseases. It facilitates their daily routine and helps athletes monitor the dynamics of essential metabolites in real-time, enabling them to individually adapt training programs, recovery, and pre-competition protocols**.**

Lithuanian Life Sciences Academic side

In Lithuania, seven universities and seven colleges offer study programs related to life sciences, and more than 15,000 researchers implement life sciences projects in the private sector and research institutions. These scientific institutions are members of Lithuania Bio (formerly knowns as the Lithuanian Association of Biotechnologists LBTA, founded in 2003) and prepare life sciences, medical technologies, bioeconomy and other higher education programs.

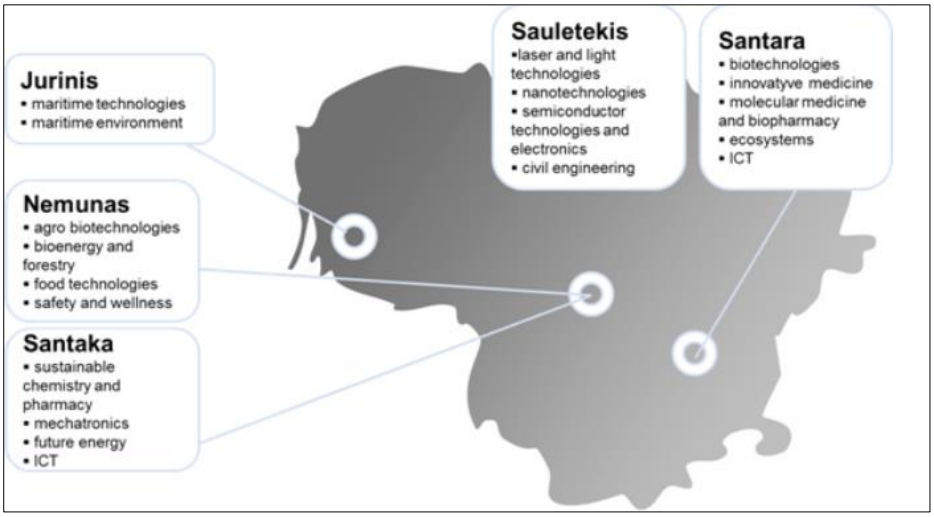
University members are the following:

- VU Life Sciences Center (VU LSC), part of Vilnius University (VU), includes 21,000 students. Yearly listed by QS World University Rankings among the **top four per cent of the best universities in the world**, Vilnius University attracts the country's best and most talented secondary school graduates.
- Kaunas University of Technology (KTU) is one of the largest technical universities in the Baltic States and one of the country's most prominent high education schools, with a leading position in many

research fields. The University provides studies of engineering, technologies, physical and social sciences, humanities and arts. There are **five breakthrough areas** of research and innovation: health technologies, digital transformation and smart environment, new materials for industry and medicine, food technologies, and innovation management.

- Vytautas Magnus University (VMU) currently conducts about **100 projects** in biotechnology, biophysics, technology law, education, sociology, philosophy, computational linguistics, language acquisition and bilingualism, and creative industries.
- Lithuanian University of Health Sciences (LSMU) is one of Europe's most prominent universities specialising in life sciences and the largest institution of higher education for biomedical sciences in Lithuania, successfully integrating studies, research, and clinical practice. There are **two LSMU-affiliated hospitals,** *Kauno klinikos* and regional *Kaunas Hospital*, which ensure conditions for training top-level scientists and academics to conduct research and development, cooperate with businesses and the public sector, and implement innovations within clinical practice. Around 6400 full-time students are enrolled, with 25% international students from 87 countries.
- Klaipėda University (KU) is located in a geographical area unique in its economic, cultural, and geopolitical aspects, i.e. on the Lithuanian seaside, boasting the only port of Lithuania. The University was founded in 1991 to meet the needs relevant to the country's development: to deal with regional problems, to contribute to the decentralisation of higher education, to attract youth to Klaipėda, and to foster the idea of Lithuania as a **maritime state.**
  Two faculties are related to the Life Sciences sector: the Faculty of Health Sciences (FHS) and the Marine Research Institute of Klaipeda University (KU MRI).
- Lithuanian Research Centre for Agriculture and Forestry (LAMMC) is an innovative Centre in agricultural, forestry and food sciences, which consists of 3 institutes, five regional branches and three open research centres located in different parts of Lithuania. LAMMC and Vytautas Magnus University conduct doctoral studies in agricultural and natural sciences: plant genetics, crop breeding, soil quality, crop pathology and protection, plant biopotential, horticulture, forestry, biochemistry and others. LAMMC actively participates in national and international research projects and is a member of the European Plant Science Organization (EPSO) and the Association of the Research and Technology Organizations (RTO LITHUANIA).
- SMK University of Applied Social Sciences (established in 1993) is an innovation and quality-based higher education institution located in the capital of Lithuania, Vilnius and the port city on the Baltic Sea, Klaipėda. In 2018 SMK opened a new Campus in Kaunas.

Scientific Valleys of Lithuania



In 2008 the government of Lithuania approved the creation of **5 R&D valleys** in the cities of Vilnius, Kaunas, and Klaipėda. The development of valleys was an upgrade to Lithuania's scientific research infrastructure and provided conditions for active cooperation between business and science. Indeed, the Valleys offer infrastructure for applied research and technology development and favourable conditions for establishing innovative companies.

The Valleys are the following:

Jurinis – Jurinis Valley, or an Association "Baltic Valley ", was established to coordinate research, academic and business activities within the "Integrated Science, Studies and Business Centre (Valley) for Lithuanian **maritime sector**" program in the city of Klaipėda. The association's founders are public scientific and academic institutions and business entities. The Valley aims to create a centre for developing the Lithuanian maritime sector.

Website: http://apc.ku.lt/balticvalley/
Address: H. Manto g. 84, 92294 Klaipėda
Phone: +370 46398752
Email: info@balticvalley.lt
CEO: Aloyzas Kuzmarskis

Nemunas and ***Santaka*** – valleys located in Kaunas. Nemunas Valley integrated science, business and study centre is equipped with unique pilot equipment for the food industry. It is the first centre of this kind in the Baltic States. In the laboratories of the Valley, new foods and their recipes are being created; fundamental research and R&D services are being carried out. The Valley is mainly focusing on research outsourced by businesses. Association Santakos slėnis (Santaka Valley) unites and integrates activities of Kaunas's most prominent research, technology and study institutions.

Nemunas Valley:
Website: https://niec.ktu.edu/
Address: K. Baršausko g. 59, 51423 Kaunas
Phone: +370 67265146
Email: nivc@ktu.lt
CEO: Mindaugas Bulota

Santaka Valley:
Website: https://www.santakosslenis.lt/en/
Address: K. Donelaičio g. 73, 44249 Kaunas, Lithuania
Phone: +370 69937460
Email: asociacija.santakos.slenis@gmail.com
CEO: Evelina Reinė

Santara and ***Saulėtekis*** are valleys in Vilnius that focus on digital, laser and light technologies, nano, biotechnologies, life sciences and smart engineering. Santara and Saulėtikis Valleys comprise 67 enterprises with more than **120 operating laboratories**. Around 1,200 researchers are operating daily, and approximately 15,000 students are engaged. Santara Valley is represented by its biotech-related companies and **Santaros Klinika** – Vilnius University affiliated hospital, the biggest in Lithuania.

Santara Valley
Website: https://www.santa.lt/en/
Address: Mokslininkų g. 4, 08412 Vilnius
Phone: +370 61119217
Email: info@santa.lt
CEO: Kristina Mateikienė

Saulėtekis Valley
Website: https://ssmtp.lt/en/
Address: Saulėtekio al. 15-1, 316 kabinetas, 10224 Vilnius
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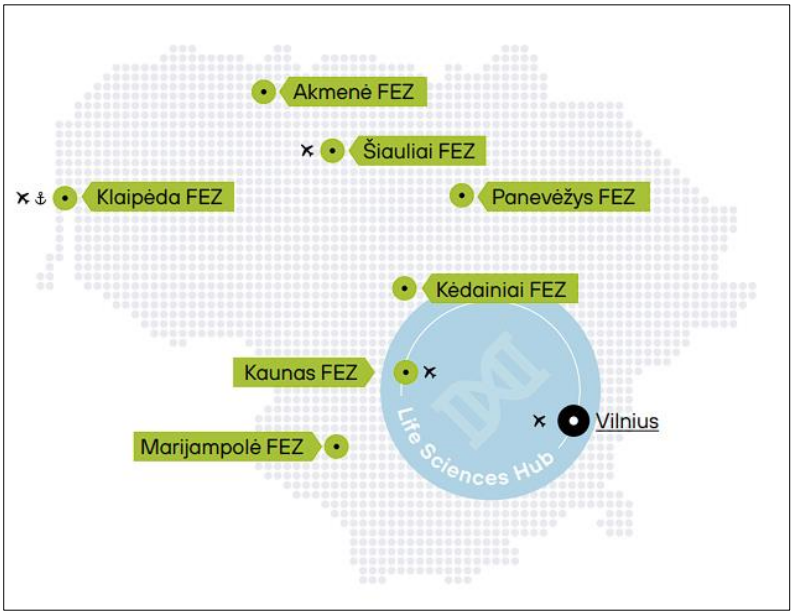
Email: info@ssmtp.lt
CEO: Laima Balčiūnė

Governmental aid and incentives; Economic Landscape



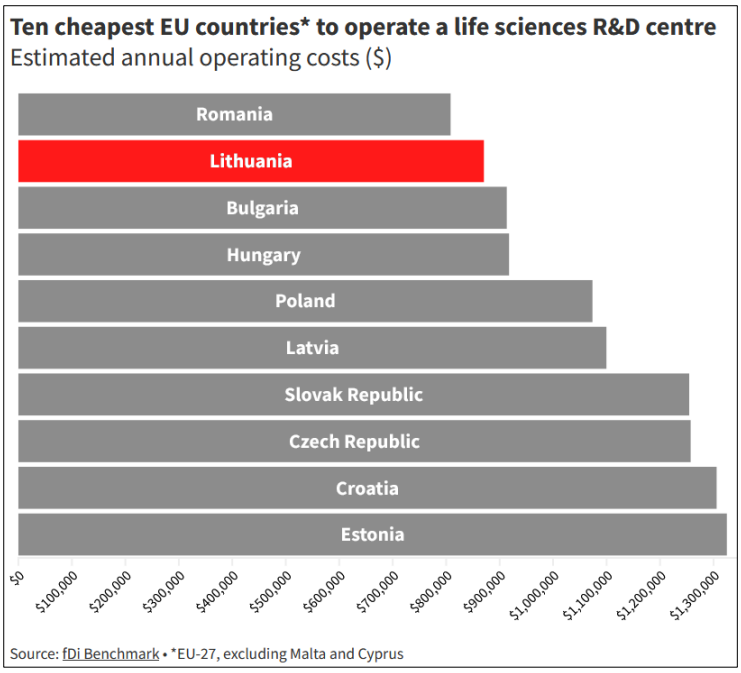
The Lithuanian government fosters sustainable investment by covering companies' expenditures on capital investment. The government has invested in the infrastructure for over a decade, which accounts for €400 million. The best conditions exist to develop life sciences in **26 R&D** open centres and **five business and science valleys.**

Lithuania has **seven Free Economic Zones** in various locations across the country. These provide unbeatable conditions to develop businesses by offering ready-to-build industrial sites with physical and/or legal infrastructure, support services, and tax incentives.

Businesses in these zones enjoy **0% tax on corporate profits** during their first ten years of operation and only 7.5% tax over the following six years. In addition, these businesses are exempt from tax on dividends and real estate tax.

Moreover, there are other incentives: companies considering foreign direct investment in Lithuania may qualify for state funding, negotiated on a case-by-case basis in compliance with EU and national legislation. Also, the Lithuanian parliament has adopted a **new package of laws**, which came into force on 1 January 2021. The package offers significant new tax incentives for large-scale[1] projects, including **0% corporate tax for 20 years** and streamlining key processes in land acquisition, planning, and migration.

[1] Applicable to large-scale investment projects, which meet the requirements of investing at least €20 million CAPEX and creating at least 150 new FTE jobs (€30 million and 200 FTE when investing in Vilnius).



Additionally, Lithuania ranks as a **cost-effective location** for the Life Sciences Sector. A benchmarking study of 25 EU countries estimates that it costs **$870,550 per year** to operate a life sciences R&D centre in Lithuania, according to the investment destination comparison tool fDi Benchmark. This is far below the EU average of $2.18 million.

As **90%** of Lithuania's life sciences output is **exported** to over 100 countries worldwide, companies are typically established with an export-oriented mindset. Therefore, when companies are being created, in most cases, they build the company thinking about export. There are sporadic cases where companies in life sciences only sell their products /services within the Lithuanian market.

For selecting the market to enter, the following aspects are considered:

- Market size/potential;
- Regulatory environment;
- Tariffs;
- Cultural differences;
- Shipping prices/Land logistics for export;

It is important to note that according to the European Innovation Scoreboard, **Lithuania** is amongst the **top 5 EU** countries that have significantly improved their innovation ecosystems since 2015. Lithuania surpasses Scandinavian countries in terms of governmental financial support for start-ups per capita. Last year, the government agency INVEGA signed contracts with local venture capital firms Baltic Sandbox and FIRSTPICK to manage funds targeting deep tech and life sciences ecosystems, with plans to allocate **€18 million**.

This year, the Ministry of Economy and Innovation, in collaboration with the Ministry of Education, Science and Sports, has initiated mission-oriented policies encouraging joint science and business R&D projects to create products with greater added value. A total **of €77.7 million in funding** will be distributed across three areas: Safe and Inclusive e-Society, Smart and Climate-Neutral Lithuania, and Innovations in Health.

Venture Capital presence and role in the Lithuanian Life Sciences

One of the issues for life sciences in Lithuania is funding, as it can take longer for investors to see a return on investment compared to other sectors, such as IT. Lithuania counts around **60 life sciences start-ups**, many of which are in **an early stage.**

The challenge of any life sciences start-up in Lithuania is the diversification of the funding. Most of them rely on self-financing, business angels, and government of EU funding in the early stage. As the process of developing this kind of start-up may take around ten years, there might be a gap in financing which poses a significant threat to their success. However, while average funding per start-up is decreasing globally, it's increasing in the Baltics. It took some years for local funds to be interested in what the life sciences industry has to offer, but a couple of active local VC funds help start-ups succeed.

The leading Venture Capital players are:

- **Sandbox VC** - Baltic Sandbox VC is a Lithuanian-based venture capital firm that focuses on investing in early-stage deep-tech start-ups in the Baltic region.
- **BaltCap** - The largest private equity and venture capital firm in the Baltic States, with a strong focus on the healthcare sector.
- **Practica Capital** - A venture capital firm that invests in early-stage start-ups across a variety of industries, including life sciences.
- **LitCapital** - A private equity and venture capital firm that invests in a range of sectors, including life sciences, with a focus on companies based in Lithuania.
- **FIRSTPICK** - Accelerator and venture capital fund investing in tech companies across the Baltics.

> Sandra Goldbreich, CEO and co-founder of Baltic Sandbox and "Business Angel School" – educational programs for the EU business angels. Starting from 2019, Baltic Sandbox and Business Angel School are addressing the diversity issues in tech industries. Sandra helps close the gap by running the annual "Women in Tech" acceleration and "Women investing in Tech" educational programs.

According to data from the Lithuanian Venture Capital Association (LT VCA), the amount of venture capital invested in life sciences companies in Lithuania has been steadily increasing in recent years. In 2020, life sciences start-ups in Lithuania received a total investment of €20.7 million, representing a 22.5% increase from the €16.9 million invested in 2019 and a 109% increase from the €9.9 million invested in 2018. In addition to venture capital firms, several accelerators and other support organisations work with life sciences start-ups in Lithuania.

Some examples include:

- **Start-up Wise Guys** - A start-up accelerator with a focus on deep tech, including life sciences.
- **LitBAN** – Lithuanian Business Angel Network unites wealthy individuals, entrepreneurs, and executives interested in angel investing to network and syndicate deals locally and across Nordics.
- **Innovation Agency Lithuania** - A government agency that provides support and resources to businesses looking to expand internationally, including those in the life sciences sector.

Overall, while the venture capital ecosystem for life sciences in Lithuania is still relatively young, several key players and support organisations are working to support the growth and development of the sector. As investment in the industry continues to grow, we will likely see even more resources and support available to life sciences start-ups in Lithuania. However, the contemporary problem of the Lithuanian Life Sciences sector, which Lithuanian VCs clearly understand, is the **lack of centralisation** of the Lithuanian DeepTech ecosystem. This lack of centralisation hinders inter-organisational collaboration and cooperation, essential for fostering innovation and streamlining the growth of start-ups. To address this challenge, stakeholders within the Lithuanian DeepTech ecosystem must work together in creating centralised platforms and networks that promote synergy, knowledge exchange, and shared resources among the various players in the life sciences sector.

5. Notable Life Science companies in Lithuania

ThermoFisher Scientific/Fermentas **–** The company which directly continues the foundations of biotechnology research in Lithuania, which began in the 1970s, when the former Soviet Institute of Applied Enzymology was founded in Vilnius to develop technologies for enzyme production. This institute then spawned Fermentas, a leading biotech company in CEE, which was acquired for $260m by US pharmaceutical firm Thermo Fisher Scientific in 2010. More than 1300 people are currently employed in Thermo Fisher Scientific Baltic's Vilnius site, including more than 100 scientists undertaking research and development (R&D) and producing molecular, protein and cellular biology products.

Fermentas produces molecular biology products and is known for its restriction enzymes, DNA ladders, and molecular weight markers. The main products are FastDigest and conventional restriction enzymes, DNA/RNA modifying enzymes, transfection reagents, nucleotides and primers, products of PCR and RT-PCR, molecular cloning, nucleic acid purification, in vitro transcription, molecular labelling and detection, DNA, RNA, protein electrophoresis.

Website: https://www.thermofisher.com/
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CEO: Algimantas Markauskas
FTE: 1753

Northway BioTech - Northway Biotech is a flexible biologics CDMO headquartered in Lithuania, a fast-growing biotech hub with a state-subsidised university system that supports a highly-educated scientific workforce. It is one of the very few CDMOs able to offer clients the flexibility of mammalian and microbial expression for developing monoclonal antibodies and recombinant proteins. Their state-of-the-art facilities include 25 R&D labs and a cGMP manufacturing plant with single-use and stainless-steel systems for upstream and downstream process development, formulation and fill-finish of microbial and mammalian cell culture-based products. Northway's flexible, integrated infrastructure enables us to develop, formulate and manufacture clients' proteins and antibodies and the corresponding aseptic drug products at various scales. Northway Biotech has announced it is working with Swiss partners to create a COVID-19 drug. Furthermore, it is building a manufacturing facility in the United States Greater Boston area, as it has many clients based in the US.

Website: https://www.northwaybiotech.com/
Address: Mokslininku g. 4, 08412 Vilnius
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CEO: Vladas Algirdas Bumelis
FTE: 576

CasZyme - Caszyme is a start-up company founded in 2017, based in Vilnius, Lithuania. Caszyme aims to develop discoveries, innovative applications and top-quality research in CRISPR-based Molecular Tools. The company seeks to create outstanding value for researchers and companies practising gene editing worldwide. Caszyme was founded by scientists who were the first to demonstrate that CRISPR-Cas9 can operate precise double-strand breaks in DNA, thereby enabling a new era of gene editing. The founders have long-time expertise in Cas9 and other CRISPR-Cas protein expression research, purification and characterisation, and bioinformatic analysis of the CRISPR-Cas system.

Caszyme is located in the Sunrise Valley in Vilnius, where 80% of all scientific potential in Lithuania is gathered, close to the Life Science Center of Vilnius University, the National Center for Physical and Technological Sciences, etc. Caszyme has facilities and laboratories equipped with new equipment for research and development and a team of well-trained employees who are co-authors of top-level publications and patents related to CRISPR-Cas.

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Address: Sauletekio av. 7C, 10257 Vilnius
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CEO: Monika Kavaliauskė
FTE: 21

Froceth - or Frozen Cell Therapies, is the first and only biotechnology company in Lithuania manufacturing advanced medicinal therapy products (ATMPs) individually for each patient. The company develops products using patients' tissues and cells in manufacturing and by addressing each person's specific needs. All processes are carried out using the most advanced technologies for somatic cell therapy. Froceth has established an adipose tissue bank that is one of its kind in Lithuania for processing, storing and distributing stromal vascular fraction cells from adipose tissue. The country's only tissue bank carries out activities on premises equipped under Good Manufacturing Practice requirements. Froceth's patented technology of extracted cells from adipose tissue has huge regenerative potential and can restore the functions of damaged tissues. These cells can be used even 20 years after their preparation. Froceth is located and Santaros Valley.

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Email: info@froceth.lt
CEO: Agnė Vaitkevičienė
FTE: 26

MOOG/Viltechmeda/Aitecs - In 2009, Moog Medical Devices acquired the Lithuanian company called Viltechmeda. The American Moog group invested in 2010 in an additional service centre to expand its research and technology brand in Lithuania. Since 1993, Viltechmeda manufactures, sells and repairs medical equipment and devices for infusion and syringe pumps. Those advanced medical technologies are used in anaesthesia, neonatology, oncology, surgery, intensive care and other medical areas that require very precise dosages of medicines. Viltechmeda, or AITECS Medical UAB, remains one of Europe's leading producers of high-tech medical devices, with 90 employees in Lithuania.

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CEO: Mindaugas Liutkauskas
FTE: 124

Sanobiotec – was founded in 2018. As cannabinoid drugs are becoming increasingly established in the pharmaceutical and cosmetics industries, mainly the most well-known ingredients in cannabis: tetrahydrocannabinol (THC) and cannabidiol (CBD). Sanobiotec is developing cannabinoid drugs focusing on less-studied compounds, including cannabinol, cannabichromene and cannabidivaric acid.

Sanobiotec is working on several research projects in the cannabinoid space. These include the development of synthetic and naturally-derived cannabinoids for treating conditions such as cancer, in addition to manufacturing cannabinoid drugs in genetically modified yeast.

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BROLIS – *Brolis Sensor* is a Lithuanian company specialising in developing and producing advanced semiconductor technologies, including laser diodes, infrared photodetectors, and other optoelectronic devices. The company was founded in 2011 by three brothers, Augustinas, Kristijonas, and Dominykas Vizbaras, who are also leading semiconductor physics and technology researchers.

The company has been recognised for its ground-breaking innovations in semiconductor technology, including the development of world-record-breaking high-power laser diodes and the creation of advanced photodetector arrays for use in night vision and other applications. The company has established numerous scientific collaborations with leading academic and research institutions, including Vilnius University, the Center for Physical Sciences and Technology, and the European Space Agency.

Moreover, Brolis has established its research and development centre in Flanders, located in Ghent. The centre focuses on developing innovative technologies for advanced sensing and imaging applications in various industries, including healthcare, defence, and security. The centre serves as a hub for Brolis' European activities and helps the company to stay at the forefront of the rapidly evolving technological landscape. Over and above that, Brolis received the Newcomer of the Year Trophy at the Foreign Investment Trophy 2018, organised by Flanders Investment & Trade (FIT). The award highlights the firm's innovative contributions to the Flemish economy and FIT's commitment to attracting international investments to the region.

Through these collaborations, *Brolis Semiconductors* has pushed the boundaries of semiconductor technology and advanced the field in new and exciting ways.

Website: https://brolis-sensor.com/
Address: Moletu pl. 73, 14259 Vilnius
Phone: +370 52199592
Email: info@brolis-sensor.com
CEO: Dominykas Vizbaras
FTE: 89

Droplet Genomics - Droplet Genomics is a Lithuanian microfluidics company that develops and produces innovative technologies for single-cell analysis. The company was founded in 2015 and quickly became a leader in microfluidics and single-cell genomics.

Droplet Genomics' main innovation is the development of microfluidic devices that enable researchers to analyse individual cells with unprecedented accuracy and efficiency. These devices use advanced microfluidic channels to create millions of tiny droplets, each containing a single cell and a set of unique DNA barcodes. Researchers can then analyse the DNA within each droplet to gain insights into the genetics and behaviour of individual cells.

In addition to its innovative technology, Droplet Genomics is known for its strong scientific collaborations. The company works closely with leading academic and research institutions worldwide, including the University of California, San Francisco, the Broad Institute of MIT and Harvard, and the University of Cambridge. Through these collaborations, Droplet Genomics has pushed the boundaries of what is possible in single-cell genomics and contributed to a deeper understanding of the underlying mechanisms of disease. Droplet Genomics announced in 2023 that it will be setting up a commercial facility in the US, where they plan to hire up to 10 people until the end of 2023.

Website: https://dropletgenomics.com/
Address: Saulėtekio al. 7, 10223 Vilnius
Phone: +370 61978075
Email: info@dropletgenomics.com
CEO: Juozas Nainys
FTE: 41

6. Life Sciences Baltics 2023 Event

Life Sciences Baltics is the largest international biotechnology and life sciences conference in the Baltic region. The event is held every two years and brings together scientists, entrepreneurs, investors, policymakers, and other stakeholders worldwide to discuss the latest trends and innovations in biotechnology, pharmaceuticals, medical devices, and other related fields. The conference features diverse activities, including keynote speeches, panel discussions, exhibition areas, and networking opportunities. Life Sciences Baltics provides a platform for participants to showcase their research and products, establish new partnerships, and learn from leading experts in the field.

This year the event will be held on 20-21 September, with more than 800 participants from 40 countries.

Website: https://lifesciencesbaltics.com/
Phone: +370 70077055
Email: info@lifesciencesbaltics.com

7. Useful Contacts and Websites

The list of useful websites related to the sector:

- www.b2lithuania.com - B2Lithuania is a database of companies which can be sorted out by various keywords/sectors/subsectors.
- www.lifesciencesbaltics.com - official website of Life Sciences Baltics 2023 Event
- www.ltrobotics.eu - official website of the Lithuanian Robotics Association
- https://lithuania.ai/ - official website of the AI Association of Lithuania
- www.ltoptics.org - official website of the Lithuanian Laser Association
- https://lithuaniabio.com - official website of LithuaniaBIO (prev. Lithuanian Biotech Association)
- https://www.vca.lt/ - the official website for the Lithuanian Venture Capital Association

The list of useful contacts related to the sector (Name and surname in hyperlink represent a LinkedIn profile link):

- Romualda Stragienė - Director at Innovation Agency Lithuania - r.stragiene@inovacijuagentura.lt
- Andrius Šliužas - Export KAM of High-Tech Industries at Innovation Agency Lithuania - a.sliuzas@inovacijuagentura.lt
- Eglė Mikalaitė - Event manager of the Life Sciences Baltics 2023 - e.mikailaite@innovationagency.lt
- Tomas Andrejauskas - President at LithuaniaBIO - tomas.andrejauskas@lbta.lt
- Gintaras Valinčius – Chairman at the research council of Lithuania - gintaras.valincius@gmc.vu.lt
- Gediminas Račiukaitis – President of Lithuanian Laser Association - g.raciukaitis@ftmc.lt
- Dovydas Čeilutka – President of Lithuanian AI Association - dovydas.ceilutka@vinted.com
- Daumantas Simėnas – CEO of Lithuanian Robotics Association - daumantas@ltrobotics.eu
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8. Disclaimer

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