

Invest Lithuania

Lithuania
Co-create

Life Sciences in Lithuania



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Lithuania: A Legacy of Biotechnological Innovation Spanning Two Centuries

Lithuania has a rich history in life sciences, marked by pioneering achievements and significant milestones in biotechnology. The country's journey in this field began in 1800s with the publication of Andrew Sniadecki's groundbreaking "Theory of Organic Beings" at Vilnius University. This established a strong foundation for biotechnology as a discipline in Lithuania.

Fast-forward to the mid-20th century, and Lithuania solidified its position in applied sciences with the establishment of the Institute of Applied Enzymology in 1975, which catalyzed the development of biotechnology as a key sector in the country.

By the early 2000s, Lithuania had emerged on the global biotechnology map through strategic acquisitions. Companies like **Teva** and **Thermo Fisher Scientific** recognized the value of Lithuanian expertise, acquiring **Sicor Biotech** (2004) and **Fermentas** (2010), respectively. These partnerships strengthened Lithuania's international reputation as a high-quality biotech research and manufacturing hub.

In 2012, Lithuania achieved a groundbreaking milestone in biotechnology innovation with the pioneering of CRISPR-Cas9 gene-editing technology by Professor Virginijus Šikšnys. This discovery has gone on to transform global genetics, medical research and agriculture.

Lithuania's commitment to advancing life sciences is reflected in its strategic infrastructure investments. These include the Life Sciences Center at Vilnius University, which opened in 2016 and was recognized as a European Molecular Biology (EMBL) affiliate in 2019. Today, the country continues to build on its biotechnology legacy with strategic investments in science innovation parks in Vilnius and Kaunas, new facilities for its universities and research institutions, and "invisible infrastructure" - such as the strengthening of digital systems and cybersecurity. The private sector is making groundbreaking investments as well. For example, the BioCity development is a transformative project valued at \$7 billion.

We invite you to explore this report to learn more about the current state of play in Lithuanian Biotechnology. It is structured to follow each stage of your value chain—from research and development, through raw material procurement and manufacturing. Each section of the report covers key elements such as resources, infrastructure, workforce, compliance, and logistics to provide you with a comprehensive overview of Lithuania's life sciences ecosystem and its strategic advantages.



Sector Overview



Biopharmaceuticals

Lithuania is emerging as a key player in the European Biopharmaceuticals landscape, with a strong focus on biomanufacturing and personalized medicine. The country is leveraging its world-class talent and advanced infrastructure, along with strong collaborations between academia and industry. Strategic investments are driving growth and positioning Lithuania as a hub for biotechnology innovation and partnerships.

Bioeconomy

Lithuania's bioeconomy sector is a key contributor to the nation's economy, rooted in its biomass and long-standing traditions in farming and forestry. Biotechnology applications extend across agriculture, energy, food and feed, as well as waste management investment projects. With a strong focus on biotechnology, renewable energy, and eco-friendly solutions, Lithuania aligns its efforts with European Union goals, promoting both economic growth and environmental sustainability. Its strategic location between Western Europe and the Nordic-Baltic region strengthens its role as an ideal base for bioeconomy businesses looking to control their value chain and access diverse markets.



MedTech and Medical Devices

Lithuania's MedTech sector thrives at the intersection of medical and engineering expertise, advanced software development, and world-class manufacturing. The ecosystem supports innovation in diagnostics, AI/ML imaging, 3D printing, sensors, laser technologies, IT, and single-use devices, while also excelling in high-value R&D. This unique combination of capabilities has cemented Lithuania's reputation as a prime destination for MedTech investments. Companies here benefit from a seamless blend of innovation and production within a collaborative and highly skilled environment. Lithuania leads the region for medical device exports and is on track to become a key medical device manufacturing hub in the Baltics and Nordics.



Research and Development



Lithuania stands out as a dynamic hub for life sciences R&D, offering a unique blend of scientific excellence and digital infrastructure within a supportive ecosystem. Lithuania provides both the resources and the environment companies need to drive innovation and scale their research efforts. There are strong academia-industry partnerships, a competitive cost structure, and a focus on emerging fields like personalized medicine, synthetic biology, and agriculture technologies.

Collaboration between academia and industry drives innovation in these fields, with Lithuanian researchers contributing to groundbreaking discoveries. Prof. Virginijus Šikšnys was one of the co-developers of the CRISPR-Cas9 gene editing technology, receiving the prestigious Kavli Prize for his work. He has since co-founded the gene editing application company Caszyme, with generous support from Corteva Agriscience.

World-Class Research and Talent

STEM-related fields, especially biotechnology and biomedical sciences, are among the most prestigious subjects in Lithuania, and attract the best-performing talent. 7 universities and 10 professional schools offer study programs in life and health sciences, ensuring a steady supply of specialists. Lithuanian teams have excelled in the iGEM (International Genetically Engineered Machine) competition, achieving 2 Grand Prix and securing all gold medals since their first participation in 2015. They have consistently outperformed teams from Harvard, Oxbridge, and other leading universities.

Research conducted at Lithuanian universities is globally recognized for its quality. For example, Dr. Stephen Knox Jones has received a 1.2 million EUR grant from the European Research Council to improve novel genome editing tools and expand their application. Lithuanian neuroscientist Dr. Urtė Neniškytė, who received her PhD at the University of Cambridge, has won several prestigious prizes.

These include the Marie Skłodowska Curie fellowship and L'Oreal/UNESCO's Women in Science prize. These were awarded for her research on uncovering the molecular mechanisms of synaptic pruning and neuronal network maturation during brain development, which has implications for understanding and potentially treating neurodevelopmental disorders and neuropathologies.

To further foster world-class innovation, Lithuania is part of programs such as MISTI - MIT's International Science and Technology Initiatives. This partnership includes a consortium between universities, companies, and other R&D institutions. Research conducted under the MISTI program will focus on sectors that are particularly strong in Lithuania – biotechnology, agriculture, and lasers.



Advanced Regulation Supports Innovation

Lithuania's regulatory framework, aligned with European Union standards, allows life sciences companies to innovate with ease. The country's health data ecosystem is one of the most progressive in Europe, with a nationwide electronic health records (EHR) system established in 2015 and the Law for Secondary Use of Health Data implemented in 2022. This allows private companies regulated access to patient data for research and innovation, all through a one-stop-shop. In addition, Lithuania offers a hospital exemption pathway for Advanced Therapy Medicinal Products (ATMPs), enabling the early application of therapies while collecting clinical data.

A Globally-Integrated Ecosystem for Clinical Trials

Lithuania offers an efficient and cost-competitive environment for clinical trials, supported by the country's integration into the European Medicines Agency (EMA) and US Food and Drug Administration (FDA) networks. State-of-the-art national hospitals and research centers collaborate with industry to conduct trials efficiently, ensuring high-quality data and compliance with global standards.

Lithuania's legislation, which is harmonized with EU standards, allows clinical trials to be started in 4 months or less following the submission of a request for approval. Most trials are conducted either at Vilnius University Hospital Santaros Clinics or Lithuanian University of Health Sciences Kaunas Clinics, which together conduct close to 3 million patient consultations per year. The ecosystem is supported by both international and Lithuania-based CROs, such as Parexel, IQVIA, Biomapas and Cureline.

A Connected and Collaborative Ecosystem

Vilnius and Kaunas together make up a large research hub, offering diverse competencies across two cities and providing ground for experimental and pilot projects.

Vilnius

Given its historical legacy in biotechnology, the city is home to leading health companies and research institutions in medicine, genetic engineering, fermentation, bioinformatics, and other advanced fields. Institutions such as Vilnius University (VU) provide everything that industry requires – talent, research centers, national hospitals, biobanks, and medical institutions - all serving the public and private sectors. Its research centers are globally recognized – the Life Sciences Center in Vilnius boasts European Molecular Biology Laboratory (EMBL) accreditation, which is a testament to the quality of research conducted in Lithuania.

Kaunas

Historically an industrial city, it is strongest in engineering and agriculture, making it an ideal place for medical devices and industrial biotechnology companies. Kaunas University of Technology (KTU) houses laboratories for food technologies and safety, and renewable materials. Vytautas Magnus University (VMU) is home to the Bioeconomy Hub, a dedicated cluster that fosters collaboration and innovation.

Companies conducting clinical trials in Lithuania

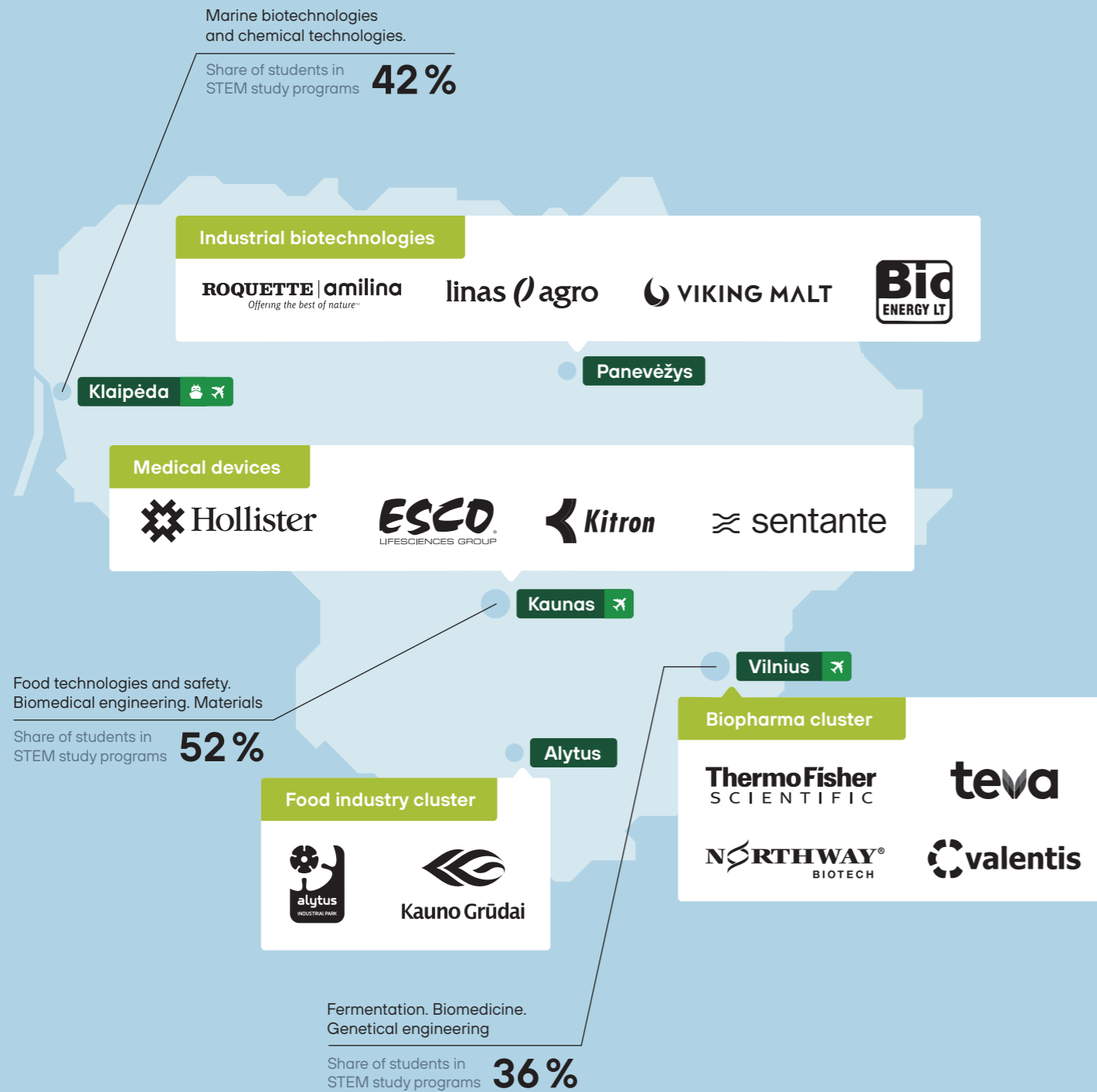


Companies already here



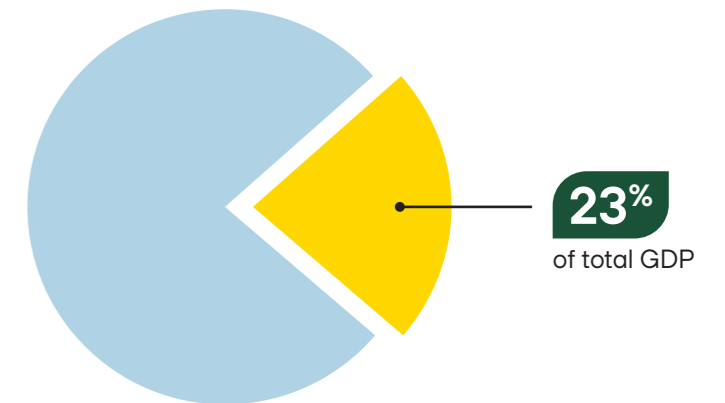
Lithuania's Clusters

Because Lithuania is compact in size, its biomanufacturing companies are clustered centrally and in close proximity to one another.



Biomanufacturing

The manufacturing sector is a key pillar of the Lithuanian economy, generating approximately 23% of total GDP. A significant driver of this sector is the diverse range of foreign companies that have established operations in the country. Among the key decision making factors for investors is the country's highly-skilled talent pool and its innovation-focused business environment. Moreover, efficient governance, deep expertise in engineering, and green transformation initiatives position Lithuania as an ideal location for manufacturing companies aiming to expand and thrive.



Reliable Supply of Raw Materials and Services

Lithuania offers a reliable supply of raw materials, enabling biomanufacturing businesses to successfully scale.

The country boasts a growing network of suppliers for high-purity chemicals, reagents, and single-use biomanufacturing components. Local distributors ensure the consistent availability of cell lines, cell culture media, chromatography resins, and chemical raw materials essential for GMP-compliant production. Furthermore, proximity to European biotechnology hubs ensures the seamless import/export of specialized materials.

With 50% of its land used for agriculture, Lithuania plays an important role in European farming, providing the continent with sustainable, high-quality biomass. Agriculture contributes 3.5% to the country's GDP, with a grain self-sufficiency rate of 313%. In 2023, 71% of the grain harvest was exported, making Lithuania the 4th largest wheat exporter in the EU. Crops like versatile grains and high-potential beans help drive exports, supported by government incentives and growing demand. Companies like Roquette Amilina highlight Lithuania's strengths in agriculture. They use 100% locally sourced, sustainably certified wheat to produce starch, gluten, wheat proteins, glucose syrups, and by-products like bran and fibers for animal feed and pharma, serving global markets.



Key Enablers for Business Operations

Industrial Parks



The ALEX Innovation Park in Kaunas, Lithuania's second-largest city, is set to be a hub for innovation-driven production companies. The park is strategically located near universities, spanning 20 hectares of green space right next to the city center. It is equipped with all essential infrastructure and fosters a unique synergy between business and scientific institutions. The goal is for Lithuanian and foreign investors to create at least 1,100 highly qualified, well-paid jobs within the park, including employing at least 142 researchers.



Vilnius City Innovation Industrial Park is designed exclusively for the growth of life sciences businesses. Spanning 24 hectares in Lithuania's capital, it boasts excellent connections to the city center and public transport links. The park features fully developed infrastructure, including engineering networks, utilities, community areas, and a school.

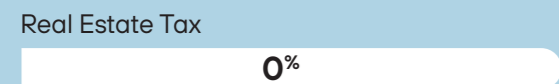
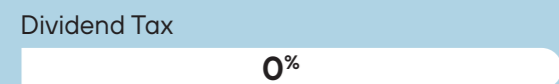
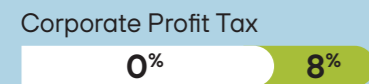


The Innovation and Business Center (IVC), located in Vilnius, is a cutting-edge, 32,000 sq. m. hub for science, high technology, medicine, and pharmaceuticals. It is Lithuania's first industrial building to operate entirely on self-produced renewable energy. It features an 850 kW solar power plant integrated into its facade and roof, 80 geothermal wells for heating, and advanced energy storage systems. With zero CO₂ emissions and state-of-the-art laboratories and offices, IVC sets a new standard for innovation and sustainability in the region.

Free Economic Zones

Lithuania's 7 Free Economic Zones provide unbeatable conditions for business development. They offer ready-to-build industrial sites with physical and/or legal infrastructure, support services, and tax incentives.

Tax incentives in FEZ*

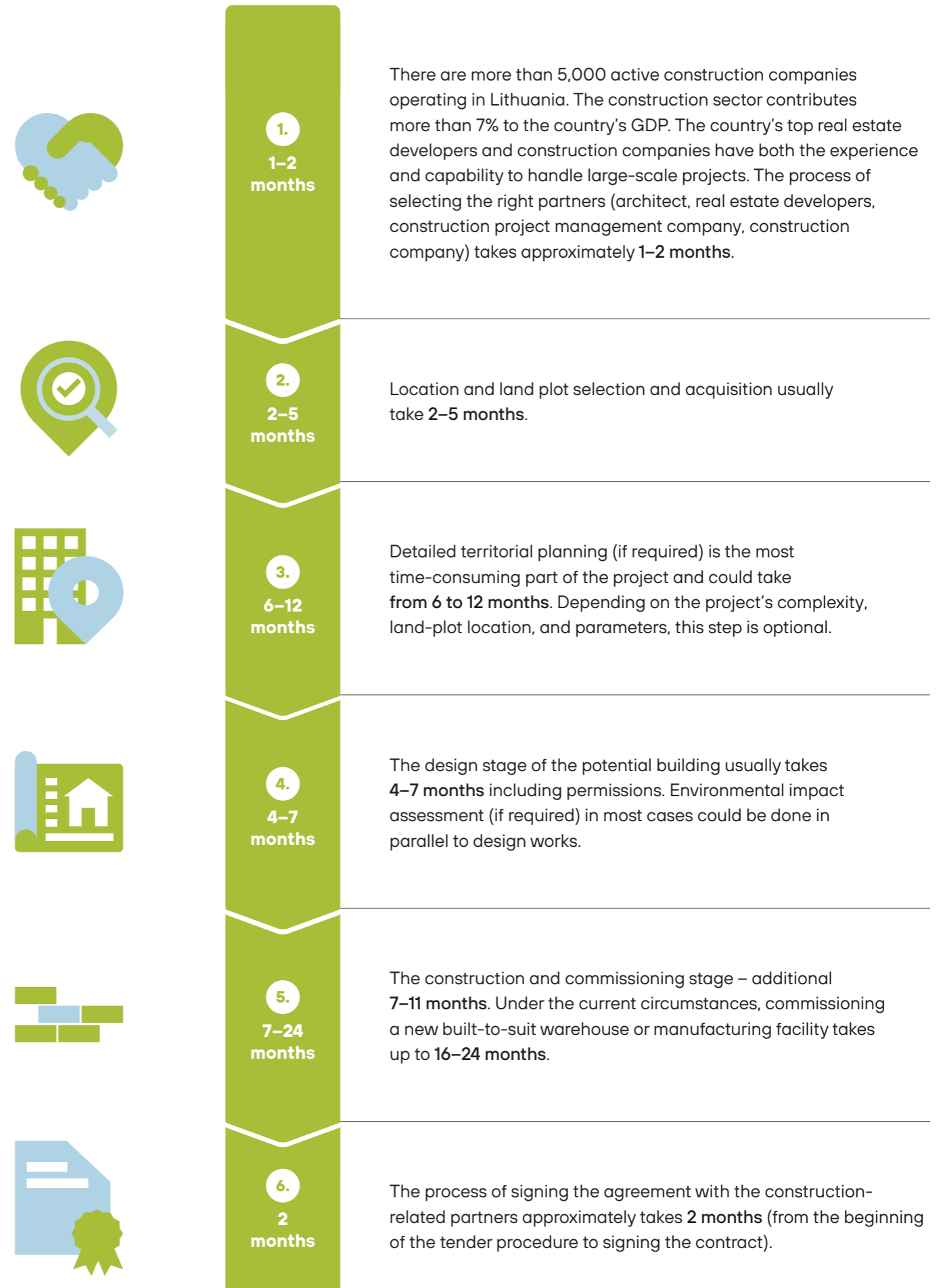


0 Year 10 Year 16

* Conditions apply



Lithuania's Construction Timeline



Lithuania's Construction Cost



900–1500 EUR/sqm

The industrial building for life sciences operations costs slightly higher than a regular warehouse or manufacturing building due to the higher cost of clean rooms and other specifics. The final price can be determined by one of our trusted partners.



Energy

Lithuania has built a resilient energy infrastructure, ensuring reliable electricity and gas resources despite global challenges. The country is on a clear and ambitious path to a fully renewable future, with a well-funded governmental plan for the green energy transition. Lithuania aims to produce green hydrogen by 2026 and become a renewable energy exporter by 2030. Currently, 70% of the country's electricity is generated from renewable sources, with offshore wind power set to play a key role by 2028. With €696 million allocated for further renewable energy expansion, Lithuania is well-positioned to secure a green energy future. Finally, Lithuania disconnected from the Russian power grid in February 2025, a vital step in guaranteeing the country's energy and national security.



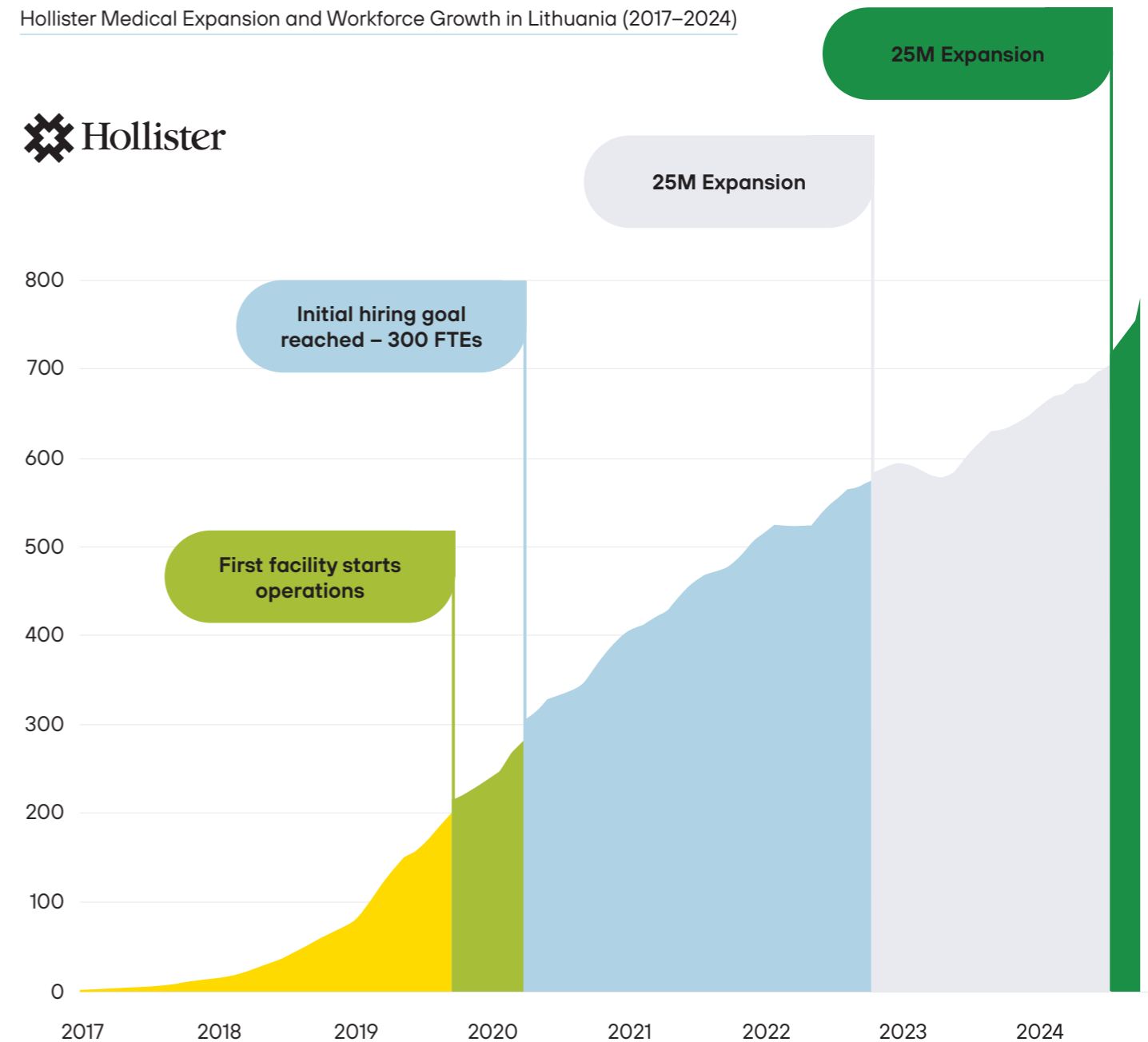
Workforce Availability

Lithuania has a population of 2.9 million people, and a young, well-educated, and multilingual labor pool of 1.5 million. The manufacturing sector currently employs more than 200,000 people.

Lithuania offers both rich manufacturing traditions and a high level of STEM orientation among its students in higher education - currently, around 42% of Lithuanian students choose STEM programs. Furthermore, 41% of engineering students study mechanical engineering and electronics.

Invest Lithuania has launched the Work in Lithuania program to connect international talent with career opportunities in Lithuania. The country has already attracted over 20,000 highly skilled professionals from all over the world through this program - a number that has doubled since 2020. The Work in Lithuania program is able to assist international companies in sourcing talent globally.

Hollister Medical Expansion and Workforce Growth in Lithuania (2017–2024)



Labor Costs

Annual biomanufacturing plant labor costs for an operation of 100 full-time employees (in M EUR).



Source: fDi Benchmark, 2025



Life Sciences in Lithuania

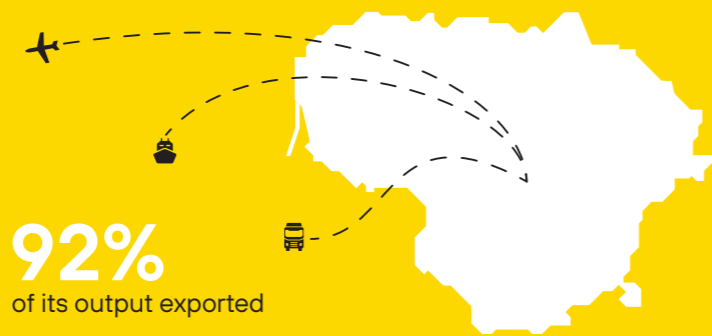
Logistics

Delivery times



Export-Oriented Sector Driving Global Impact

Lithuania's life sciences sector is inherently global, with 92% of its output exported to over 100 countries. Key markets include the USA and Germany, reflecting the country's strong ability to meet the demands of advanced economies. This export-oriented approach underscores Lithuania's capacity to produce high-quality, internationally competitive life sciences products.



Located in the heart of Europe, Lithuania is a key logistics hub. Logistics contributes 13% to national GDP. The country offers direct cargo routes to Western Europe and Asia, and the city of Kaunas connects two rail gauges for efficient freight movement. With high-quality roads – ranked second for quality in Central and Eastern Europe – and a strong presence of local and international logistics companies, Lithuania is an

appealing gateway for trade. The ice-free Klaipeda Seaport is the leading container port in the Eastern Baltic Sea, while 3 international airports provide quick access to major European cities within 2–3 hours. The country's robust logistics sector positions Lithuania as a vital player in regional transport corridors, offering excellent opportunities for business growth.

Government Support for Your Business

Lithuania offers several support programs for foreign investors.

Invest LT+

is a cashback incentive for investments into long-term assets or salaries (depending on which is higher), provided the project reaches certain base criteria.

Billion for Busines

is a loan instrument for borrowing large amounts for up to 15 years. It is focused on green technologies, the circular economy, decarbonization, energy efficiency, waste reduction, innovation, digital tech, and high value-added products like biotechnology.

Change

is a loan instrument offering up to €10 million per beneficiary for up to 10 years. It is aimed at industrial digitization outside Vilnius County and high value-added companies within Vilnius County.

Green Corridor

Lithuanian government's Green Corridor initiative gives enhanced support to large-scale investments with at least 20M EUR CAPEX investment and at least 20 new jobs created*.



0% Corporate Income Tax for 20 years**



No infrastructure taxes



Dedicated contact within the Ministry of Economy and Innovation



Real estate procedures shortened by 3-6 months



Government-owned land can be leased without auction



Shortened Environmental Assessment Procedure

* Additional terms and conditions apply.

** According to OECD's regulation of Global Minimum Tax Rate, companies with an annual turnover of at least €750 million will be obligated to pay the 15% minimum rate starting in 2024, regardless of the country they conduct their business in.

Companies already here



Growth, Profitability and Region Impact



Dynamic Growth and Economic Potential

Accounting for 2.7% of the country's GDP, life sciences is one of Lithuania's fastest-growing industries with an average annual growth rate of 25%. The government's goal of reaching 5% of GDP by 2030 highlights the sector's importance to Lithuania's economy and the ambitious trajectory it is on. Companies investing in Lithuania benefit from a supportive ecosystem that prioritizes innovation, talent development, and financial incentives, positioning the country as a life sciences powerhouse within the EU.



Leading in Cyber Security

Lithuania stands at the forefront of cybersecurity innovation and resilience. With a cutting-edge National Cyber Security Centre, advanced R&D capabilities, a robust legal framework, and a dedicated coordination center, the country is a hub for cybersecurity excellence. Ranked 6th globally in the Global Cybersecurity Index and home to the EU's #1 city for cybersecurity (Vilnius), Lithuania offers unmatched expertise and a thriving ecosystem for safeguarding the digital future.



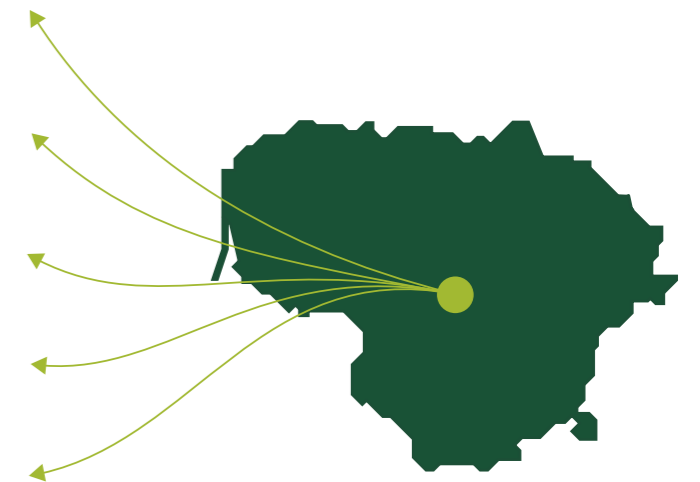
A Cost-Efficient and Profitable Location



Lithuania offers a cost-effective business environment that significantly enhances profitability for life sciences companies. Leading global biomanufacturing companies operating in Lithuania report profit margins and returns on equity that are 20–30 percentage points higher than their worldwide averages. This profitability is driven by lower labor costs, favorable corporate tax structures, and competitive utility prices, all while maintaining top-tier quality standards. Lithuania's efficient and business-friendly regulatory framework further accelerates time-to-market, adding to the financial advantages of operating in the country.

Regional Opportunities Amplify Growth

Beyond its borders, Lithuania's integration into the Baltic and Nordic ecosystems offers additional advantages. The country's close ties with Scandinavian, German, and the US markets provide access to cutting-edge research collaborations, funding opportunities, and advanced consumer markets. As the Baltic region increasingly focuses on innovation and technology, Lithuania's life sciences sector stands out as a key driver of regional growth and competitiveness.



How can we help?

Invest Lithuania is the official agency for Foreign Direct Investment and Business Development. We'll partner with you to get your business set up and off to the best possible start:



Choosing the best fit

We save your team time on research and due diligence by doing all the site selection research you need.



Setting up

We guide you through all the necessary procedures, from registering a company to getting a construction permit.



Ramping up

We help you grow with confidence, establish yourself as an employer and become an integral part of our tight-knit business community.

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