The Life Sciences ecosystem in Lithuania



2022

Dear reader.

Displaying an impressive annual growth rate of 22.1%, Lithuania's Life Sciences sector is regarded as one of the most developed in Central and Eastern Europe. With historical competences in biotech and medical devices, the country is ranked No. 1 in the region for universitybusiness collaboration in R&D. In addition to that, Lithuania's scientific talent market is well balanced, with over 57% of scientists and engineers being women.

Looking ahead, the country's competences in enzymology and engineering are set to replenish the talent pool and position Lithuania as an attractive location for manufacturing and R&D operations. The agility of the local Life Sciences community ensures fast decisions and secures a business-friendly environment essential for companies to ramp up quickly and successfully run their operations in Lithuania.

Karolina Karl Head of Life Sciences team







in the EU for female scientists 57% of Lithuania's scientists and engineers are women¹



for International Tax **Competitiveness Index Rankings** (out of 36 OECD countries)⁴

Source 1: Eurostat, 2021 Source 2: European Commission, 2021 Source 3: UN Department of Economic and Social Affairs, 2020



in the CEE for innovation. Lithuania's strengths lie in the high share of population with tertiary education, innovative business collaboration, environment-related technologies, and job-tojob mobility²



Ranked #2 globally by Bloomberg for 'tertiary efficiency' including enrolment in higher education and the number of graduates in key innovation sectors⁵

Source 4: International Tax Competitiveness Index Rankings, 2020 Source 5: Bloomberg Innovation Index, 2020 Source 6: Fraser Institute 2021



in the **E-Government** development index (out of 193 countries)³



globally for economic freedom⁶ (out of 165 countries)

Life Sciences at a glance

Ambition

to generate 5% of GDP from Life Sciences by 20307



22%

average annual sector growth. Revenue for Lithuania's Life Sciences sector is among the fastest growing in Europe⁸



for the proportion of young adults with Bachelor's degrees in science, maths, computing, engineering, manufacturing and construction¹⁰



Life Sciences companies present. More than 95% of Life Sciences products manufactured in Lithuania are exported. Medical and dental instruments account for 38% of export while basic organic chemicals make up 31%. The main export markets are the

regulations

>600

Clinical trials¹³



In 2018, Lithuania signed the FDA Mutual Recognition **Agreement,** under which the FDA recognises the Lithuanian State Medicine Control Agency as being capable of conducting inspections that meet US requirements

Source 7: Lithuania's Life Sciences strategy, approved by parliament in September 2018 Source 8: PwC, Business Guide Lithuania 2021 Source 9: Ministry of the Economy and Innovation of the Republic of Lithuania, 2022



62%

biotechnology and pharmaceuticals sectors growth in 2021. One of the fastest growing sectors in the EU?



USA (29%) and Germany (14%)¹¹

1 in 4 (23%)

students enrol in life sciences programs¹²



Lithuania is governed by the European Medicine Agency

Source 10: Eurostat, 2018 Source 11: Enterprise Lithuania, 2021 Source 12: Ministry of the Economy and Innovation of the Republic of Lithuania, 2022 Source 13: US Food & Drug Administration, 2018

Life Sciences sector profile

The Life Sciences sector in Lithuania is divided into two main subsectors: biotechnology, and medical devices/ MedTech. In total, over 100 Life Sciences companies are active in manufacturing or R&D activities.

Biotechnology

Lithuania's biotechnology competences lie in the cell and gene therapies, enzymes and pharma subsectors, offering companies a rich pool of talent in a stillunsaturated 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, together with the Centre for Innovative Medicine, form a hub for cell and gene therapy competences 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 compete with teams from more than 250 of the world's top 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, along with gold medals in Best Project in the Field of Environmental Protection, and Best Synthetic Part Collection.

Thermo Fisher SCIENTIFIC

Lithuania has an amazing pool of talent that we access through a strong university network and close government partnership. We are incredibly grateful for that history of collaboration that helped us to be successful together. With our investment in the infrastructure and positive support of our partners, we have been able to drive our Mission as a company and support our customers in addressing the biggest healthcare challenge [Covid-19 pandemic] we have faced in our lifetimes.

Peter Silvester

Senior Vice President and President, Life Sciences Solutions, Thermo Fisher Scientific

MedTech

Competences in medical diagnostics - particularly in imaging, 3D printing, sensors, IT and laser technologies make Lithuania an exceptionally attractive location for MedTech projects. The country's artificial intelligence ecosystem continues to expand rapidly, with more and more Al 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, and lasers created in Lithuania can be found in almost every continent (Lithuanian Ministry of the Economy and Innovation, 2019). Laser technologies are increasingly widely used in MedTech, with the most well-known applications being in the therapeutic areas of ophthalmology, dermatology and dentistry, and in the treatment of cancer and cardiovascular diseases.

XX Hollister

Lithuania, and Kaunas specifically, offers compatibility with the Hollister culture, geographic proximity to our customers, the right technical competencies and a favourable investment climate, which were the key criteria in selecting the location.

V. George Maliekel

President and Chief Executive Officer, Hollister, Inc.

Global partnerships

Scientific partner organisations in Lithuania



CERN chooses Lithuania

CERN, the European Council for Nuclear Research, has chosen Lithuania as the location for its only business development centre in the CEE region. In 2019, the organisation signed an agreement with Lithuania's Minister of the Economy, Virginijus Sinkevičius, to establish the centre, which will consist of two CERN incubators, located in Vilnius and Kaunas.

Source: Ministry of the Economy and Innovation, Republic of Lithuania

Success stories

Thermo Fisher



NCRTHWAY[®]

XX Hollister

(INTERSURGICAL

In 2020, a unique laser technology for measuring blood parameters was developed by researchers at the Lithuanian University of Health Sciences (LSMU), together with specialists from the company Brolis Semiconductors. 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 will be indispensable for patients with diabetes and other chronic diseases, facilitating their daily routine, as well as helping athletes to monitor the dynamics of essential metabolites in real time, enabling them to individually adapt training programmes, recovery and pre-competition protocols. The first engineering prototypes of this innovation are expected in 2021.













Government support

Companies considering foreign direct investment in Lithuania may qualify for state funding, which is negotiated on a case-by-case basis in compliance with EU and national legislation.

Large-scale investments*

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 largescale projects, including 0% corporate tax for 20 years, as well as streamlining key processes involved in land acquisition, planning, and migration.

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

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FDI Invest LT+

The Lithuanian government fosters sustainable investment by covering companies' expenditure on capital investment. Companies considering foreign direct investment in Lithuania may qualify for state funding, which is negotiated on a case-by-case basis in compliance with EU and national legislation.



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Free Economic Zones

Lithuania has seven Free Economic Zones in various locations across the country. These provide unbeatable conditions to develop businesses by offering ready-tobuild industrial sites with physical and/or legal infrastructure, support services and tax incentives. Businesses that choose to locate themselves in these zones enjoy 0% tax on corporate profits during their first 10 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.



Tax incentives at Free Economic Zones



Patent Box

A reduced corporate tax rate of 5% applies to profits from copyrighted software created by Lithuanian subsidiaries, as well as inventions that meet the criteria for patentability.

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Triple deduction of R&D expenditure

To promote research and development, Lithuania's government offers companies the opportunity to reduce their expenses incurred on R&D. R&D expenses are fully tax-deductible three times during the tax period in which they are incurred.



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Life Sciences team



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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:



Decision making

- Tailored in-depth market and industry insights
- Advice on business costs
- Information on the local labour and legal framework



Establishing your business

- Intros and meetings with key market players and relevant governmental institutions
- Sourcing of governmental financial support

Business development

- Assistance with individual problems
- Lobbying for greater governmental support

Invest L'ithuan'ia

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