

The biomedicine companies developing their businesses in Latvia – seeing 455% growth

Every professional that was spoken to for this article has said the same thing – Latvia has a strong history in life sciences. From being an [early Roche manufacturing location](#) to being the home of a [chemistry Nobel laureate](#), the foundation has been favourable to continue the scientific tradition. Now, Latvian universities' biomedical programs are internationally sought after, with students from 61 countries in medical programs alone. As a result, there are over 13,000 employees in the biomedicine sphere, and over 1,000 companies in the industry.

The international biomedical industry is starting to catch on. With a flourishing innovations ecosystem and several major players establishing themselves in Latvia, we're seeing a rise in companies that are commercializing and capitalizing on the local scientific talent base.

But what do they see in Latvia?

We've spoken to various professionals from the biomedical industry that have chosen to establish presences in Latvia, to uncover what makes Latvia a particularly welcoming environment for life sciences and biomedical commercialization.

MGI Latvia - EU headquarters sequencing 2000+ full human genomes per week



MGI Latvia is the EU headquarters of the global genetic sequencing conglomerate, MGI. Established in 2017 but unveiled at the end of 2019, in just over a year, MGI Latvia has grown

from 9 employees to over 50 (that's over 455% growth), many of which are lab technicians, engineers, and R&D personnel.

Based in Riga, MGI Latvia has built an 8,000m² lab facility, where they're currently sequencing on average 2,000 full human genomes per week (compared to the average lab, which might be able to sequence 100). As a result, they've become a strong local and international scientific and industrial research partner.

Latvia was chosen as MGI's EU main branch as a result of a combination of geography, cost-efficiency, and genetic sequencing background. By establishing in the EU, MGI is able to participate in a variety of European research programmes, including Horizon 2020 and the European Regional Development Fund. It is physically closest to the East – and thus best-suited for frequent communication and shipping between Europe and Asia. At the same time, the highly-qualified workforce and reasonable salary bases mean that conducting this scale of operations can be done at a fraction of the cost when compared to Western Europe.

MGI business development manager Rolando H. Delgado highlights that MGIs existing collaboration with local partners – the Latvian Biomedical Research and Study Center and various universities – has already laid the foundation for the development of gene sequencing knowledge and capacity in Latvia. As a result, it was easier for MGI to come into a country that already had a background in the field.

“Gene sequencing is still a fairly new field. The first human genome was sequenced in 2003. As the field of precision medicine takes off, in say, about 5 years, Latvia will be in an excellent position to offer companies a location to develop and will be fully prepared to make precision medicine a part of a basic healthcare service. Not only are we already here as a major gene sequencing player, but the background and human capacity is here.” - Rolando Delgado, MGI business development manager

Delgado emphasizes that their facility was strategically built within 1km of the Riga International Airport and key shipping companies. As their shipments require highly precise -20 degree-Celsius conditions, MGI Latvia has the advantage to significantly reduce their transportation costs.

Roche Latvia - incubating local scientific knowledge for the public good



Roche Latvia is a global name and is present in more than 90 countries. But it's the only one in Northern Europe (in its widest possible definition, including Belgium, the Czech Republic, and Poland) with an incubator.

Director and Purpose Lead of Roche Latvia, Rauls Velins, says that this was a choice to make use of the talented scientists in Latvia, to give them the freedom to innovate and improve the lives of people. Currently, they're incubating a company called AIMuno, which is a project aimed at using artificial intelligence to improve the outcomes of lung cancer patients.

“In creating successful products to help save lives, the key is collaboration. Not only among regulators and ourselves, but also among academia, scientists, lawyers, and more. Our incubator is geared towards fostering this collaboration. Because there is no lack of strong scientists and individuals in Latvia, but they require a collaborative environment to structure and nurture their innovation, to eventually bring it to the market.” - Rauls Velins, Purpose Lead of Roche Latvia

Velins emphasizes that Latvia has a strong chemistry history, with the Baltics leading pharmaceutical manufacturers based in Latvia. He mentions that for Roche specifically, this history stretches back far. While Roche was founded in 1895, Riga was mentioned in the company's history just one year later – Riga was an early manufacturing location for the healthcare company. After the fall of the Soviet Union and the re-establishment of Roche Latvia in 1996, the company has now regained their original building, and has invested more than 5M EUR to renovate it as a state-of-the-art facility.

Biomaterial manufacturing - an opportunity for growth

The biomaterial research field in Latvia is one that is particularly well-developed. With various organizations and strong academic involvement, the sector is filled with highly-qualified scientists and practitioners, ready to be harnessed for commercialization.

The Baltic Biomaterials Centre of Excellence (BBCE) drives research in the biomaterial field as well as local and international collaboration. The Centre's expertise is in the area of biomaterials bone regeneration, and is currently developing new dental implants in collaboration with Riga Technical University, the Latvian Institute of Organic Synthesis (LIOS), Riga Stradins University and the Riga Stradins University Institute of Stomatology.

Synthesized biomaterial is a major future opportunity for foreign investment, according to LIAA biomedical technology scout Anna Janberga.

“Every step of research and development is available, and strong, in Latvia. The one thing missing is a manufacturing partner. This is an opportunity for an investor to come in and to take advantage of the scientific and research potential of Latvia.” - Anna Janberga, LIAA biomedical technology scout

Latvia currently is home to a strong academic foundation, with the University of Latvia, Riga Stradins University, Riga Technical University, as well as the various research institutes, such as the Latvian Institute of Organic Synthesis and Latvian Biomedical Research and Study Centre. LIOS is a European-level player in the research and development of new medicine. Of the many Latvian institutes, LIOS is one whose budget is considerably made up through collaboration with the industry. Meanwhile the Latvian Biomedical Research and Study Centre is the leading scientific institute in molecular biology and biomedicine in Latvia. Research at the institute is performed in five major directions: human genetics and disease mechanisms, cancer research, biotechnology and structural biology, molecular microbiology and virology, molecular pharmacology and drug targets.

Considering the strong academic and research foundation in the biomedical field, the opportunity for investors to make use of the academic and research output is the highest in the region.

Startups growing out of a thriving biotech innovations ecosystem



With a strong innovation ecosystem in place, there are several home-grown startups already taking advantage of the local benefits.

TechChill, the largest tech event of the Baltics, in its annual Fifty Founders Battle crowned Latvian startup [Longenesis](#) as the winner. The startup develops software for streamlined clinical research. Another local startup is [Ferterex](#), focusing on men's health using Monochromatic Light waves to increase testosterone levels, sperm mobility, and sperm count. Meanwhile [Exonicus](#), the virtual reality trauma simulator, is an award-winning innovation that has secured contracts with the US army.

What these startups have in common is that they are borne out of a very specific environment – a combination of the ever-growing startup ecosystem, and the already strong academic and biomedical sphere. Having already secured various awards and funding, we see the sector continues to bloom as increasingly more startups take up the risky road to startup success – because in Latvia, there's a significantly higher rate of success in this area.

Latvia – Europe's biomedical talent source

With its historical roots in the biomedicine area, a scientific environment ripe for innovation and available, highly-qualified scientific workforce, Latvia will continue to attract investment and cultivate ground-breaking medical solutions.

As the field of biomedicine has been defined as a priority sector under the Latvian Investment and Development Agency, any related investors, businesses, or professionals are particularly invited to get in touch. They will receive priority support for entering Latvia, both from a financial and coordinating perspective.

Investors who want to jump on the bandwagon and support research, development or manufacturing phases of biomedical solutions, can check out more information at investinlatvia.org and enquire about the respective opportunities by contacting Anna Janberga, the LIAA biomedicine technology scout, at anna.janberga@liaa.gov.lv.