



## Latvia: opportunities for research and cooperation with a sea view

**Latvia is a country located in the Baltic region of northern Europe. It has a diverse research and development landscape and is generally considered a very attractive space for researchers.**

Latvian scientists have recorded a number of scientific accomplishments that are highly valued in the country and well-recognised abroad. There is exceptional progress in certain sciences, including medicine, pharmacy, and material science. New discoveries are announced on a regular basis, contributing to Latvia's high growth potential. For example, in 2012 a new and significantly faster method for quantum algorithms was discovered and a novel quantum interference application in nano-electronics was developed by Latvian researchers Andris Ambainis, Dr Vyacheslav Kascheyev, Aleksandr Belovs, Jana Timoshenko et al. In the same year, Liga Berzina-Cimdina and Janis Locs from RTU Riga Bio-material Innovations and Development Centre successfully proved that their co-developed synthetic bio-material effectively attaches to bone – it is now used for implants in dentistry and cosmetic surgery. An active anti-cancer substance, called Belinostat, which was synthesised in Latvia, has been approved for use in the USA in the treatment of T-Cell Lymphoma. This substance was developed by Dr Klara Dikovska, Ivars Kalvins and Dr Einars Loza alongside the Latvian Institute of Organic Synthesis.

### Facts and figures

The research system in Latvia is being developed as part of the European Research Area (ERA) in line with the systems and best practices pursued by the European Union, its Member States, and international standards. The main issues addressed by Latvian science policy are the need to increase investment in research and development (R&D), to promote the renewal of research human capital and knowledge-creation in all branches of science, and to develop research infrastructure aimed at increasing research and innovation capacity. Latvia invests around 0.74% of its GDP, or EUR 249 million, in R&D. A quarter of companies are very active in the innovation field. The research landscape in Latvia is well governed and represented; there are 64 research institutions, 22 of which are funded by the state.

Since 2015, science policy in Latvia has been developed in line with the country's Smart Specialisation Strategy (RIS3). The Strategy targets research according to sectoral growth priorities, facilitates knowledge and technology transfer, and stimulates social and economic transformation towards more efficient use of resources and the creation of new, higher value-added products and services. These specialisations described under Latvia's RIS3 are:

- Knowledge intensive bio-economy
- Biomedicine, medical technologies and biotechnology
- Advanced ICT
- Smart materials, technology and engineering
- Smart energy



## EURAXESS

– Researchers in Motion is an initiative of the European Research Area (ERA) that addresses barriers to the mobility of researchers and seeks to enhance their career development. This pan-European effort is currently supported by 43 countries, of which we profile one in each of our quarterly e-newsletters.

EURAXESS Latvia provides information and support to mobile researchers through this portal, and with the support of national EURAXESS Centres.

EURAXESS Latvia has more than 20 service centres that are ready to provide you a range of services and any information concerning your arrival and stay in Latvia.

The main research policy priorities in Latvia for the period 2021-2027 are:

- Increase R&D as a percentage of GDP (GERD) to 1.5% and improve public support for emerging private R&D investments
- Achieve sustainable growth in R&D human capital needed to foster economic transformations (at least 8,000 FTE research personnel)
- Achieve success on the international stage through a diverse and competitive research system (i.e. underwritten by Horizon Europe)

Latvia is striving to be a welcoming place for incoming researchers and their families. Its compact size and location make Latvia a very comfortable place to conduct and advance research projects. Research infrastructure and institutions are in close proximity to each other and easily accessible, so commuting times are lower, which is a premium for attaining a good work-life balance. Everything is reachable and most of the research institutions are based or at least have offices in Riga, the biggest city in Latvia which is known to be a cosy place to live.

Some countries focus on stimulating innovation in the private sector, others encourage scientific entrepreneurship more broadly, while some concentrate more on securing grants and funding opportunities for institutions, but Latvia takes a more classic approach to science. Researchers are highly valued professionals and given every incentive to pursue a long career in academia if they so choose.

The main research universities in Latvia include:

**University of Latvia (UL)** is the largest in the country. In addition to research in the natural sciences, humanities, social sciences, technical sciences and medicine, UL provides various types and levels of higher education opportunities for both Latvians and people from other countries. The university's scientists have developed important research that has contributed to the competitiveness of the national economy and improved quality of life in society. The opinion of the University of Latvia is essential for decision-making in public administration. [Read more](#)

**Riga Technical University (RTU)** conducts fundamental and applied research in engineering with the aim of analysing and solving technical and social problems. RTU conducts interdisciplinary research in six scientific fields: Energy and Environment (research on sustainable energy supply, electricity, heat and transport fuels); Cities and Development (environmental and heritage conservation, housing, mobility and infrastructure provision, employment and social issues); Information and Communication Technologies (electronics, control software and data transmission); Transport (improving transport safety and energy efficiency, solving various transport infrastructure problems); Materials, processes and technologies (research ranging from the synthesis of nanoparticles to the calculation of large structures with practical applications, structural strength testing and durability prediction; extraction and research of nano-fibres, composites and biomaterials for applications in medicine, electronics, photonics and alternative energy; optimisation and improvement of technological processes for materials research); Security and Defence (interdisciplinary research in areas related to individual and national security). [Read more](#)



**RTU Rūdolfs Cimdiņš Riga Biomaterials Innovation and Development Centre** conducts biomaterials research and develops implant materials for medical applications. Since 2020, funding from Horizon 2020 has been granted to the Baltic Biomaterials Centre of Excellence (BBCE). The RTU Centre for High Energy Particle Physics and Accelerator Technology is responsible for Latvia's international cooperation with CERN, and its main tasks are to promote the development of high-energy particle physics in Latvia, to participate in research on high-energy particle physics and particle accelerator technology, and to establish an international Master's and PhD programme within the CERN Baltic Group. [Read more](#)

**Riga Stradiņš University (RSU)** conducts research in three scientific fields: Medicine, Public Health, and Social Sciences. Medical research covers major disease groups and virtually all the basic sciences of medicine – molecular aspects of disease, genetics, epidemiology, prognosis and treatment, impact on quality of life, treatment goals and outcomes. [Read more](#)

**Latvian University of Biosciences and Technologies (LBTU)** offers interdisciplinary higher education aimed at building the knowledge needed for sustained environmental and social development. To ensure excellence in research and studies, LBTU has established a science university ecosystem – a unified framework of commercial companies, scientific institutions, educational institutions and other organisations working under the direction and supervision of the university, including the LBTU APP Institute of Horticulture and APP Institute of Agroresources and Economics. [Read more](#)

Different research fields are covered by various scientific institutes, such as the [Latvian Institute of Organic Synthesis](#); [Baltic Studies Centre](#); [Institute of Electronics and Computer Science](#); [Institute of Solid State Physics](#); [Latvian State Institute of Wood Chemistry](#), etc.

### Science-business relations

It is still a struggle for almost all EU countries to translate innovation inputs into outputs efficiently. Latvia is no exception. It ranks 41 on the Global Innovation Index 2022. While it is working to overcome remaining barriers, there are strong signs that Latvia is learning valuable lessons and making the most of its opportunities as a small Member State. The country is focused on creating a balanced and efficient innovation ecosystems.

This is thanks in large part to Latvia's science policy framework and the work of its [Investment and Development Agency](#), which is recognised for its efforts in bringing a wide range of science and investment opportunities together.

EURAXESS Latvia is a one-stop shop for all incoming researchers. We strongly believe that people come to people and we try to do our best to make your journey and stay in Latvia comfortable and pleasant.