



Science policy

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Science policy in Latvia is developed in accordance with the Latvian Research and Innovation Strategy for Smart Specialisation (RIS3).

The aim of national science policy is to strengthen Latvia's research and innovation capacity in priority directions and RIS3 areas, transforming productive structures towards more resource-efficient activities that create higher added value. This goal is approached by increasing investments and lessening institutional barriers. The research and innovation system is being developed which encourages the regeneration of human capital and infrastructure, creating new scientific knowledge and boosting technological progress.

We develop our scientific potential on the basis of the existing scientific traditions, particularly in organic chemistry, medical chemistry, genetic engineering, physics, materials science and information technologies. The highest number of inventions, which are patented both nationwide and abroad, are made in the branch of medical chemistry.

Smart specialization strategy (RIS3)

RIS3 as national research and innovation strategy has been established to articulate and promote the transformation of the Latvia's economic structure to make it more competitive, strategically prioritising efforts in the most promising areas of research and economic sectors. The strategy also facilitates the creation of policy instruments which release the innovation potential thus promoting knowledge-intensive socioeconomic development.

In Latvia, 5 Smart Specialization areas and one horizontal area – Social Sciences and Humanities have been defined taking into account the potential directions of economic transformation and economic development priorities.

□	Biomedicine, medical technologies and biotechnology - Chemical and biotechnological methods and products for the production of pharmaceutical and bioactive substances; Development and research of new and existing human and veterinary medicinal products; Molecular and individualized treatment and diagnostic methods and cell technology; Functional foods, therapeutic cosmetics and bioactive natural substances
□	Smart Energy- Development of smart grids - development of demand-supply systems, smart buildings, home, appliances and home automation systems; Development of next-generation technologies for energy from renewable energy sources; Increasing energy efficiency - energy efficiency of building structures, energy efficiency of residential infrastructure elements; Sustainable energy for transport - new technologies, accelerating their implementation, electric mobility
□	Advanced ICT - Innovative knowledge management, system modeling and software development methods and tools; innovative sectoral ICT hardware (hardware) and software (software) applications; cyber-physics systems, language technologies and the semantic web; bulk data and knowledge infrastructure; information security and quantum computers; computer system testing methods

□	Smart materials, technology and engineering - Implant materials, composite materials, thin layers and coatings, equipment, machinery and working machines, glass fiber products and smart glass-based materials
□	Knowledge intensive bio-economy - Sustainable and productive forest growing in changing climatic conditions; Full use of wood biomass for chemical processing and energy; Innovative, risk-reducing plant and animal breeding technologies; Development of innovative high value-added niche products from wood, traditional and unconventional agricultural plant and animal raw materials; Technological solutions for the use of plant and animal breeding and processing by-products; Food safety

In 2014, Latvia joined the [EC RIS3](#) Platform to develop competence in implementing RIS3 and to facilitate research and innovation cooperation with other EU regions.

Priority directions in science

The national Priority directions in science are revised every four years with the aim of focusing scientific activities towards strategically significant areas for the sustainability and development of Latvia. These Priority directions are also accompanied by financing from the state budget. They are implemented via two research programs: the Fundamental and Applied Research Program and the National Research Program.

The Ministry of Education and Science commissioned a [report](#) where sectoral stakeholders (relevant ministries, professional associations, non-governmental organizations and enterprise actors) were surveyed about the most important challenges for society and the future requirements for Latvia's knowledge base and sectoral human capital development. These recommendations were then integrated into the Priority directions in science for 2018 – 2021.



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