



An Overview of Smart Specialization Strategy in Latvia



RIS3 - a national research and innovation strategy for economic transformation, which involves defining permanent competitive advantages, selecting strategic priorities and designing policy instruments that maximize the country's knowledge-based development potential, thus contributing to economic growth. Since 2014 Latvia has joined the EU RIS3 platform to develop competence in RIS3 implementation and to cooperate in research and innovation with other EU regions.

1. Current RIS3 directions of economic transformation, priorities and areas of specialization

Transformation

direction: Production and export structure change in traditional economic sectors.

Priority 1: More efficient use of primary products for the production of higher value added products, creation and diversification of new materials and technologies. Non-technological innovation, Latvian creative industry potential wider use for production of higher value added products and services in national economy sectors.

Transformation

direction: Future growth industries, in which already exist or may occur products and services with high added value.

Priority 2: New products/services that require the development of an efficient identification system capable of identifying and providing support for new product development within existing and cross-industry sectors, as well as emerging industries with high growth potential.

Transformation

direction: Sectors with significant horizontal impact and investment in the transformation of national economy.

Priority 3: Improving energy efficiency, including the creation of new materials, optimization of production processes, introduction of technological innovations, use of alternative energy resources, etc.

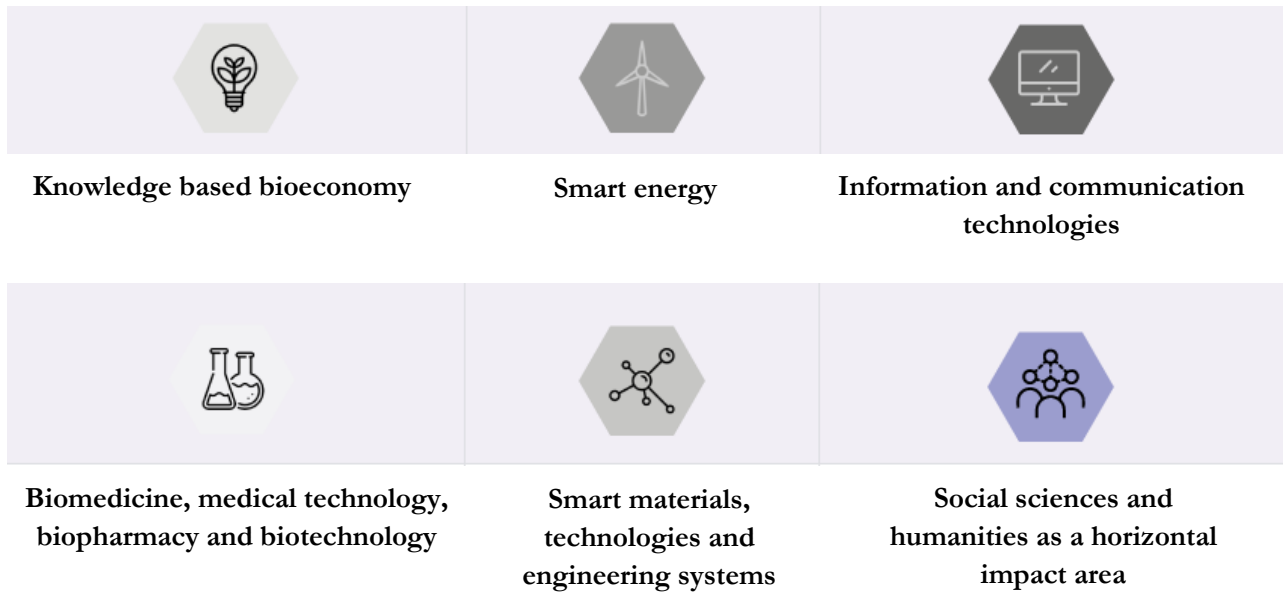
Priority 4: Modern ICT system in private and public sector.

Priority 5: A modern education system that meets the requirements of the future labor market and contributes to the transformation of the economy and the development of competencies, entrepreneurship and creativity needed to implement the priorities defined.

Priority 6: Developed knowledge base and human capital in areas where Latvia has comparative advantages and which are important in the process of economic transformation: knowledge areas related to bioeconomy, biomedicine, medical technology, biopharmaceutical and biotechnology, smart materials, technology and engineering, smart energy and ICT as well as EC identified key technology areas (nanotechnology, micro and nano-electronics, photonics, advanced materials and production systems, biotechnology).

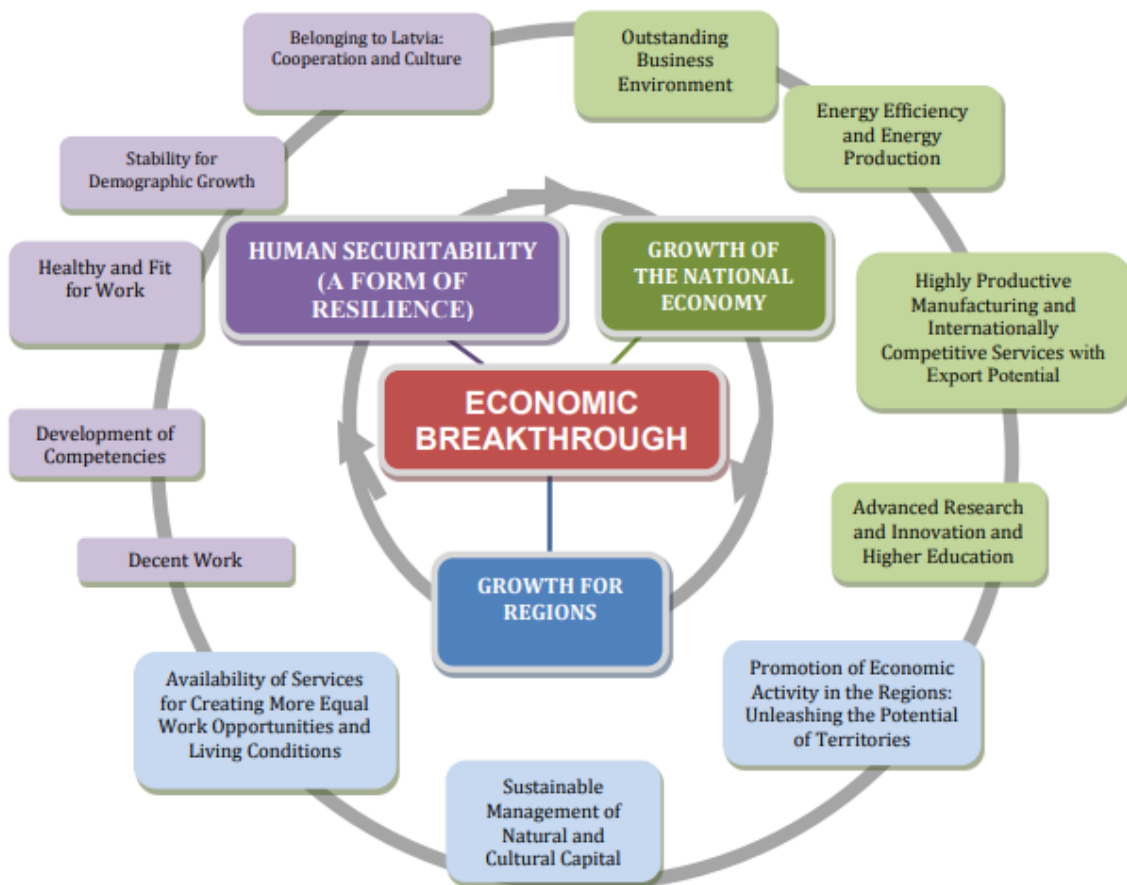
Priority 7: Identification and specialization of existing resources, highlighting perspectives and directions for economic development, incl. leading and perspective business directions in municipal territories.

Taking into account the prospective directions of economic transformation and the priorities of economic development, 5 smart specialization areas as well as the field of social sciences and humanities as a horizontal area have been defined in Latvia.

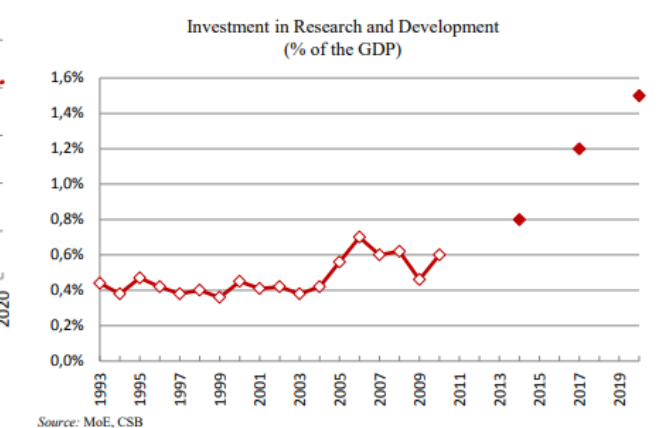
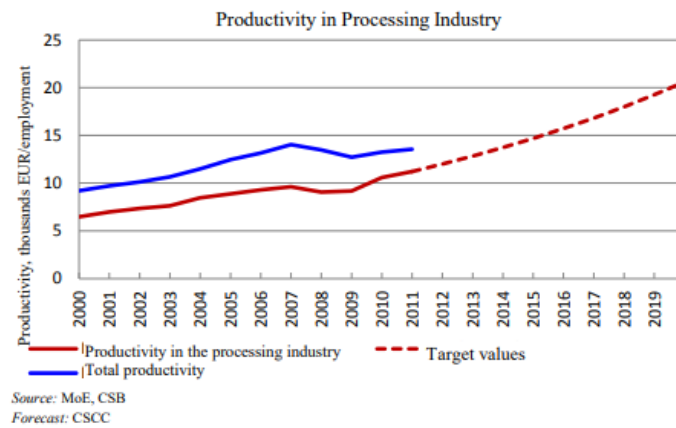
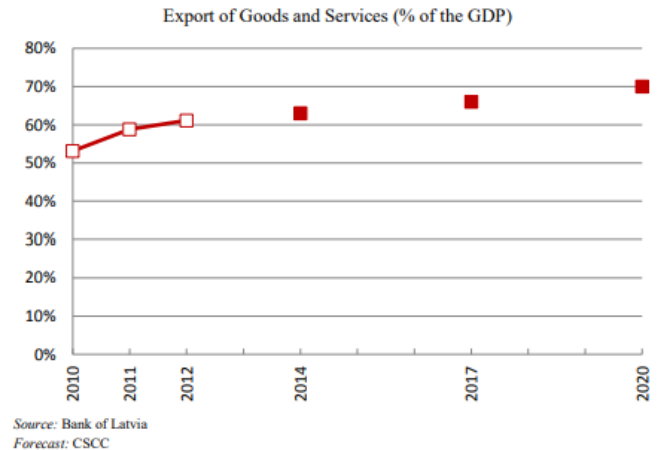
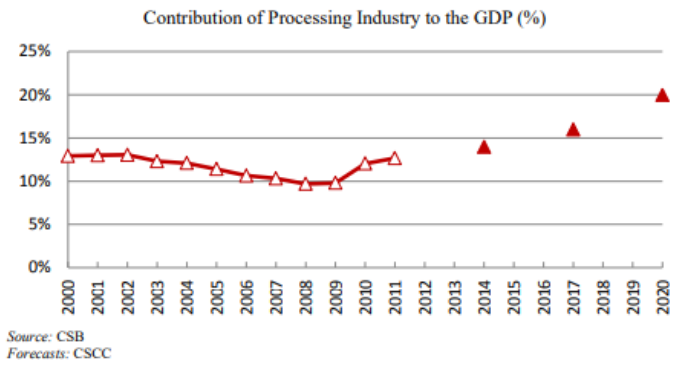


2. Existing roadmaps

The overall system required for economic breakthrough has been defined by National Development Plan 2014-2020, involving also RIS3 related directions:



Even though interaction of all system elements would be required to achieve the results, within this document we will look more close to the priority „Growth of the National economy”, it’s strategic objectives and measurable outcomes defined. Overall output forecasts performed by Cross Sectoral Coordination Center below:



Priority „Growth of the National economy” involves the following strategic objectives:

Strategic Objective “Highly Productive Manufacturing and Internationally Competitive Services with Export Potential”:

The Latvian economy is characterised by a small number of export-capable sectors and low productivity in the processing industry (the average figure for EU Member States is four times that of Latvia). This renders the Latvian economy particularly sensitive to any changes in the external environment, does not provide the necessary stability and sustainability, and prevents the maximum potential of the national economy from being reached. Only an increase in productivity can ensure the approximation of the average standard of living to the EU average. Goals for the objective:

- In 2020, at least 35% of the investment will be directed towards the formation of productive capital (gross equity capital) in export capable sectors;
- Due to the focus of foreign direct investments on “marketable” (goods and services) sectors, the export growth in the period from 2014 to 2020 will constitute at least 40%;
- Development of commercial creative industries;

- Limit pollution and greenhouse gas emissions into the environment in order to respect the goals of sustainable development.

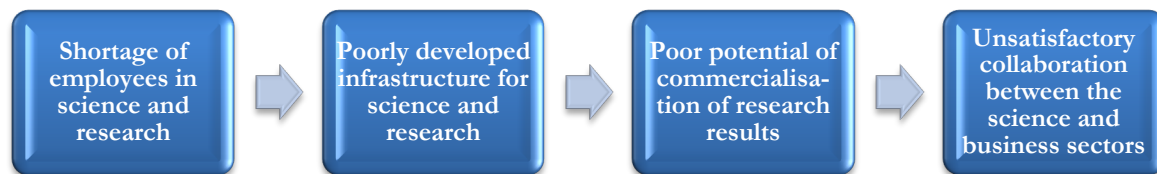
Strategic Objective “Outstanding Business Environment”:

An outstanding business environment includes a coherent regulatory framework, the operation of a stable state support and monitoring system, public services oriented towards the needs of businesses, clear and competitive environment for the start-up and development of business activity so that anyone willing to do so could establish a business, work and live in Latvia. Goals for the objective:

- Creation of an outstanding business environment through an optimal reduction of red tape, the share of the grey economy in the national economy and corruption thus ensuring a predictable tax policy, improving the operation of the judicial system and increasing the efficiency of state administration;
- Ensure the international accessibility of Latvia.

Strategic Objective “Advanced Research and Innovation and Higher Education”:

Well-developed research and innovation that has been successfully commercialised enables a country to manufacture products that can be exported and provides internationally competitive services. Research and innovation can facilitate greater productivity that is not associated with a reduction in labour costs. The main challenges to more investment in research and development are reflected below:



In science and research, cooperation among parties is crucial, there is a need for the creation of larger and, consequently, more competent and robust associations, thus inducing joint and private-sector investment in research and development. Goals for the objective:

- Increase investment in R&D to 1.5% of the GDP in 2020, with targeted efforts to attract human resources, develop innovative ideas, improve the research infrastructure, facilitate cooperation between higher education, science and the private sector, as well as the transfer of research and innovation to business;
- Through the commercialisation of knowledge, promote the creation of innovative and internationally competitive products with high added value as well as their introduction into production, increasing the share of output of such products in the national economy.

Strategic Objective “Energy Efficiency and Energy Production”:

Energy has now become one of the essential factors in ensuring the competitiveness and independence of the national economy. Latvia is rich in renewable energy resources that are currently under-used for energy production in the country. That is why this Strategic Objective provides for the promotion of the use of indigenous energy resources for energy production. Goal for the objective:

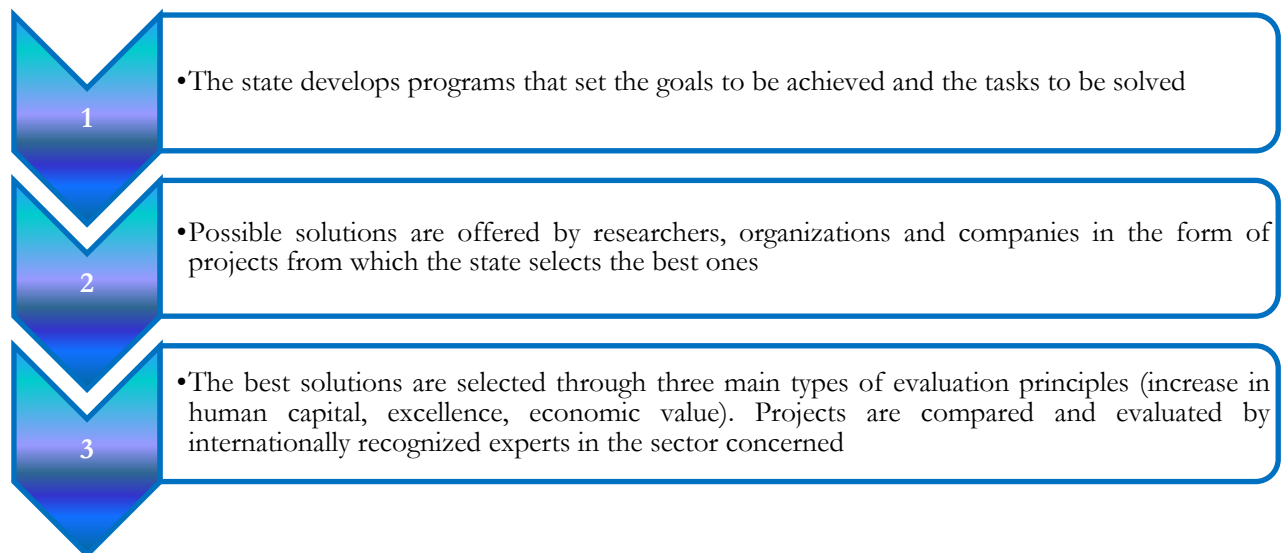
- Ensure the sustainable use of the energy resources required by the national economy by promoting the availability of a market for the resources, a decrease of the energy intensity and emission intensity in certain

sectors, and an increase of the proportion of renewable energy resources in the total consumption, while focusing on competitive energy prices.

3. Strategy implementation mechanisms

Although the state has an important role in mobilization of entrepreneurs and societies part in realization of the chosen strategy and innovation systems, the ability of all those involved to cooperate and knowledge in society on how to increase competitiveness with innovation and knowledge intensity are the most important factors to achieve the results. The strategy provides funding for such projects implementation in the business and public sectors, which increase knowledge based economy by:

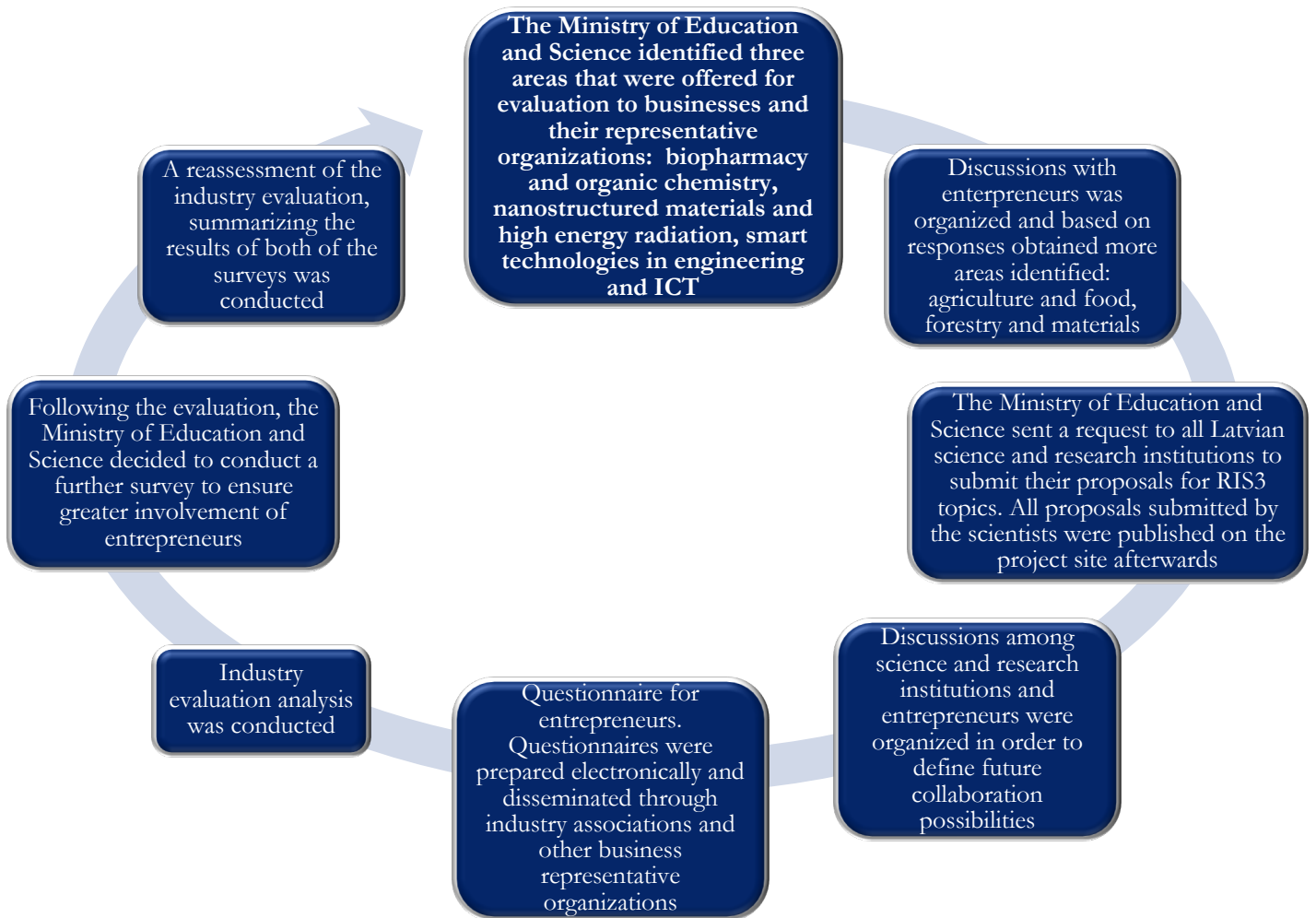
- increasing and strengthening human capital;
- concentrating human capital in positions with growth opportunities and appropriate remuneration;
- stimulating the creation of new positions beneficial for research, development and innovation.



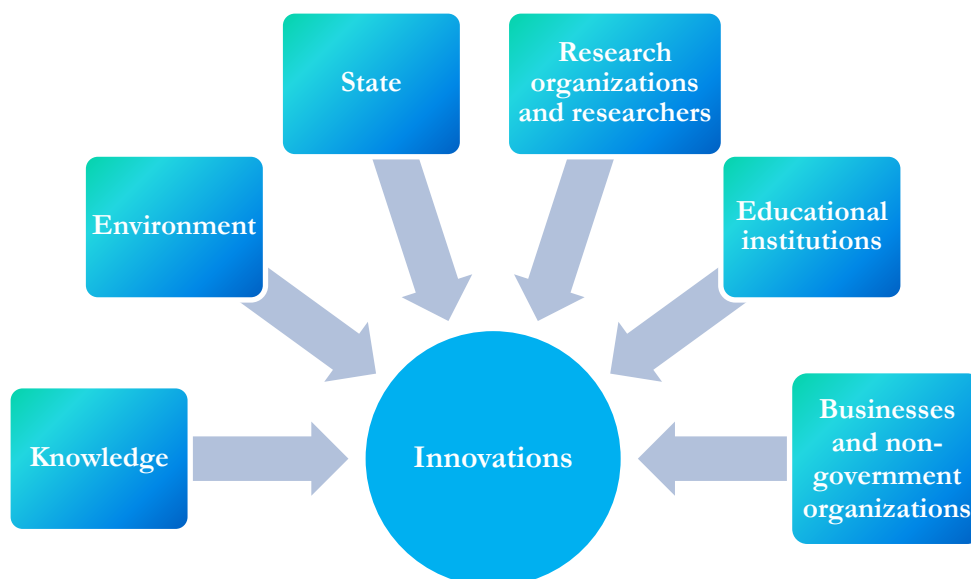
4. Strategy monitoring mechanisms

Since 2016 a RIS3 monitoring system has been implemented to measure the progress of RIS3 implementation and the effectiveness of the funding invested. The purpose of RIS3 monitoring is to assess the progress of economic transformation over a given period of time in accordance with defined goals and results. The results and conclusions of the data analysis carried out as part of the RIS3 monitoring will form the basis for the development of a new RIS3 and for the architecture of appropriate, mutually integrated national policies. The first RIS3 monitoring report has been issued October 2017. According to the informative report „Smart specialization strategy monitoring system” approved by Cabinet of Ministers, the RIS3 monitoring report has to be developed every two years. Institution in charge – Ministry of Education and Science.

5. Regional tools for involvement of quadruple helix stakeholders



6. Innovation ecosystem and development opportunities



Development opportunities:

- Open data access, technology transformation of the services provided by the state and state institutions;
- International Competitive academic environment, cooperation among higher education establishments;
- Support to cross-sectoral projects;
- Facilitation of dialogue between scientists and entrepreneurs;
- Regional Specialisation and connectivity.

7. Regional results of current RIS3

Goal achievement rates	2010	2013	Fact	Progress	2020
European Innovation Scoreboard (EIS positions)	"modest"	"modest"	"moderate" (2016)	↑	"moderate"
R&D investment in 2020 reaches 1.5% of GDP (%)	0.6	0.6	0.44 (2016)	↓	1.5
Productivity in manufacturing (000' EUR per employee)	18.5	20.3	23.6 (2016)	↑	29
Number of scientific staff in research and development	5563	5593	5120 (2016)	↓	7000
Number of students obtaining degree or qualification in universities and colleges (000' persons)	26.5	23.9 (2014)	15.8 (2016)	↓	24.6
% of population aged 30-34 with higher education	33	37 (2014)	43 (2016)	↑	40
Fewer stronger state-funded scientific institutions	40	40 (2014)	22 (2017)	↑	20
Scientific articles published in international databases	1032	1100 (2014)	1820 (2016)	↑	1500
Success rate for participation in the EU Framework program (%)	22.8	22 (2014)	12.7 (2016)	↓	30
Proportional increase in private sector investment in R&D (private sector R&D investment,% of total investment)	38	21	20 (2015)	↓	48
Number of researchers employed in the private sector (% of total FTE)	22.7 (2011)	18 (2014)	20.6 (2015)	↑	23
European patents granted from scientists with residence in Latvia	11 (2011)	13 (2014)	16 (2016)	↑	50
Proportion of innovative enterprises (% of all enterprises)	29.9	30.4 (2012)	25.5 (2014)	↓	40
The manufacturing industry share in GDP reaches 20% in 2020 (%)	13.4	12.7	12,5 (2016)	↓	20
Manufacturing industry productivity growth in 2020 versus 2011 reaches 40%	92.8	101.8	118.3	↑	140
Manufacturing industry growth in 2020, compared to 2011 is 60%	95.1	102.3	113.1 (2016)	↑	160
Export growth (annual average at constant prices,%)	26.8	1.0	2.6 (2016)	↑	5 (2018.-2020. average)
Proportion of high technology products in Latvia's total exports (%)	4.8	8.0	9.8 (2015)	↑	11
Share of high and medium high technology sectors in the total export	4.8	8.0	9.8	↑	31
FDI Performance Index (Baltic region)	1.6	3.0	1.4 (2016)	↓	1.2 (2018. - 2020. average)

8. Main goals for RIS3 updating

Taking into account actual RIS3 achievement rates reflected in chapter Nr. 7 of this report the main areas to improve:

**R&D investments
reaching 1,5% of
GDP**

Action 1: Increased state budget investments in R&D;
Action 2: Additional incentives for increasing private sector R&D investments incorporated into R&D funding programs' regulations with a purpose to change the behavior of companies and research organizations in favor of research, development and innovation activities, as well as to change the conditions of the economic environment in order to make them more favorable.

Development of knowledge base and human capital

Action 1: Labor market analysis.

Action 2: Implement measures for the training of employees ensuring the contribution in increasing productivity, developing new products and technologies, increasing IT and digital skills, increasing skills in non-technological innovation area.

Action 3: Taking into account negative demography trends and emigration, attract foreign specialists.

Action 4: Ensure the modernization of STEM study program infrastructure in higher education institutions.

Action 5: Investments in academic personnel development.

Action 6: Investments in strengthening the governance of higher education institutions.

Action 7: Continue Practical Studies and Postdoctoral support realization in order to increase the number the scientists in R&D.

Manufacturing industry and it's productivity development

Action 1: Capital investments in acquisition of equipment and machinery.

Action 2: The Latvian economy is dominated by low technology manufacturing, where traditionally low value added products are produced and the productivity indicators of these sub-sectors are not high. As a result the competitiveness of the respective companies is weak. The situation is opposite in high-tech manufacturing sub-sectors. The number of companies representing this sub-sector and production volumes in Latvia is small, however the sub-sector is growing sharply. Thus, in order to promote the future development of a more competitive and productive manufacturing industry in Latvia, it is necessary to promote the growth of high and medium technological manufacturing sub-sectors, which are also subject of export volumes growth.

Increase in FDI

Action 1: Increase innovation capacity.

Action 2: Investment in human capital.

Action 3: Improve accessibility to business infrastructure.

Action 4: Support tools for export volume growth.

Action 5: Promoting financial accessibility.

Action 6: Removing barriers and improving the process of FDI attraction.

Regional development

Action 1: 5 planning regions (Kurzeme, Zemgale, Latgale, Vidzeme and Riga) have established Development programmes up to 2020 and sustainable development strategies up to 2030. Even though the planning documents involve also RIS3 related development goals in general terms, the specific objectives, outcomes, implementation mechanism as well as monitoring mechanism would be desirable to define more specifically per each planning region.