

## Latvia

Latvia is a small EU member state that joined the euro area in January 2014 and became a member of the OECD in July 2016. Four cornerstones of the economy are agriculture, chemicals, logistics and woodworking, with machinery production and green technologies as other prominent sectors. The economy is projected to soon recover from a sharp downturn in 2015 and early 2016.

The main strategic frameworks in which the country operates are the Guidelines for National Industrial Policy 2014-20, the Guidelines for Science, Technology Development and Innovation (2014-20) and in particular the Smart Specialisation Strategy (RIS3, 2014-20) developed in the context of the European Regional Development Fund (ERDF). These documents emphasise Latvia's priorities and serve as an overarching roadmap to transform the economy towards higher added value, productivity and more efficient use of resources.

At the core of these strategies lie the following policy objectives: i) restructuring of production and export in traditional fields of the economy; ii) support of future areas of growth; and iii) concentration on fields with horizontal impact on the transformation of the economy. Although EU funds are, according to the EC, the main source of RDI funding, Latvia currently suffers from the expiry of several EU funding lines as well as from the sharp decline of economic relations with Russia.

### **Hot Issues: Encouraging business innovation and innovative entrepreneurship**

Between 2004 and 2014, BERD as a percentage of GDP grew from 0.19% to 0.24%, a value still significantly below the OECD median. The World Bank's Ease of Doing Business Index suggests that Latvia has a rather unfavourable business environment and an insufficient supply of venture capital. Seed money, grants, and loans are up to a certain point available to help finance technology start-ups and fast-growing companies. However, innovation performance has yet to reach OECD levels. BERD is concentrated in medium-high to low-technology non-resource-based manufacturing and services and in a small number of firms. Against this backdrop, the Guidelines on National Industrial Policy (NIP) for 2014-20 identify innovation as a key pillar for improving competitiveness, productivity and exports. Initiatives include support for co-operation between industry and academia and commercialisation of research results, new product and technology development and the expansion of innovative and technology-oriented companies as well as new financial instruments (e.g. seed and venture capital) for innovative companies. Several other initiatives aim to improve Latvian industry's ability to innovate. The Micro-loan support programme provides access to funding of up to USD 50.3 thousand PPP (EUR 25 thousand) for start-ups and SMEs. The Investment and Development Agency and the Ministry of Economics launched the Green Technology Incubator in October 2014 with a budget of USD 4 million PPP (EUR 2 million). The programme supports entrepreneurs working with green technologies by providing pre-incubation and incubation services and facilitating technology transfer between companies and PRIs. The innovation voucher programme ("Micro, small and medium enterprises new products and technology development programme") launched in 2012 with support from the EU Structural Funds, seeks to attract private investment in R&D for new products and technologies and their commercialisation. The current policy mix also includes indirect support measures with currently two tax incentives in place. The Corporate Income Tax Law was revised in 2014 and became more flexible and generous. In one of the two tax schemes, companies can deduct up to 300% of the cost of intangible assets with no cap. The tax incentive can be applied to staff costs; certification, testing and calibration costs; as well as to costs for research services provided by scientific institutions. A new initiative to support the demand for innovation is being prepared by the Ministry of Finance, which is in charge of introducing a new procurement procedure called Innovation Partnership.

### **Reforming public research (including university research)**

Government expenditure on R&D, at 0.16% of GDP in 2014, is at the bottom of the OECD mid-range.

No Latvian universities rank among the world's leaders. Large-scale reforms of HEIs and PRIs are under way to improve the quality and relevance of public R&D. Notably, a programme of structural reforms of research institutions is financed by the European Regional Development Fund (USD 19.8 million PPP, EUR 9.9 million) in order to reduce the fragmentation of research in the most internationally competitive research institutions. These initiatives are most often based on evaluations and impact assessment. Research institutions and the science and innovation system have recently been assessed by international experts, in co-operation with the Nordic Council of Ministers and NordForsk. The State Research Programme is currently evaluated by a panel of international experts. The World Bank Reimbursable Advisory Service report on Higher Education Financing in Latvia was published in 2014. It served as a basis for a new higher education financing model designed by the Ministry of Education and Science designed a new model that was approved by the government in 2015 for a period of ten years. It provides funding instruments to develop links to the labour market, to boost efficiency and competitiveness, and to increase accessibility to the higher education system with a budget of USD 184 million PPP (EUR 92 million) in 2015. One of the measures is to lower eligibility criteria of study loans for students who cannot afford tuition fees.

### **Strengthening public R&D capacity and infrastructures**

EU Structural Funds have been allocated to strengthen the research infrastructure and human resources for public research, attract foreign academic staff to Latvian HEIs and promote innovation grants for students (especially in STEM fields). The initiative for Research-oriented Education (2015-25) ensures that universities receive funding for employing graduates at Masters or PhD level as researchers, including the development of joint degree PhD programmes and post-doctoral research laboratory networks. The National level infrastructure development initiative, launched in 2016, identifies research infrastructure objects of national importance that are publicly funded. The State Research Centres, implemented in 2011, aimed at strengthening public research infrastructures and expanding public research capacities. The project was completed in 2015 and is currently assessed with the perspective to extend it beyond 2015.

### **Addressing challenges of STI globalisation and increasing international cooperation**

Latvia's performance in terms of international scientific publications is below the OECD median. However, the system is rather well connected to regional, EU and, to a lower extent, global knowledge and innovation networks. The Baltic inter-ministerial expert group and the Baltic-Nordic co-operation on research infrastructure are regional platforms for co-operation and assistance. Similarly, Baltic Bonus is a financial instrument, launched in 2014, that supports co-operation between Baltic partners in applying for Horizon 2020 funding. On a bilateral level, the Programme on Co-operation in Science and Technology between the Ministries of Education and Science of Ukraine and Latvia intends to trigger exchange and co-operation between researchers in both countries. As part of the Guidelines of Science, Technology Development and Innovation 2014-20 Latvia launched an EU financed post-graduate grant programme to spur international mobility of young researchers willing to work abroad.

### **Selected Highlights: STI policy governance**

The Research and Innovation Strategic Council was the first high-level national council for STI policy to serve as a coordinating platform between the public administration institutions, scientists, businesses and parties funding research activities. The Ministry of Education and Science and the Ministry of Economics share responsibility for research and business innovation policy. Evaluation is well integrated throughout the research and innovation policy decision process. Research programmes and grant schemes are evaluated regularly. Market-oriented projects, which aim at developing innovative commercial products, are assessed following the project's completion. According to the Law on Scientific Activity PRIs are to be evaluated every six years. Latvia also relies on regional policy partnerships and cooperation. It participates in the Baltic Science Network (BSN, 2016-19) that intends to establish a political coordination framework for joint higher education, science and research policy with the overall aim to support the realisation of the European Research Area (via intensified cooperation in BSR), increase the research and innovation performance of the BSR, and to strengthen the political ownership of the EUSBSR in the field of science policy by the

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regions and member states.

### **ICT and Internet infrastructures**

Relative to its income level, Latvia has advanced ICT infrastructures. Wireless broadband subscriptions are just below the OECD median, and the fixed broadband subscriptions and e-government development indexes are in the mid-range of OECD countries. The Guidelines for an Information Society 2014-20, approved by the Cabinet of Ministers in October 2013, aim at increasing the innovation capacity, the amount of research projects and the opportunities for researchers and PhD graduates in the ICT sector.

### **Technology transfers and commercialisation**

Commercialisation of research results and technology transfer are considered to improve the returns and impact of science. The share of high-technology products in Latvian exports is modest (6) and start-ups, SMEs and research institutions lag behind in patenting and commercialisation of research. To this end, state research centres and technology transfer contact points have been established to foster industry-science co-operation and commercialise of public research. The Law on Scientific Activity has been amended to ensure more efficient legal protection of public research results, their commercialisation and the transfer of knowledge. In order to facilitate the commercialisation of public research, a recent amendment to the Law on Scientific Activity assigns IPR on inventions from publicly funded research to the relevant scientific institutions. The Programme for Agricultural Development 2014-20 emphasises the increase of knowledge transfer and commercialisation in the field of agriculture and forestry mainly in rural regions as timber and wood-processing industries are an important pillar of the economy.

### **Clusters and regional policies**

Several government ministries in partnership with industry, research institutions and trades unions have developed an EU Smart Specialisation Strategy. Since 2009, the industry-driven cluster initiatives have received support in order to promote collaboration between unrelated companies, research, educational and other institutions and to improve the competitiveness of enterprises, increase export volumes and promote innovation and development of new products. For example, Latvia is part of the Baltic Sea Region (BSR) Stars Programme, jointly developed by Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, and Sweden with funding from the EU to stimulate the Baltic Sea Region to become a functional region with an internationally competitive position. The programme especially aims at boosting equity investments in Baltic SMEs with high growth potential.

### **Skills for innovation**

Latvia has a slightly below-average human resource base in terms of the tertiary educated adult population. Its expenditure on tertiary education lags behind. Brain drain and the ageing of the STI workforce are important challenges. Improvements in the education environment, high-quality and inclusive education, and individual skills as well as effective management are top priorities in Latvia's Guidelines for the Development of Education 2014-20 that stipulate a number of policy directions with measurable targets to be reached by 2017 and 2020. They are also higher education-related priorities in Latvia's Smart Specialisation Strategy. The Ministry of Education and Science allocates USD 1.1 million PPP (EUR 0.6 million) to HEIs that realise creative and artistic projects in 2015, as part of the ministry's new performance based funding model in co-operation with the World Bank Group and in line with the Cultural Policy Guidelines 2014-20 "Creative Latvia". The EU Structural Funds have programmes for the improvement of human resources and capacity building in science. To deal with the ageing of the STI workforce, employment quotas for young scientists have been introduced in government programmes and projects. Major reforms of HEIs have been carried out to introduce a new model of accreditation and new funding models (2015-25). Moreover, increasing emphasis has been put on the internationalisation of HEIs and education programmes have been revised to better meet needs and trends in the job market.

**Benchmark:** <http://innovationpolicyplatform.org/STICharting/benchmark.htm?iso=LV> [1]

**BERD:** <http://innovationpolicyplatform.org/STICharting/BERD.htm?iso=LV> [2]

**IPM:** [http://innovationpolicyplatform.org/STICharting/IPM\\_FUND.htm?iso=LV](http://innovationpolicyplatform.org/STICharting/IPM_FUND.htm?iso=LV) [3]

**RTA:** <http://innovationpolicyplatform.org/STICharting/RTA.htm?iso=LV> [4]

**Other STI Outlook Resources:** [e-Outlook Homepage](#) [5]

[STIO Highlights](#) [6]

[Printable Latvia 2016 Country Profile](#) [7]

[STIO Country Profiles Reader's Guide](#) [8]

[Methodological Annex to the 2016 OECD STIO Country Profiles](#) [9]

**Prior STIO Country Profiles:** [2014](#) [10]

**External Links:** [The World Bank Group, Enterprise Survey](#) [11]

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### Links

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[2] <http://innovationpolicyplatform.org/STICharting/BERD.htm?iso=LV>

[3] [http://innovationpolicyplatform.org/STICharting/IPM\\_FUND.htm?iso=LV](http://innovationpolicyplatform.org/STICharting/IPM_FUND.htm?iso=LV)

[4] <http://innovationpolicyplatform.org/STICharting/RTA.htm?iso=LV>

[5] <https://www.innovationpolicyplatform.org/sti/e-outlook>

[6] [https://www.innovationpolicyplatform.org/system/files/STIO%20Key%20messages\\_0.pdf](https://www.innovationpolicyplatform.org/system/files/STIO%20Key%20messages_0.pdf)

[7] [http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook-2016/latvia\\_sti\\_in\\_outlook-2016-72-en](http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook-2016/latvia_sti_in_outlook-2016-72-en)

[8] [http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook-2016/sti-country-profiles-reader-s-guide\\_sti\\_in\\_outlook-2016-44-en](http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook-2016/sti-country-profiles-reader-s-guide_sti_in_outlook-2016-44-en)

[9] [http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook-2016/methodological-annex-to-the-2016-oecd-sti-outlook-country-profiles\\_sti\\_in\\_outlook-2016-95-en](http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook-2016/methodological-annex-to-the-2016-oecd-sti-outlook-country-profiles_sti_in_outlook-2016-95-en)

[10] <https://innovationpolicyplatform.org/system/files/sti-outlook-2014-latvia.pdf>

[11] <http://www.enterprisesurveys.org/~media/GIAWB/EnterpriseSurveys/Documents/Profiles/English/Latvia-2013.pdf>