



# European Innovation Scoreboard **2024** Country Profile **Latvia**

## European Innovation Scoreboard 2024 – Country profile Latvia

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## Emerging Innovator ●

Summary innovation index (relative to EU in 2017): **59**

Rank: **30**

Change vs 2023: ▼ **-0.2** Change vs 2017: ▲ **2.7**

Latvia is an Emerging Innovator with performance at 53.6% of the EU average in 2024. Performance is above the average of the Emerging Innovators (48%). Performance is increasing less than the EU (+10%).

Indicator	Performance relative to the EU in 2024	Performance change 2017-2024	Performance change 2023-2024
<b>SUMMARY INNOVATION INDEX</b>	<b>53.6</b>	<b>2.7</b>	<b>-0.2</b>
<b>Human resources</b>	<b>74.9</b>	<b>-0.2</b>	<b>1.1</b>
New doctorate graduates	34.5	-11.6	0.0
Population with tertiary education	110.9	-2.4	-4.7
Population involved in lifelong learning	82.2	21.4	10.2
<b>Attractive research systems</b>	<b>48.9</b>	<b>23.1</b>	<b>0.8</b>
International scientific co-publications	60.9	42.0	1.6
Scientific publications among the top 10% most cited	38.9	14.6	1.4
Foreign doctorate students as a % of all doctorate students	53.5	24.4	-1.2
<b>Digitalisation</b>	<b>54.9</b>	<b>-18.8</b>	<b>-13.7</b>
Broadband penetration	55.7	-5.2	4.9
Individuals with above basic overall digital skills	53.9	-32.2	-32.2
<b>Finance and support</b>	<b>40.7</b>	<b>-13.6</b>	<b>-0.8</b>
R&D expenditure in the public sector	59.0	1.6	1.6
Venture capital expenditures	53.6	-45.8	-0.8
Direct and indirect government support of business R&D	3.3	1.3	-4.4
<b>Firm investments</b>	<b>26.6</b>	<b>-6.4</b>	<b>-6.7</b>
R&D expenditure in the business sector	16.0	9.0	-0.7
Non-R&D innovation expenditures	57.7	-26.1	-15.8
Innovation expenditures per person employed	9.8	-2.1	-3.2
<b>Use of information technologies</b>	<b>73.3</b>	<b>18.6</b>	<b>-5.1</b>
Enterprises providing ICT training	58.0	17.8	-10.2
Employed ICT specialists	88.2	19.4	0.0
<b>Innovators</b>	<b>47.0</b>	<b>11.9</b>	<b>4.2</b>
SMEs introducing product innovations	42.1	8.7	1.6
SMEs introducing business process innovations	50.9	14.8	6.6
<b>Linkages</b>	<b>77.3</b>	<b>28.3</b>	<b>17.4</b>
Innovative SMEs collaborating with others	51.3	16.0	9.4
Public-private co-publications	105.4	66.7	1.5
Job-to-job mobility of HRST	87.5	20.6	32.3
<b>Intellectual assets</b>	<b>69.4</b>	<b>2.5</b>	<b>0.5</b>
PCT patent applications	53.6	-2.0	6.5
Trademark applications	106.9	30.0	1.6
Design applications	52.8	-13.3	-8.4
<b>Employment impacts</b>	<b>53.8</b>	<b>15.2</b>	<b>-4.3</b>
Employment in knowledge-intensive activities	74.2	10.8	0.0
Employment in innovative enterprises	36.5	19.2	-8.4
<b>Sales impacts</b>	<b>51.8</b>	<b>5.6</b>	<b>0.1</b>
Exports of medium and high technology products	41.2	-3.1	5.9
Knowledge-intensive services exports	66.5	13.8	5.3
Sales of new-to-market and new-to-firm innovations	45.7	8.5	-16.4
<b>Environmental sustainability</b>	<b>44.4</b>	<b>-9.6</b>	<b>6.3</b>
Resource productivity	50.9	1.4	-1.3
Air emissions by fine particulates	42.2	17.2	3.9
Environment-related technologies	41.5	-56.9	15.6

### Relative strengths

- Population with tertiary education
- Trademark applications
- Public-private co-publications

### Relative weaknesses

- Relative weaknesses
- Direct and indirect government support of business R&D
- Innovation expenditures per person employed
- R&D expenditure in the business sector

### Strong increases since 2017

- Public-private co-publications
- International scientific co-publications
- Trademark applications

### Strong decreases since 2017

- Environment-related technologies
- Venture capital expenditures
- Individuals with above basic overall digital skills

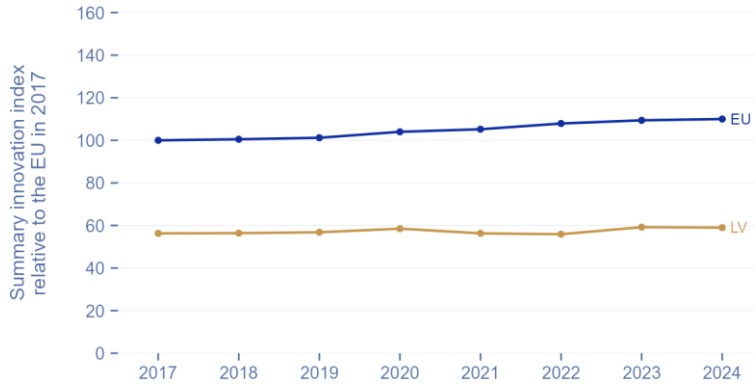
### Strong increases since 2023

- Job-to-job mobility of HRST
- Environment-related technologies
- Population involved in lifelong learning

### Strong decreases since 2023

- Individuals with above basic overall digital skills
- Sales of new-to-market and new-to-firm innovations
- Non-R&D innovation expenditures

**Footnote:** The first data column shows scores relative to the EU in 2024, with colour codes indicating performance levels. The subsequent columns show performance changes over time, with scores relative to the EU in 2017, coloured in purple for positive change and red for negative change. As reference years differ between the first column (2024) and the last two columns (2017), scores cannot be directly compared or subtracted across these columns.



### Summary innovation index

The line chart shows the evolution of the innovation performance of Latvia over time, relative to the performance of the EU in 2017.

**Footnote:** All performance scores (SII and dimensions below) are relative to that of the EU in 2017.

### Framework conditions

Latvia faces challenges in addressing skills shortages and enhancing its innovation performance. The country has observed a decline in the number of new doctorate graduates (third lowest proportion in the EU, at 34.5% of the 2024 EU average) and individuals with tertiary education since 2017. This shortfall is one of the main barriers that make it difficult to strengthen the Latvian R&I system, especially in the private sector, according to the European Semester Report (2024).

Despite these challenges, Latvia has shown gradual improvements in its attractive research systems since 2017 (+23.1%-points), though it remains behind most EU Member States in international scientific collaborations (60.9% of EU average in 2024) and high-impact publications (38.9% of EU average in 2024). The country also struggles with low broadband capacity and digital skills (54.9% of EU average in the digitalisation dimension), trends that have persisted since 2017. Efforts outlined in Latvia’s recovery and resilience plan aim to address these issues by strengthening digital infrastructure and expanding skills development initiatives.

#### Human resources



#### Attractive research systems



#### Digitalisation



### Investments

Latvia's investment indicators continue to lag significantly behind the EU average. Public expenditure on R&D remains notably low (at 59.0% of the EU average in 2024), impacting the entire R&I ecosystem, including human capital development and research outputs. According to the European Semester Report (2024), Latvia’s tax revenues are low, limiting the funding available for public services and directly affecting business R&D through reduced government funding and tax incentives, ranking third lowest in the EU in this regard (3.3% of EU level in 2024). There is also a marked decline in non-R&D innovation expenditure in Latvia (-26.1%-points since 2017).

Private investment is hindered by a challenging business environment (cumbersome regulations, pervasive shadow economy, and limited finance for SMEs, according to the European Semester Report 2024) and high credit costs (second highest in the euro area, according to Statista 2023), resulting in consistently low levels of net private investment compared to other EU Member States. Although Latvia's adoption of information technologies has been increasing since 2017 (+18.6%-points), there has been a decline in the percentage of enterprises providing ICT training since 2021.

**Finance and support**



**Firm investments**



**Use of information technologies**



**Innovation activities**

Latvia has the second lowest share of SMEs introducing product innovations in the EU, standing at 42.1% of the EU average in 2024. However, the country has shown steady improvement in most innovation activities since 2017, except for design applications (-13.3%-points). Notably, Latvia performs just above the EU average for public-private co-publications (105.4%), with a significant increase observed since 2017 (+66.7%-points). Despite low R&I outputs such as patents and trademarks compared to the EU, Latvia ranks moderately in trademark applications (at 106.9% of the 2024 EU average), holding the 13th position among EU Member States. This is remarkable for an Emerging Innovator, as it surpasses the EU average.

**Innovators**



**Linkages**



**Intellectual assets**



**Impacts**

Exports of medium and high technology products from Latvia have decreased from 2017 to 2023, with a notable rebound starting last year (+5.9%-points). Latvia currently ranks second last in the EU for this indicator, at 41.2% of the EU average. According to the European Semester Report (2024), the significant decline observed from 2021 to 2023 was largely driven by inflation and high energy prices, which slowed private consumption and export.

Despite these challenges, Latvia performs relatively well in knowledge-intensive services exports (66.5% of EU average in 2024), ranking above all Moderate and Emerging Innovators, except Greece. However, Latvia has the second smallest share of employment in innovative enterprises in the EU (at 36.5% of the 2024 EU level), indicating untapped innovation potential in the private sector. In terms of sustainability, Latvia ranks third last in environment-related technologies (41.5%) and air emissions by fine particulates (42.2%).

**Employment impacts**



**Sales impacts**



**Environmental sustainability**



## Structural differences

### Performance and structure of the economy

Latvia's GDP per capita is 71.3% of the EU average, the third lowest in the EU, with slower annual growth. Its income level is significantly below the level of its Baltic peers – Estonia's and Lithuania's GDP per capita were 84.0% and 88.0%, respectively. According to the European Semester Report (2024), this difference is primarily due to an ageing population, skill shortages, poor health outcomes, and regional disparities. Latvia exhibits lower employment rates in manufacturing, and significantly lower in high and medium high-tech sectors compared to the EU. While employment in service sectors aligns to the EU average, the share of knowledge-intensive services is lower. Overall, Latvia faces challenges in employment growth due to an aging population, which has tempered productivity gains (European Semester Report 2024).

Latvia has a high prevalence of SMEs, which dominate turnover compared to larger enterprises. Notably, Latvia ranks third highest in the EU for SME turnover share. SMEs contribute substantially to the Latvian economy, accounting for 70% of the total value added (European Semester Report 2024). In addition, foreign-controlled enterprises contribute nearly a fifth of the gross value added, highlighting the importance of foreign investment. However, perceived geopolitical risks have recently deterred foreign investors from further expanding their investments in Latvia.

### Business and entrepreneurship

Latvia exhibits a high enterprise birth rate, nearly double the EU average and the fifth highest within the EU. This reflects a conducive business environment and a strong entrepreneurial culture. Additionally, Latvia attracts significant FDI net inflows, surpassing the EU average, in sectors such as professional, scientific, and technical services, financial and insurance activities, real estate activities, manufacturing, and wholesale and retail trade (Bank of Latvia 2023). This can be attributed due to the significant presence of foreign enterprises and the strategic reconfiguration of global supply chains, favouring cost-competitive European locations for manufacturing and back-office operations. Despite these strengths, Latvia faces challenges such as a difficult business environment and low levels of private investment. Nevertheless, the country's dynamic entrepreneurial activity and strong international investment contribute positively to its innovation climate.

### Innovation profiles

Latvia's rate of enterprises introducing products new to the market aligns closely with the EU average, despite significantly fewer enterprises introducing innovations new to their own operations, which is five times lower than the EU average. Although Latvia's businesses are competitive in bringing new products to market, they show a bigger gap in innovation of processes compared to the EU. Despite this, Latvia's non-innovative enterprises show a greater disposition and potential for innovation than the EU average, indicating latent capabilities that could boost overall innovation performance in the future.

### Governance and policy framework

Latvia's Rule of law is closely aligned to the EU average, a notable achievement within the Emerging Innovator group. According to the European Semester Report (2024), the country's recovery and resilience plan (RRP) includes measures to address key challenges in tax compliance, law enforcement dealing with economic crime, public administration, and public procurement. Latvia excels in entrepreneurial training, surpassing the EU average and significantly outperforming other Emerging Innovators. However, government procurement in Latvia ranks among the lowest in the EU for driving research and innovation, tying with Italy as the third lowest. Additionally, innovation procurement as a percentage of total public procurement is lower than the EU average, but one of the highest in Moderate and Emerging Innovators.

### Climate change

Latvia faces challenges in meeting climate change indicators, exhibiting below-average recycling rates, comparable reductions in greenhouse gas emissions, and weaker eco-innovation scores compared to the EU. Despite having one of the highest shares of energy from renewable sources in the EU, primarily from hydroelectric plants and biomass, Latvia's greenhouse gas emissions remain above the EU average, mostly due to transport and electricity and heat production (IEA 2021, European Semester Report 2024). The country's circular material use rate stands at only 5.4%, approximately half of the EU average. Latvia's higher reliance on material imports compared to the EU average also exposes it to greater vulnerability to supply-chain disruptions (European Semester Report 2024).

## Demography

Latvia is a parliamentary republic located in the Baltic region of Northern Europe, with a population of less than 2 million inhabitants. According to the European Semester Report (2024), the country faces significant regional disparities that impact its overall competitiveness. Latvia faces a concerning demographic trend where the capital region experiences a younger and growing population, contrasting with areas outside the capital that are ageing and witnessing population decline. Rapid depopulation across Latvian regions is driven by low birth rates and emigration.

## Structural indicators

The table below presents some structural differences between Latvia and the EU.

	LV	EU
<b>Performance and structure of the economy</b>		
GDP per capita	71.3	100
Average annual GDP growth (2021-2023 average)	1.3	1.9
Employment share Manufacturing	12.7	15.8
Employment share High and Medium high-tech	15.6	37.9
Employment share Services	39.9	39.8
Employment share Knowledge-intensive services	20.2	28.6
Turnover share SMEs	19.1	12.6
Turnover share large enterprises	23.7	49.6
Foreign-controlled enterprises – share of value added	18.8	13.3
<b>Business and entrepreneurship</b>		
Enterprise births	1.5	0.8
Total Entrepreneurial Activity	14.6	6.8
FDI net inflows	5	1.9
Buyer sophistication	2.9	3.6
<b>Innovation profiles</b>		
In-house product innovators with market novelties	10.9	11.7
In-house product innovators without market novelties	2.7	13.7
In-house business process innovators	12.6	17.6
Innovators that do not develop innovations themselves	3.6	6.1
Innovation active non-innovators	2.2	4.2
Non-innovators with potential to innovate	24.7	17.8
Non-innovators without disposition to innovate	43.3	30.6
<b>Governance and policy frameworks</b>		
Corruption Perceptions Index	59.3	64
Basic-school entrepreneurial education and training	4.4	2.6
Government procurement of advanced technology products	2.9	3.4
Rule of law	0.9	1
Innovation procurement as a share of total public procurement	6	9.2



	LV	EU
<b>Climate change</b>		
Circular material use rate	5.4	11.5
Greenhouse gas emissions intensity of energy consumption	82.9	82.8
Eco-Innovation Index	105.4	121.5
<b>Demography</b>		
Population size (in millions)	1.9	447
Average annual population growth (2021-2023 average)	-0.3	0.3
Population density	30	109

## References

The country's relative strengths and weaknesses for each indicator, compared to other EU Member States and neighbouring countries, can be found in [Annex B](#).

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This report provides the Country profile from the 2024 European Innovation Scoreboard for Latvia

*Studies and reports*

