



European
Commission

European Innovation Scoreboard **2023** Country profile **Slovenia**



Innovation

European Innovation Scoreboard 2023 – Country profile Slovenia

European Commission

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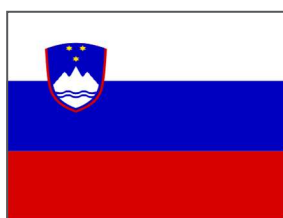
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The European Innovation Scoreboard report and annexes, and the indicators database are available at:

https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en



95.1



Change over time: 2.9

86.1 Moderate Innovators

Slovenia

	Performance relative to EU in 2023	Performance change 2016- 2023	Performance change 2022- 2023
SUMMARY INNOVATION INDEX	95.1	2.9	3.3
Human resources	139.1	-33.0	1.4
Doctorate graduates	100.0	-91.5	-11.4
Population with tertiary education	130.6	-3.6	-3.6
Lifelong learning	195.1	29.7	29.7
Attractive research systems	109.0	40.5	1.0
International scientific co-publications	155.0	67.3	-9.4
Most cited publications	78.4	10.8	2.4
Foreign doctorate students	114.1	83.9	7.6
Digitalisation	83.5	19.8	5.4
Broadband penetration	93.3	38.9	10.6
People with above basic overall digital skills	70.0	0.0	0.0
Finance and support	66.1	-14.5	4.5
R&D expenditures in the public sector	67.2	1.6	0.0
Venture capital expenditures	33.7	28.8	27.4
Government support for business R&D	107.2	-82.5	-13.4
Firm investments	60.9	-35.0	-4.1
R&D expenditure in the business sector	105.6	-20.0	0.0
Non-R&D Innovation expenditures	26.9	-75.6	-6.9
Innovation expenditures per employee	45.5	-12.9	-5.7
Use of information technologies	117.3	-3.7	4.7
Enterprises providing ICT training	137.4	3.2	20.4
Employed ICT specialists	96.7	-10.3	-10.3
Innovators	116.1	47.9	14.4
Product innovators (SMEs)	134.6	62.4	-2.6
Business process innovators (SMEs)	99.9	32.4	32.4
Linkages	140.7	48.9	3.6
Innovative SMEs collaborating with others	114.1	-0.3	-4.9
Public-private co-publications	262.7	86.1	-16.1
Job-to-job mobility of HRST	110.4	76.5	20.6
Intellectual assets	84.4	-8.6	4.7
PCT patent applications	66.4	-23.7	-1.0
Trademark applications	118.1	22.1	3.5
Design applications	74.1	-13.4	13.0
Employment impacts	106.6	-2.8	0.0
Employment in knowledge-intensive activities	132.5	0.0	0.0
Employment in innovative enterprises	85.4	-5.5	0.0
Sales impacts	87.3	10.9	3.1
Medium and high-tech goods exports	105.1	16.1	5.7
Knowledge-intensive services exports	57.6	14.3	2.6
Sales of innovative products	93.2	-1.2	-0.1
Environmental sustainability	84.6	15.3	5.1
Resource productivity	99.3	45.2	18.2
Air emissions by fine particulate matter	91.1	10.6	1.0
Environment-related technologies	60.6	0.6	1.1

The second column shows performance relative to that of the EU in 2023. Colours next to the column show matching colour codes: dark green: above 125% of the performance of the EU in 2023; light green: between 100% and 125%; light orange: between 70% and 100%; dark orange: below 70%. The next columns show performance change over time between 2016 and 2023 and between 2022 and 2023, with scores relative to those of the EU in 2016. Positive (negative) performance changes are shown in green (red).

SLOVENIA is a **Moderate Innovator** with performance at 95.1% of the EU average. Performance is above the average of the Moderate Innovators. Performance is increasing at a rate lower than that of the EU (8.5%-points). The country's performance gap to the EU is becoming larger.

Relative strengths

Public-private co-publications
Lifelong learning
International scientific co-publications
Enterprises providing ICT training
Product innovators

Relative weaknesses

Non-R&D Innovation expenditures
Venture capital expenditures
Innovation expenditures per employee
Knowledge-intensive services exports
Environment-related technologies

Strong increases since 2016

Public-private co-publications
Foreign doctorate students
Job-to-job mobility of HRST

Strong decreases since 2016

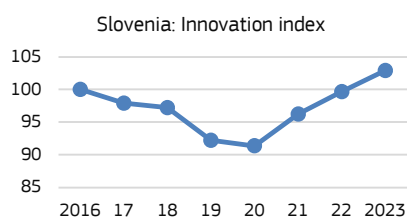
Doctorate graduates
Government support for business R&D
Non-R&D Innovation expenditures

Strong increases since 2022

Business process innovators
Lifelong learning
Venture capital expenditures

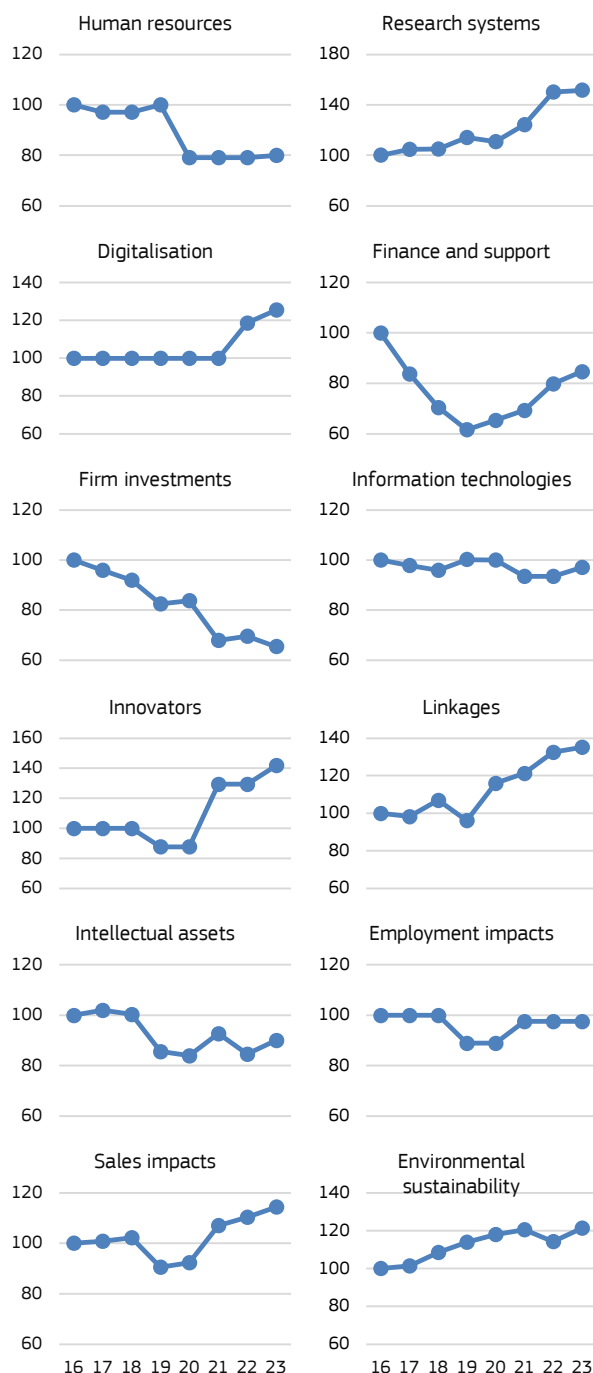
Strong decreases since 2022

Public-private co-publications
Government support for business R&D
Doctorate graduates



The graph on the left shows the evolution of **innovation performance over time** against the performance of the country in 2016. After an initial decline, innovation performance has increased consistently since 2021, leading to a 3% performance increase in 2023.

The graphs below show the evolution of innovation performance in the different **innovation dimensions** against the performance of the country in 2016. Performance increased most strongly for Research systems and Innovators. Performance declined for Human resources, Finance and support, Firm investments, Information technologies, Intellectual assets and Employment impacts.





Performance is measured relative to that of the country in 2016 (=100).

Structural differences with the EU are shown below:

- Slovenia has lower per capita income, but a faster growing economy. Manufacturing takes up a larger share of the economy, with SMEs accounting for a larger share of turnover.
- Entrepreneurial Activity, and FDI net inflows add positively to the innovation climate, Enterprise births, Top R&D spenders, and Buyer sophistication add negatively.
- Slovenia has higher shares of Innovators that do not develop innovations themselves and Non-innovators with potential to innovate.
- Entrepreneurial training and government procurement are below the EU average as drivers of research and innovation.
- Slovenia shows a weaker performance on Climate change related indicators.

	SI	EU
Performance and structure of the economy		
GDP per capita (PPS)	29,500	32,600
Average annual GDP growth (%)	6.6	4.4
Employment share Manufacturing (NACE C) (%)	24.5	16.4
of which High and Medium high-tech (%)	40.4	38.0
Employment share Services (NACE G-N) (%)	36.3	41.1
of which Knowledge-intensive services (%)	39.0	35.8
Turnover share SMEs (%)	44.2	34.1
Turnover share large enterprises (%)	34.2	49.6
Foreign-controlled enterprises – share of value added (%)	14.8	11.8
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	0.5	1.0
Total Entrepreneurial Activity (TEA) (%)	6.8	6.8
FDI net inflows (% GDP)	2.8	2.1
Top R&D spending enterprises per 10 mln. population	6.4	20.3
Buyer sophistication (1 to 7 best)	3.4	3.7
Innovation profiles (for SI CIS 2018 data)		
In-house product innovators with market novelties	14.9	12.2
In-house product innovators without market novelties	12.8	12.8
In-house business process innovators	5.5	16.5
Innovators that do not develop innovations themselves	14.0	6.5
Innovation active non-innovators	1.5	4.1
Non-innovators with potential to innovate	32.9	17.2
Non-innovators without disposition to innovate	18.4	30.7
Governance and policy framework		
Corruption Perceptions Index (0 to 100 best)	57.7	64.0
Basic school entrepreneurial education and training	3.2	3.3
Govt. procurement of advanced tech. products	2.6	3.5
Rule of law (-2.5 to 2.5 best)	1.1	1.0
Climate change indicators		
Circular material use rate	10.8	11.8
Greenhouse gas emissions intensity of energy consumption	89.8	82.8
Eco-Innovation Index	95.4	100.0
Demography		
Population size	2.1	447.1
Average annual population growth (%)	0.3	-0.1
Population density	103.1	108.8



This report provides the Country profile from the 2023 European Innovation Scoreboard for Slovenia.

Studies and reports