



European
Commission

European Innovation Scoreboard **2023** Country profile **Hungary**



Innovation

European Innovation Scoreboard 2023 – Country profile Hungary

European Commission

Directorate-General for Research and Innovation

Directorate G – Common Policy Centre

Unit G.1 – Common R&I Strategy & Foresight Service

Contact Alexandr Hobza, Chief Economist and Head of Unit G.1

Athina Karvounaraki

Alexis Stevenson

Email RTD-STATISTICS@ec.europa.eu

RTD-PUBLICATIONS@ec.europa.eu

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Directorate A – Strategy and Economic Analysis

Unit A.1 – Chief Economist

Contact Román Arjona, Chief Economist and Head of Unit A.1

Xosé-Luís Varela-Irimia

Email GROW-A1@ec.europa.eu

European Commission

B-1049 Brussels

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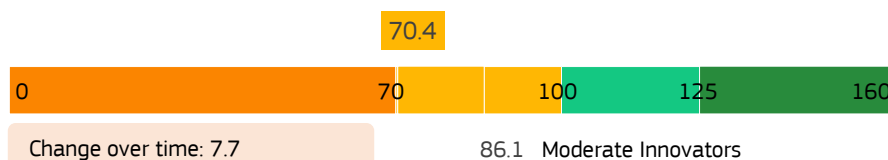
The report was prepared by

Hugo Hollanders, Nordine Es-Sadki and Aishe Khalilova
(Maastricht University / UNU-MERIT)

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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



86.1 Moderate Innovators

Hungary

	Performance relative to EU in 2023	Performance change 2016- 2023	Performance change 2022- 2023
SUMMARY INNOVATION INDEX	70.4	7.7	2.4
Human resources	47.0	3.6	3.6
Doctorate graduates	40.7	0.0	0.0
Population with tertiary education	41.6	-6.0	-6.0
Lifelong learning	60.8	22.0	22.0
Attractive research systems	77.8	42.3	-0.1
International scientific co-publications	56.7	29.5	1.7
Most cited publications	56.0	13.4	-7.5
Foreign doctorate students	146.3	120.4	15.2
Digitalisation	72.5	11.2	8.1
Broadband penetration	68.4	22.1	15.9
People with above basic overall digital skills	78.1	0.0	0.0
Finance and support	77.6	-8.7	0.5
R&D expenditures in the public sector	43.8	8.1	4.8
Venture capital expenditures	70.8	16.0	-1.8
Government support for business R&D	126.7	-58.0	-2.9
Firm investments	74.1	2.3	9.2
R&D expenditure in the business sector	82.6	7.7	1.5
Non-R&D Innovation expenditures	88.4	-8.0	14.1
Innovation expenditures per employee	54.1	6.3	12.3
Use of information technologies	79.5	11.6	10.4
Enterprises providing ICT training	75.9	16.6	14.0
Employed ICT specialists	83.3	6.9	6.9
Innovators	49.3	46.7	13.7
Product innovators (SMEs)	68.8	49.6	2.2
Business process innovators (SMEs)	32.2	43.5	25.9
Linkages	95.5	59.0	3.5
Innovative SMEs collaborating with others	82.9	46.5	-1.6
Public-private co-publications	114.1	58.8	-4.5
Job-to-job mobility of HRST	97.9	70.6	11.8
Intellectual assets	47.7	-1.0	-4.8
PCT patent applications	53.5	-7.6	-9.3
Trademark applications	66.2	12.0	-1.8
Design applications	19.1	-2.9	-1.3
Employment impacts	60.1	13.7	9.1
Employment in knowledge-intensive activities	92.8	0.0	0.0
Employment in innovative enterprises	33.3	26.8	17.8
Sales impacts	86.2	-9.8	-3.3
Medium and high-tech goods exports	109.2	-7.6	-2.3
Knowledge-intensive services exports	83.7	12.8	0.5
Sales of innovative products	56.6	-41.3	-9.5
Environmental sustainability	70.1	-13.0	-5.2
Resource productivity	57.9	11.9	2.4
Air emissions by fine particulate matter	94.6	-6.3	0.6
Environment-related technologies	46.9	-37.6	-17.2

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).

HUNGARY is a **Moderate Innovator** with performance at 70.4% of the EU average. Performance is below the average of the Moderate Innovators. Performance is increasing at a rate lower than that of the EU (856%-points). The country's performance gap to the EU is becoming larger.

Relative strengths

Foreign doctorate students
Government support for business R&D
Public-private co-publications
Medium and high-tech goods exports
Job-to-job mobility of HRST

Relative weaknesses

Design applications
Business process innovators
Employment in innovative enterprises
Doctorate graduates
Population with tertiary education

Strong increases since 2016

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

Strong decreases since 2016

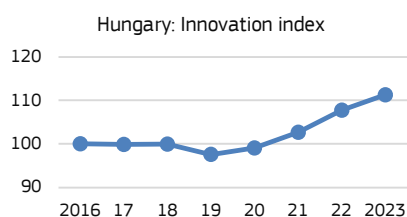
Government support for business R&D
Sales of innovative products
Environment-related technologies

Strong increases since 2022

Business process innovators
Lifelong learning
Employment in innovative enterprises

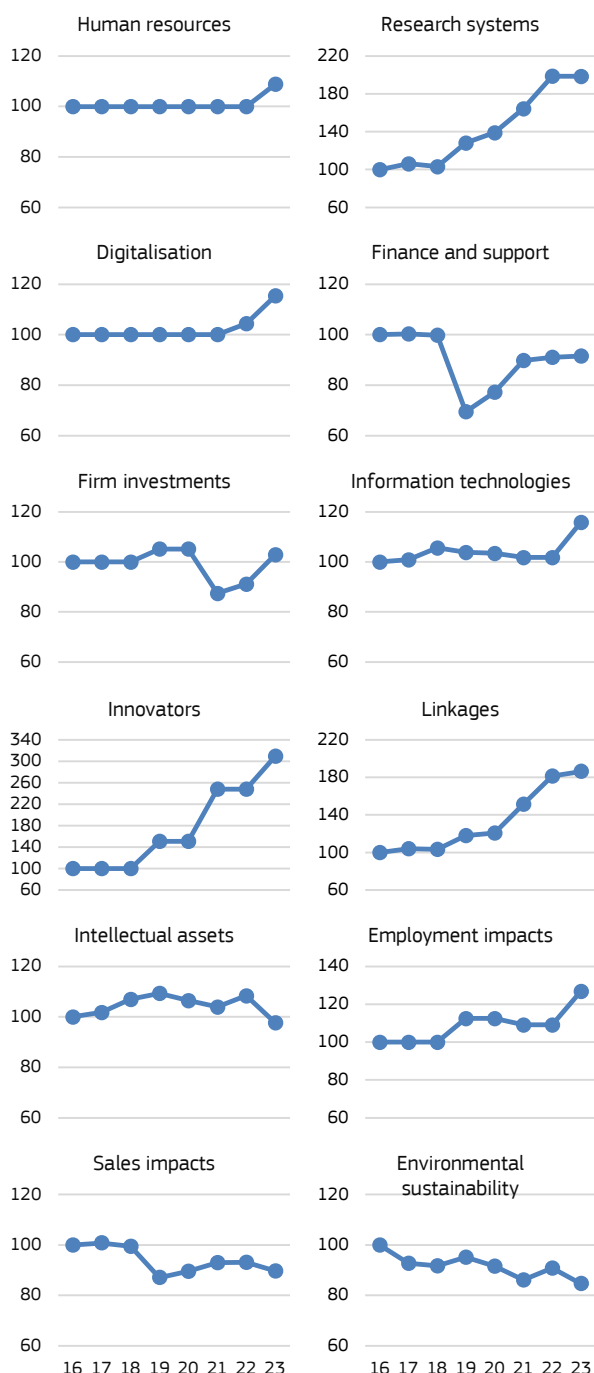
Strong decreases since 2022

Environment-related technologies
Sales of innovative products
PCT patent applications



The graph on the left shows the evolution of **innovation performance over time** against the performance of the country in 2016. Innovation performance did not change between 2016 and 2018, decreased in 2019, and then increased steadily, leading to a 11% 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, Innovators and Linkages. Performance declined for Finance and support, Intellectual assets, Sales impacts and Environmental sustainability.





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

Structural differences with the EU are shown below:

- Hungary 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.
- Enterprise births, Entrepreneurial Activity, and FDI net inflows add positively to the innovation climate, Top R&D spenders, and Buyer sophistication add negatively.
- Hungary has higher shares of Non-innovators with potential to innovate.
- Entrepreneurial training and government procurement are below the EU as drivers of research and innovation.
- Hungary's climate change indicators are mixed. While it excels in reducing greenhouse gas emissions, it lags in recycling and environmental innovation index.

	HU	EU
Performance and structure of the economy		
GDP per capita (PPS)	24,700	32,600
Average annual GDP growth (%)	6.2	4.4
Employment share Manufacturing (NACE C) (%)	21.6	16.4
of which High and Medium high-tech (%)	44.0	38.0
Employment share Services (NACE G-N) (%)	36.1	41.1
of which Knowledge-intensive services (%)	31.6	35.8
Turnover share SMEs (%)	36.8	34.1
Turnover share large enterprises (%)	44.1	49.6
Foreign-controlled enterprises – share of value added (%)	24.0	11.8
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	1.2	1.0
Total Entrepreneurial Activity (TEA) (%)	9.8	6.8
FDI net inflows (% GDP)	61.0	2.1
Top R&D spending enterprises per 10 mln. population	1.0	20.3
Buyer sophistication (1 to 7 best)	3.2	3.7
Innovation profiles		
In-house product innovators with market novelties	8.6	12.2
In-house product innovators without market novelties	8.7	12.8
In-house business process innovators	6.3	16.5
Innovators that do not develop innovations themselves	5.8	6.5
Innovation active non-innovators	3.4	4.1
Non-innovators with potential to innovate	39.6	17.2
Non-innovators without disposition to innovate	27.7	30.7
Governance and policy framework		
Corruption Perceptions Index (0 to 100 best)	43.0	64.0
Basic school entrepreneurial education and training	2.5	3.3
Govt. procurement of advanced tech. products	2.8	3.5
Rule of law (-2.5 to 2.5 best)	0.5	1.0
Climate change indicators		
Circular material use rate	6.4	11.8
Greenhouse gas emissions intensity of energy consumption	77.1	82.8
Eco-Innovation Index	66.8	100.0
Demography		
Population size	9.7	447.1
Average annual population growth (%)	-0.4	-0.1
Population density	107.2	108.8



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

Studies and reports