European Innovation Scoreboard **2023**
Country profile
Portugal

European Innovation Scoreboard 2023 – Country profile Portugal

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European Innovation Scoreboard 2023 Country profile Portugal

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as part of the European Innovation Scoreboard project

for the European Commission, Directorate-General for Research and Innovation under

Framework Contract N° 2018/RTD/A2/OP/PP-07001-2018 Lot 2 (EDAR)

85.6

0		70	100	125	160

Change over time: 7.7

86.1 Moderate Innovators

Portugal

	Performance relative to EU in 2023	Performance change 2016-2023	Performance change 2022-2023
SUMMARY INNOVATION INDEX	**85.6**	**7.7**	**3.0**
Human resources	**110.4**	**-8.3**	**-3.4**
Doctorate graduates	100.0	-11.4	0.0
Population with tertiary education	113.9	-18.6	-18.6
Lifelong learning	118.6	9.9	9.9
Attractive research systems	**127.1**	**38.5**	**0.5**
International scientific co-publications	137.4	76.8	3.3
Most cited publications	88.0	-12.6	-5.2
Foreign doctorate students	192.3	120.2	11.0
Digitalisation	**127.7**	**15.6**	**6.9**
Broadband penetration	141.1	30.7	13.6
People with above basic overall digital skills	109.3	0.0	0.0
Finance and support	**90.6**	**18.2**	**6.7**
R&D expenditures in the public sector	81.3	-4.8	-3.2
Venture capital expenditures	43.5	-27.6	-7.4
Government support for business R&D	163.1	98.3	35.2
Firm investments	**52.7**	**0.5**	**4.7**
R&D expenditure in the business sector	64.6	29.2	4.6
Non-R&D Innovation expenditures	64.3	-24.7	3.2
Innovation expenditures per employee	31.9	-5.0	6.2
Use of information technologies	**101.9**	**-0.1**	**-1.3**
Enterprises providing ICT training	106.9	7.0	4.5
Employed ICT specialists	96.7	-6.9	-6.9
Innovators	**99.3**	**-9.2**	**26.2**
Product innovators (SMEs)	90.6	-15.2	-13.0
Business process innovators (SMEs)	106.9	-2.8	67.9
Linkages	**92.9**	**39.9**	**-29.0**
Innovative SMEs collaborating with others	50.3	-14.3	-14.6
Public-private co-publications	148.3	93.1	13.1
Job-to-job mobility of HRST	104.2	64.7	-61.8
Intellectual assets	**76.8**	**-2.2**	**-0.8**
PCT patent applications	50.9	9.0	0.1
Trademark applications	107.2	19.0	-2.6
Design applications	81.5	-33.0	-0.5
Employment impacts	**95.3**	**-2.8**	**23.8**
Employment in knowledge-intensive activities	89.2	0.0	0.0
Employment in innovative enterprises	100.4	-5.5	46.4
Sales impacts	**77.1**	**26.4**	**6.7**
Medium and high-tech goods exports	59.9	11.8	3.0
Knowledge-intensive services exports	67.8	7.8	0.5
Sales of innovative products	111.0	72.2	19.9
Environmental sustainability	**27.9**	**-16.0**	**-3.6**
Resource productivity	48.7	8.4	2.6
Air emissions by fine particulate matter	0.0	0.0	0.0
Environment-related technologies	47.2	-51.2	-12.0

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).

PORTUGAL is a **Moderate Innovator** with performance at 85.6% 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 (8.5%-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
Broadband penetration
International scientific co-publications

Relative weaknesses

Air emissions by fine particulate matter
Innovation expenditures per employee
Venture capital expenditures
Environment-related technologies
Resource productivity

Strong increases since 2016

Foreign doctorate students
Government support for business R&D
Public-private co-publications
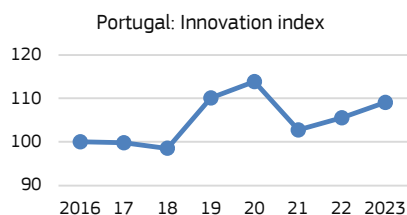
Strong decreases since 2016

Environment-related technologies
Design applications
Venture capital expenditures

Strong increases since 2022

Business process innovators
Employment in innovative enterprises
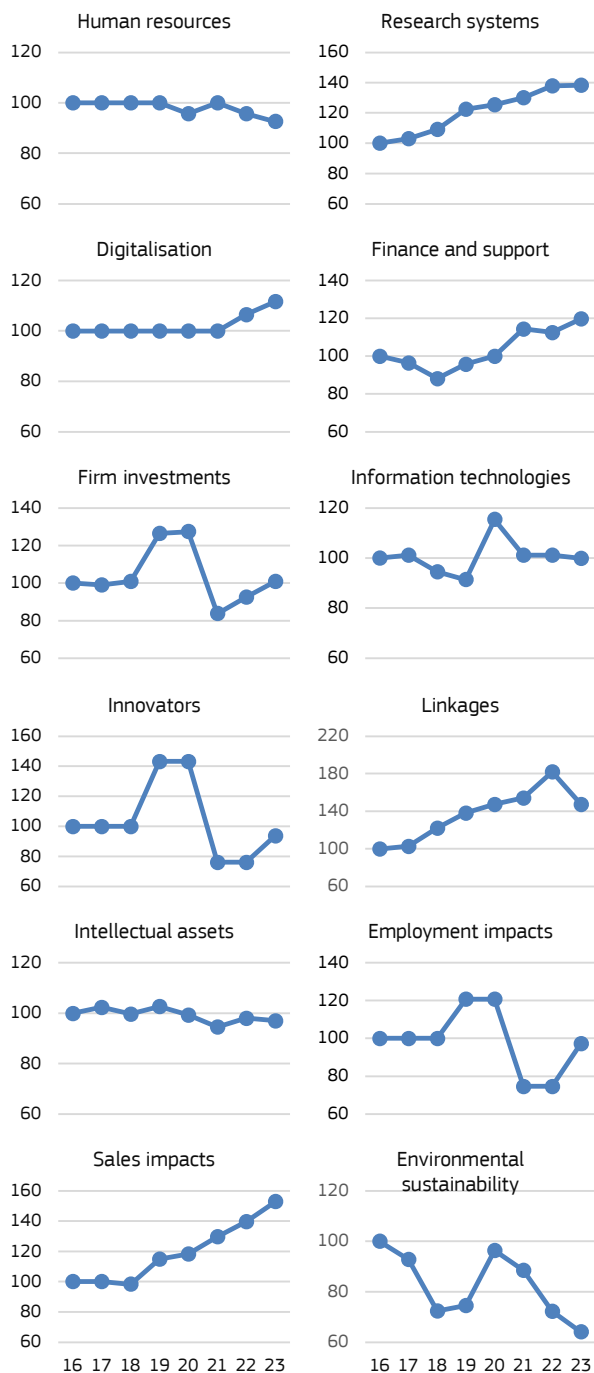Government support for business R&D

Strong decreases since 2022

Job-to-job mobility of HRST
Population with tertiary education
Innovative SMEs collaborating with others

Portugal: Innovation index

The graph on the left shows the evolution of **innovation performance over time** against the performance of the country in 2016. Innovation performance slightly declined until 2018 and then increased strongly in 2019 and 2020, followed by a strong decline in 2021 and again increased in 2022 and 2023, leading to a 9% 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 Linkages and Sales impacts. Performance declined for Human resources, Information technologies, Innovators, Intellectual assets, Employment impacts and Environmental sustainability.

Human resources
Research systems
Digitalisation
Finance and support
Firm investments
Information technologies
Innovators
Linkages
Intellectual assets
Employment impacts
Sales impacts
Environmental sustainability

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

Structural differences with the EU are shown below:

- Portugal has lower per capita income, but a faster growing economy. Manufacturing and business services take up a larger share of the economy.
- Enterprise births, Entrepreneurial Activity, and FDI net inflows add positively to the innovation climate, Top R&D spenders, and Buyer sophistication add negatively.
- Portugal has higher shares of In-house business process innovators, and Non-innovators with potential to innovate.
- Entrepreneurial training is below the EU, while government procurement is above the EU average as drivers of research and innovation.
- Portugal shows a mixed performance on Climate change related indicators with below average share of material resources coming from recycled waste materials

	PT	EU
Performance and structure of the economy		
GDP per capita (PPS)	24,800	32,600
Average annual GDP growth (%)	6.2	4.4
Employment share Manufacturing (NACE C) (%)	17.1	16.4
of which High and Medium high-tech (%)	19.7	38.0
Employment share Services (NACE G-N) (%)	41.4	41.1
of which Knowledge-intensive services (%)	33.4	35.8
Turnover share SMEs (%)	n/a	34.1
Turnover share large enterprises (%)	n/a	49.6
Foreign-controlled enterprises – share of value added (%)	11.3	11.8
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	1.4	1.0
Total Entrepreneurial Activity (TEA) (%)	12.9	6.8
FDI net inflows (% GDP)	3.0	2.1
Top R&D spending enterprises per 10 mln. population	4.9	20.3
Buyer sophistication (1 to 7 best)	3.7	3.7
Innovation profiles		
In-house product innovators with market novelties	11.6	12.2
In-house product innovators without market novelties	10.4	12.8
In-house business process innovators	20.7	16.5
Innovators that do not develop innovations themselves	5.5	6.5
Innovation active non-innovators	2.9	4.1
Non-innovators with potential to innovate	32.2	17.2
Non-innovators without disposition to innovate	16.7	30.7
Governance and policy framework		
Corruption Perceptions Index (0 to 100 best)	61.7	64.0
Basic school entrepreneurial education and training	3.2	3.3
Govt. procurement of advanced tech. products	3.5	3.5
Rule of law (-2.5 to 2.5 best)	1.1	1.0
Climate change indicators		
Circular material use rate	2.4	11.8
Greenhouse gas emissions intensity of energy consumption	80.1	82.8
Eco-Innovation Index	87.0	100.0
Demography		
Population size	10.3	447.1
Average annual population growth (%)	0.3	-0.1
Population density	113.1	108.8

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

Studies and reports