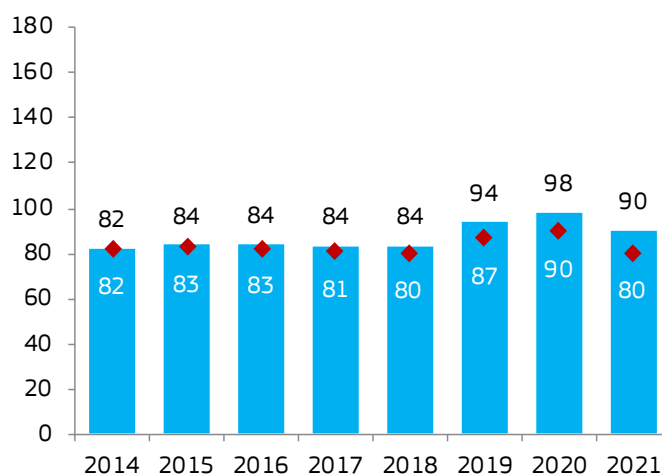




Portugal is a Moderate Innovator.

Over time, performance relative to the EU has increased up until 2020 and decreased strongly in 2021.



■ Relative to EU in base year ◆ Relative to EU in same year

Structural differences with the EU are shown in the table below including, compared to the EIS 2020, new information on different types of (innovating) enterprises (Innovation profiles) and environmental indicators.

	PT	EU
Performance and structure of the economy		
GDP per capita (PPS)	24,200	30,800
Average annual GDP growth (%)	-2.8	-2.5
Employment share Manufacturing (NACE C) (%)	17.2	16.5
of which High and Medium high-tech (%)	19.4	37.9
Employment share Services (NACE G-N) (%)	41.3	41.2
of which Knowledge-intensive services (%)	31.7	35.1
Turnover share SMEs (%)	n/a	36.5
Turnover share large enterprises (%)	n/a	45.7
Foreign-controlled enterprises – share of value added (%)	10.3	11.8
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	1.4	1.0
Total Entrepreneurial Activity (TEA) (%)	12.9	6.7
FDI net inflows (% GDP)	4.2	2.0
Top R&D spending enterprises per 10 million population	4.5	16.2
Buyer sophistication (1 to 7 best)	3.7	3.7
Innovation profiles		
In-house product innovators with market novelties	12.1	10.7
In-house product innovators without market novelties	10.4	12.3
In-house business process innovators	6.3	11.0
Innovators that do not develop innovations themselves	7.5	11.6
Innovation active non-innovators	1.5	3.3
Non-innovators with potential to innovate	46.2	19.9
Non-innovators without disposition to innovate	15.9	31.3
Governance and policy framework		
Ease of starting a business (0 to 100 best)	76.5	76.5
Basic school entrepreneurial education and training	1.9	2.0
Govt. procurement of advanced tech. products	3.5	3.5
Rule of law (-2.5 to 2.5 best)	1.1	1.1
Climate change indicators		
Circular material use rate	2.1	11.7
Greenhouse gas emissions intensity of energy consumption	86.2	86.6
Eco-Innovation Index	100.0	100.0
Demography		
Population size	10.3	446.7
Average annual population growth (%)	0.0	0.1
Population density	113.1	108.8

Portugal's strengths are in *Attractive research systems*, *Digitalisation* and *Use of information technologies*. The top-3 indicators include Foreign doctorate students, International scientific co-publications, and Job-to-job mobility of HRST.

The recent decline in innovation performance is due to reduced performance on the indicators using innovation survey data, hiding strong performance increases on Tertiary education, Government support for business R&D, ICT specialists, Job-to-job mobility of HRST, and Environment-related technologies.

Portugal has below average shares of In-house business process innovators and Innovators that do not develop innovations themselves and is showing below average scores on the Climate change related indicators.

Portugal	Relative to EU 2021 in	Relative to EU 2014 in	
	2021	2014	2021
SUMMARY INNOVATION INDEX	80.2	82.3	90.3
Human resources	94.6	85.7	100.3
Doctorate graduates	100.0	88.5	88.5
Population with tertiary education	87.2	62.8	112.4
Lifelong learning	97.0	106.7	106.7
Attractive research systems	115.6	101.6	130.1
International scientific co-publications	119.6	110.1	156.8
Most cited publications	89.3	100.3	87.8
Foreign doctorate students	155.7	93.6	184.9
Digitalisation	121.9	110.2	168.6
Broadband penetration	133.5	114.0	202.5
People with above basic overall digital skills	104.5	105.6	127.8
Finance and support	94.1	91.6	112.1
R&D expenditures in the public sector	83.6	87.7	80.7
Venture capital expenditures	73.8	98.7	124.1
Government support for business R&D	126.6	91.8	146.5
Firm investments	50.1	56.5	60.6
R&D expenditure in the business sector	48.9	50.4	54.3
Non-R&D Innovation expenditures	42.2	82.2	48.0
Innovation expenditures per employee	25.0	42.1	33.0
Use of information technologies	103.5	99.2	119.6
Enterprises providing ICT training	120.0	140.0	120.0
Employed ICT specialists	89.3	52.4	119.0
Innovators	79.2	141.8	108.4
Product innovators (SMEs)	92.5	115.5	130.6
Business process innovators (SMEs)	66.7	165.0	88.8
Linkages	102.4	91.3	138.1
Innovative SMEs collaborating with others	59.2	73.7	86.8
Public-private co-publications	114.5	89.6	128.4
Job-to-job mobility of HRST	126.8	105.1	182.1
Intellectual assets	76.7	72.5	66.5
PCT patent applications	28.7	17.9	24.9
Trademark applications	107.7	90.3	113.0
Design applications	83.8	103.3	57.4
Employment impacts	65.2	81.7	66.4
Employment in knowledge-intensive activities	65.9	44.0	72.0
Employment in innovative enterprises	64.7	108.4	62.4
Sales impacts	64.8	63.3	66.0
Medium and high tech goods exports	63.7	49.6	69.9
Knowledge-intensive services exports	37.4	52.5	39.6
Sales of innovative products	106.2	94.0	92.3
Environmental sustainability	38.9	48.9	40.5
Resource productivity	54.7	47.7	81.1
Air emissions by fine particulate matter	0.0	0.0	0.0
Environment-related technologies	90.7	112.1	68.1

The colours show normalised performance in 2021 relative to that of the EU in 2021: dark green: above 125%; light green: between 100% and 125%; yellow: between 70% and 100%; orange: below 70%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.