



Portugal is a **Moderate Innovator**. Over time, performance has declined by 2.4% relative to that of the EU in 2010.

Innovation system

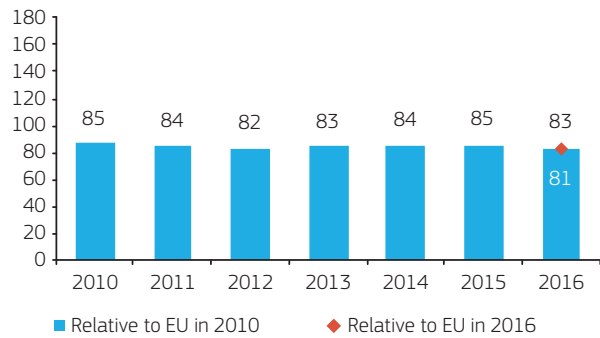
Relative strengths of the innovation system are in Innovation-friendly environment, Attractive research systems, and Human resources. Relative weaknesses are in Linkages, Sales impacts, and Employment impacts.

Structural differences

Notable differences are a larger share of employment in Agriculture & Mining, a lower share of employment in High and Medium high-tech manufacturing, a larger share of micro enterprises and SMEs in turnover, a smaller share of large enterprises in turnover, a smaller share of foreign controlled enterprises, a lower number of Top R&D spending enterprises and a lower average R&D spending of these enterprises, lower GDP per capita, a lower and negative growth rate of GDP, and a lower and negative growth rate of population.

	PT	EU
Structure of the economy		
Composition of employment, average 2011-15		
- Agriculture & Mining (NACE A-B) (%)	8.6	5.1
- Manufacturing (NACE C) (%)	16.7	15.6
of which High and Medium high-tech (%)	17.3	36.4
- Utilities and Construction (NACE D-F) (%)	8.2	8.6
- Services (NACE G-N) (%)	59.8	63.6
of which Knowledge-intensive services (%)	53.7	58.0
- Public administration, etc. (NACE O-U) (%)	6.8	7.1
Business indicators		
Composition of turnover, average 2011-2014		
- Micro enterprises (0-9 employees) (%)	24.1	17.3
- SMEs (10-249 employees) (%)	48.1	38.0
- Large enterprises (250+ employees) (%)	30.7	44.1
Share of foreign controlled enterprises, 2014 (%)	0.65	1.18
Top R&D spending enterprises		
- average number per 10 mln population, 2011-15	8.7	29.9
- average R&D spending, mln Euros, 2011-15	47.1	165.8
Enterprise births (10+ empl.) (%), avg 2012-14	1.7	1.5
Buyer sophistication 1-7 (best), 2013-14	3.5	3.6
Ease of starting a business, Doing Business 2017	77.4	76.5
Socio-demographic indicators		
GDP per capita, PPS, avg 2011-13	19,400	25,400
Change in GDP between 2010 and 2015, (%)	-4.5	5.4
Population size, avg 2011-15 (millions)	10.5	505.5
Change in population between 2010 and 2015 (%)	-1.9	1.1
Population aged 15-64, avg 2011-2015 (%)	65.8	66.1
Population density, average 2011-15	113.3	116.4
Degree of urbanisation, average 2011-15 (%)	74.3	74.4

Values in green show performance above 120% of EU, values in red show performance below 80% of EU.



Portugal	Performance relative to EU 2010 in		Change 2010-2016
	2010	2016	
SUMMARY INNOVATION INDEX	85.4	83.0	-2.4
Human resources	120.5	111.6	-9.0
New doctorate graduates	200.0	131.0	-69.0
Population with tertiary education	48.7	111.2	62.5
Lifelong learning	108.4	88.4	-20.0
Attractive research systems	80.7	112.4	31.7
International scientific co-publications	145.7	284.5	138.6
Most cited publications	84.8	85.5	0.8
Foreign doctorate students	51.6	90.0	38.4
Innovation-friendly environment	103.3	153.6	50.3
Broadband penetration	144.4	277.8	133.3
Opportunity-driven entrepreneurship	74.2	66.0	-8.2
Finance and support	84.1	81.7	-2.4
R&D expenditure in the public sector	92.9	89.3	-3.6
Venture capital expenditures	73.1	72.0	-1.0
Firm investments	94.9	88.6	-6.3
R&D expenditure in the business sector	62.2	49.3	-12.9
Non-R&D innovation expenditures	95.6	90.0	-5.6
Enterprises providing ICT training	128.5	128.5	0.0
Innovators	127.2	100.2	-26.9
SMEs product/process innovations	134.2	129.5	-24.3
SMEs marketing/organizational innovations	113.5	92.6	-21.0
SMEs innovating in-house	114.4	78.8	-35.6
Linkages	55.8	38.0	-17.8
Innovative SMEs collaborating with others	121.4	65.7	-55.7
Public-private co-publications	45.0	34.9	-10.1
Private co-funding of public R&D exp.	11.4	18.1	6.7
Intellectual assets	69.0	75.9	6.9
PCT patent applications	41.2	43.4	2.3
Trademark applications	76.2	105.1	28.8
Design applications	100.9	97.2	-3.7
Employment impacts	50.7	69.4	18.7
Employment in knowledge-intensive activities	43.6	66.7	23.1
Employment fast-growing enterprises	55.9	71.4	15.5
Sales impacts	72.1	45.5	-26.6
Medium and high tech product exports	49.7	49.2	-0.5
Knowledge-intensive services exports	51.9	54.1	2.2
Sales of new-to-market/firm innovations	123.6	30.9	-91.9

Dark green: normalised performance above 120% of EU; light green: normalised performance between 90% and 120% of EU; yellow: normalised performance between 50% and 90% of EU; orange: normalised performance below 50% of EU. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.

Change highlighted in green is positive; change highlighted in light red is negative.