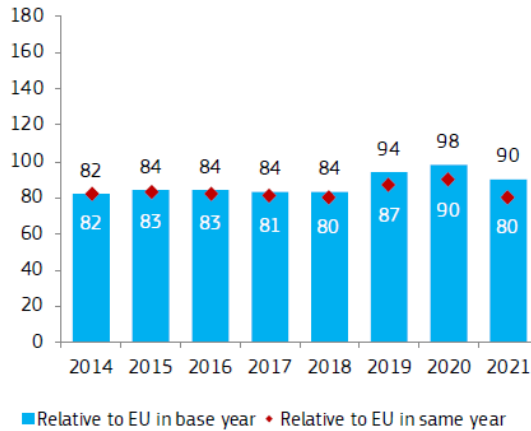


EIS 2021 - Portugal



Portugal is a **Moderate Innovator**.

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

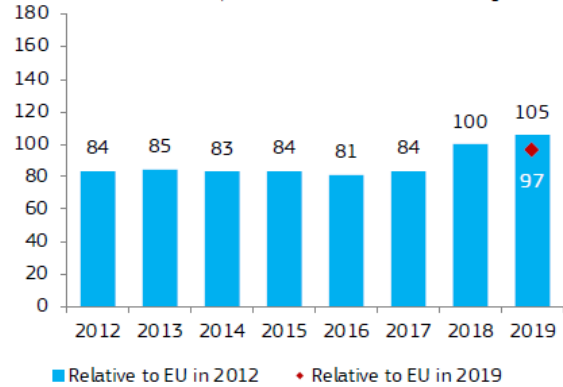


EIS 2020 - Portugal



Portugal is a **Strong Innovator**.

Over time, performance has increased relative to that of the EU in 2012. The strong increase in 2018 is almost entirely explained by improved performance on the indicators using CIS data.



Portugal	Relative to EU 2021 in		Relative to EU 2014 in	
	2021	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	89.5		100.3	87.8
Foreign doctorate students	155.7		93.6	104.9
Digitalisation	121.9		110.2	166.6
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	130.1
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	102.1
Intellectual assets	76.7		72.5	66.5
PCT patent applications	26.7		17.9	24.9
Trademark applications	107.7		90.3	113.0
Design applications	83.8		103.3	57.4
Employment impacts	65.2		61.7	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	30.9		40.9	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

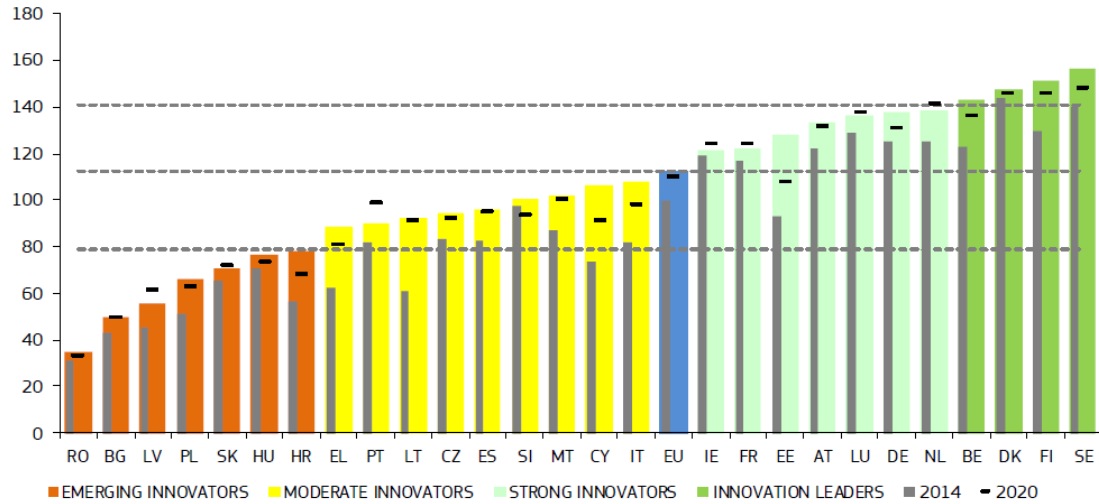
The colours show normalised performance in 2021 relative to that of the EU in 2021: dark green: above 125%; light green: between 100% and 125%; yellow: between 70% and 100%; orange: below 70%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.

Portugal	Relative to EU 2019 in		Performance relative to EU 2012 in	
	2019	2019	2012	2019
SUMMARY INNOVATION INDEX	96.7		83.8	105.3
Human resources	91.2		94.7	105.1
New doctorate graduates	93.2		104.9	102.7
Population with tertiary education	85.1		62.8	108.3
Lifelong learning	96.9		117.8	104.4
Attractive research systems	118.4		95.6	135.2
International scientific co-publications	130.9		110.8	192.2
Most cited publications	91.4		94.4	91.5
Foreign doctorate students	153.6		84.7	177.1
Innovation-friendly environment	130.7		118.1	227.2
Broadband penetration	178.3		130.0	41.0
Opportunity-driven entrepreneurship	76.6		110.1	104.4
Finance and support	83.3		84.2	83.3
R&D expenditure in the public sector	86.9		90.8	86.9
Venture capital expenditures	79.2		73.0	79.2
Firm investments	95.8		91.5	124.5
R&D expenditure in the business sector	46.3		53.0	53.0
Non-R&D innovation expenditures	114.5		92.6	160.5
Enterprises providing ICT training	127.8		138.5	176.9
Innovators	174.9		124.1	156.3
SMEs product/process innovations	177.0		138.8	176.4
SMEs marketing/organizational innovations	151.8		124.6	124.6
SMEs innovating in-house	195.2		109.3	170.0
Linkages	63.0		53.2	64.9
Innovative SMEs collaborating with others	105.0		84.3	104.3
Public-private co-publications	47.4		41.3	53.6
Private co-funding of public R&D exp.	46.4		40.2	46.9
Intellectual assets	75.8		69.1	70.8
PCT patent applications	49.7		39.4	46.1
Trademark applications	102.9		76.9	109.5
Design applications	88.2		104.0	74.0
Employment impacts	89.1		48.1	96.1
Employment in knowledge-intensive activities	65.0		45.9	70.3
Employment fast-growing enterprises	108.6		49.8	117.0
Sales impacts	55.7		67.1	55.4
Medium and high-tech product exports	60.7		50.3	67.3
Knowledge-intensive services exports	38.5		52.1	39.8
Sales of new-to-market/firm innovations	70.7		100.2	59.1

The colours show normalised performance in 2019 relative to that of the EU in 2019: dark green: above 125%; light green: between 95% and 125%; yellow: between 50% and 95%; orange: below 50%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.

EIS 2021 – Grupos de Inovação

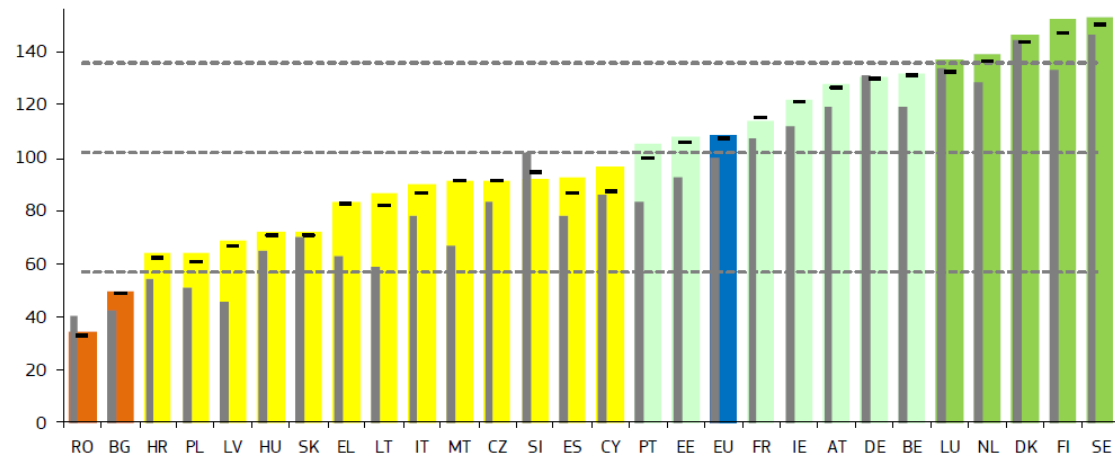
Figure 1: Global performance



Coloured columns show countries' performance in 2021, using the most recent data for 32 indicators, relative to that of the EU in 2014. The horizontal hyphens show performance in 2020, using the next most recent data, relative to that of the EU in 2014. Grey columns show countries' performance in 2014 relative to that of the EU in 2014. For all years, the same measurement methodology has been used. The dashed lines show the threshold values between the performance groups, where the threshold values of 70%, 100%, and 125% have been adjusted upward to reflect the performance increase of the EU between 2014 and 2021.

EIS 2020 – Grupos de Inovação

Figure 2: Performance of EU Member States' innovation systems



Coloured columns show countries' performance in 2019, using the most recent data for 27 indicators, relative to that of the EU in 2012. The horizontal hyphens show performance in 2018, using the next most recent data, relative to that of the EU in 2012. Grey columns show countries' performance in 2012 relative to that of the EU in 2012. For all years, the same measurement methodology has been used. The dashed lines show the threshold values between the performance groups.