

DMi article

“The increase in performance has surpassed the United States for the first time”



Results of European Innovation 2019

The European Innovation Scoreboard (EIS) is a well-established tool for measuring results in innovation, developed by the European Commission and with the aim of providing a comparative analysis of the performance of innovation in EU countries, neighbouring and other countries.

The first test of the EIS was conducted in the year 2000 and officially published the following year. Since then it has been published annually.

During these 19 years, it has gone through numerous reviews, qualitative analyses and methodological changes to adapt precisely to the challenges of measuring a constantly changing phenomenon, such as innovation.

The last update on the approach, methodology and indicators of the EIS took place in 2017.



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This website has referred to these reports, with some summaries, since 2014.

We have tried to draw conclusions from the successive tables of indicators and identify the barriers to innovation that affect us and draw some conclusions from the necessary actions in different areas to eliminate and improve them. We have also presented some recommendations for companies and entrepreneurs in this country, on how to overcome these barriers in our environment. See:

Barriers to innovation. Nov. 2014:

<https://www.fguell.com/en/barreres-la-innovacio-3/>

Spain increased barriers to innovation. Jan. 2016:

<https://www.fguell.com/en/spain-increased-barriers-to-innovation/>

Innovation in Spain continues to decline. Sept. 2016:

<https://www.fguell.com/en/innovation-in-spain-continues-to-decline-2/>

Results of the European Innovation Scoreboard (EIS) 2017. March 2018:

<https://www.fguell.com/en/results-of-the-european-innovation-scoreboard-eis-2017/>

The European Commission published in June the 2019 edition of the EIS.

Stresses that the performance of innovation in the EU as a whole continues to improve. Compared to last year, it improved in 24 EU countries and the growth rate of the lowest performing countries compared to the highest performing countries has accelerated. Since 2011, the average performance of innovation in the EU has increased by 8.8 percentage points.

The increase in performance has surpassed the United States for the first time, maintaining a broad advantage over Brazil, India, Russia and South Africa. However, China is reaching 3 times the growth rate of the EU as well as Canada, Australia and Japan, maintain the advantage over the EU.

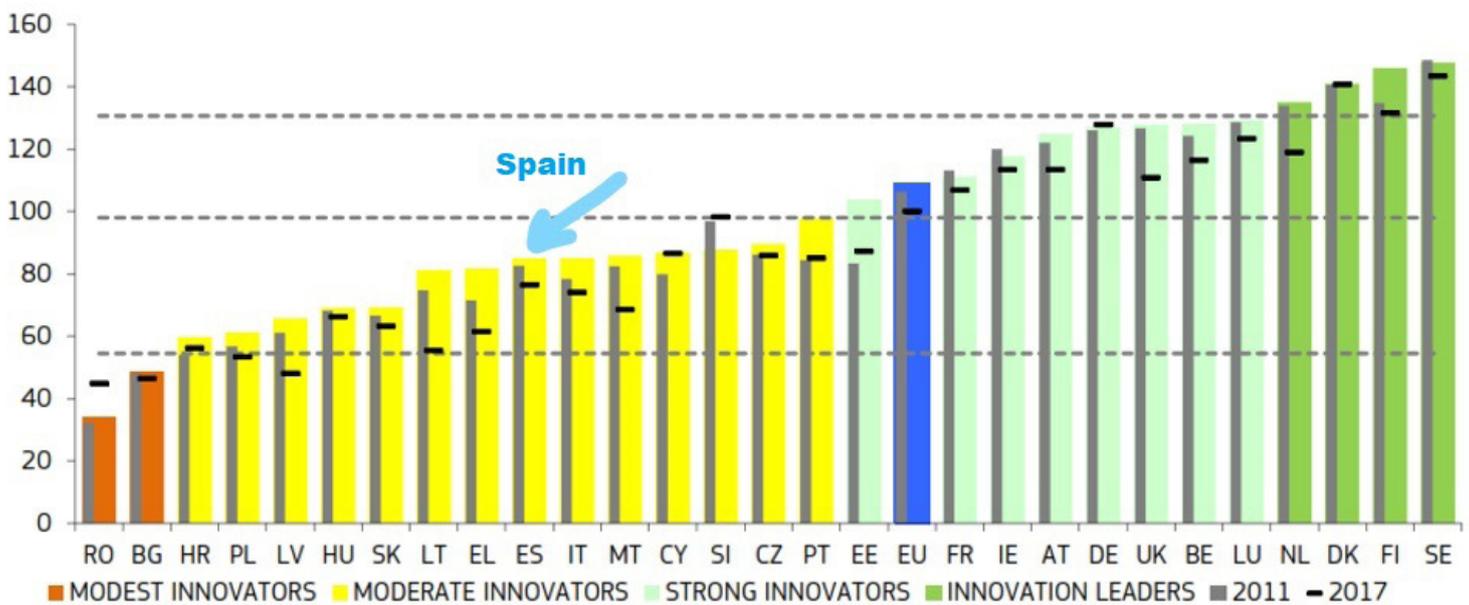
Within the EU, Sweden is the innovation leader, followed by Finland, Denmark and the Netherlands. Lithuania, Greece, Latvia, Malta, the United Kingdom, Estonia and the Netherlands are the fastest growing innovators.

The 2019 edition follows the methodology of the 2018 edition. However, the results should not be compared between editions due to data revisions. Time series that use the most recent data allow you to track performance over time.



Figure 3. European table of innovation indicators 2019

Figure 3: Performance of EU Member States' innovation systems



Coloured columns show Member States' performance in 2018, using the most recent data for 27 indicators, relative to that of the EU in 2011. The horizontal hyphens show performance in 2017, using the next most recent data for 27 indicators, relative to that of the EU in 2011. Grey columns show Member States' performance in 2011 relative to that of the EU in 2011. For all years, the same measurement methodology has been used. The dashed lines show the threshold values between the performance groups in 2018, comparing Member States'

The colour columns show the results of the Member States in 2018, using the most recent data for twenty-seven indicators, compared to those of the EU in 2011. The grey columns indicate the results obtained by each Member State in 2011, in comparison with those of the EU in that same year. The same measurement method has been used for all years. The dashed lines indicate the threshold values between the different groups of results in 2018, comparing the results obtained by the Member

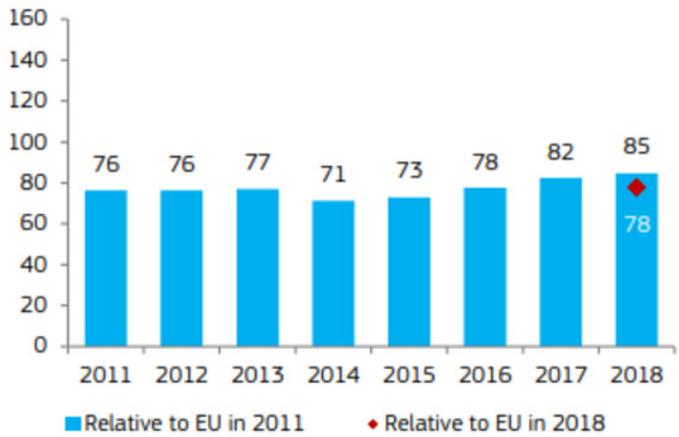
States in 2018 and those of the EU in that same year.



The case of Spain

Spain is classified as “moderate innovator”. Since 2011 it has slightly improved its relative result with the EU, with a temporary worsening until 2014.

The barriers and imbalances already mentioned in previous years continue. Despite the relative improvement in its position in 19th place of the 28 states, it is a setback compared to 17 of 2013.



The structural differences with the EU can be seen in the following table as published in the report. Many indicators are below or slightly above the EU average. There are some notable exceptions in the areas of investments, both investment in R&D of private companies, as in innovative non-R&D activities, innovation in SMEs, public-private collaboration and patents, among others, which are much lower.

Spain	Relative to EU in 2018	Performance relative to EU in 2011	2018
SUMMARY INNOVATION INDEX	77.9	76.3	84.8
Human resources	115.9	101.8	141.7
New doctorate graduates	126.8	76.9	184.2
Population with tertiary education	123.8	132.1	147.8
Lifelong learning	89.8	93.8	91.7
Attractive research systems	76.8	93.8	86.5
International scientific co-publications	84.4	82.4	122.7
Most cited publications	82.5	90.4	90.3
Foreign doctorate students	58.9	106.8	56.3
Innovation-friendly environment	107.1	74.9	169.3
Broadband penetration	155.6	100.0	311.1
Opportunity-driven entrepreneurship	56.2	57.8	72.8
Finance and support	75.2	80.7	82.3
R&D expenditure in the public sector	71.7	86.9	66.4
Venture capital expenditures	78.2	73.3	101.1
Firm investments	64.0	66.3	76.3
R&D expenditure in the business sector	47.6	57.1	54.5
Non-R&D innovation expenditures	54.0	68.4	63.0
Enterprises providing ICT training	89.5	73.3	113.3
Innovators	45.1	67.4	40.9
SMEs product/process innovations	39.0	72.1	37.9
SMEs marketing/organizational innovations	66.3	67.4	56.6
SMEs innovating in-house	31.3	62.6	28.2
Linkages	58.2	67.9	60.5
Innovative SMEs collaborating with others	49.1	41.5	52.4
Public-private co-publications	45.4	45.5	53.3
Private co-funding of public R&D exp.	72.4	96.8	69.4
Intellectual assets	71.2	72.7	69.3
PCT patent applications	39.8	40.1	36.2
Trademark applications	110.2	110.8	122.8
Design applications	64.8	75.3	59.7
Employment impacts	93.3	65.5	97.5
Employment in knowledge-intensive activities	80.0	78.2	87.2
Employment fast-growing enterprises	103.7	56.3	104.9
Sales impacts	85.0	77.6	87.5
Medium and high-tech product exports	73.7	82.0	79.6
Knowledge-intensive services exports	31.8	30.8	32.8
Sales of new-to-market/firm innovations	164.8	126.2	159.9

The colours show normalised performance in 2018 relative to that of the EU in 2018: dark green: above 120%; light green: between 90% and 120%; yellow: between 50% and 90%; orange: below 50%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.

The report is also giving some recommendations by country.



These correspond to Spain:

The performance of innovation in Spain and the growth of productivity are hampered by low levels of investment, both investment in R&D of private companies, as in innovative non-R&D activities, innovation in SMEs, public collaboration- Private and patents.

Research and development spending in the business sector in Spain is only half of the EU average, especially in large companies, with significant regional disparities.

This divergence is reinforced by the low and decreasing rate of execution of the public budget for research and development.

Limitations in skills and continuing education are another important barrier to the development and use of advanced technologies, in particular by small and medium enterprises.

Employment in the high-tech and knowledge-intensive services sectors is well below the EU average in many Spanish regions.

Improving the performance of innovation in Spain requires significant investments to promote entrepreneurship and business creation, help them grow and promote competitiveness and their adaptation, including

through digitalization and higher value-added activities with the aim of expanding its presence in international markets.

It also requires a greater focus on public-private partnerships, cooperation between the academic sector and the transfer of technology and business, particularly in favour of small and medium-sized enterprises, a reinforced governance of research and innovation policy at all levels. government and closer alignment of R&D and regional and national innovation projects.

Although it is improving, the rate of early school leaving is still very high in Spain, with significant regional disparities. There is scope to improve educational outcomes that vary widely in different regions.

Both factors negatively affect the long-term potential for productivity growth. Efforts to reform the education system have stalled. Companies report difficulties in finding the necessary skills to adopt innovation, especially with regard to specialists in information and communication technologies.

Spain approved measures to improve the dual vocational education and training system, which could play a key role in providing the skills and qualifications necessary to absorb innovation, but enrolment in these systems



remains moderate.

The rate of tertiary education in Spain is above the EU average, but tertiary graduates face difficulties in finding suitable jobs. The development of human capital at all levels of education and training, including higher education and vocational training, and greater cooperation between education and business with a view to mitigating existing mismatches in capacities, could boost access to the labour market of young graduates.

It could also provide companies with the skills and qualifications necessary to improve their capacity for innovation and maximize the potential for growth offered by digitalization. The recycling of workers in digital skills would also allow Spanish companies to remain competitive in an increasingly digital economy. All these actions would contribute to the reduction of regional disparities.

CSR investment

Focus economic policy related to investment in promoting innovation, resource efficiency and energy, improving rail transport infrastructure and extending energy interconnections with the rest of the EU, considering regional disparities.

Barriers to innovation in Spain

See: Results of the European Innovation Scoreboard (EIS) 2017:

<https://www.fguell.com/en/results-of-the-european-innovation-scoreboard-eis-2017/>

These recommendations have many points of coincidence with the detailed analysis of the indicators and the establishment of root causes, which we already published in previous years and qualify as barriers to innovation in Spain.

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Agile Innovation

Published in his website: <<www.fguell.com>>



More about the author

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