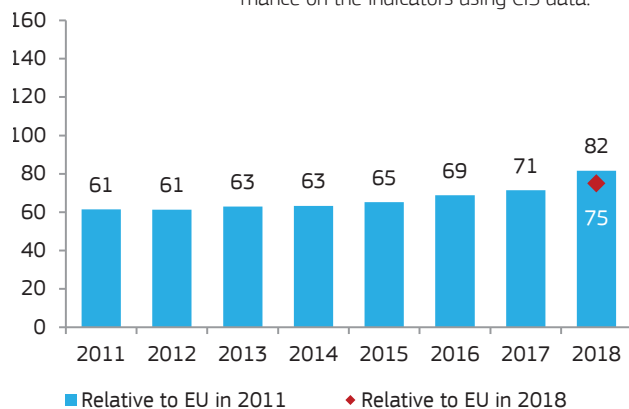




**Greece is a Moderate Innovator.** Over time, performance has increased relative to that of the EU in 2011. The strong increase in 2018 is largely explained by improved performance on the indicators using CIS data.



Greece	Relative to EU 2018 in 2018	Performance relative to EU 2011 in 2011	Performance relative to EU 2011 in 2018
<b>SUMMARY INNOVATION INDEX</b>			
<b>Human resources</b>	<b>78.2</b>	<b>69.3</b>	<b>95.6</b>
New doctorate graduates	70.9	69.2	103.0
Population with tertiary education	120.0	111.2	143.3
Lifelong learning	34.7	22.9	35.4
<b>Attractive research systems</b>	<b>59.2</b>	<b>55.5</b>	<b>66.6</b>
International scientific co-publications	77.6	78.0	112.8
Most cited publications	78.4	76.4	85.9
Foreign doctorate students	5.9	7.7	5.7
<b>Innovation-friendly environment</b>	<b>40.9</b>	<b>38.7</b>	<b>64.6</b>
Broadband penetration	22.2	22.2	44.4
Opportunity-driven entrepreneurship	60.5	49.9	78.4
<b>Finance and support</b>	<b>44.4</b>	<b>20.7</b>	<b>48.5</b>
R&D expenditure in the public sector	77.8	30.9	72.0
Venture capital expenditures	16.0	8.5	20.7
<b>Firm investments</b>	<b>66.0</b>	<b>69.1</b>	<b>78.7</b>
R&D expenditure in the business sector	59.3	18.5	45.1
Non-R&D innovation expenditures	103.6	118.5	121.0
Enterprises providing ICT training	52.6	66.7	66.7
<b>Innovators</b>	<b>145.7</b>	<b>93.6</b>	<b>132.4</b>
SMEs product/process innovations	137.8	79.9	133.8
SMEs marketing/organizational innovations	142.5	117.2	121.6
SMEs innovating in-house	157.5	83.5	141.8
<b>Linkages</b>	<b>111.5</b>	<b>80.2</b>	<b>115.9</b>
Innovative SMEs collaborating with others	201.6	112.6	215.3
Public-private co-publications	41.1	31.3	48.2
Private co-funding of public R&D exp.	75.3	77.5	72.2
<b>Intellectual assets</b>	<b>36.0</b>	<b>14.6</b>	<b>35.0</b>
PCT patent applications	16.1	11.0	14.6
Trademark applications	67.6	24.8	75.3
Design applications	25.0	10.1	23.0
<b>Employment impacts</b>	<b>84.2</b>	<b>92.0</b>	<b>87.9</b>
Employment in knowledge-intensive activities	75.3	67.9	82.1
Employment fast-growing enterprises	91.0	109.4	92.1
<b>Sales impacts</b>	<b>66.3</b>	<b>59.4</b>	<b>68.2</b>
Medium and high-tech product exports	8.3	9.4	9.0
Knowledge-intensive services exports	69.4	88.5	71.6
Sales of new-to-market/firm innovations	138.8	85.1	134.6

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.

*Innovators, Linkages, and Employment impacts* are the strongest innovation dimensions. Greece performs particularly well on Innovative SMEs collaborating with others, SMEs innovating in-house, and SMEs with marketing or organizational innovations. *Intellectual assets, Innovation-friendly environment* and *Finance and support* are the weakest innovation dimensions. Greece's lowest indicator scores are for Foreign doctorate students, Medium and high-tech product exports, and Venture capital expenditures.

**Structural differences** with the EU are shown in the table below. Many economic indicators are well below the EU average, including GDP per capita, the employment share in high and medium high-tech manufacturing, the turnover share of large enterprises, the value-added share of foreign-controlled enterprises, FDI net inflows, and top R&D spending enterprises per 10 million population. The employment share of services and enterprise births are above the EU average.

	EL	EU
<b>Performance and structure of the economy</b>		
GDP per capita (PPS)	20,100	29,500
Average annual GDP growth (%)	1.7	2.2
Employment share manufacturing (NACE C) (%)	9.4	15.5
of which High and medium high-tech (%)	14.3	37.5
Employment share services (NACE G-N) (%)	46.1	41.8
of which Knowledge-intensive services (%)	28.7	35.0
Turnover share SMEs (%)	39.8	37.9
Turnover share large enterprises (%)	28.3	44.4
Foreign-controlled enterprises – share of value added (%)	3.7	12.6
<b>Business and entrepreneurship</b>		
Enterprise births (10+ employees) (%)	2.3	1.5
Total Entrepreneurial Activity (TEA) (%)	5.6	6.7
FDI net inflows (% GDP)	1.3	4.3
Top R&D spending enterprises per 10 million population	4.0	19.6
Buyer sophistication (1 to 7 best)	3.3	3.7
<b>Governance and policy framework</b>		
Ease of starting a business (0 to 100 best)	68.1	76.8
Basic-school enterpren. education and training (1 to 5 best)	1.8	1.9
Govt. procurement of advanced tech products (1 to 7 best)	2.6	3.5
Rule of law (-2.5 to 2.5 best)	0.2	1.2
<b>Demography</b>		
Population size (millions)	10.8	511.3
Average annual population growth (%)	-0.2	0.2
Population density (inhabitants/km <sup>2</sup> )	82.4	117.5

#### EU targets for 2020

Indicator	2014	Latest	Target <sup>1</sup>
Gross domestic expenditure on R&D (% of GDP)	0.83	1.13	1.20
Tertiary educational attainment (% of population aged 30-34)	37.2	44.3	32.0

<sup>1</sup> Sources are provided in the introduction to the country profiles.

#### European Semester country report and country specific recommendations:

<https://rio.jrc.ec.europa.eu/en/library/research-and-innovation-analysis-european-semester-2019-country-reports>  
<https://rio.jrc.ec.europa.eu/en/library/country-specific-recommendations-2019-research-and-innovation-analysis>