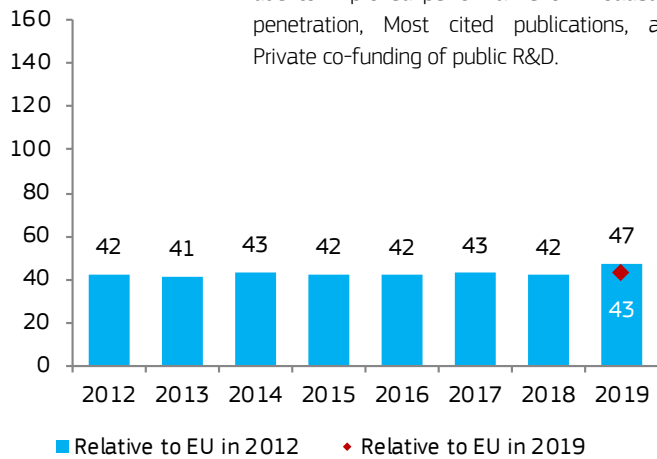




### Montenegro is a Modest Innovator.

Over time, performance has increased relative to that of the EU in 2012. The strong increase between 2018 and 2019 is mostly due to improved performance on Broadband penetration, Most cited publications, and Private co-funding of public R&D.



*Innovators, Innovation-friendly environment* and *Employment impacts* are the strongest innovation dimensions. Montenegro performs well on SMEs with product or process innovations, Foreign doctorate students, Enterprises providing ICT training, and Innovative SMEs collaborating with others. *Sales impacts, Intellectual assets* and *Finance and support* are the weakest innovation dimensions. Montenegro's lowest indicator scores are on New doctorate graduates, Design applications, Medium and high-tech product exports, and R&D expenditures in the business sector.

**Structural differences** with the EU are shown in the table below. Montenegro shows the highest positive difference to the EU in FDI net inflows, Average annual change in GDP and Employment share in services, and the biggest negative difference in Top R&D spending enterprises, Employment share in manufacturing and GDP per capita.

Montenegro	Performance relative to EU		
	Relative to EU 2019 in 2019	2012 in 2019	
<b>SUMMARY INNOVATION INDEX</b>	<b>43.4</b>	<b>42.2</b>	<b>47.2</b>
<b>Human resources</b>	<b>40.4</b>	<b>29.3</b>	<b>46.5</b>
New doctorate graduates	0.0	0.0	0.0
Population with tertiary education	91.6	72.7	116.5
Lifelong learning	23.7	16.7	25.6
<b>Attractive research systems</b>	<b>55.7</b>	<b>44.3</b>	<b>63.6</b>
International scientific co-publications	48.3	29.7	70.9
Most cited publications	32.4	13.1	32.4
Foreign doctorate students	106.6	122.9	122.9
<b>Innovation-friendly environment §</b>	<b>78.6</b>	<b>64.3</b>	<b>136.7</b>
Broadband penetration	73.9	80.0	170.0
Opportunity-driven entrepreneurship	N/A	N/A	N/A
<b>Finance and support §</b>	<b>23.0</b>	<b>8.2</b>	<b>26.6</b>
R&D expenditure in the public sector	21.6	6.5	21.2
Venture capital expenditures	N/A	N/A	N/A
<b>Firm investments</b>	<b>37.0</b>	<b>42.2</b>	<b>48.0</b>
R&D expenditure in the business sector	1.1	4.5	1.2
Non-R&D innovation expenditures	6.2	8.8	8.8
Enterprises providing ICT training	105.6	123.1	146.2
<b>Innovators §</b>	<b>135.4</b>	<b>121.0</b>	<b>121.0</b>
SMEs product/process innovations	165.0	164.4	164.4
SMEs marketing/organizational innovations	98.2	80.6	80.6
SMEs innovating in-house	N/A	N/A	N/A
<b>Linkages</b>	<b>38.9</b>	<b>56.0</b>	<b>40.1</b>
Innovative SMEs collaborating with others	99.4	98.7	98.7
Public-private co-publications	19.8	8.3	22.4
Private co-funding of public R&D exp.	13.4	51.1	13.5
<b>Intellectual assets</b>	<b>15.4</b>	<b>17.0</b>	<b>14.3</b>
PCT patent applications	34.4	39.1	31.9
Trademark applications	1.8	0.0	1.9
Design applications	0.0	0.0	0.0
<b>Employment impacts §</b>	<b>57.0</b>	<b>57.9</b>	<b>61.5</b>
Employment in knowledge-intensive activities	63.8	64.9	68.9
Employment fast-growing enterprises	N/A	N/A	N/A
<b>Sales impacts</b>	<b>12.1</b>	<b>13.2</b>	<b>12.0</b>
Medium and high-tech product exports	0.0	0.0	0.0
Knowledge-intensive services exports	1.1	4.6	1.2
Sales of new-to-market/firm innovations	42.9	35.8	35.8

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.

§ Due to missing data, the relative dimension score does not necessarily reflect that of the indicators.

	ME	EU
<b>Performance and structure of the economy</b>		
GDP per capita (PPS)	13,800	29,100
Average annual GDP growth (%)	4.89	1.84
Employment share manufacturing (NACE C) (%)	5.8	16.6
of which High and medium high-tech (%)	n/a	37.5
Employment share services (NACE G-N) (%)	48.6	41.4
of which Knowledge-intensive services (%)	27.5	34.3
Turnover share SMEs (%)	n/a	38.3
Turnover share large enterprises (%)	n/a	43.2
Foreign-controlled enterprises – share of value added (%)	n/a	11.1
<b>Business and entrepreneurship</b>		
Enterprise births (10+ employees) (%)	n/a	1.1
Total Entrepreneurial Activity (TEA) (%)	n/a	6.7
FDI net inflows (% GDP)	8.5	2.6
Top R&D spending enterprises per 10 million population	0.0	16.2
Buyer sophistication (1 to 7 best)	3.2	3.7
<b>Governance and policy framework</b>		
Ease of starting a business (0 to 100 best)	73.8	76.5
Basic-school entrepreneurial education and training (1 to 5 best)	n/a	1.9
Govt procurement of advanced technology products (1 to 7 best)	3.2	3.5
Rule of law (-2.5 to 2.5 best)	0.0	1.1
<b>Demography</b>		
Population size (millions)	0.6	446.2
Average annual population growth (%)	-0.02	0.14
Population density (inhabitants/km <sup>2</sup> )	45.7	108.6