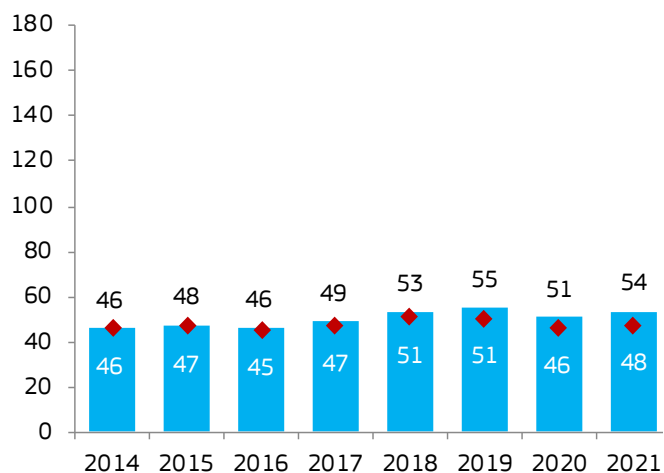




**Montenegro** is an **Emerging Innovator**. Over time, performance relative to the EU has increased.



■ Relative to EU in base year ◆ Relative to EU in same year

**Structural differences** with the EU are shown in the table below including, compared to the EIS 2020, new information on different types of (innovating) enterprises (Innovation profiles) and environmental indicators.

	ME	EU
<b>Performance and structure of the economy</b>		
GDP per capita (PPS)	14,900	30,800
Average annual GDP growth (%)	4.9	-2.5
Employment share Manufacturing (NACE C) (%)	5.9	16.5
of which High and Medium high-tech (%)	n/a	37.9
Employment share Services (NACE G-N) (%)	48.7	41.2
of which Knowledge-intensive services (%)	28.3	35.1
Turnover share SMEs (%)	n/a	36.5
Turnover share large enterprises (%)	n/a	45.7
Foreign-controlled enterprises – share of value added (%)	n/a	11.8
<b>Business and entrepreneurship</b>		
Enterprise births (10+ employees) (%)	n/a	1.0
Total Entrepreneurial Activity (TEA) (%)	n/a	6.7
FDI net inflows (% GDP)	n/a	2.0
Top R&D spending enterprises per 10 million population	0.0	16.2
Buyer sophistication (1 to 7 best)	3.2	3.7
<b>Innovation profiles</b>		
In-house product innovators with market novelties	10.1	10.7
In-house product innovators without market novelties	4.0	12.3
In-house business process innovators	3.8	11.0
Innovators that do not develop innovations themselves	2.3	11.6
Innovation active non-innovators	0.4	3.3
Non-innovators with potential to innovate	24.5	19.9
Non-innovators without disposition to innovate	54.9	31.3
<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	n/a	2.0
Govt. procurement of advanced tech. products	n/a	3.5
Rule of law (-2.5 to 2.5 best)	n/a	1.1
<b>Climate change indicators</b>		
Circular material use rate	n/a	11.7
Greenhouse gas emissions intensity of energy consumption	n/a	86.6
<b>Demography</b>		
Population size	0.6	446.7
Average annual population growth (%)	0.0	0.1
Population density	45.7	108.8

Montenegro's strengths are in *Innovators*, *Employment impacts* and *Use of information technologies*. The top-3 indicators include Product innovators, Employment in innovative enterprises, and Enterprises providing ICT training.

Performance has declined in the most recent years, mostly due to performance reductions in ICT specialists, Job-to-job mobility of HRST, PCT patent and Trademark applications, and Environment-related technologies.

Montenegro has a below average share of Innovators but a relatively large share of In-house product innovators with market novelties.

Montenegro	Relative to EU 2021 in 2021	Relative to EU 2014 in 2014	Relative to EU 2021 in 2021
<b>SUMMARY INNOVATION INDEX</b>	<b>47.8</b>	<b>46.0</b>	<b>53.7</b>
<b>Human resources</b>	<b>41.3</b>	<b>25.7</b>	<b>43.8</b>
Doctorate graduates	4.2	0.0	3.7
Population with tertiary education	99.4	72.7	128.1
Lifelong learning	16.2	16.7	17.8
<b>Attractive research systems</b>	<b>70.9</b>	<b>57.0</b>	<b>79.8</b>
International scientific co-publications	71.9	46.8	94.3
Most cited publications	62.6	33.0	61.5
Foreign doctorate students	83.9	120.5	99.6
<b>Digitalisation</b>	<b>60.7</b>	<b>61.5</b>	<b>83.9</b>
Broadband penetration	86.0	89.4	130.4
People with above basic overall digital skills	22.7	27.8	27.8
<b>Finance and support</b>	<b>12.1</b>	<b>0.0</b>	<b>14.4</b>
R&D expenditures in the public sector	21.8	0.0	21.1
Venture capital expenditures	N/A	N/A	N/A
Government support for business R&D	0.5	0.0	0.6
<b>Firm investments</b>	<b>15.7</b>	<b>18.7</b>	<b>18.9</b>
R&D expenditure in the business sector	9.9	10.2	11.0
Non-R&D Innovation expenditures	8.8	10.0	10.0
Innovation expenditures per employee	25.7	33.9	33.9
<b>Use of information technologies</b>	<b>78.2</b>	<b>74.7</b>	<b>90.3</b>
Enterprises providing ICT training	140.0	106.7	140.0
Employed ICT specialists	25.0	38.1	33.3
<b>Innovators</b>	<b>135.3</b>	<b>185.2</b>	<b>185.2</b>
Product innovators (SMEs)	167.4	236.2	236.2
Business process innovators (SMEs)	105.4	140.2	140.2
<b>Linkages</b>	<b>47.3</b>	<b>63.2</b>	<b>63.7</b>
Innovative SMEs collaborating with others	72.7	106.5	106.5
Public-private co-publications	47.5	28.0	53.2
Job-to-job mobility of HRST	28.6	59.0	41.0
<b>Intellectual assets</b>	<b>7.6</b>	<b>10.2</b>	<b>6.6</b>
PCT patent applications	0.0	17.6	0.0
Trademark applications	18.3	14.0	19.2
Design applications	0.0	0.0	0.0
<b>Employment impacts</b>	<b>114.3</b>	<b>107.1</b>	<b>116.5</b>
Employment in knowledge-intensive activities	75.6	60.0	82.7
Employment in innovative enterprises	145.4	140.4	140.4
<b>Sales impacts</b>	<b>16.2</b>	<b>15.1</b>	<b>16.5</b>
Medium and high tech goods exports	3.6	0.0	4.0
Knowledge-intensive services exports	2.8	3.3	3.0
Sales of innovative products	56.4	49.0	49.0
<b>Environmental sustainability</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Resource productivity	N/A	N/A	N/A
Air emissions by fine particulate matter	N/A	N/A	N/A
Environment-related technologies	0.0	0.0	0.0

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.