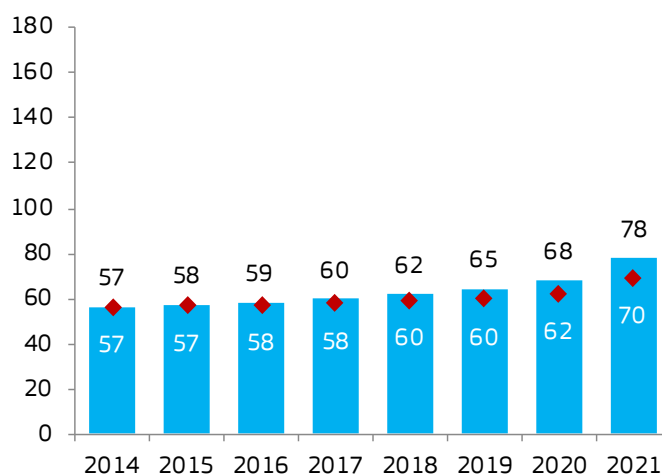




### Croatia is an **Emerging Innovator**.

Over time, performance relative to the EU has increased strongly.



■ 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.

	HR	EU
<b>Performance and structure of the economy</b>		
GDP per capita (PPS)	19,700	30,800
Average annual GDP growth (%)	-2.2	-2.5
Employment share Manufacturing (NACE C) (%)	17.7	16.5
of which High and Medium high-tech (%)	19.8	37.9
Employment share Services (NACE G-N) (%)	40.1	41.2
of which Knowledge-intensive services (%)	31.9	35.1
Turnover share SMEs (%)	42.8	36.5
Turnover share large enterprises (%)	37.6	45.7
Foreign-controlled enterprises – share of value added (%)	13.0	11.8
<b>Business and entrepreneurship</b>		
Enterprise births (10+ employees) (%)	2.5	1.0
Total Entrepreneurial Activity (TEA) (%)	9.7	6.7
FDI net inflows (% GDP)	2.2	2.0
Top R&D spending enterprises per 10 million population	0.0	16.2
Buyer sophistication (1 to 7 best)	2.8	3.7
<b>Innovation profiles</b>		
In-house product innovators with market novelties	9.7	10.7
In-house product innovators without market novelties	13.0	12.3
In-house business process innovators	7.8	11.0
Innovators that do not develop innovations themselves	7.1	11.6
Innovation active non-innovators	0.3	3.3
Non-innovators with potential to innovate	25.3	19.9
Non-innovators without disposition to innovate	36.9	31.3
<b>Governance and policy framework</b>		
Ease of starting a business (0 to 100 best)	73.1	76.5
Basic school entrepreneurial education and training	1.7	2.0
Govt. procurement of advanced tech. products	2.5	3.5
Rule of law (-2.5 to 2.5 best)	0.3	1.1
<b>Climate change indicators</b>		
Circular material use rate	4.9	11.7
Greenhouse gas emissions intensity of energy consumption	90.3	86.6
Eco-Innovation Index	72.0	100.0
<b>Demography</b>		
Population size	4.1	446.7
Average annual population growth (%)	-0.6	0.1
Population density	73.3	108.8

Croatia's strengths are in *Innovators*, *Use of information technologies*, and *Linkages*. The top-3 indicators include Product innovators, Business process innovators, and Enterprises providing ICT training.

The strong performance increase between 2020 and 2021 is due to performance increases for several indicators using innovation survey data, Digital skills, and Venture capital.

Croatia has below average shares of In-house business process innovators and Innovators that do not develop innovations themselves. Croatia is showing below average scores on the Climate change related indicators.

Croatia	Relative to EU 2021 in 2021	Relative to EU 2014 in 2014	Relative to EU 2021 in 2021
<b>SUMMARY INNOVATION INDEX</b>	<b>69.5</b>	<b>56.7</b>	<b>78.2</b>
<b>Human resources</b>	<b>51.7</b>	<b>50.6</b>	<b>54.8</b>
Doctorate graduates	48.1	54.0	42.6
Population with tertiary education	75.0	66.9	96.7
Lifelong learning	26.3	26.7	28.9
<b>Attractive research systems</b>	<b>53.3</b>	<b>34.7</b>	<b>59.9</b>
International scientific co-publications	81.9	66.7	107.4
Most cited publications	32.6	24.2	32.1
Foreign doctorate students	48.7	15.8	57.9
<b>Digitalisation</b>	<b>90.6</b>	<b>70.2</b>	<b>125.4</b>
Broadband penetration	72.2	31.6	109.5
People with above basic overall digital skills	118.2	116.7	144.4
<b>Finance and support</b>	<b>50.1</b>	<b>34.6</b>	<b>59.7</b>
R&D expenditures in the public sector	70.9	40.4	68.4
Venture capital expenditures	72.5	62.3	121.9
Government support for business R&D	3.6	7.4	4.2
<b>Firm investments</b>	<b>54.1</b>	<b>74.1</b>	<b>65.4</b>
R&D expenditure in the business sector	34.8	22.8	38.6
Non-R&D Innovation expenditures	107.0	118.7	121.6
Innovation expenditures per employee	23.8	89.3	31.5
<b>Use of information technologies</b>	<b>95.8</b>	<b>95.2</b>	<b>110.7</b>
Enterprises providing ICT training	120.0	120.0	120.0
Employed ICT specialists	75.0	66.7	100.0
<b>Innovators</b>	<b>131.8</b>	<b>67.1</b>	<b>180.3</b>
Product innovators (SMEs)	143.0	49.1	201.8
Business process innovators (SMEs)	121.3	83.0	161.3
<b>Linkages</b>	<b>95.1</b>	<b>81.7</b>	<b>128.2</b>
Innovative SMEs collaborating with others	103.2	82.4	151.2
Public-private co-publications	113.2	94.0	126.9
Job-to-job mobility of HRST	78.6	71.8	112.8
<b>Intellectual assets</b>	<b>35.7</b>	<b>20.8</b>	<b>30.9</b>
PCT patent applications	15.0	21.6	13.0
Trademark applications	61.8	35.7	64.8
Design applications	19.5	5.4	13.3
<b>Employment impacts</b>	<b>88.9</b>	<b>58.0</b>	<b>90.6</b>
Employment in knowledge-intensive activities	74.4	64.0	81.3
Employment in innovative enterprises	100.6	53.7	97.1
<b>Sales impacts</b>	<b>50.4</b>	<b>43.8</b>	<b>51.3</b>
Medium and high tech goods exports	58.7	56.1	64.3
Knowledge-intensive services exports	7.5	5.3	7.9
Sales of innovative products	98.7	73.3	85.8
<b>Environmental sustainability</b>	<b>75.3</b>	<b>78.5</b>	<b>78.4</b>
Resource productivity	79.5	81.8	117.7
Air emissions by fine particulate matter	71.8	62.1	76.3
Environment-related technologies	76.9	97.4	57.8

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.