



European Innovation Scoreboard **2024** Country Profile **Bosnia & Herzegovina**

European Innovation Scoreboard 2024 – Country profile Bosnia & Herzegovina

European Commission

Directorate-General for Research and Innovation

Directorate G – Common Policy Centre

Unit G.1 – Common R&I Strategy & Foresight Service

Contact Alexandr Hobza, Chief Economist and Head of Unit G.1

Athina Karvounaraki

Alexis Stevenson

Email RTD-STATISTICS@ec.europa.eu

RTD-PUBLICATIONS@ec.europa.eu

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Directorate A – Strategy and Economic Analysis

Unit A.1 – Chief Economist

Contact Román Arjona, Chief Economist and Head of Unit A.1

Xosé-Luís Varela-Irimia

Email GROW-A1@ec.europa.eu

European Commission

B-1049 Brussels

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BOSNIA AND HERZEGOVINA

Emerging Innovator ●

Summary innovation index (relative to EU in 2017): **36.4**

Rank: **37**

Change vs 2023: ▲ 2.7 Change vs 2017: ▲ 6.4

Bosnia and Herzegovina is an Emerging Innovator with performance at 33.1% of the EU average in 2024. Performance is below the average of the Emerging Innovators (48%). Performance is increasing less than the EU (+10%).

Indicator	Performance relative to the EU in 2024	Performance change 2017-2024	Performance change 2023-2024
SUMMARY INNOVATION INDEX	33.1	6.4	2.7
Human resources	10.3	-0.2	0.3
New doctorate graduates	13.3	4	0
Population with tertiary education	10.3	-3	1.2
Population involved in lifelong learning	6.9	-3	0
Attractive research systems	23.2	8	-8.6
International scientific co-publications	23.1	21.3	0
Scientific publications among the top 10% most cited	20.8	1	-10.6
Foreign doctorate students as a % of all doctorate students	N/A	N/A	N/A
Digitalisation	35.8	25.5	15.9
Broadband penetration	52.8	44.6	25
Individuals with above basic overall digital skills	12.3	6.8	6.8
Finance and support	0	0	0
R&D expenditure in the public sector	0	0	0
Venture capital expenditures	0	0	0
Direct and indirect government support of business R&D	0	0	0
Firm investments	0.8	0	0
R&D expenditure in the business sector	2.1	0	0
Non-R&D innovation expenditures	0	0	0
Innovation expenditures per person employed	0.5	0	0
Use of information technologies	39.8	9.2	7.8
Enterprises providing ICT training	62.6	1.9	5.7
Employed ICT specialists	17.7	16.2	9.7
Innovators	117.6	0	0
SMEs introducing product innovations	165.7	0	0
SMEs introducing business process innovations	78.6	0	0
Linkages	15	7.3	0
Innovative SMEs collaborating with others	N/A	N/A	N/A
Public-private co-publications	27.3	11.4	0
Job-to-job mobility of HRST	N/A	N/A	N/A
Intellectual assets	14.9	7.4	2.4
PCT patent applications	30.7	15.5	8.3
Trademark applications	4.3	2.9	-5
Design applications	1.1	0.4	0.5
Employment impacts	50.8	9.7	5.7
Employment in knowledge-intensive activities	24.7	20.5	12
Employment in innovative enterprises	73.1	0	0
Sales impacts	29.6	8.9	3.2
Exports of medium and high technology products	28.3	15.6	9
Knowledge-intensive services exports	6.8	7.8	-1.1
Sales of new-to-market and new-to-firm innovations	67.7	0	0
Environmental sustainability	89	4.9	3.7
Resource productivity	25.2	13.3	10.1
Air emissions by fine particulates	N/A	N/A	N/A
Environment-related technologies	171.9	0	0

Relative strengths

- Environment-related technologies
- SMEs introducing product innovations
- SMEs introducing business process innovations

Relative weaknesses

- R&D expenditure in the public sector
- Venture capital expenditures
- Direct and indirect government support of business R&D

Strong increases since 2017

- Broadband penetration
- International scientific co-publications
- Employment in knowledge-intensive activities

Strong decreases since 2017

- Population with tertiary education
- Population involved in lifelong learning
- R&D expenditure in the public sector

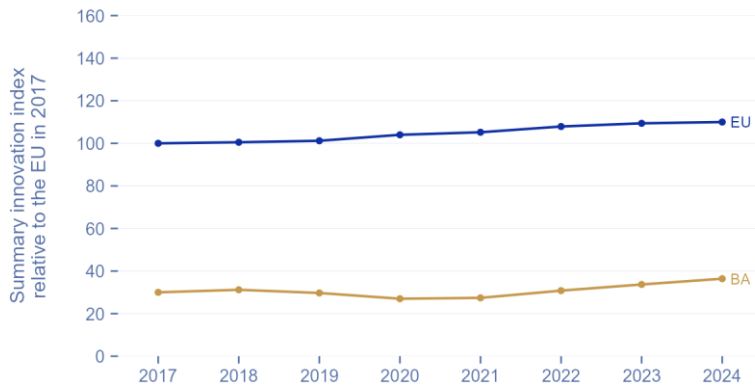
Strong increases since 2023

- Broadband penetration
- Employment in knowledge-intensive activities
- Resource productivity

Strong decreases since 2023

- Scientific publications among the top 10% most cited
- Trademark applications
- Knowledge-intensive services exports

Footnote: The first data column shows scores relative to the EU in 2024, with colour codes indicating performance levels. The subsequent columns show performance changes over time, with scores relative to the EU in 2017, coloured in purple for positive change and red for negative change. As reference years differ between the first column (2024) and the last two columns (2017), scores cannot be directly compared or subtracted across these columns.



Summary innovation index

The line chart shows the evolution of the innovation performance of Bosnia and Herzegovina over time, relative to the performance of the EU in 2017.

Footnote: All performance scores (SII and dimensions below) are relative to that of the EU in 2017.

Framework conditions

Bosnia and Herzegovina’s performance on framework conditions remain low compared to the EU average, with Human resources dimension presenting the weakest result at 10.3% of the 2024 EU level. Despite a 4%-point improvement in new doctorate graduates, the share population with tertiary education decreased by 3%-points since 2017, to pick up slightly in 2024.

Bosnia and Herzegovina has seen its attractiveness as a research hub rising since 2017, as the country continued its integration into European research system, but the performance on this dimension remains way below the 2024 EU average – at 23.2%. In fact, the country registered a noticeable increase of 21.3%-points in international scientific co-publications compared to 2017. However, the number of scientific publications among the top 10% most cited decreased by 10.6%-points compared 2023 and represents only 20.8% of the EU average in 2024.

Finally, the country registered an increase of 25.5%-points compared to 2017 on the Digitalisation dimension, with an impressive growth of 44.6%-points on broadband penetration. In line with the digitalisation agenda, Bosnia and Herzegovina’s efforts on closing the digital skills gap contributed to a 6.8%-point increase in the above basic digital skills of its population, compared to 2023.

Human resources



Attractive research systems



Digitalisation



Investments

Overall investment into R&D is estimated at around 0.3% of GDP (OECD, 2024), but official data for most of indicators in this category are missing. The available data show that firm investments in Bosnia and Herzegovina are meagre, standing at 0.8% of the 2024 EU value for this dimension. Innovation spending per person employed is marginal, at 0.5% of the EU average; this weak performance reflects the low absorptive capacities of business sector more generally. However, some progress was achieved on the use of IT by firms, with a registered 7.8%-point increase compared to 2023, and an overall performance at 39.8% of the 2024 EU level on this dimension. In fact, the share of enterprises providing ICT training recorded a positive trend and is the strongest-performing indicator in this category, at above 60% of the EU average in 2024. In addition, employment of ICT specialists has seen a 9.7%-point increase since 2023, reflecting the growth of the ICT sector in Bosnia and Herzegovina.

Finance and support



Firm investments



Use of information technologies



Innovation activities

Bosnia and Herzegovina demonstrates a strong performance of 117.6% of the 2024 EU average on Innovators dimension, with SMEs introducing new products to the market representing 165.7% of the EU level in 2024. The available data on Linkages dimension show a weak performance of 27.3% of the 2024 EU average on public-private co-publications, as the infrastructure for business-academia collaboration remains underdeveloped and R&D funding is limited (OECD, 2024). Gaps in funding and linkages contribute to a weak performance on Intellectual assets, currently standing at 14.9% of the EU average in 2024. However, Bosnia and Herzegovina registered a 15.5%-point increase in patent applications since 2017, and a modest 2.9%-point increase in trademark applications. This increase is probably related to the higher share of doctorate students in the country, which, in STEM subjects, contribute to the growth of released patents, as well as a more vibrant research environment.

Innovators



Linkages



Intellectual assets



Impacts

Overall, Bosnia and Herzegovina has shown a positive trend in the areas of employment and sales impacts, as well as environmental sustainability for the period between 2017 and 2024, but the performance remains below the EU average. In fact, the employment in knowledge-intensive activities grew by 20.5%-points since 2017, and 12.0%-points compared to 2023, while innovative enterprises employ at 84.1% of the EU average in 2024. The 15.6%-point growth in exports of medium and high technology products (compared to 2017), together with a 7.8%-point increase in knowledge-intensive services exports, contribute to enhanced performance of the country on Sales impact (29.6% of the EU average in 2024). Finally, the 89% performance, compared to the EU in 2024, in Environmental sustainability in Bosnia and Herzegovina was driven by a 13.3%-point improvement in resource productivity since 2017, and substantial progress in the development of environment-related technologies, with Bosnia and Herzegovina performing at 171.9% of the EU level on this indicator in 2024. This progress has brought the Bosnian government closer to achieving the EU Green Deal goals (European Commission, 2023), demonstrating a commitment to sustainable development and environmental protection.

Employment impacts



Sales impacts



Environmental sustainability



Structural differences

Performance and structure of the economy

The GDP per capita of Bosnia and Herzegovina is slightly over a third of the EU average. Its turnover share of SMEs is higher than the EU average (17.4% vs 12.6%), and the employment share of manufacturing is at 19.5% vs 15.8% in the EU. However, the country underperforms on employment in high and medium-tech activities and in the knowledge-intensive services, reflecting the low innovation intensity of the economy. Bosnia and Herzegovina shares a similar level of employment share in services and the value-added share of foreign-controlled enterprises. These factors reflect Bosnia and Herzegovina's appealing economic and fiscal environment, which encourages the growth of SMEs and overall enhancement of the ease of doing business.

Business and entrepreneurship

The significant growth of Bosnia and Herzegovina's attractiveness as an investment destination is confirmed by the fact that the country's FDI net inflows and level of enterprise births are higher than the EU average, with scores of 2.9 vs. 1.9 and 1.3 vs. 0.8, respectively. However, the level of buyer sophistication in the EU remains significantly higher than in Bosnia. Overall, the findings indicate an improving business environment, as well as a more competitive and attractive environment to do research, exchange knowledge and invest in innovating products and services.

Innovation profiles

No data is available regarding innovation indicators.

Governance and policy framework

The Bosnia and Herzegovina level of government procurement of advanced technology products is slightly lower in comparison to the EU average, but still positively high. Rule of law is instead significantly lower (-0.3 vs 1), indicating that the country still struggles to align and converge with the EU in terms of a robust legal framework for innovators.

Climate change

No data is available regarding climate change.

Demography

As of 2024, Bosnia and Herzegovina registered a relatively stable but slow population increase, of around 0.1% to 0.2% (Statistics Office, 2024). The slow increase is mainly due to the country having one of the lowest fertility rates in Europe (UNICEF, 2023), as well as significant economic and political challenges leading to emigration, particularly among the younger generations, combined with an ageing population affecting economic productivity and social services cost. The government has recognised the demographic challenges, and for this reason has introduced policies to encourage family support and improve the economic conditions of the general population.

Structural indicators

The table below presents some structural differences between Bosnia and Herzegovina and the EU.

	BA	EU
Performance and structure of the economy		
GDP per capita	34.7	100
Employment share Manufacturing	19.5	15.8
Employment share High and Medium high-tech	11.9	37.9
Employment share Services	34	39.8
Employment share Knowledge-intensive services	18.3	28.6
Turnover share SMEs	17.4	12.6
Turnover share large enterprises	30.3	49.6
Foreign-controlled enterprises – share of value added	12.9	13.3
Business and entrepreneurship		
Enterprise births	1.3	0.8
FDI net inflows	2.9	1.9
Buyer sophistication	2.1	3.6
Governance and policy frameworks		
Government procurement of advanced technology products	2.5	3.4
Rule of law	-0.3	1

References

The country's relative strengths and weaknesses for each indicator, compared to other EU Member States and neighbouring countries, can be found in [Annex B](#).

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This report provides the Country profile from the 2024 European Innovation Scoreboard for Bosnia & Herzegovina

Studies and reports

