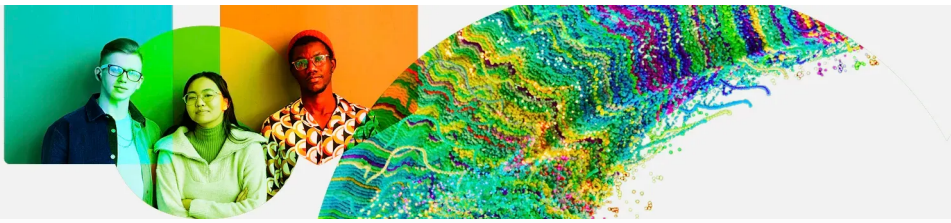
Global Innovation Index 2024



Republic of Moldova ranking in the Global Innovation Index 2024

Republic of Moldova ranks 68th among the 133 economies featured in the GII 2024.

The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.

Republic of Moldova ranks 17th among the 34 upper-middle-income group economies.

Republic of Moldova ranks 36th among the 39 economies in Europe.

Republic of Moldova GII Ranking (2020-2024)

The table shows the rankings of Republic of Moldova over the past four years. Data availability and changes to the GII model framework influence year-on-year comparisons of the GII rankings. The statistical confidence interval for the ranking of Republic of Moldova in the GII 2024 is between ranks 56 and 69.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	59th	75th	48th
2021	64th	80th	54th
2022	56th	78th	46th
2023	60th	81st	50th
2024	68th	80th	57th

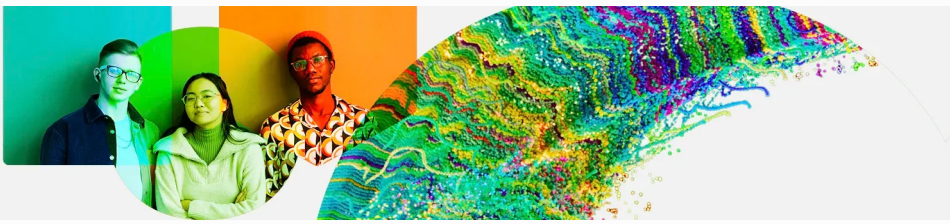
Republic of Moldova performs better in innovation outputs than innovation inputs in 2024.

This year **Republic of Moldova ranks 80th in innovation inputs.** This position is higher than last year.

Republic of Moldova ranks 57th in innovation outputs. This position is lower than last year.

Republic of Moldova has no clusters in the top 100 S&T clusters of the Global Innovation Index.

Global Innovation Index 2024



> Global Innovation Tracker

The Global Innovation Tracker 2024 shows what is the current state of innovation in Republic of Moldova, how rapidly is technology being embraced and what are the resulting societal impacts.

For Republic of Moldova, 1 indicator has improved in the short-term and 6 indicators have worsened.

Science and innovation investment

Scientific publications	R&D investments	Venture capital		International patent filings
		Deal numbers	Deal values	
0% 2022 - 2023	▼ -5.1% 2021 - 2022	n/a	n/a	▲ 50% 2022 - 2023
▲ 0.6% 2013 - 2023	▼ -1.3% 2012 - 2022	n/a	n/a	▲ 19.6% 2013 - 2023

Technology adoption

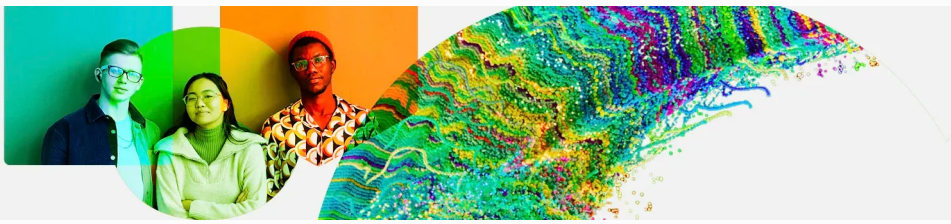
Safe sanitation	Connectivity		Robots	Electric vehicles
	Fixed broadband	5G		
n/a	▼ -1.8% 2021 - 2022	n/a	▼ -20% 2021 - 2022	n/a
n/a	▲ 7.4% 2012 - 2022		▼ -2.2% 2012 - 2022	n/a
n/a	24.4 per 100 inhabitants in 2022	n/a		n/a

Socioeconomic impact

Labor productivity	Life expectancy	Temperature change
▼ -2.1% 2022 - 2023	▼ -0.3% 2021 - 2022	▲ 2.9°C 2023
▲ 0.9% 2013 - 2023	▼ -0.1% 2012 - 2022	n/a
30,700 USD in 2023	68.6 years in 2022	

Notes: Not all indicators of the Global Innovation Tracker are used to calculate the Global Innovation Index. Long-term annual growth refers to the compound annual growth rate (CAGR) over the indicated period. For each variable, a one-year growth rate is set for the short run, and ten-year CAGR is set for the long run; time windows might differ when gaps exist in data availability. The end period corresponds to the most recent available observation, which may differ among countries. Temperature change is an exception: it indicates the change in degrees Celsius with respect to the average temperature in the country from 1951–1980. Figures are rounded.

Global Innovation Index 2024



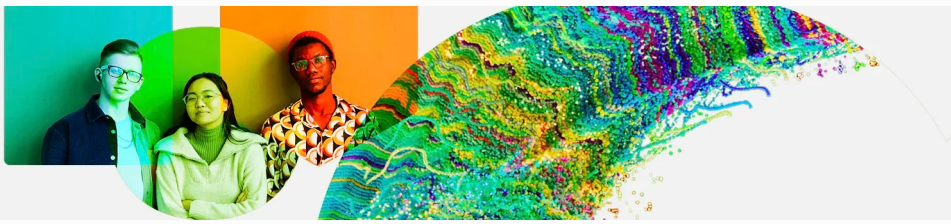
Expected vs. observed innovation performance

The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are performing below expectations.

Relative to GDP, Republic of Moldova is performing above expectations for its level of development.

> Innovation overperformers relative to their economic development

Global Innovation Index 2024

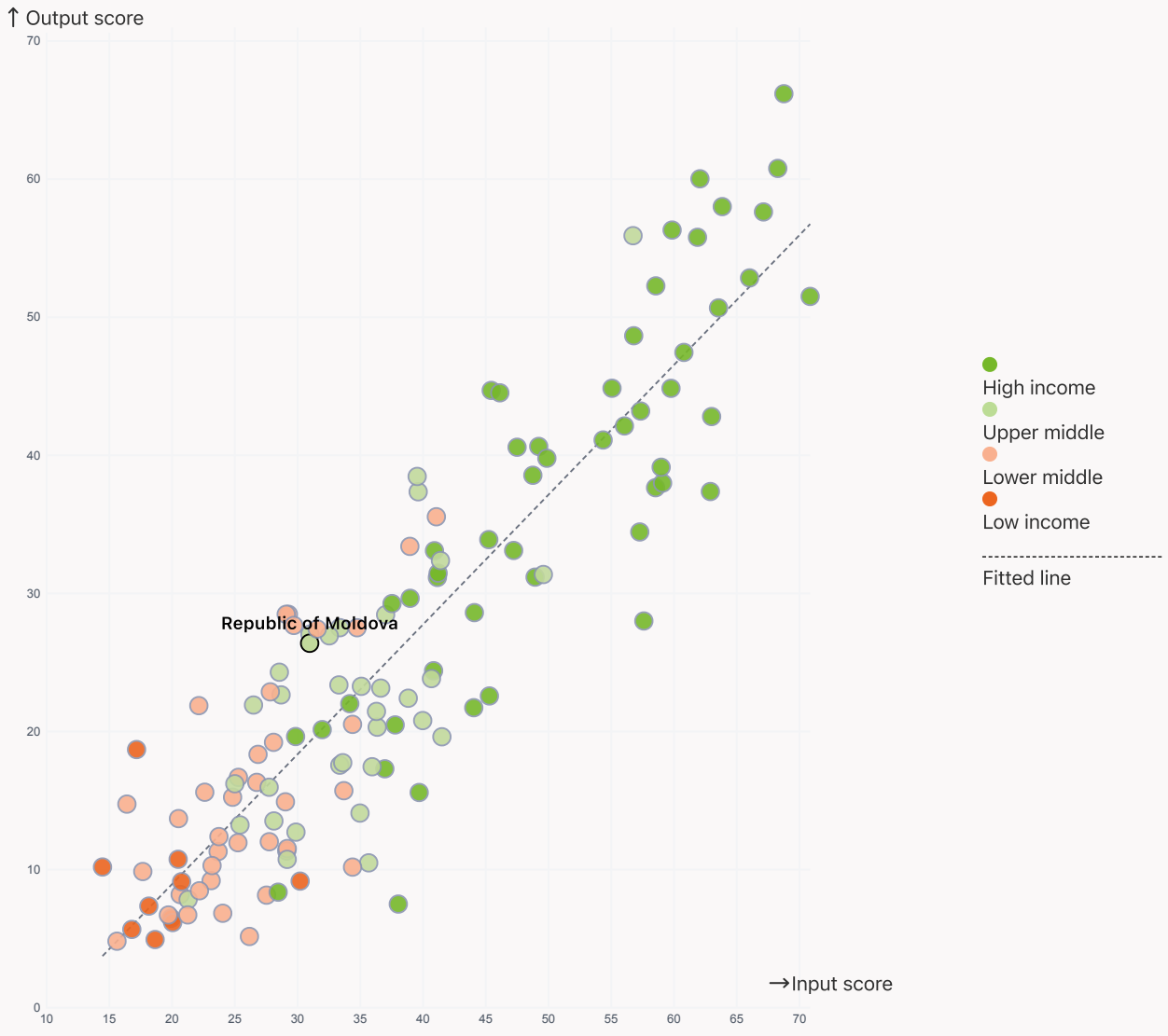


Effectively translating innovation investments into innovation outputs

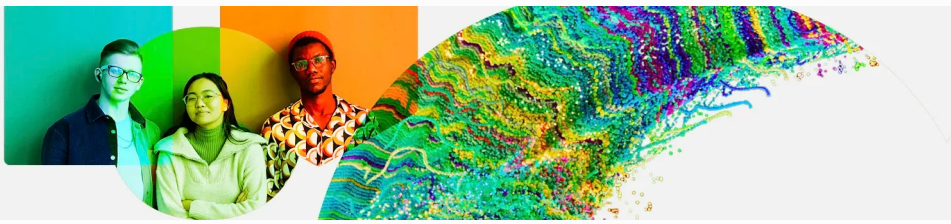
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

Republic of Moldova produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

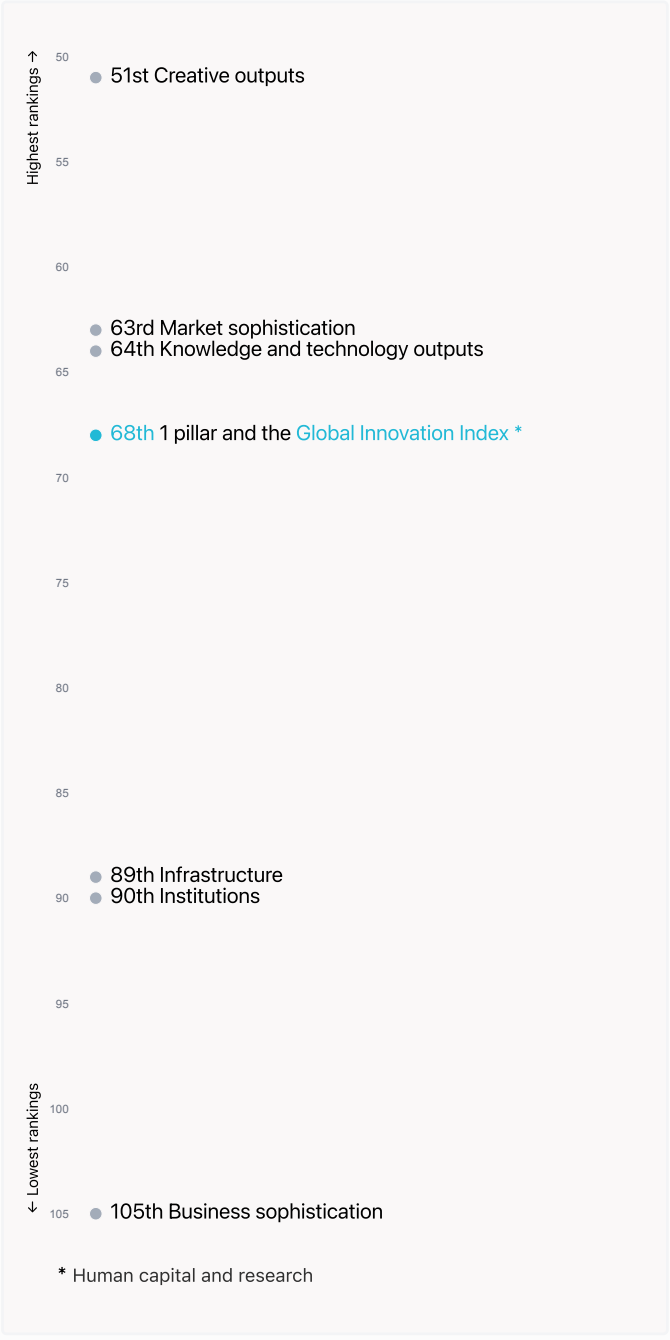


Global Innovation Index 2024



Overview of Republic of Moldova's rankings in the seven areas of the GII in 2024

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Republic of Moldova are those that rank above the GII (shown in blue) and the weakest are those that rank below.



Highest rankings

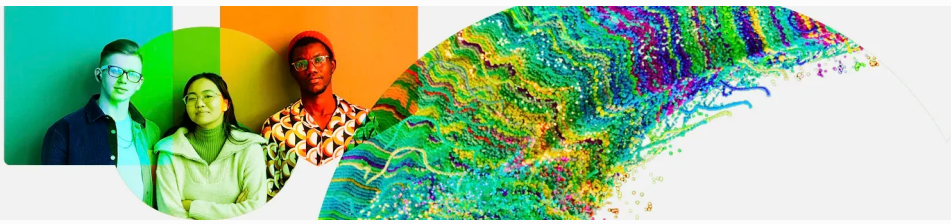
Republic of Moldova ranks highest in Creative outputs (51st), Market sophistication (63rd), Knowledge and technology outputs (64th) and Human capital and research (68th).

Lowest rankings

Republic of Moldova ranks lowest in Business sophistication (105th), Institutions (90th) and Infrastructure (89th).

The full WIPO Intellectual Property Statistics profile for Republic of Moldova can be found on this link.

Global Innovation Index 2024



Benchmark of Republic of Moldova against other economy groupings for each of the seven areas of the GII Index

The charts shows the relative position of Republic of Moldova (blue bar) against other economy groupings (grey bars), for each of the seven areas of the GII Index.

Upper-Middle-Income economies

Republic of Moldova performs above the upper-middle-income group average in Human capital and research, Market sophistication, Knowledge and technology outputs, Creative outputs.

Europe

Republic of Moldova performs below the regional average in all pillars.

Institutions

- Top 10 | Score: 80.81
- Europe | Score: 59.14
- Upper middle income | Score: 43.0
- Republic of Moldova | Score: 37.61

Human capital and research

- Top 10 | Score: 61.30
- Europe | Score: 44.92
- Republic of Moldova | Score: 31.09
- Upper middle income | Score: 29.5

Infrastructure

- Top 10 | Score: 58.57
- Europe | Score: 51.74
- Upper middle income | Score: 39.8
- Republic of Moldova | Score: 33.42

Market sophistication

- Top 10 | Score: 62.12
- Europe | Score: 42.79
- Republic of Moldova | Score: 33.33
- Upper middle income | Score: 32.9

Business sophistication

- Top 10 | Score: 63.64
- Europe | Score: 42.68
- Upper middle income | Score: 27.6
- Republic of Moldova | Score: 19.71

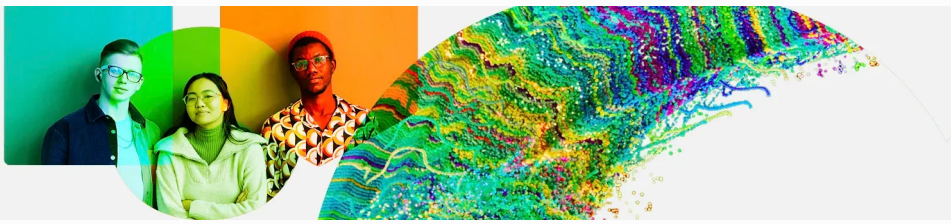
Knowledge and technology outputs

- Top 10 | Score: 57.29
- Europe | Score: 36.30
- Republic of Moldova | Score: 21.19
- Upper middle income | Score: 20.6

Creative outputs

- Top 10 | Score: 56.54
- Europe | Score: 39.15
- Republic of Moldova | Score: 31.47
- Upper middle income | Score: 24.3

Global Innovation Index 2024



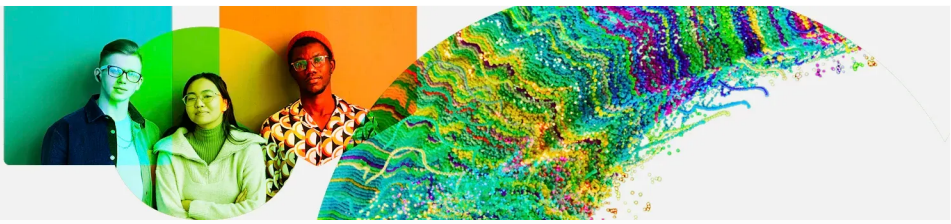
Innovation strengths and weaknesses in Republic of Moldova

The table below gives an overview of the indicator strengths and weaknesses of Republic of Moldova in the GII 2024.

Republic of Moldova's main innovation strengths are **Utility models by origin/bn PPP$ GDP** (rank 4), **Loans from microfinance institutions, % GDP** (rank 6) and **Industrial designs by origin/bn PPP$ GDP** (rank 11).

Strengths			Weaknesses		
Rank	Code	Indicator name	Rank	Code	Indicator name
4	6.1.3	Utility models by origin/bn PPP$ GDP	123	5.2.3	State of cluster development†
6	4.1.3	Loans from microfinance institutions, % GDP	121	4.3.3	Domestic market scale, bn PPP$
11	7.1.4	Industrial designs by origin/bn PPP$ GDP	112	3.3.2	Low-carbon energy use, %
12	7.3.3	Mobile app creation/bn PPP$ GDP	112	5.2.1	Public Research-Industry co-publications, %
12	7.1.2	Trademarks by origin/bn PPP$ GDP	108	1.3.1	Policy stability for doing business†
13	6.3.4	ICT services exports, % total trade	89	3.2.2	Logistics performance*
14	4.3.1	Applied tariff rate, weighted avg., %	75	7.1.3	Global brand value, top 5,000, % GDP
14	2.1.1	Expenditure on education, % GDP	75	2.3.4	QS university ranking, top 3*
39	2.1.5	Pupil–teacher ratio, secondary	49	6.2.2	Unicorn valuation, % GDP
44	5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	41	2.3.3	Global corporate R&D investors, top 3, mn USD

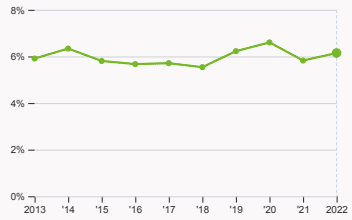
Global Innovation Index 2024



Republic of Moldova's innovation system

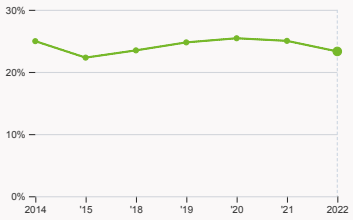
As far as practicable, the plots below present unscaled indicator data.

Innovation inputs in Republic of Moldova



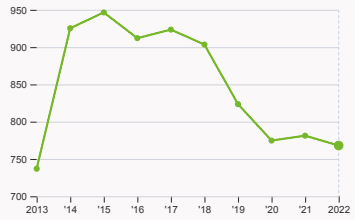
2.1.1 **Expenditure on education**

was equal to 6.15 % GDP in 2022, up by 0.32 percentage points from the year prior – and equivalent to an indicator rank of 14.



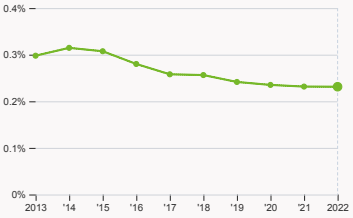
2.2.2 **Graduates in science and engineering**

was equal to 23.31 % of total graduates in 2022, down by 1.7 percentage points from the year prior – and equivalent to an indicator rank of 57.



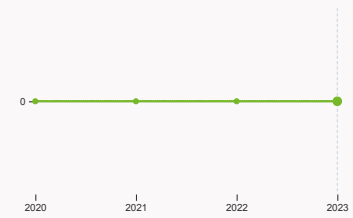
2.3.1 **Researchers**

was equal to 768.02 FTE per million population in 2022, down by 1.69% from the year prior – and equivalent to an indicator rank of 60.



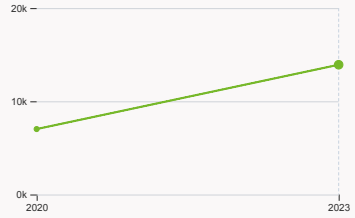
2.3.2 **Gross expenditure on R&D**

was equal to 0.23 % GDP in 2022, down by – and equivalent to an indicator rank of 83.



2.3.4 **QS university ranking**

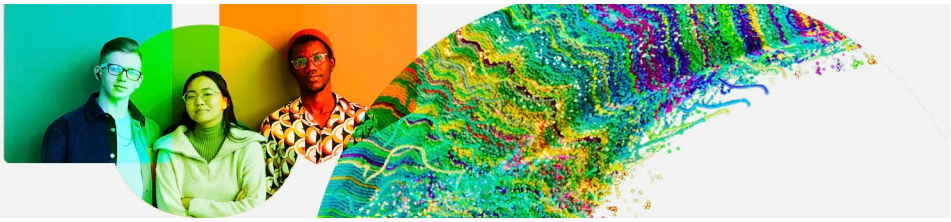
was equal to an average score of 0 for the top three universities in 2023 with no change from the year prior – and equivalent to an indicator rank of 75.



4.2.4 **VC received, value**

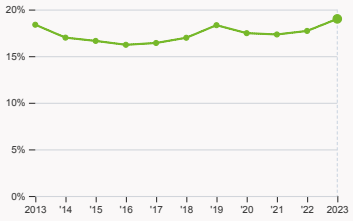
was equal to 13.92 thousand USD in 2023, up by 98.29% from the year prior – and equivalent to an indicator rank of 56.

Global Innovation Index 2024



4.3.2 Domestic industry diversification

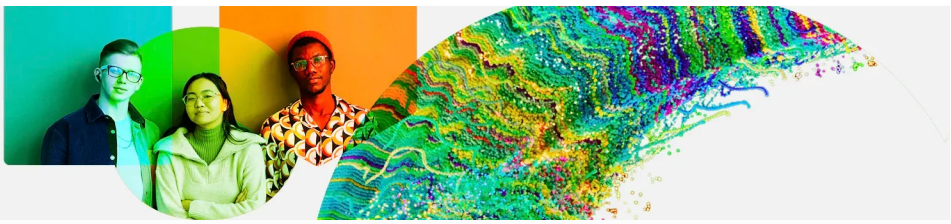
was equal to an index score of 0.16 in 2021, up by 5.05% from the year prior – and equivalent to an indicator rank of 62.



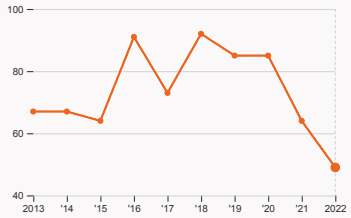
5.1.1 Knowledge-intensive employment

was equal to 19.001 % in 2023, up by 1.29 percentage points from the year prior – and equivalent to an indicator rank of 80.

Global Innovation Index 2024

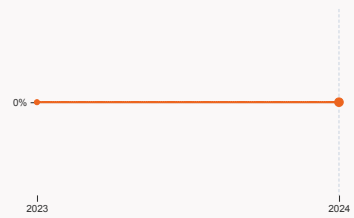


Innovation outputs in Republic of Moldova



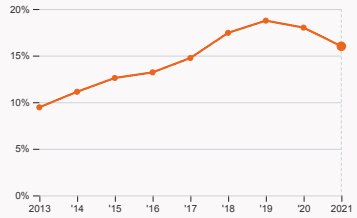
6.1.1 Patents by origin

was equal to 49 patents in 2022, down by 23.44% from the year prior – and equivalent to an indicator rank of 47.



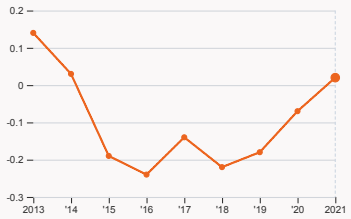
6.2.2 Unicorn valuation

was equal to 0 % GDP in 2024 with no change from the year prior – and equivalent to an indicator rank of 49.



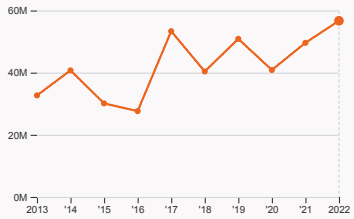
6.2.4 High-tech manufacturing

was equal to 16 % of total manufacturing output in 2021, down by 2 percentage points from the year prior – and equivalent to an indicator rank of 73.



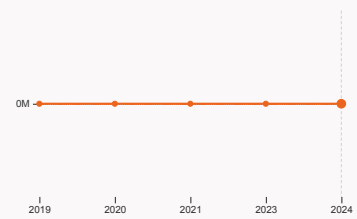
6.3.2 Production and export complexity

was equal to a score of 0.02 in 2021, up by 128.57% from the year prior – and equivalent to an indicator rank of 62.



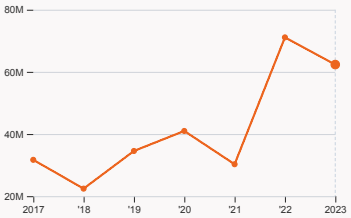
6.3.3 High-tech exports

was equal to 56.7 million USD in 2022, up by 14.29% from the year prior – and equivalent to an indicator rank of 86.



7.1.3 Global brand value

was equal to 0 million USD for the brands in the top 5,000 in 2024 with no change from the year prior – and equivalent to an indicator rank of 75.



7.3.3 Mobile app creation

was equal to 62.35 million global downloads of mobile apps in 2023, down by 12.31% from the year prior – and equivalent to an indicator rank of 12.

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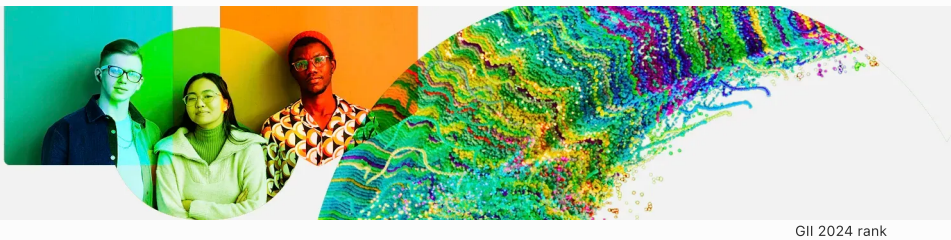


Republic of Moldova

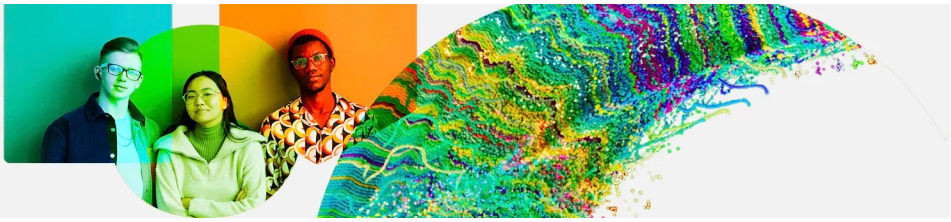
GII 2024 rank **68**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
57	80	Upper middle	EUR	3.1	42.2	16,915.7

	Score / Value	Rank	
Institutions	**37.6**	**90**	
1.1 Institutional environment	**45**	**86**	
1.1.1 Operational stability for businesses*	54	88	
1.1.2 Government effectiveness*	36	87	
1.2 Regulatory environment	**40.1**	**71**	
1.2.1 Regulatory quality*	44.5	69	
1.2.2 Rule of law*	35.6	82	
1.3 Business environment	**27.8**	**[105]**	
1.3.1 Policy stability for doing business†	27.8	108	○
1.3.2 Entrepreneurship policies and culture†	n/a	n/a	
Human capital and research	**31.1**	**68**	
2.1 Education	**55.4**	**54**	
2.1.1 Expenditure on education, % GDP	6.1	14	●◆
2.1.2 Government funding/pupil, secondary, % GDP/cap	22.3	37	
2.1.3 School life expectancy, years	14.9	51	
2.1.4 PISA scales in reading, maths and science	414	53	
2.1.5 Pupil–teacher ratio, secondary	10.9	39	●◆
2.2 Tertiary education	**35**	**57**	
2.2.1 Tertiary enrolment, % gross	64.4	49	
2.2.2 Graduates in science and engineering, %	23.3	57	
2.2.3 Tertiary inbound mobility, %	7	43	
2.3 Research and development (R&D)	**2.8**	**87**	
2.3.1 Researchers, FTE/mn pop.	768	60	
2.3.2 Gross expenditure on R&D, % GDP	0.2	83	
2.3.3 Global corporate R&D investors, top 3, mn USD	0	41	○◇
2.3.4 QS university ranking, top 3*	0	75	○◇
Infrastructure	**33.4**	**89**	
3.1 Information and communication technologies (ICTs)	**73.7**	**62**	
3.1.1 ICT access*	79.4	86	
3.1.2 ICT use*	77	71	
3.1.3 Government's online service*	71	60	
3.1.4 E-participation*	67.4	47	
3.2 General infrastructure	**19.6**	**101**	
3.2.1 Electricity output, GWh/mn pop.	2,048.6	77	
3.2.2 Logistics performance*	18.2	89	○◇
3.2.3 Gross capital formation, % GDP	24.5	57	
3.3 Ecological sustainability	**7**	**118**	○◇
3.3.1 GDP/unit of energy use	8	91	
3.3.2 Low-carbon energy use, %	3	112	○
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.4	105	
Market sophistication	**33.3**	**63**	
4.1 Credit	**30.3**	**55**	
4.1.1 Finance for startups and scaleups†	n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP	27.5	104	
4.1.3 Loans from microfinance institutions, % GDP	4.8	6	●◆
4.2 Investment	**11.7**	**[54]**	
4.2.1 Market capitalization, % GDP	n/a	n/a	
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	n/a	n/a	
4.2.3 VC recipients, deals/bn PPP$ GDP	0.05	54	
4.2.4 VC received, value, % GDP	0.0009	56	
4.3 Trade, diversification and market scale	**58**	**60**	
4.3.1 Applied tariff rate, weighted avg., %	0.9	14	●◆
4.3.2 Domestic industry diversification	80.6	62	
4.3.3 Domestic market scale, bn PPP$	42.2	121	○

	Score / Value	Rank	
Business sophistication	**19.7**	**105**	◇
5.1 Knowledge workers	**26.8**	**82**	
5.1.1 Knowledge-intensive employment, %	19	80	
5.1.2 Firms offering formal training, %	38.1	40	
5.1.3 GERD performed by business, % GDP	0.04	74	
5.1.4 GERD financed by business, %	15.5	74	
5.1.5 Females employed w/advanced degrees, %	11.8	65	
5.2 Innovation linkages	**11.9**	**120**	○
5.2.1 Public Research-Industry co-publications, %	0.6	112	○
5.2.2 University-industry R&D collaboration†	25	107	
5.2.3 State of cluster development†	16.9	123	○◇
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.03	44	●◆
5.2.5 Patent families/bn PPP$ GDP	0.06	65	
5.3 Knowledge absorption	**20.4**	**93**	
5.3.1 Intellectual property payments, % total trade	0.7	60	
5.3.2 High-tech imports, % total trade	7.4	79	
5.3.3 ICT services imports, % total trade	1	77	
5.3.4 FDI net inflows, % GDP	2.8	53	
5.3.5 Research talent, % in businesses	6.2	69	
Knowledge and technology outputs	**21.2**	**64**	
6.1 Knowledge creation	**23.4**	**44**	●◆
6.1.1 Patents by origin/bn PPP$ GDP	1.2	47	
6.1.2 PCT patents by origin/bn PPP$ GDP	0.1	55	
6.1.3 Utility models by origin/bn PPP$ GDP	2.5	4	●◆
6.1.4 Scientific and technical articles/bn PPP$ GDP	6.1	95	
6.1.5 Citable documents H-index	5.1	96	
6.2 Knowledge impact	**18.5**	**110**	
6.2.1 Labor productivity growth, %	0.5	72	
6.2.2 Unicorn valuation, % GDP	0	49	○◇
6.2.3 Software spending, % GDP	0.08	97	
6.2.4 High-tech manufacturing, %	16	73	
6.3 Knowledge diffusion	**21.7**	**55**	
6.3.1 Intellectual property receipts, % total trade	0.04	78	
6.3.2 Production and export complexity	43.6	62	
6.3.3 High-tech exports, % total trade	0.7	86	
6.3.4 ICT services exports, % total trade	6.4	13	●◆
6.3.5 ISO 9001 quality/bn PPP$ GDP	2.6	81	
Creative outputs	**31.5**	**51**	
7.1 Intangible assets	**41.9**	**32**	●◆
7.1.1 Intangible asset intensity, top 15, %	n/a	n/a	
7.1.2 Trademarks by origin/bn PPP$ GDP	80.8	12	●◆
7.1.3 Global brand value, top 5,000, % GDP	0	75	○◇
7.1.4 Industrial designs by origin/bn PPP$ GDP	7	11	●◆
7.2 Creative goods and services	**10.3**	**[70]**	
7.2.1 Cultural and creative services exports, % total trade	0.7	43	
7.2.2 National feature films/mn pop. 15–69	n/a	n/a	
7.2.3 Entertainment and media market/th pop. 15–69	n/a	n/a	
7.2.4 Creative goods exports, % total trade	0.1	89	
7.3 Online creativity	**31.9**	**50**	
7.3.1 Top-level domains (TLDs)/th pop. 15–69	3.1	68	
7.3.2 GitHub commits/mn pop. 15–69	14.5	49	
7.3.3 Mobile app creation/bn PPP$ GDP	78.1	12	●◆

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question, 🕒 that the economy's data is outdated. Square brackets [ ] indicate the the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level; n/a represents missing values; a dash - indicates an indicator which is not relevant to this economy and thus not considered for DMC thresholds.



Data availability

The following tables list indicators that are either missing or outdated for Republic of Moldova.

Republic of Moldova has missing data for seven indicators and outdated data for nine indicators.

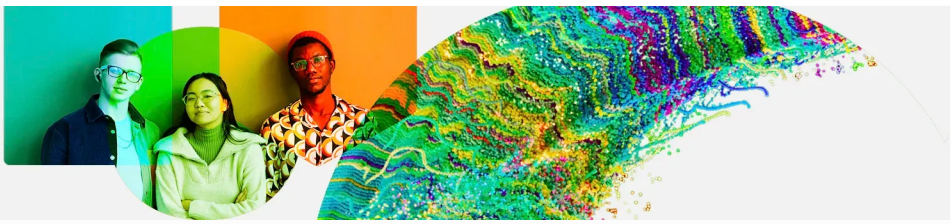
Missing data for Republic of Moldova

Code	Indicator name	Economy Year	Model Year	Source
1.3.2	Entrepreneurship policies and culture†	n/a	2023	Global Entrepreneurship Monitor
4.1.1	Finance for startups and scaleups†	n/a	2023	Global Entrepreneurship Monitor
4.2.1	Market capitalization, % GDP	n/a	2022	World Federation of Exchanges; World Bank
4.2.2	Venture capital (VC) investors, deals/bn PPP$ GDP	n/a	2023	LSEG Data & Analytics; International Monetary Fund
7.1.1	Intangible asset intensity, top 15, %	n/a	2023	Brand Finance
7.2.2	National feature films/mn pop. 15–69	n/a	2022	OMDIA; United Nations, World Population Prospects
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2023	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

Outdated data for Republic of Moldova

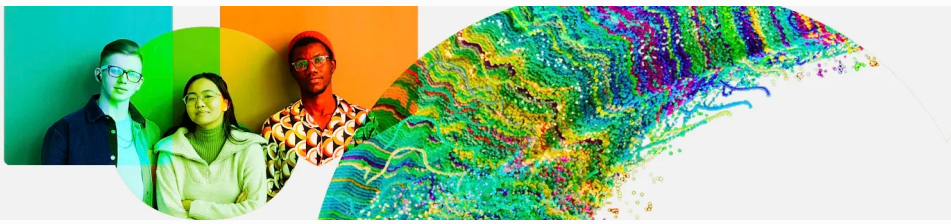
Code	Indicator name	Economy Year	Model Year	Source
1.3.1	Policy stability for doing business†	2021	2023	World Economic Forum, Executive Opinion Survey (EOS)
2.1.5	Pupil–teacher ratio, secondary	2021	2022	UNESCO Institute for Statistics
5.1.2	Firms offering formal training, %	2019	2023	World Bank Enterprise Surveys
5.1.3	GERD performed by business, % GDP	2018	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.4	GERD financed by business, %	2018	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.2.2	University-industry R&D collaboration†	2021	2023	World Economic Forum, Executive Opinion Survey (EOS)
5.2.3	State of cluster development†	2021	2023	World Economic Forum, Executive Opinion Survey (EOS)
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	2022	2023	LSEG Data & Analytics; International Monetary Fund

Global Innovation Index 2024



Code	Indicator name	Economy Year	Model Year	Source
5.3.5	Research talent, % in businesses	2018	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT

Global Innovation Index 2024



About the Global Innovation Index

- The Global Innovation Index (GII) is published by the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations.
- Recognizing that innovation is a key driver of economic development, the GII aims to provide an innovation ranking and rich analysis referencing around 130 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a "tool for action" for economies that incorporate the GII into their innovation agendas.

Source: Global Innovation Index Database, WIPO, 2024.

The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that include institutions, human capital and research, infrastructure, credit, investment, linkages; the creation, absorption and diffusion of knowledge; and creative outputs.

The GII has two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index, and seven pillars, each consisting of three sub-pillars.