The Global Innovation Index (GII) is a ranking of world economies based on innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.

The following table shows the rankings of the Republic of Moldova over the past three years, noting that data availability and the GII model influence year-on-year comparisons of the GII ranks. The confidence interval for the Republic of Moldova’s ranking in the GII 2019 is between 52 and 60.

<table>
<thead>
<tr>
<th></th>
<th>GII</th>
<th>Innovation Inputs</th>
<th>Innovation Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>58</td>
<td>81</td>
<td>45</td>
</tr>
<tr>
<td>2018</td>
<td>48</td>
<td>79</td>
<td>37</td>
</tr>
<tr>
<td>2017</td>
<td>54</td>
<td>73</td>
<td>42</td>
</tr>
</tbody>
</table>

- The Republic of Moldova performs better in Innovation Outputs than Inputs.
- This year the Republic of Moldova ranks 81st in Innovation Inputs, worse than last year and compared to 2017.
- As for Innovation Outputs, the Republic of Moldova ranks 45th. This position is worse than last year and compared to 2017.

The Republic of Moldova ranks 58th among the 129 economies featured in the GII 2019.

The Republic of Moldova ranks 7th among the 26 lower middle-income economies.

The Republic of Moldova ranks 35th among the 39 economies in Europe.
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 considered Innovation under-performers relative to GDP.

Relative to GDP, the Republic of Moldova performs above its expected level of development.

GII scores and GDP per capita in PPP US$ (bubbles sized by population)
EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

The chart below shows the relationship between innovation inputs and innovation outputs, indicating which economies best translate innovation investments into innovation outputs. Economies appearing above the line are effectively translating their costly innovation investments into more and higher-quality outputs. In contrast, those below the line are not effectively translating innovation inputs into outputs.

The Republic of Moldova produces more innovation outputs relative to its level of innovation investments.
Scores of the Republic of Moldova in the seven GII pillars

Lower middle-income economies

The Republic of Moldova has high scores in 6 out of the 7 GII pillars: Institutions, Human capital & research, Infrastructure, Market sophistication, Knowledge & technology outputs, and Creative outputs, which are above the average of the lower middle-income group.

Europe Region

Compared to other economies in Europe, the Republic of Moldova performs below average in all of the 7 GII pillars.

Top ranks are found in sub-pillars Business environment, Education, Investment, Knowledge creation, and Intangible assets where the country ranks in the top 50 worldwide.
OVERVIEW OF THE RANKINGS OF THE REPUBLIC OF MOLDOVA IN THE 7 GII AREAS

The Republic of Moldova performs the best in Knowledge & technology outputs and its weakest performance is in Business sophistication.

*The highest possible ranking in each pillar is 1.

THE REPUBLIC OF MOLDOVA’S INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the Republic of Moldova’s strengths and weaknesses in the GII 2019.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Code</th>
<th>Indicator name</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
<td>1.3.1</td>
<td>Ease of starting a business*</td>
<td>12</td>
</tr>
<tr>
<td>Strengths</td>
<td>2.1.1</td>
<td>Expenditure on education, % GDP</td>
<td>11</td>
</tr>
<tr>
<td>Strengths</td>
<td>2.1.2</td>
<td>Government funding/pupil, secondary, % GDP/cap</td>
<td>7</td>
</tr>
<tr>
<td>Strengths</td>
<td>2.3.3</td>
<td>ICT services imports, % total trade</td>
<td>28</td>
</tr>
<tr>
<td>Strengths</td>
<td>2.6.1</td>
<td>Knowledge creation</td>
<td>28</td>
</tr>
<tr>
<td>Strengths</td>
<td>2.6.1</td>
<td>Utility models by origin/bn PPP$ GDP</td>
<td>4</td>
</tr>
<tr>
<td>Strengths</td>
<td>2.6.1</td>
<td>Growth rate of PPP$ GDP/worker, %, 3-year average</td>
<td>13</td>
</tr>
<tr>
<td>Strengths</td>
<td>6.3.3</td>
<td>ICT services exports, % total trade</td>
<td>18</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>2.1.1</td>
<td>Intangible assets</td>
<td>26</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>2.3.3</td>
<td>Trademarks by origin/bn PPP$ GDP</td>
<td>7</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>2.3.3</td>
<td>Industrial designs by origin/bn PPP$ GDP</td>
<td>11</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>7.3.4</td>
<td>Mobile app creation/bn PPP$ GDP</td>
<td>20</td>
</tr>
</tbody>
</table>

THE REPUBLIC OF MOLDOVA’S INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the Republic of Moldova’s strengths and weaknesses in the GII 2019.

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.3</td>
<td>Global R&amp;D companies, top 3, in mn US$</td>
<td>43</td>
</tr>
<tr>
<td>2.3.4</td>
<td>QS university ranking, average score top 3*</td>
<td>78</td>
</tr>
<tr>
<td>3.2</td>
<td>General infrastructure</td>
<td>115</td>
</tr>
<tr>
<td>3.3</td>
<td>Logistics performance</td>
<td>106</td>
</tr>
<tr>
<td>3.3</td>
<td>Logistics performance*</td>
<td>116</td>
</tr>
<tr>
<td>3.3.1</td>
<td>Ecological sustainability</td>
<td>112</td>
</tr>
<tr>
<td>3.3.3</td>
<td>ISO 14001 environmental certificates/bn PPP$ GDP</td>
<td>111</td>
</tr>
<tr>
<td>4.3</td>
<td>Trade, competition, &amp; market scale</td>
<td>108</td>
</tr>
<tr>
<td>4.3.3</td>
<td>Domestic market scale, bn PPP$</td>
<td>121</td>
</tr>
<tr>
<td>5.2</td>
<td>Innovation linkages</td>
<td>120</td>
</tr>
<tr>
<td>5.2.1</td>
<td>University/industry research collaboration*</td>
<td>109</td>
</tr>
<tr>
<td>5.2.2</td>
<td>State of cluster development*</td>
<td>124</td>
</tr>
<tr>
<td>5.3.5</td>
<td>Research talent, % in business enterprise</td>
<td>70</td>
</tr>
<tr>
<td>7.2.2</td>
<td>National feature films/mn pop. 15–69</td>
<td>99</td>
</tr>
</tbody>
</table>
STRENGTHS

- GII strengths for the Republic of Moldova are found in five of the seven GII pillars, and mostly on the innovation output side of the GII.
- Four of these relative strengths are in Knowledge & technology outputs (44), where the Republic of Moldova shows strengths in sub-pillar Knowledge creation (28) as well as in three indicators: Utility models by origin (4), Labor productivity growth (13), and ICT services exports (18).
- In Creative outputs (49), strengths are found in sub-pillar Intangible assets (26) as well as in three indicators: Trademarks by origin (7), Industrial designs by origin (11), and Mobile app creation (20).
- In Institutions (82), the Republic of Moldova’s only strength is indicator Ease of starting a business (12).
- In Human capital & research (64), relative strengths for the country are indicators Expenditure on education (11) and Government funding per pupil (7).
- In Business sophistication (93), indicator ICT services imports (28) is a GII strength for this country.

WEAKNESSES

- The Republic of Moldova’s weaknesses in the GII are found in five of the seven GII pillars, and mostly on the innovation input side of the GII.
- In Human capital & research (64), GII weaknesses are indicators Global R&D companies (43) and Quality of universities (78).
- In Infrastructure (88), relative weaknesses are sub-pillars General infrastructure (115) and Ecological sustainability (116) and indicators Logistics performance (106), GDP per unit of energy use (112), and ISO 14001 environmental certificates (111).
- In Market sophistication (60), GII weaknesses are sub-pillar Trade, competition, & market scale (108) and indicator Domestic market scale (121).
- In Business sophistication (93), the Republic of Moldova has weaknesses in sub-pillar Innovation linkages (120) as well as in three indicators: University-industry research collaboration (109), State of cluster development (124), and Research talent (70).
- On the innovation output side, only one weakness is found in indicator National feature films (99).
## REPUBLIC OF MOLDOVA (THE)

<table>
<thead>
<tr>
<th>Output rank</th>
<th>Input rank</th>
<th>Income</th>
<th>Region</th>
<th>Population (mn)</th>
<th>GDP, PPP$</th>
<th>GDP per capita, PPP$</th>
<th>Gil 2018 rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>81</td>
<td>Lower middle EUR</td>
<td>4.0</td>
<td>25.2</td>
<td>7,304.5</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

### INSTITUTIONS

- **Political environment**
  - Political and operational stability
  - Government effectiveness
- **Regulatory environment**
  - Regulatory quality
  - Rule of law
  - Cost of redundancy dismissal, salary weeks
- **Business environment**
  - Ease of starting a business
  - Ease of resolving insolvency

### HUMAN CAPITAL & RESEARCH

- **Education**
  - Expenditure on education, % GDP
  - Government funding/pup, secondary, % GDP/cap.
  - School life expectancy, years
  - PISA scales in reading, maths, & science
  - Research & development (R&D)
  - QS university ranking, average score top 3
- **Tertiary education**
  - Tertiary enrolment, % gross
  - Graduates in science & engineering, %
  - Tertiary inbound mobility
- **Research & development (R&D)**
  - Researchers, FTE/mn pop.
  - Gross expenditure on R&D, % GDP
  - Global R&D companies, avg. exp. top 3, mn US$
  - QS university ranking, average score top 3
- **Institution**
  - University/industry research collaboration
  - Females employed w/advanced degrees, %
  - Knowledge workers
  - Patent filings, patents per mn pop.

### BUSINESS SOPHISTICATION

- **Knowledge workers**
  - Knowledge-intensive employment, %
  - Firms offering formal training, % firms
  - GERD performed by business, % GDP
  - GERD financed by business, %
  - Females employed w/advanced degrees, %
- **Innovation linkages**
  - State of cluster development
  - GERD financed by abroad, %
  - JV-strategic alliance deals/bn PPP$ GDP
  - Patent families 2+ offices/bn PPP$ GDP
  - Knowledge absorption
  - Intellectual property payments, % total trade
  - ICT services imports, % total trade
  - FDI net inflows, % GDP
  - Research talent, % in business enterprise

### KNOWLEDGE & TECHNOLOGY OUTPUTS

- **Business sophistication**
- **Creativity outputs**
  - Intangible assets
  - Trademarks by origin/bn PPP$ GDP
  - Industrial design by origin/bn PPP$ GDP
  - ICTs & business model creation
  - ICTs & organizational model creation
  - Creative goods & services
  - Cultural & creative services exports, % total trade
  - National feature films/mn pop 15-64
  - Entertainment & Media market/t h pop 15-69
  - Printing & other media, % manufacturing
  - Creative goods exports, % total trade
  - Online creativity
  - Generic top-level domains (TLDs)/th pop 15-69
  - Country-code TLDs/th pop 15-69
  - Wikipedia edits/mn pop 15-69
  - Mobile app creation/bn PPP$ GDP

### NOTES

- ○ indicates a strength; ◆ a weakness; ★ an income group strength; ♦ an income group weakness; * an index; † a survey question; ○ indicates that the economy's data are older than the base year; see Appendix II for details, including the year of the data, at http://globalinnovationindex.org. Square brackets [ ] indicate that the data minimum coverage (EMC) requirements were not met at the sub-pillar or pillar level.
DATA AVAILABILITY

The following tables list data that are missing or are outdated for the Republic of Moldova.

Missing data

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Country year</th>
<th>Model year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2.2</td>
<td>Market capitalization, % GDP</td>
<td>n/a</td>
<td>2017</td>
<td>World Federation of Exchanges</td>
</tr>
<tr>
<td>4.2.3</td>
<td>Venture capital deals/bn PPP$ GDP</td>
<td>n/a</td>
<td>2018</td>
<td>Thomson Reuters</td>
</tr>
<tr>
<td>5.2.4</td>
<td>JV–strategic alliance deals/bn PPP$ GDP</td>
<td>n/a</td>
<td>2018</td>
<td>Thomson Reuters</td>
</tr>
<tr>
<td>7.2.3</td>
<td>Entertainment &amp; Media market/th pop. 15–69</td>
<td>n/a</td>
<td>2017</td>
<td>PwC</td>
</tr>
</tbody>
</table>

Outdated data

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Country year</th>
<th>Model year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.2</td>
<td>Graduates in science &amp; engineering, %</td>
<td>2015</td>
<td>2016</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>4.3.1</td>
<td>Applied tariff rate, weighted mean, %</td>
<td>2016</td>
<td>2017</td>
<td>World Bank</td>
</tr>
<tr>
<td>7.2.2</td>
<td>National feature films/mn pop. 15–69</td>
<td>2015</td>
<td>2017</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>7.3.3</td>
<td>Wikipedia edits/mn pop. 15–69</td>
<td>2014</td>
<td>2017</td>
<td>Wikimedia Foundation</td>
</tr>
</tbody>
</table>
ABOUT THE GLOBAL INNOVATION INDEX

The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2019, the GII presents its 12th edition devoted to the theme Creating Healthy Lives—The Future of Medical Innovation.

Recognizing that innovation is a key driver of economic development, the GII aims to provide a rich innovation ranking and 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 countries that incorporate the GII into their innovation agendas.

The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that includes 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 containing three sub-pillars.