Global Innovation Index 2023

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.

Jordan ranking in the Global Innovation Index 2023

> Jordan ranks 71st among the 132 economies featured in the GII 2023.

> Jordan ranks 16th among the 33 upper-middle-income group economies.

> Jordan ranks 12th among the 18 economies in Northern Africa and Western Asia.

> Jordan GII Ranking (2020–2023)

The table shows the rankings of Jordan 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 Jordan in the GII 2023 is between ranks 68 and 77.

<table>
<thead>
<tr>
<th>Year</th>
<th>GII Position</th>
<th>Innovation Inputs</th>
<th>Innovation Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>81st</td>
<td>77th</td>
<td>81st</td>
</tr>
<tr>
<td>2021</td>
<td>81st</td>
<td>79th</td>
<td>81st</td>
</tr>
<tr>
<td>2022</td>
<td>78th</td>
<td>71st</td>
<td>78th</td>
</tr>
<tr>
<td>2023</td>
<td>71st</td>
<td>70th</td>
<td>76th</td>
</tr>
</tbody>
</table>

Jordan performs worse in innovation outputs than innovation inputs in 2023.

This year Jordan ranks 70th in innovation inputs. This position is higher than last year.

Jordan ranks 76th in innovation outputs. This position is higher than last year.
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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, Jordan is performing above expectations for its level of development.

Innovation overperformers relative to their economic development

↑ GII Score

- Innovation leader
- Performing above expectations for level of development
- Performing at expectations for level of development
- Performing below expectations for level of development

Size legend (Population)

GDP per capita, PPP logarithmic scale (thousands of $)
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.

- Jordan produces less innovation outputs relative to its level of innovation investments.

Relationship between innovation inputs and outputs

![Graph showing the relationship between innovation inputs and outputs](image)
→ Overview of Jordan’s rankings in the seven areas of the GII in 2023

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

> Highest rankings

Jordan ranks highest in Institutions (51st), Market sophistication (53rd) and Business sophistication (70th).

> Lowest rankings

Jordan ranks lowest in Infrastructure (87th), Human capital and research (82nd) and Knowledge and technology outputs (76th).

The full WIPO Intellectual Property Statistics profile for Jordan can be found on this link.
Benchmark of Jordan against other country groupings for each of the seven areas of the GII Index

The charts show the relative position of Jordan (blue bar) against other country groupings (grey bars), for each of the seven areas of the GII Index.

**Upper-Middle-Income economies**
Jordan performs below the upper-middle-income group average in Knowledge and technology outputs, Creative outputs, Business sophistication, Human capital and research, Infrastructure.

**Northern Africa And Western Asia**
Jordan performs below the regional average in Knowledge and technology outputs, Creative outputs, Business sophistication, Human capital and research, Infrastructure.

### Knowledge and technology outputs
- **Top 10 | Score: 58.96**
- **NWA | Score: 24.01**
- **Upper middle income | Score: 22.36**
- **Jordan | Score: 20.31**

### Creative outputs
- **Top 10 | 56.09**
- **NWA | 24.51**
- **Upper middle income | 23.16**
- **Jordan | 20.68**

### Business sophistication
- **Top 10 | 64.39**
- **NWA | 29.44**
- **Upper middle income | 29.27**
- **Jordan | 26.98**

### Market sophistication
- **Top 10 | 61.93**
- **NWA | 37.80**
- **Upper middle income | 35.45**
- **Jordan | 36.93**

### Human capital and research
- **Top 10 | 60.28**
- **NWA | 32.72**
- **Upper middle income | 29.86**
- **Jordan | 26.85**

### Infrastructure
- **Top 10 | 62.83**
- **NWA | 41.60**
- **Upper middle income | 40.40**
- **Jordan | 32.50**

### Institutions
- **Top 10 | 79.85**
- **NWA | 56.87**
- **Upper middle income | 47.71**
- **Jordan | 53.39**
→ Innovation strengths and weaknesses in Jordan

The table below gives an overview of the indicator strengths and weaknesses of Jordan in the GII 2023.

> Jordan's main innovation strengths are **Cost of redundancy dismissal** (rank 1), **Scientific and technical articles/bn PPP$ GDP** (rank 15) and **VC received, value, % GDP** (rank 16).

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rank</strong></td>
<td><strong>Code</strong></td>
</tr>
<tr>
<td>1</td>
<td>1.2.3</td>
</tr>
<tr>
<td>15</td>
<td>6.1.4</td>
</tr>
<tr>
<td>16</td>
<td>4.2.4</td>
</tr>
<tr>
<td>19</td>
<td>2.2.3</td>
</tr>
<tr>
<td>27</td>
<td>7.3.4</td>
</tr>
<tr>
<td>27</td>
<td>5.2.2</td>
</tr>
<tr>
<td>30</td>
<td>4.3.2</td>
</tr>
<tr>
<td>35</td>
<td>2.2.2</td>
</tr>
<tr>
<td>40</td>
<td>4.1.2</td>
</tr>
<tr>
<td>40</td>
<td>5.2.1</td>
</tr>
</tbody>
</table>
Jordan's innovation system

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

Innovation inputs in Jordan

2.1.1 Expenditure on education, % GDP was equal to 3.18% GDP in 2021, up by 0.22 percentage points from the year prior – and equivalent to an indicator rank of 102.

2.2.2 Graduates in science and engineering, % was equal to 26.65% of total tertiary graduates in 2021, down by 1.57 percentage points from the year prior – and equivalent to an indicator rank of 35.

2.3.1 Researchers, FTE/mn pop. was equal to 595.96 FTE/mn pop. in 2017, up by 0.6% from the year prior – and equivalent to an indicator rank of 65.

2.3.2 Gross expenditure on R&D, % GDP was equal to 0.695 % GDP in 2016, equivalent to an indicator rank of 50.

2.3.4 QS university ranking, top 3 was equal to an average score of 16.1 for the top 3 universities in 2022, up by 4.072% from the year prior – and equivalent to an indicator rank of 59.

3.1.1 ICT access was equal to a score of 6.91 in 2021, up by 0.44% from the year prior – and equivalent to an indicator rank of 104.
4.1.1 Finance for startups and scaleups was equal to an average perception score of 4.95 in 2019, equivalent to an indicator rank of 35.

4.2.4 VC received, value, % GDP was equal to 0.00011% GDP in 2022, down by 0.012 percentage points from the year prior – and equivalent to an indicator rank of 16.

4.3.2 Domestic industry diversification was equal to an index score of 0.119 in 2020, down by 5.0068% from the year prior – and equivalent to an indicator rank of 30.

5.1.1 Knowledge-intensive employment, % was equal to 22.96% in 2021, up by 1.96 percentage points from the year prior – and equivalent to an indicator rank of 64.
Innovation outputs in Jordan

6.1.1 Patents by origin
was equal to 0.025 Thousands in 2021, down by 30.56% from the year prior – and equivalent to an indicator rank of 95.

6.1.5 Citable documents H-index
was equal to an index value of 242 in 2022, up by 10.5% from the year prior – and equivalent to an indicator rank of 71.

6.2.2 Unicorn valuation, % GDP
was equal to 0% GDP in 2023 – and equivalent to an indicator rank of 48.

6.2.3 Software spending, % GDP
was equal to 0.312% GDP in 2022, up by 0.027 percentage points from the year prior – and equivalent to an indicator rank of 41.

6.2.4 High-tech manufacturing, %
was equal to 17.71% of total manufacturing output in 2020, down by 4.83 percentage points from the year prior – and equivalent to an indicator rank of 67.

6.3.1 Intellectual property receipts, % total trade
was equal to 0.125% total trade in 2021, up by 0.082 percentage points from the year prior – and equivalent to an indicator rank of 65.
Global Innovation Index 2023

6.3.2 Production and export complexity
was equal to a score of 0.068 in 2020, up by 273.24% from the year prior – and equivalent to an indicator rank of 58.

6.3.3 High-tech exports
was equal to 222,898,877 USD in 2021, up by 21.22% from the year prior – and equivalent to an indicator rank of 71.

7.1.1 Intangible asset intensity, top 15, %
was equal to 39.73% in 2022, down by 5.09 percentage points from the year prior – and equivalent to an indicator rank of 62.

7.1.3 Global brand value, top 5,000
was equal to 0.436 bn USD in 2023, up by 22.19% from the year prior – and equivalent to an indicator rank of 55.

7.2.1 Cultural and creative services exports
was equal to 749,000 USD in 2021, up by 108.64% from the year prior – and equivalent to an indicator rank of 106.

7.2.2 National feature films/mn pop. 15-69
was equal to 0.55 films/mn pop. 15–69 in 2021, up by 289.66% from the year prior – and equivalent to an indicator rank of 68.
7.3.4 Mobile app creation/bn PPP$ GDP
was equal to 899,339.61 Apps/bn PPP$ GDP
in 2022, up by 38.61% from the year prior –
and equivalent to an indicator rank of 27.
Jordan's innovation top performers

2.3.4 QS university ranking of Jordan's top universities

<table>
<thead>
<tr>
<th>Rank</th>
<th>University</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>591-600</td>
<td>UNIVERSITY OF JORDAN</td>
<td>21.10</td>
</tr>
<tr>
<td>801-1000</td>
<td>JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY</td>
<td>14.50</td>
</tr>
<tr>
<td>801-1000</td>
<td>GERMAN JORDANIAN UNIVERSITY</td>
<td>12.70</td>
</tr>
</tbody>
</table>

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings(2023)).
Note: QS Quacquarelli Symonds Ltd annually assesses over 1,200 universities across the globe and scores them between [0,100]. Ranks can represent a single value "x", a tie "x=x" or a range "x-y".

7.1.1 Top 15 intangible-asset intensive companies in Jordan

<table>
<thead>
<tr>
<th>Rank</th>
<th>Firm</th>
<th>Intensity, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ARAB POTASH</td>
<td>57.86</td>
</tr>
<tr>
<td>2</td>
<td>JORDAN PHOSPHATE MINES</td>
<td>64.02</td>
</tr>
<tr>
<td>3</td>
<td>HIKMA PHARMACEUTICALS PLC</td>
<td>38.35</td>
</tr>
</tbody>
</table>

Note: Brand Finance only provides within economy ranks.

7.1.3 Top 5,000 companies in Jordan with highest global brand value

<table>
<thead>
<tr>
<th>Rank</th>
<th>Brand</th>
<th>Industry</th>
<th>Brand Value, mn USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ARAB BANK</td>
<td>Banking</td>
<td>435.9</td>
</tr>
</tbody>
</table>

Note: Rank corresponds to within economy ranks.
## Global Innovation Index 2023

**Jordan**

<table>
<thead>
<tr>
<th>Output rank</th>
<th>Input rank</th>
<th>Income</th>
<th>Region</th>
<th>Population (mn)</th>
<th>GDP, PPP$ (bn)</th>
<th>GDP per capita, PPP$</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>70</td>
<td>11.3</td>
<td>NAWA</td>
<td>123.4</td>
<td>11,974.9</td>
<td></td>
</tr>
</tbody>
</table>

### Institutions

<table>
<thead>
<tr>
<th>Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.9</td>
<td>51</td>
</tr>
</tbody>
</table>

1. **1.1 Institutional environment**
   - 45.1 65
   - 1.1.1 Operational stability for businesses* 47.2 75
   - 1.1.2 Government effectiveness* 43.0 59
   - 1.2 Regulatory environment
     - 1.2.1 Regulatory quality* 46.0 63
     - 1.2.2 Rule of law* 46.0 55
   - 1.2.3 Cost of redundancy dismissal 8.0 1
   - 1.3 Business environment
     - 1.3.1 Policies for doing business* 56.6 46
     - 1.3.2 Entrepreneurship policies and culture* 40.2 46
   - **2.1 Education**
     - 2.1.1 Expenditure on education, % GDP 36.9 108
     - 2.1.2 Government funding/pupil, secondary, % GDP/cap 16.9 68
     - 2.1.3 School life expectancy, years 10.9 98
     - 2.1.4 PISA scales in reading, maths and science 416.0 58
     - 2.1.5 Pupil-teacher ratio, secondary 15.4 80
   - 2.2 Tertiary education
     - 2.2.1 Tertiary enrolment, % gross 34.1 84
     - 2.2.2 Graduates in science and engineering, % 26.9 35
     - 2.2.3 Tertiary inatbility, % 12.3 19
   - 3.1.1 ICT access* 53.4 104
   - 3.1.2 ICT use* 65.7 82
   - 3.1.3 Government’s online service* 62.4 73
   - 3.1.4 E-participation* 53.5 67
   - **3.2 General infrastructure**
     - 3.2.1 Electricity output, GWh/mn. pop. 2,063.1 81
     - 3.2.2 Logistics performance* 16.5 30
     - 3.2.3 Grass capital formation, % GDP 20.7 94
     - 3.3 Ecological sustainability 26.3 60
     - 3.3.1 GDP/unit of energy use 11.0 56
     - 3.3.2 Environmental performance* 41.9 60
     - 3.3.3 ISO 14001 environment/bn PPP$ GDP 1.5 58
   - **4.1 Credit**
     - 4.1.1 Finance for startups and scaleups* 58.1 35
     - 4.1.2 Domestic credit to private sector, % GDP 82.2 40
     - 4.1.3 Loans from microfinance institutions, % GDP 0.8 30
   - 4.2 Investment
     - 4.2.1 Market capitalization, % GDP 46.8 37
     - 4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP 0.1 37
     - 4.2.3 VC recipients, deals/bn PPP$ GDP 0.1 36
     - 4.2.4 VC received, value, % GDP 0.0 16
   - 4.3 Trade, diversification, and market scale
     - 4.3.1 Applied tariff rate, weighted avg., % 4.0 83
     - 4.3.2 Domestic industry diversification 94.6 30
     - 4.3.3 Domestic market scale, bn PPP$ 123.4 83

### Note

**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 appendices for details, including the year of the data, at https://www.wipo.int/igi-ranking. Square brackets [ ] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.
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→ Data availability

The following tables list indicators that are either missing or outdated for Jordan.

> Jordan has missing data for six indicators and outdated data for seven indicators.

> Missing data for Jordan

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Economy Year</th>
<th>Model Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1.3</td>
<td>GERD performed by business, % GDP</td>
<td>n/a</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>5.1.4</td>
<td>GERD financed by business, %</td>
<td>n/a</td>
<td>2020</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>5.2.3</td>
<td>GERD financed by abroad, % GDP</td>
<td>n/a</td>
<td>2020</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>5.3.5</td>
<td>Research talent, % in businesses</td>
<td>n/a</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>6.1.3</td>
<td>Utility models by origin/bn PPP$ GDP</td>
<td>n/a</td>
<td>2021</td>
<td>World Intellectual Property Organization; International Monetary Fund</td>
</tr>
</tbody>
</table>

> Outdated data for Jordan

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Economy Year</th>
<th>Model Year</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>1.3.2</td>
<td>Entrepreneurship policies and culture</td>
<td>2019</td>
<td>2022</td>
<td>Global Entrepreneurship Monitor</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Researchers, FTE/mn pop.</td>
<td>2017</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
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<tr>
<td>2.3.2</td>
<td>Gross expenditure on R&amp;D, % GDP</td>
<td>2016</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
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<tr>
<td>3.2.1</td>
<td>Electricity output, GWh/mn pop.</td>
<td>2020</td>
<td>2021</td>
<td>International Energy Agency</td>
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<tr>
<td>4.1.1</td>
<td>Finance for startups and scaleups</td>
<td>2019</td>
<td>2022</td>
<td>Global Entrepreneurship Monitor</td>
</tr>
<tr>
<td>5.1.1</td>
<td>Knowledge-intensive employment, %</td>
<td>2021</td>
<td>2022</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>5.1.5</td>
<td>Females employed w/advanced degrees, %</td>
<td>2021</td>
<td>2022</td>
<td>International Labour Organization</td>
</tr>
</tbody>
</table>
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.

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.