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.

Qatar ranking in the Global Innovation Index 2023

> Qatar ranks 50th among the 132 economies featured in the GII 2023.

> Qatar ranks 42nd among the 50 high-income group economies.

> Qatar ranks 6th among the 18 economies in Northern Africa and Western Asia.

> Qatar GII Ranking (2020-2023)

The table shows the rankings of Qatar 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 Qatar in the GII 2023 is between ranks 49 and 65.

<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>70th</td>
<td>64th</td>
<td>72nd</td>
</tr>
<tr>
<td>2021</td>
<td>68th</td>
<td>64th</td>
<td>70th</td>
</tr>
<tr>
<td>2022</td>
<td>52nd</td>
<td>38th</td>
<td>67th</td>
</tr>
<tr>
<td>2023</td>
<td>50th</td>
<td>39th</td>
<td>70th</td>
</tr>
</tbody>
</table>

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

This year Qatar ranks 39th in innovation inputs. This position is lower than last year.

Qatar ranks 70th in innovation outputs. This position is lower than last year.
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, Qatar’s performance is below expectations for its level of development.

Innovation overperformers relative to their economic development

GII Score

Qatar

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.

Qatar 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.](chart.png)
Overview of Qatar’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 Qatar are those that rank above the GII (shown in blue) and the weakest are those that rank below.

- **Highest rankings**
  - 23rd Institutions
  - 39th Infrastructure
  - 44th Market sophistication
  - 50th Global Innovation Index
  - 54th Human capital and research

- **Lowest rankings**
  - 65th Creative outputs
  - 73rd Business sophistication
  - 82nd Knowledge and technology outputs

Qatar ranks highest in Institutions (23rd), Infrastructure (39th) and Market sophistication (44th).

Qatar ranks lowest in Knowledge and technology outputs (82nd), Business sophistication (73rd) and Creative outputs (65th).

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

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

> High-Income economies
Qatar performs below the high-income group average in Knowledge and technology outputs, Creative outputs, Business sophistication, Market sophistication, Human capital and research, Infrastructure.

> Northern Africa And Western Asia
Qatar performs above the regional average in Creative outputs, Market sophistication, Human capital and research, Infrastructure, Institutions.

Knowledge and technology outputs
- **Top 10** | **Score: 58.96**
- **High income** | **Score: 38.62**
- **NAWA** | **Score: 24.01**
- **Qatar** | **Score: 18.38**

Creative outputs
- **Top 10** | **56.09**
- **High income** | **40.27**
- **Qatar** | **24.65**
- **NAWA** | **24.51**

Business sophistication
- **Top 10** | **64.39**
- **High income** | **46.38**
- **NAWA** | **29.44**
- **Qatar** | **26.60**

Market sophistication
- **Top 10** | **61.93**
- **High income** | **46.42**
- **Qatar** | **40.75**
- **NAWA** | **36.12**

Human capital and research
- **Top 10** | **60.28**
- **High income** | **46.30**
- **Qatar** | **33.79**
- **NAWA** | **32.72**

Infrastructure
- **Top 10** | **62.83**
- **High income** | **55.85**
- **Qatar** | **53.36**
- **NAWA** | **41.60**

Institutions
- **Top 10** | **79.85**
- **Qatar** | **71.64**
- **High income** | **68.16**
- **NAWA** | **53.39**

|
Innovation strengths and weaknesses in Qatar

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

> Qatar’s main innovation strengths are Tertiary inbound mobility, % (rank 1), Electricity output, GWh/mn pop. (rank 5) and Entrepreneurship policies and culture (rank 7).

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>Code</td>
</tr>
<tr>
<td>1</td>
<td>2.2.3</td>
</tr>
<tr>
<td>5</td>
<td>3.2.1</td>
</tr>
<tr>
<td>7</td>
<td>1.3.2</td>
</tr>
<tr>
<td>9</td>
<td>1.3.1</td>
</tr>
<tr>
<td>10</td>
<td>5.2.1</td>
</tr>
<tr>
<td>12</td>
<td>3.1.1</td>
</tr>
<tr>
<td>14</td>
<td>4.1.2</td>
</tr>
<tr>
<td>16</td>
<td>5.2.2</td>
</tr>
<tr>
<td>19</td>
<td>7.1.3</td>
</tr>
<tr>
<td>25</td>
<td>5.3.3</td>
</tr>
</tbody>
</table>
Qatar’s innovation system

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

Innovation inputs in Qatar

2.1.1 Expenditure on education, % GDP
was equal to 3.23% GDP in 2020, up by 0.42 percentage points from the year prior – and equivalent to an indicator rank of 99.

2.2.2 Graduates in science and engineering, %
was equal to 18.73% of total tertiary graduates in 2021, down by 2.36 percentage points from the year prior – and equivalent to an indicator rank of 83.

2.3.1 Researchers, FTE/mn pop.
was equal to 902.58 FTE/mn pop. in 2021, up by 56.33% from the year prior – and equivalent to an indicator rank of 53.

2.3.2 Gross expenditure on R&D, % GDP
was equal to 0.681% GDP in 2021, up by 0.15 percentage points from the year prior – and equivalent to an indicator rank of 52.

2.3.4 QS university ranking, top 3
was equal to an average score of 14.2 for the top 3 universities in 2022, up by 4.64% from the year prior – and equivalent to an indicator rank of 60.

3.1.1 ICT access
was equal to a score of 9.54 in 2021, up by 0.32% from the year prior – and equivalent to an indicator rank of 12.
4.1.1 Finance for startups and scaleups was equal to an average perception score of 5.14 in 2022, equivalent to an indicator rank of 28.

4.2.4 VC received, value, % GDP was equal to 0% GDP in 2022, down by 0.000014 percentage points from the year prior – and equivalent to an indicator rank of 100.

4.3.2 Domestic industry diversification was equal to an index score of 0.223 in 2019, up by 4.15% from the year prior – and equivalent to an indicator rank of 76.

5.1.1 Knowledge-intensive employment, % was equal to 21.88% in 2020, up by 3.76 percentage points from the year prior – and equivalent to an indicator rank of 69.
Innovation outputs in Qatar

6.1.1 Patents by origin
was equal to 0.048 Thousands in 2021, down by 44.83% from the year prior – and equivalent to an indicator rank of 103.

6.1.5 Citable documents H-index
was equal to an index value of 272 in 2022, up by 14.29% from the year prior – and equivalent to an indicator rank of 65.

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 0.321% GDP in 2022, up by 0.041 percentage points from the year prior – and equivalent to an indicator rank of 37.

6.2.4 High-tech manufacturing, %
was equal to 37.69% of total manufacturing output in 2019, up by 1.5 percentage points from the year prior – and equivalent to an indicator rank of 30.

6.3.1 Intellectual property receipts, % total trade
was equal to 0% total trade in 2015 – and equivalent to an indicator rank of 114.
6.3.2 Production and export complexity was equal to a score of -0.176 in 2020, up by 61.82% from the year prior – and equivalent to an indicator rank of 70.

6.3.3 High-tech exports was equal to 203,672,435 USD in 2021, down by 67.27% from the year prior – and equivalent to an indicator rank of 103.

7.1.1 Intangible asset intensity, top 15, % was equal to 48.04% in 2022, up by 5.87 percentage points from the year prior – and equivalent to an indicator rank of 50.

7.1.3 Global brand value, top 5,000 was equal to 22.042 bn USD in 2023, up by 22.38% from the year prior – and equivalent to an indicator rank of 19.

7.2.1 Cultural and creative services exports was equal to 126,441,000 USD in 2021, down by 52.13% from the year prior – and equivalent to an indicator rank of 75.

7.3.4 Mobile app creation/bn PPP$ GDP was equal to 93,234.79 Apps/bn PPP$ GDP in 2022, up by 260.44% from the year prior – and equivalent to an indicator rank of 80.
# Qatar’s innovation top performers

## 2.3.4 QS university ranking of Qatar’s top universities

<table>
<thead>
<tr>
<th>Rank</th>
<th>University</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>208</td>
<td>QATAR UNIVERSITY</td>
<td>42.80</td>
</tr>
</tbody>
</table>

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings/2023).<br>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* or a range *x-x*.

## 7.1.1 Top 15 intangible-asset intensive companies in Qatar

<table>
<thead>
<tr>
<th>Rank</th>
<th>Firm</th>
<th>Intensity, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>QATAR NATIONAL BANK QPSC</td>
<td>49.96</td>
</tr>
<tr>
<td>2</td>
<td>INDUSTRIES QATAR QSC</td>
<td>42.92</td>
</tr>
<tr>
<td>3</td>
<td>QATAR ISLAMIC BANK SAQ</td>
<td>55.62</td>
</tr>
</tbody>
</table>


## 7.1.3 Top 5,000 companies in Qatar 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>QNB</td>
<td>Banking</td>
<td>7,666.1</td>
</tr>
<tr>
<td>2</td>
<td>OOREDOO</td>
<td>Telecoms</td>
<td>3,143.0</td>
</tr>
<tr>
<td>3</td>
<td>QATARGAS</td>
<td>Oil &amp; Gas</td>
<td>3,104.7</td>
</tr>
</tbody>
</table>

Source: Brand Finance (https://brandirectory.com).<br>Note: Rank corresponds to within economy ranks.
### Qatar

#### Global Innovation Index 2023

<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>70</td>
<td>39</td>
<td>High</td>
<td>NAVA</td>
<td>2.7</td>
<td>303.6</td>
<td>113,674.8</td>
</tr>
</tbody>
</table>

---

#### Business sophistication

<table>
<thead>
<tr>
<th>Score</th>
<th>Rank</th>
<th>Value</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.6</td>
<td>50</td>
<td>73</td>
<td>50</td>
</tr>
</tbody>
</table>

5.1 Knowledge workers
5.1.1 Knowledge-intensive employment, %
5.1.2 Firms offering formal training, %
5.1.3 GERD performed by business, % GDP
5.1.4 GERD financed by business, %
5.1.5 Females employed w/advanced degrees, %
5.2 Innovation linkages
5.2.1 University-industry R&D collaboration%
5.2.2 State of cluster development
5.2.3 GERD financed by abroad, % GDP
5.2.4 Joint venture/strategic alliance deals, bn PPP$ GDP
5.2.5 Patent families, bn PPP$ GDP
5.3 Knowledge absorption
5.3.1 Intellectual property payments, % total trade
5.3.2 High-tech imports, % total trade
5.3.3 ICT services imports, % total trade
5.3.4 FDI net inflows, % GDP
5.3.5 Research talent, % in businesses

---

#### Knowledge and technology outputs

18.4  82

6.1 Knowledge creation
6.1.1 Patents by origin, bn PPP$ GDP
6.1.2 PCT patents by origin, bn PPP$ GDP
6.1.3 Utility models by origin, bn PPP$ GDP
6.1.4 Scientific and technical articles, bn PPP$ GDP
6.1.5 Citable documents, H-index
6.2 Knowledge impact
6.2.1 Labor productivity growth, %
6.2.2 Uncorn, % GDP
6.2.3 Software spending, % GDP
6.2.4 High-tech manufacturing, %
6.3 Knowledge diffusion
6.3.1 Intellectual property receipts, % total trade
6.3.2 Production and export complexity
6.3.3 High-tech exports, % total trade
6.3.4 ICT services exports, % total trade
6.3.5 ISO 9001 quality, bn PPP$ GDP

---

#### Creative outputs

24.7  85

7.1 Intangible assets
7.1.1 Intangible asset intensity, % total
7.1.2 Trademarks by origin, bn PPP$ GDP
7.1.3 Global brand value, bn PPP$ GDP
7.1.4 Industrial designs by origin, bn PPP$ GDP
7.2 Creative goods and services
7.2.1 Cultural and creative services exports, % total trade
7.2.2 National feature films/mn pop., bn PPP$ GDP
7.2.3 Entertainment and media market, bn PPP$ GDP
7.2.4 Creative goods exports, % total trade
7.3 Online creativity
7.3.1 Generic top-level domains (TLDs), bn PPP$ GDP
7.3.2 Country-code TLDs, bn PPP$ GDP
7.3.3 GitHub commits/mn pop., bn PPP$ GDP
7.3.4 Mobile app creation, bn PPP$ GDP

---

### Human Capital and Research

<table>
<thead>
<tr>
<th>Score</th>
<th>Rank</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.8</td>
<td>54</td>
<td>54</td>
</tr>
</tbody>
</table>

#### Institutions

1.1 Institutional environment
1.1.1 Operational stability for businesses*
1.1.2 Government effectiveness*
1.2 Regulatory environment
1.2.1 Regulatory quality*
1.2.2 Rule of law*
1.2.3 Cost of redundancy dismissal
1.3 Business environment
1.3.1 Policies for doing business*
1.3.2 Entrepreneurial policies and culture*

---

#### Infrastructure

53.4  39

3.1 Information and communication technologies (ICTs)
3.1.1 ICT access*
3.1.2 ICT use*
3.1.3 Government's online service*
3.1.4 E-participation*
3.2 General infrastructure
3.2.1 Electric output, GWh/mn pop.
3.2.2 Logistics performance*
3.2.3 Grass capital formation, % GDP
3.3 Ecological sustainability
3.3.1 GDP/unit of energy use
3.3.2 Environmental performance*
3.3.3 ISO 14001 environment, bn PPP$ GDP

---

#### Market sophistication

40.7  44

4.1 Credit
4.1.1 Finance for startups and scaleups*
4.1.2 Domestic credit to private sector, % GDP
4.1.3 Loans from microfinance institutions, % GDP
4.2 Investment
4.2.1 Market capitalization, % GDP
4.2.2 Venture capital (VC) investors, bn PPP$ GDP
4.2.3 VC recipients, bn PPP$ GDP
4.2.4 VC received, value, % GDP
4.3 Trade, diversification, and market scale
4.3.1 Applied tariff rate, weighted avg., %
4.3.2 Domestic industry diversification
4.3.3 Domestic market scale, bn PPP$ GDP

---

**Note:** 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/gii-ranking. Square brackets [ ] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.
Data availability

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

> Qatar has missing data for seven indicators and outdated data for twelve indicators.

### Missing data for Qatar

<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>2.1.2</td>
<td>Government funding/pupil, secondary, % GDP/cap</td>
<td>n/a</td>
<td>2019</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>3.2.3</td>
<td>Gross capital formation, % GDP</td>
<td>n/a</td>
<td>2022</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>4.1.3</td>
<td>Loans from microfinance institutions, % GDP</td>
<td>n/a</td>
<td>2021</td>
<td>International Monetary Fund, Financial Access Survey (FAS)</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Firms offering formal training, %</td>
<td>n/a</td>
<td>2019</td>
<td>World Bank Enterprise Surveys</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>
<tr>
<td>7.1.4</td>
<td>Industrial designs by origin/bn PPP$ GDP</td>
<td>n/a</td>
<td>2021</td>
<td>World Intellectual Property Organization; International Monetary Fund</td>
</tr>
<tr>
<td>7.2.2</td>
<td>National feature films,mn pop. 15-69</td>
<td>n/a</td>
<td>2021</td>
<td>OMDIA; United Nations, World Population Prospects</td>
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</tbody>
</table>

### Outdated data for Qatar

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
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<th>Model Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1</td>
<td>Expenditure on education, % GDP</td>
<td>2020</td>
<td>2021</td>
<td>UNESCO Institute for Statistics</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>4.3.2</td>
<td>Domestic industry diversification</td>
<td>2019</td>
<td>2020</td>
<td>United Nations Industrial Development Organization</td>
</tr>
<tr>
<td>5.1.1</td>
<td>Knowledge-intensive employment, %</td>
<td>2020</td>
<td>2022</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>5.1.3</td>
<td>GERD performed by business, % GDP</td>
<td>2018</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>2018</td>
<td>2020</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>5.1.5</td>
<td>Females employed w/advanced degrees, %</td>
<td>2020</td>
<td>2022</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>Code</td>
<td>Indicator name</td>
<td>Economy Year</td>
<td>Model Year</td>
<td>Source</td>
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<tr>
<td>------</td>
<td>----------------------------------------------------</td>
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</tr>
<tr>
<td>5.2.3</td>
<td>GERD financed by abroad, % GDP</td>
<td>2018</td>
<td>2020</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>5.3.1</td>
<td>Intellectual property payments, % total trade</td>
<td>2015</td>
<td>2021</td>
<td>World Trade Organization and United Nations Conference on Trade and Development</td>
</tr>
<tr>
<td>5.3.5</td>
<td>Research talent, % in businesses</td>
<td>2018</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>6.2.4</td>
<td>High-tech manufacturing, %</td>
<td>2019</td>
<td>2020</td>
<td>United Nations Industrial Development Organization</td>
</tr>
<tr>
<td>6.3.1</td>
<td>Intellectual property receipts, % total trade</td>
<td>2015</td>
<td>2021</td>
<td>World Trade Organization and United Nations Conference on Trade and Development</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.