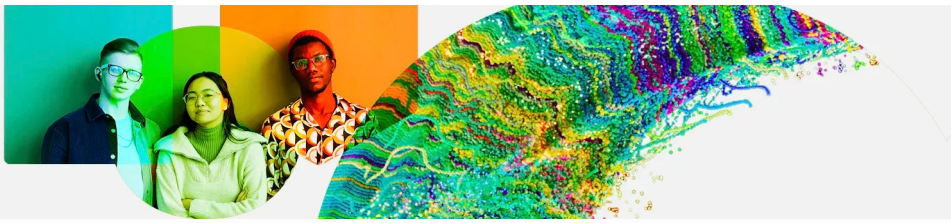
# Global Innovation Index 2024



## Jordan ranking in the Global Innovation Index 2024

Jordan ranks 73rd 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.



Jordan ranks 8th among the 38 lower-middle-income group economies.



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



### Jordan GII Ranking (2020-2024)

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 2024 is between ranks 68 and 74.

| Year | GII Position | Innovation Inputs | Innovation Outputs |
|---|---|---|---|
| 2020 | 81st | 77th | 81st |
| 2021 | 81st | 79th | 81st |
| 2022 | 78th | 71st | 78th |
| 2023 | 71st | 70th | 76th |
| 2024 | 73rd | 69th | 74th |

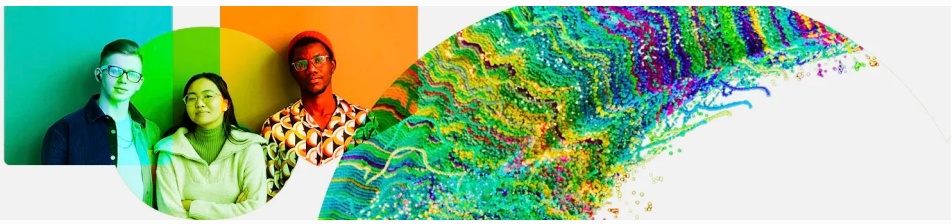
Jordan performs worse in innovation outputs than innovation inputs in 2024.

This year **Jordan ranks 69th in innovation inputs.** This position is higher than last year.

**Jordan ranks 74th in innovation outputs.** This position is higher than last year.

Jordan 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 Jordan, how rapidly is technology being embraced and what are the resulting societal impacts.

For Jordan, 4 indicators have improved in the short-term and 5 indicators have worsened.

### Science and innovation investment

| Scientific publications | R&D investments | Venture capital | | International patent filings |
|---|---|---|---|---|
| | | Deal numbers | Deal values | |
| ▲ 7.7%<br>2022 - 2023 | n/a | ▼ -20%<br>2022 - 2023 | ▼ -77.1%<br>2022 - 2023 | ▼ -24%<br>2022 - 2023 |
| ▲ 14.4%<br>2013 - 2023 | ▲ 9.5%<br>2008 - 2016 | ▼ -5.4%<br>2013 - 2023 | ▼ -14.3%<br>2013 - 2023 | ▲ 34.2%<br>2013 - 2023 |

### Technology adoption

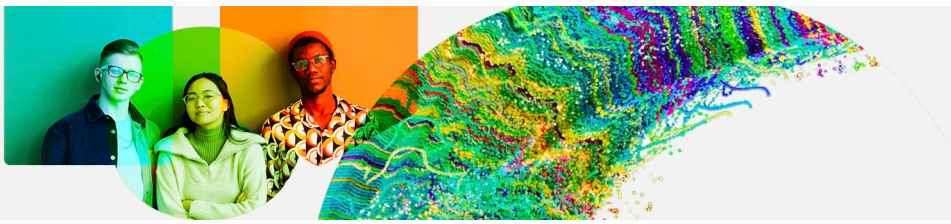
| Safe sanitation | Connectivity | | Robots | Electric vehicles |
|---|---|---|---|---|
| | Fixed broadband | 5G | | |
| ▲ 0.1%<br>2021 - 2022 | ▲ 10%<br>2021 - 2022 | n/a | n/a | n/a |
| ▲ 0.2%<br>2012 - 2022 | ▲ 5.4%<br>2012 - 2022 | | n/a | n/a |
| 82.3<br>per 100 inhabitants in 2022 | 7.1<br>per 100 inhabitants in 2022 | n/a | | n/a |

### Socioeconomic impact

| Labor productivity | Life expectancy | Temperature change |
|---|---|---|
| ▲ 0.7%<br>2022 - 2023 | ▼ -0.1%<br>2021 - 2022 | ▲ 2°C<br>2023 |
| ▼ -2.5%<br>2013 - 2023 | 0%<br>2012 - 2022 | n/a |
| 53,213<br>USD in 2023 | 74.2<br>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



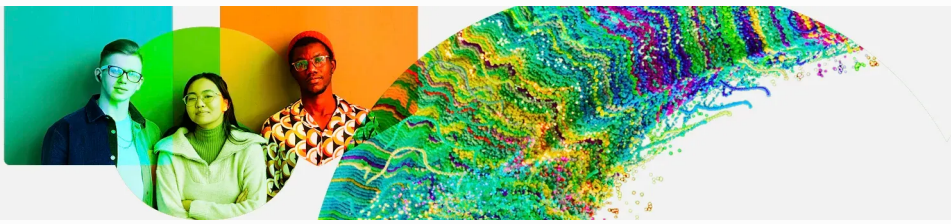
## Expected vs. observed innovation performance

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, Jordan is performing above expectations for its level of development.

> Innovation overperformers relative to their economic development

Global Innovation Index 2024



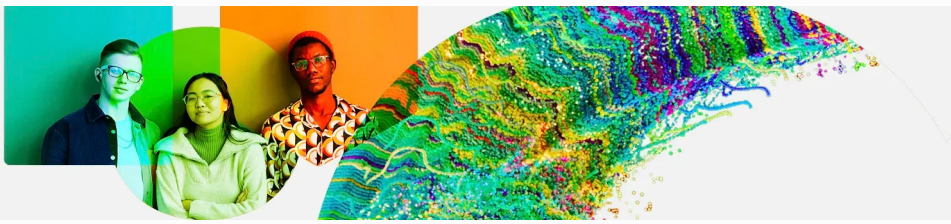
## Effectively translating innovation investments into innovation outputs

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.

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

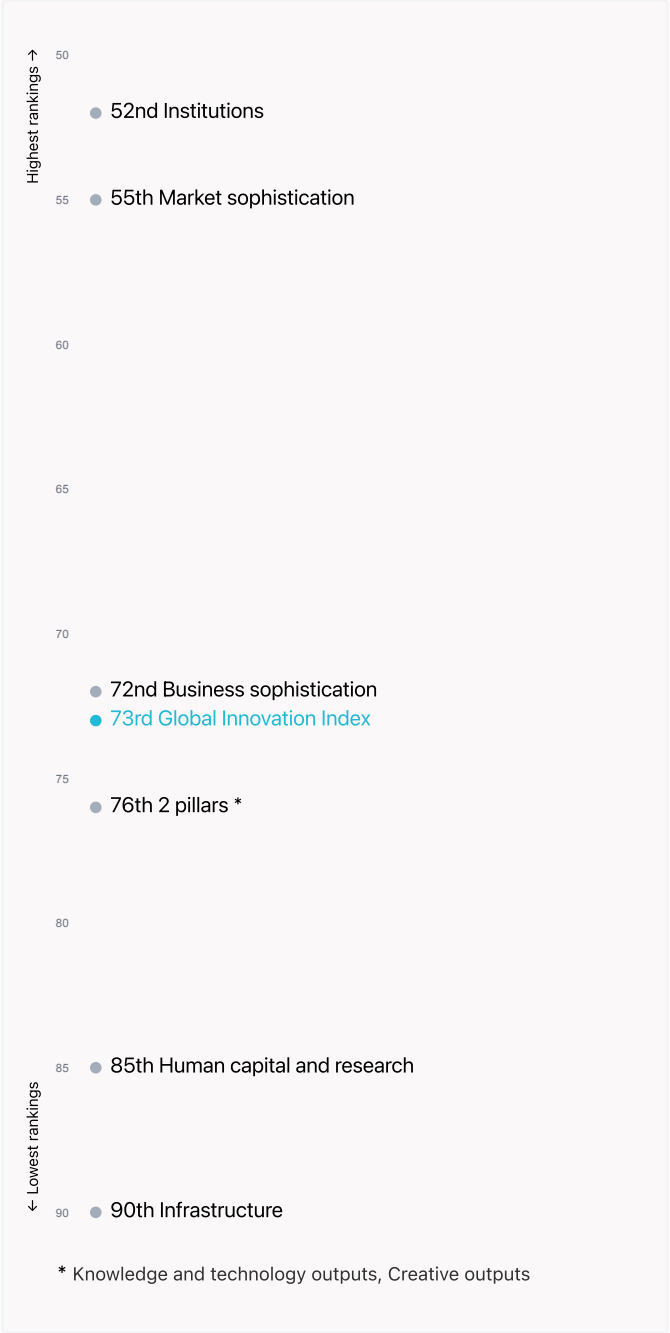
> Relationship between innovation inputs and outputs

# Global Innovation Index 2024



## Overview of Jordan'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 Jordan are those that rank above the GII (shown in blue) and the weakest are those that rank below.




### Highest rankings

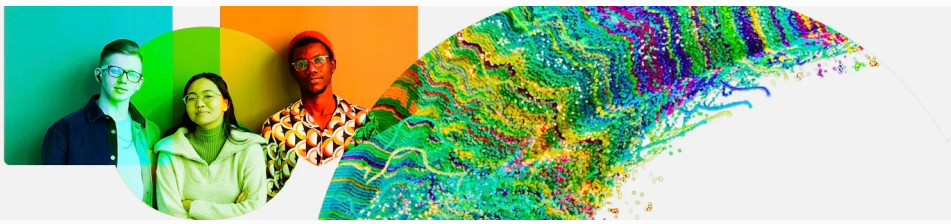
Jordan ranks highest in Institutions (52nd), Market sophistication (55th) and Business sophistication (72nd).

### Lowest rankings

Jordan ranks lowest in Infrastructure (90th), Human capital and research (85th) and Knowledge and technology outputs, Creative outputs (76th).

The full WIPO Intellectual Property Statistics profile for Jordan can be found on this link.

# Global Innovation Index 2024



## Benchmark of Jordan against other economy groupings for each of the seven areas of the GII Index

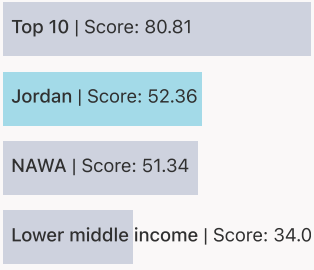
The charts shows the relative position of Jordan (blue bar) against other economy groupings (grey bars), for each of the seven areas of the GII Index.

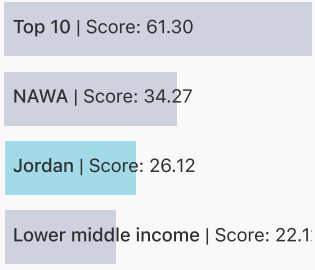
### Lower-Middle-Income economies

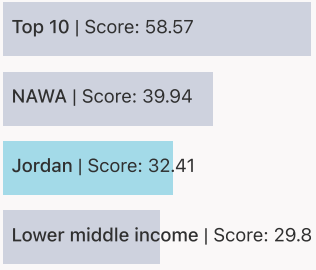
Jordan performs above the lower-middle-income group average in all pillars.

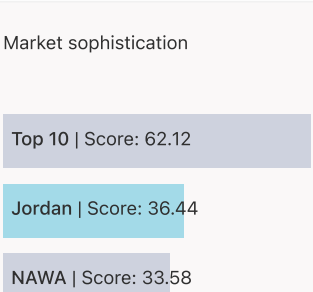
### Northern Africa And Western Asia

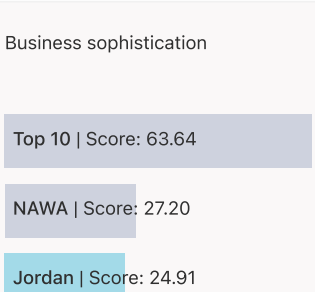
Jordan performs above the regional average in Institutions, Market sophistication.

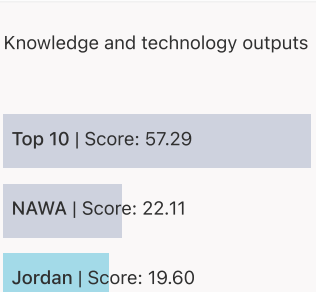


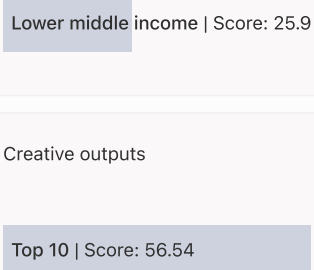



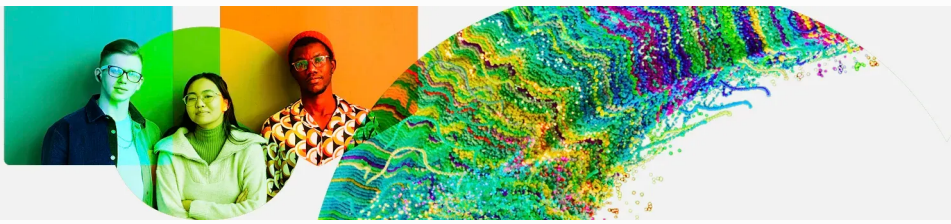



Global Innovation Index 2024



## Innovation strengths and weaknesses in Jordan

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

Jordan's main innovation strengths are **Scientific and technical articles/bn PPP$ GDP** (rank 12), **VC received, value, % GDP** (rank 14) and **State of cluster development†** (rank 15).

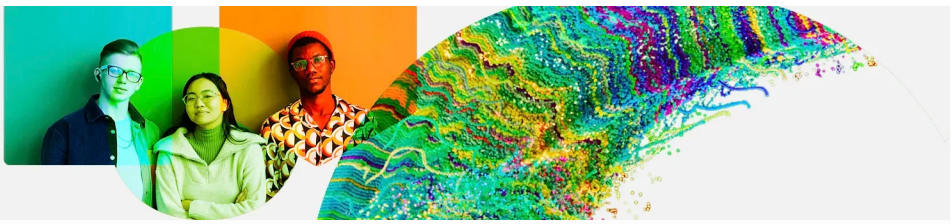
Strengths

| Rank | Code | Indicator name |
|---|---|---|
| 12 | 6.1.4 | Scientific and technical articles/bn PPP$ GDP |
| 14 | 4.2.4 | VC received, value, % GDP |
| 15 | 5.2.3 | State of cluster development† |
| 20 | 7.2.4 | Creative goods exports, % total trade |
| 21 | 5.2.2 | University-industry R&D collaboration† |
| 23 | 2.2.3 | Tertiary inbound mobility, % |
| 26 | 7.3.3 | Mobile app creation/bn PPP$ GDP |
| 30 | 1.3.1 | Policy stability for doing business† |
| 31 | 3.1.1 | ICT access* |
| 34 | 6.2.3 | Software spending, % GDP |

Weaknesses

| Rank | Code | Indicator name |
|---|---|---|
| 131 | 6.3.4 | ICT services exports, % total trade |
| 127 | 5.3.3 | ICT services imports, % total trade |
| 117 | 3.2.3 | Gross capital formation, % GDP |
| 116 | 5.2.1 | Public Research-Industry co-publications, % |
| 110 | 7.2.1 | Cultural and creative services exports, % total trade |
| 81 | 2.1.4 | PISA scales in reading, maths and science |
| 75 | 7.2.2 | National feature films/mn pop. 15–69 |
| 54 | 7.2.3 | Entertainment and media market/th pop. 15–69 |
| 49 | 6.2.2 | Unicorn valuation, % GDP |
| 41 | 2.3.3 | Global corporate R&D investors, top 3, mn USD |

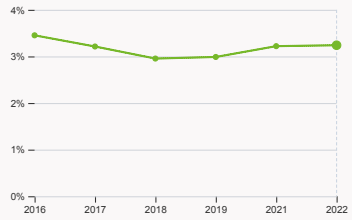
# Global Innovation Index 2024



## Jordan's innovation system

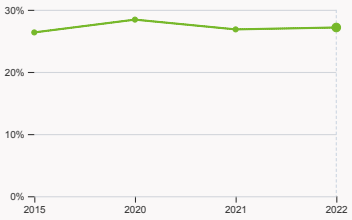
As far as practicable, the plots below present unscaled indicator data.

### Innovation inputs in Jordan



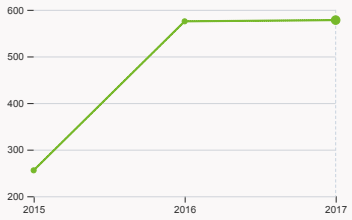

2.1.1 **Expenditure on education**

was equal to 3.24 % GDP in 2022, up by 0.02 percentage points from the year prior – and equivalent to an indicator rank of 98.



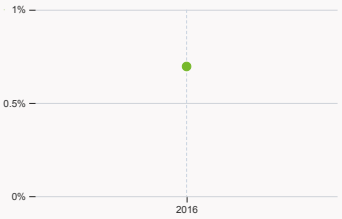

2.2.2 **Graduates in science and engineering**

was equal to 27.16 % of total graduates in 2022, up by 0.3 percentage points from the year prior – and equivalent to an indicator rank of 36.




2.3.1 **Researchers**

was equal to 577.92 FTE per million population in 2017, up by 0.45% from the year prior – and equivalent to an indicator rank of 67.

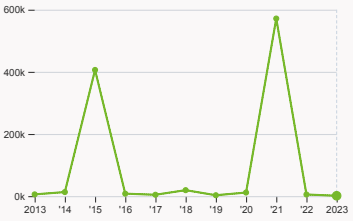



2.3.2 **Gross expenditure on R&D**

was equal to 0.7 % GDP in 2016 – and equivalent to an indicator rank of 51.


2.3.4 **QS university ranking**

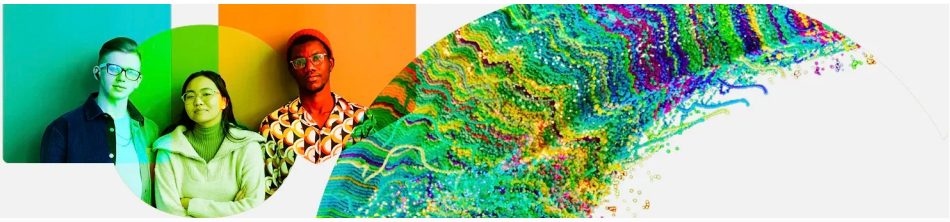
was equal to an average score of 17.53 for the top three universities in 2023, up by 8.88% from the year prior – and equivalent to an indicator rank of 52.

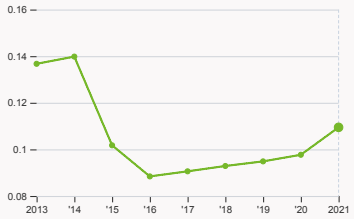



4.2.4 **VC received, value**

was equal to 1.21 thousand USD in 2023, down by 77.13% from the year prior – and equivalent to an indicator rank of 14.

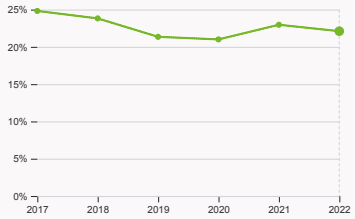
# Global Innovation Index 2024






### 4.3.2 Domestic industry diversification

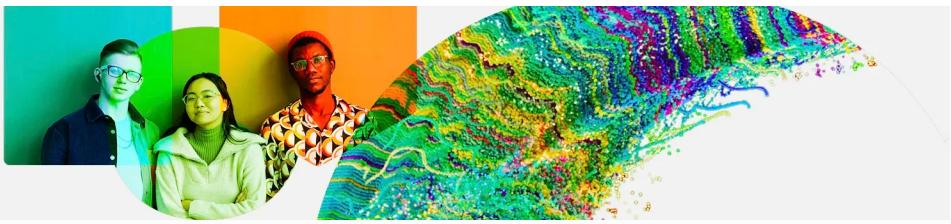
was equal to an index score of 0.11 in 2021, up by 12.05% from the year prior – and equivalent to an indicator rank of 38.



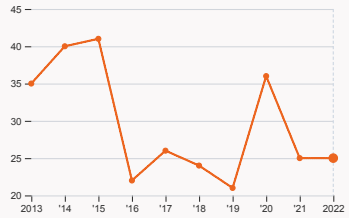

### 5.1.1 Knowledge-intensive employment

was equal to 22.1 % in 2022, down by 0.86 percentage points from the year prior – and equivalent to an indicator rank of 68.

# Global Innovation Index 2024

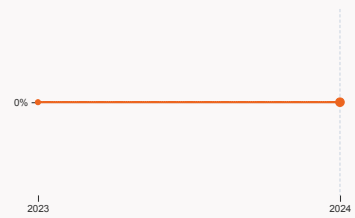


## Innovation outputs in Jordan



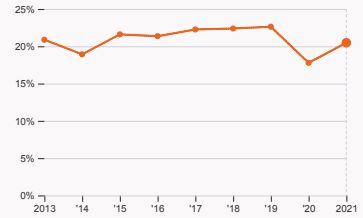

### 6.1.1 Patents by origin

was equal to 25 patents in 2022 with no change from the year prior – and equivalent to an indicator rank of 100.



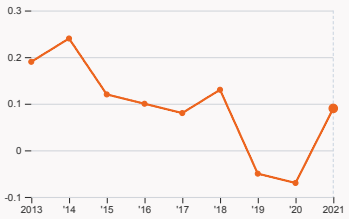

### 6.2.2 Unicorn valuation

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



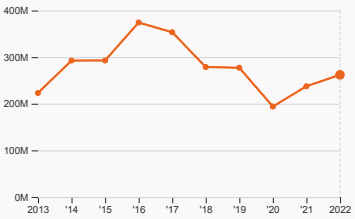

### 6.2.4 High-tech manufacturing

was equal to 20.47 % of total manufacturing output in 2021, up by 2.69 percentage points from the year prior – and equivalent to an indicator rank of 61.



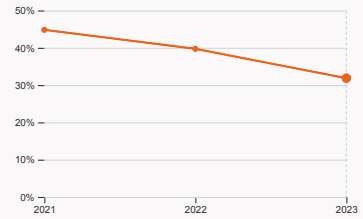

### 6.3.2 Production and export complexity

was equal to a score of 0.09 in 2021, up by 228.57% from the year prior – and equivalent to an indicator rank of 57.



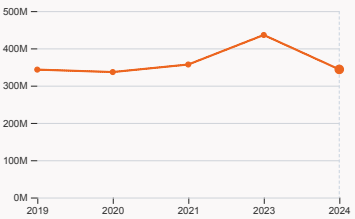

### 6.3.3 High-tech exports

was equal to 262.05 million USD in 2022, up by 10.33% from the year prior – and equivalent to an indicator rank of 75.




### 7.1.1 Intangible asset intensity

was equal to 31.86 % for the top 15 companies in 2023, down by 7.87 percentage points from the year prior – and equivalent to an indicator rank of 65.

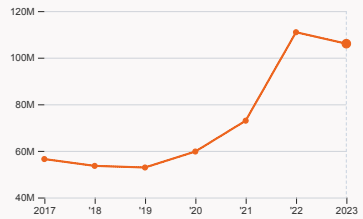



### 7.1.3 Global brand value

was equal to 343.58 million USD for the brands in the top 5,000 in 2024, down by 21.17% from the year prior – and equivalent to an indicator rank of 59.

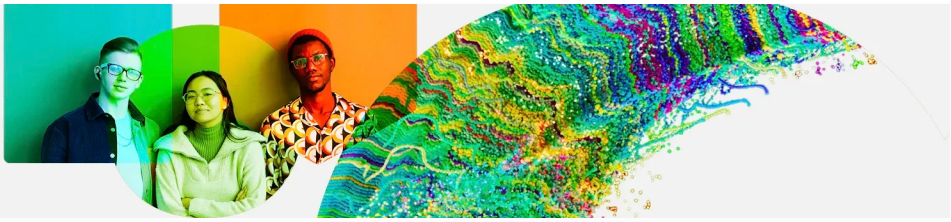

### 7.2.2 National feature films

was equal to 4 films in 2022 with no change from the year prior – and equivalent to an indicator rank of 75.




### 7.3.3 Mobile app creation

was equal to 106.01 million global downloads of mobile apps in 2023, down by 4.44% from the year prior – and equivalent to an indicator rank of 26.



# Jordan's innovation top performers

## 2.3.4 QS university ranking of Jordan's top universities

| Rank | University | Score |
|---|---|---|
| 498 | UNIVERSITY OF JORDAN | 23.20 |
| 731-740 | JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY | 16.00 |
| 801-850 | AL-AHLIYYA AMMAN UNIVERSITY | 13.40 |

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=" or a range "x-y".

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

| Rank | Firm | Intensity, % |
|---|---|---|
| 1 | JORDAN PHOSPHATE MINES CO. PLC | 30.81 |
| 2 | ARAB POTASH COMPANY | 18.83 |
| 3 | JORDAN PETROLEUM REFINERY CO. LTD. | 15.18 |

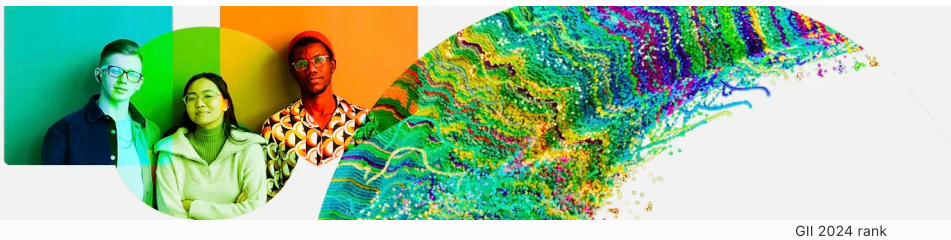
Source: Brand Finance (https://brandirectory.com/reports/gift-2022).
Note: Brand Finance only provides within economy ranks.

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

| Rank | Brand | Industry | Brand Value, mn USD |
|---|---|---|---|
| 1 | ARAB BANK | Banking | 343.6 |

Source: Brand Finance (https://brandirectory.com).
Note: Rank corresponds to within economy ranks.

# Global Innovation Index 2024



# Jordan

GII 2024 rank **73**

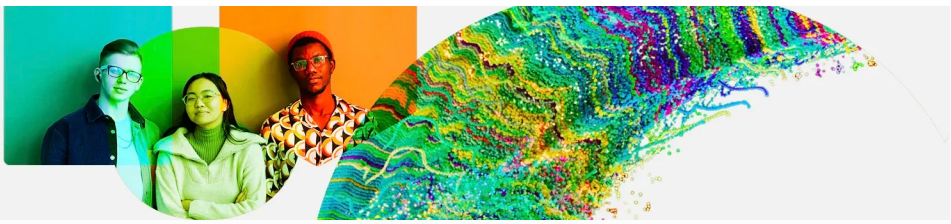
| Output rank | Input rank | Income | Region | Population (mn) | GDP, PPP$ (bn) | GDP per capita, PPP$ |
|---|---|---|---|---|---|---|
| 74 | 69 | Lower middle | NAWA | 11.4 | 132.1 | 12,809.2 |

| | Score / Value | Rank | |
|---|---|---|---|
| **Institutions** | **52.4** | **52** | ◆ |
| **1.1 Institutional environment** | **51.9** | **73** | ◆ |
| 1.1.1 Operational stability for businesses* | 54.7 | 85 | |
| 1.1.2 Government effectiveness* | 49.1 | 56 | ◆ |
| **1.2 Regulatory environment** | **48** | **58** | ◆ |
| 1.2.1 Regulatory quality* | 46 | 65 | ◆ |
| 1.2.2 Rule of law* | 50.1 | 56 | ◆ |
| **1.3 Business environment** | **57.2** | **40** | |
| 1.3.1 Policy stability for doing business† | 69.2 | 30 | ● ◆ |
| 1.3.2 Entrepreneurship policies and culture† | 45.2 | 35 | |
| **Human capital and research** | **26.1** | **85** | |
| **2.1 Education** | **33.7** | **113** | |
| 2.1.1 Expenditure on education, % GDP | 3.2 | 98 | |
| 2.1.2 Government funding/pupil, secondary, % GDP/cap | 16.6 | 63 | |
| 2.1.3 School life expectancy, years | n/a | n/a | |
| 2.1.4 PISA scales in reading, maths and science | 359.3 | 81 | ○ |
| 2.1.5 Pupil–teacher ratio, secondary | 15.1 | 77 | |
| **2.2 Tertiary education** | **35.9** | **55** | ◆ |
| 2.2.1 Tertiary enrolment, % gross | 36 | 85 | |
| 2.2.2 Graduates in science and engineering, % | 27.2 | 36 | |
| 2.2.3 Tertiary inbound mobility, % | 10.8 | 23 | ● ◆ |
| **2.3 Research and development (R&D)** | **8.7** | **63** | |
| 2.3.1 Researchers, FTE/mn pop. | 577.9 | 67 | |
| 2.3.2 Gross expenditure on R&D, % GDP | 0.7 | 51 | |
| 2.3.3 Global corporate R&D investors, top 3, mn USD | 0 | 41 | ○ ◇ |
| 2.3.4 QS university ranking, top 3* | 17.7 | 52 | |
| **Infrastructure** | **32.4** | **90** | |
| **3.1 Information and communication technologies (ICTs)** | **71.6** | **71** | ◆ |
| 3.1.1 ICT access* | 97.8 | 31 | ● ◆ |
| 3.1.2 ICT use* | 72.8 | 80 | |
| 3.1.3 Government's online service* | 62.4 | 73 | ◆ |
| 3.1.4 E-participation* | 53.5 | 67 | ◆ |
| **3.2 General infrastructure** | **8** | **128** | ○ |
| 3.2.1 Electricity output, GWh/mn pop. | 1,916 | 83 | |
| 3.2.2 Logistics performance* | n/a | n/a | |
| 3.2.3 Gross capital formation, % GDP | 16.8 | 117 | ○ ◇ |
| **3.3 Ecological sustainability** | **17.6** | **75** | |
| 3.3.1 GDP/unit of energy use | 11.5 | 57 | |
| 3.3.2 Low-carbon energy use, % | 13 | 80 | |
| 3.3.3 ISO 14001 environment/bn PPP$ GDP | 1.7 | 59 | ◆ |
| **Market sophistication** | **36.4** | **55** | |
| **4.1 Credit** | **30.1** | **58** | |
| 4.1.1 Finance for startups and scaleups† | 50.2 | 38 | |
| 4.1.2 Domestic credit to private sector, % GDP | 84.4 | 34 | ◆ |
| 4.1.3 Loans from microfinance institutions, % GDP | 0.9 | 33 | |
| **4.2 Investment** | **22.5** | **37** | |
| 4.2.1 Market capitalization, % GDP | 47 | 40 | |
| 4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP | 0.1 | 45 | |
| 4.2.3 VC recipients, deals/bn PPP$ GDP | 0.06 | 45 | |
| 4.2.4 VC received, value, % GDP | 0.004 | 14 | ● ◆ |
| **4.3 Trade, diversification and market scale** | **56.7** | **66** | |
| 4.3.1 Applied tariff rate, weighted avg., % | 2.9 | 79 | |
| 4.3.2 Domestic industry diversification | 90.5 | 38 | |
| 4.3.3 Domestic market scale, bn PPP$ | 132.1 | 85 | |

| | Score / Value | Rank | |
|---|---|---|---|
| **Business sophistication** | **24.9** | **72** | |
| **5.1 Knowledge workers** | **25.3** | **[85]** | |
| 5.1.1 Knowledge-intensive employment, % | 22.1 | 68 | |
| 5.1.2 Firms offering formal training, % | 16.9 | 87 | |
| 5.1.3 GERD performed by business, % GDP | n/a | n/a | |
| 5.1.4 GERD financed by business, % | n/a | n/a | |
| 5.1.5 Females employed w/advanced degrees, % | 8 | 85 | |
| **5.2 Innovation linkages** | **34.5** | **36** | ◆ |
| 5.2.1 Public Research-Industry co-publications, % | 0.6 | 116 | ○ |
| 5.2.2 University-industry R&D collaboration† | 73.1 | 21 | ● ◆ |
| 5.2.3 State of cluster development† | 84.4 | 15 | ● ◆ |
| 5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP | 0.02 | 52 | ◆ |
| 5.2.5 Patent families/bn PPP$ GDP | 0.02 | 85 | |
| **5.3 Knowledge absorption** | **15** | **126** | ○ |
| 5.3.1 Intellectual property payments, % total trade | 0.2 | 97 | |
| 5.3.2 High-tech imports, % total trade | 6 | 99 | |
| 5.3.3 ICT services imports, % total trade | 0.2 | 127 | ○ |
| 5.3.4 FDI net inflows, % GDP | 1.8 | 78 | |
| 5.3.5 Research talent, % in businesses | n/a | n/a | |
| **Knowledge and technology outputs** | **19.6** | **76** | |
| **6.1 Knowledge creation** | **22.5** | **49** | ◆ |
| 6.1.1 Patents by origin/bn PPP$ GDP | 0.2 | 100 | |
| 6.1.2 PCT patents by origin/bn PPP$ GDP | 0.1 | 54 | ◆ |
| 6.1.3 Utility models by origin/bn PPP$ GDP | - | - | |
| 6.1.4 Scientific and technical articles/bn PPP$ GDP | 33.8 | 12 | ● ◆ |
| 6.1.5 Citable documents H-index | 10.8 | 70 | |
| **6.2 Knowledge impact** | **23** | **78** | |
| 6.2.1 Labor productivity growth, % | -0.8 | 114 | |
| 6.2.2 Unicorn valuation, % GDP | 0 | 49 | ○ ◇ |
| 6.2.3 Software spending, % GDP | 0.3 | 34 | ● ◆ |
| 6.2.4 High-tech manufacturing, % | 20.5 | 61 | |
| **6.3 Knowledge diffusion** | **13.3** | **81** | |
| 6.3.1 Intellectual property receipts, % total trade | 0.08 | 63 | |
| 6.3.2 Production and export complexity | 45.3 | 57 | ◆ |
| 6.3.3 High-tech exports, % total trade | 1 | 75 | |
| 6.3.4 ICT services exports, % total trade | 0.1 | 131 | ○ |
| 6.3.5 ISO 9001 quality/bn PPP$ GDP | 5.1 | 56 | ◆ |
| **Creative outputs** | **21.3** | **76** | |
| **7.1 Intangible assets** | **24** | **75** | |
| 7.1.1 Intangible asset intensity, top 15, % | 31.9 | 65 | |
| 7.1.2 Trademarks by origin/bn PPP$ GDP | 27.4 | 69 | |
| 7.1.3 Global brand value, top 5,000, % GDP | 0.7 | 59 | |
| 7.1.4 Industrial designs by origin/bn PPP$ GDP | 0.5 | 74 | |
| **7.2 Creative goods and services** | **10.3** | **72** | |
| 7.2.1 Cultural and creative services exports, % total trade | 0.003 | 110 | ○ |
| 7.2.2 National feature films/mn pop. 15–69 | 0.5 | 75 | ○ |
| 7.2.3 Entertainment and media market/th pop. 15–69 | 1.4 | 54 | ○ |
| 7.2.4 Creative goods exports, % total trade | 2.9 | 20 | ● ◆ |
| **7.3 Online creativity** | **27** | **59** | ◆ |
| 7.3.1 Top-level domains (TLDs)/th pop. 15–69 | 1.8 | 83 | |
| 7.3.2 GitHub commits/mn pop. 15–69 | 4.6 | 81 | |
| 7.3.3 Mobile app creation/bn PPP$ GDP | 74.5 | 26 | ● ◆ |

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.

# Global Innovation Index 2024



## 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 five indicators.

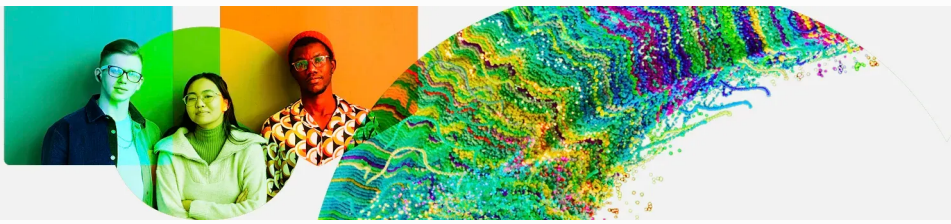
### Missing data for Jordan

| Code | Indicator name | Economy Year | Model Year | Source |
|---|---|---|---|---|
| 2.1.3 | School life expectancy, years | n/a | 2022 | UNESCO Institute for Statistics |
| 3.2.2 | Logistics performance* | n/a | 2023 | World Bank, Logistics Performance Index 2023 (https://lpi.worldbank.org/); and World Bank 2023, Connecting to Compete 2023: Trade Logistics in the Global Economy The Logistics Performance Index and its Indicators. |
| 5.1.3 | GERD performed by business, % GDP | n/a | 2022 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 5.1.4 | GERD financed by business, % | n/a | 2021 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 5.3.5 | Research talent, % in businesses | n/a | 2022 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 6.1.3 | Utility models by origin/bn PPP$ GDP | n/a | 2022 | World Intellectual Property Organization; International Monetary Fund |

### Outdated data for Jordan

| Code | Indicator name | Economy Year | Model Year | Source |
|---|---|---|---|---|
| 2.3.1 | Researchers, FTE/mn pop. | 2017 | 2022 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 2.3.2 | Gross expenditure on R&D, % GDP | 2016 | 2022 | UNESCO Institute for Statistics; Eurostat; OECD; RICYT |
| 3.2.1 | Electricity output, GWh/mn pop. | 2021 | 2022 | International Energy Agency |
| 5.1.2 | Firms offering formal training, % | 2019 | 2023 | World Bank Enterprise Surveys |
| 5.1.5 | Females employed w/advanced degrees, % | 2022 | 2023 | International Labour Organization |

# 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.