

GLOBAL INNOVATION INDEX 2018

Jordan

79th Jordan is ranked 79th in the GII 2018, moving up 4 positions from the previous year.

The GII indicators are grouped into innovation inputs and outputs. The following table reflects Jordan's ranking over time¹.

Jordan's ranking over time

	GII	Input	Output	Efficiency
2018	79	88	67	50
2017	83	92	74	57
2016	82	88	77	58

- Jordan performs better in innovation outputs than innovation inputs.
- Overall it exhibits stable performance in innovation inputs, taking the 88th position this year.
- Over the last three years, the country has improved in innovation outputs, reaching the 67th position this year and gaining 7 positions from 2017 and 10 from 2016.
- Jordan positions 50th in the Innovation Efficiency Ratio, moving up from the 57th and 58th spot in 2017 and 2016. Relative to its overall GII position (79th), the Efficiency Ratio (50th) is rather strong, indicating that the economy is quite efficient in translating its innovation inputs into outputs. This high rank is partly due to a higher rank in outputs (67th) compared to inputs (88th).

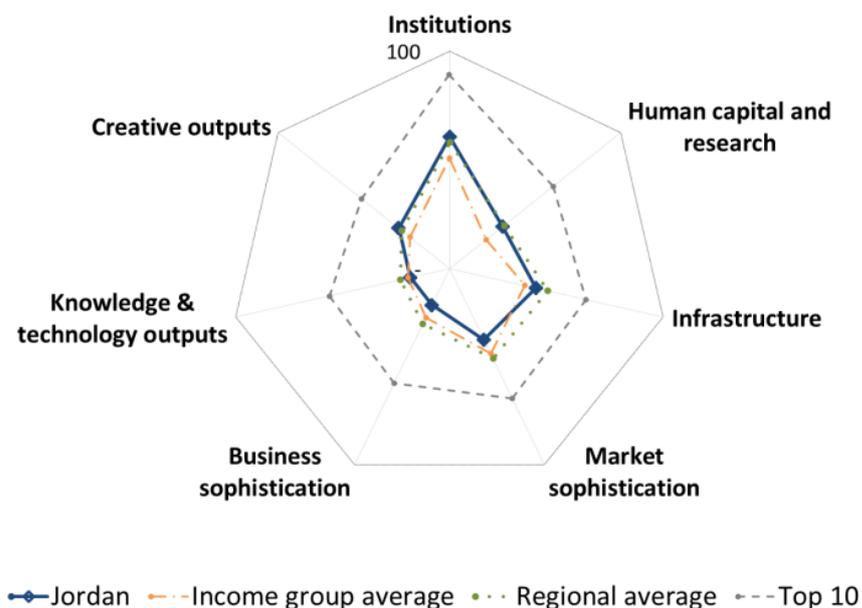
12th Jordan is ranked 12th among the 30 lower-middle-income economies in the GII 2018.

14th Jordan is ranked 14th among the 19 countries in Northern Africa and Western Asia.

¹ Note that year-on-year comparisons of the GII ranks are imperfect and influenced by changes in the GII model and data availability.

Benchmarking Jordan to other lower-middle-income countries and the Northern Africa and Western Asia region

Jordan's scores by GII area



Lower-middle-income countries

Jordan has high scores in 4 of the 7 GII areas – **Institutions, Human Capital & Research, Infrastructure, and Creative Outputs**, in which it scores above the average of the lower-middle-income group.

Top scores in areas such as *Regulatory environment, Tertiary education, Information & Communication Technologies (ICTs), and Intangible assets* are behind these high rankings.

Northern Africa and Western Asia region

Compared to other countries in the Northern Africa and Western Asia region, Jordan performs above-average in 2 of the 7 GII areas: **Institutions and Creative Outputs**.

Jordan's innovation profile

Strengths

- On the **innovation input** side, Jordan presents strengths in four of the five GII areas capturing inputs.
- In **Institutions** (68th), Jordan is strong in the area *Regulatory environment* (38th) and in its indicator *Cost of redundancy dismissal*, where it is number 1 in the world.
- In **Human Capital & Research** (62nd), strengths are identified in the area *Tertiary education* (18th) and in two of its three indicators – *Graduates in science & engineering* (23rd) and *Tertiary inbound mobility* (11th).
- In **Market Sophistication** (112th), two indicators – *Market capitalization* (23rd) and *Intensity of local competition* (25th) – are relatively strong for Jordan.
- Finally, on the input side, the indicators *State of cluster development* (29th) and *FDI inflows* (33rd) are marked as GII strengths within **Business Sophistication** (123rd).
- On the **innovation output** side, Jordan achieves good results in **Creative Outputs** (57th), its top-ranked GII area. Here the country performs strongly in two indicators: *Printing & other media* (25th) and the newly-introduced indicator *Mobile app creation* (25th).

- The indicator *Scientific & technical articles* (41st) is strong within **Knowledge & Technology Outputs** (85th).

Weaknesses

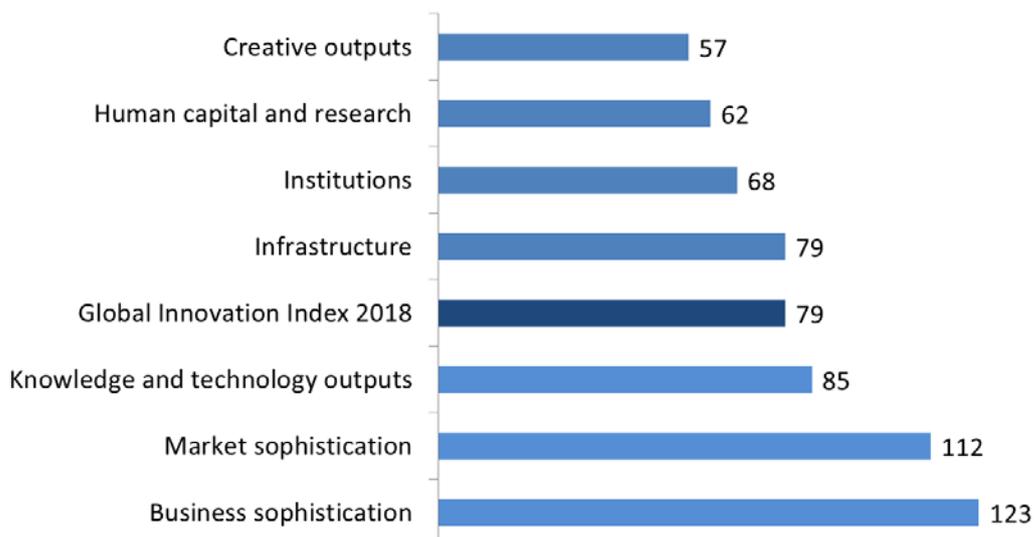
- Most relative GII weaknesses for Jordan are accrued in **innovation inputs**, and in particular in **Market Sophistication** (112th).
- **Market Sophistication** (112th) itself is highlighted as a GII weakness for Jordan. Here two of its three components – *Credit* (113th) and *Investment* (119th) – are marked as weak. Two of its indicators are also weak. These are *Ease of getting credit* (121st) and *Ease of protecting minority investors* (112th).
- **Business Sophistication** (123rd), the lowest-ranked GII area for Jordan, is also signaled as a weakness. Its indicators – *Firms offering formal training* (91st) and *ICT services imports* (113th) are marked as weaknesses.
- Among innovation inputs, relative GII weaknesses are also identified in **Institutions** (68th) in the area *Business environment* (108th) and in the indicator *Ease of resolving insolvency* (115th). In **Human Capital & Research** (62nd), two indicators – *PISA results* (62nd) and *Global R&D companies expenditures* (40th) – present relatively weak performance.
- On the **innovation output** side, in **Knowledge & Technology Outputs** (85th), the area *Knowledge diffusion* (112th) and the indicators *Productivity growth* (92nd) and *ICT services exports* (124th) are signaled as relative weakness.
- In **Creative Outputs** (57th), only one indicator – *Entertainment & Media market* (53rd) – is found to be relatively weak.

The following figure presents a summary of Jordan's ranks in the 7 GII areas, as well as the overall rank in the GII 2018.

Jordan's rank in the GII 2018 and the 7 GII areas

Rank 1 is the highest possible in each pillar

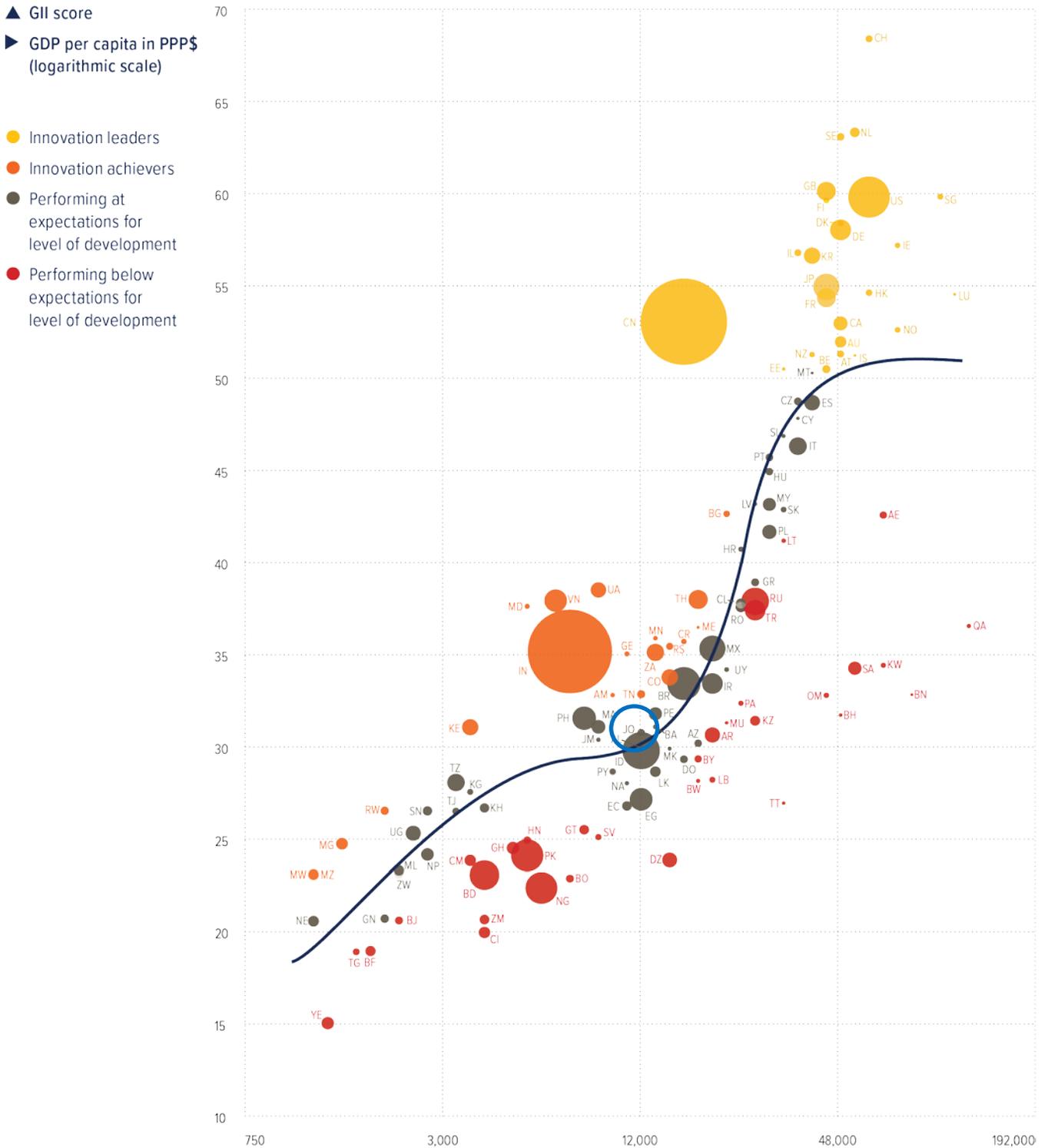
Total number of countries: 126



Expected vs. Observed Innovation Performance

The GII bubble chart shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The depicted trendline gives an indication of the expected innovation performance at different levels of income. Countries located above the trendline are performing better than what would be expected based on their income level. Countries below the line are Innovation Under-performers relative to GDP.

Relative to GDP, Jordan performs at its expected level of development.



Missing and Outdated Data

More and better data improves the ability of a country to understand its strengths and weaknesses and give policymakers greater capacity to plan and adapt public policies accordingly. The GII 2018 covers 126 countries that complied with the minimum indicator coverage of 35 indicators in the Innovation Input Sub-Index (66%) and 18 indicators in the Innovation Output Sub-Index (66%).

The following tables show data for Jordan that is not available or that is outdated.

Missing Data

Code	Indicator	Country Year	Model Year	Source
2.1.3	School life expectancy, years	n/a	2016	UNESCO Institute for Statistics (UIS)
5.1.1	Knowledge-intensive employment, %	n/a	2016	ILO, ILOSTAT
5.1.3	GERD performed by business, % GDP	n/a	2016	UNESCO Institute for Statistics (UIS)
5.1.4	GERD financed by business, %	n/a	2015	UNESCO Institute for Statistics (UIS)
5.1.5	Females employed w/advanced degrees, %	n/a	2016	ILO, ILOSTAT
5.2.3	GERD financed by abroad, %	n/a	2015	UNESCO Institute for Statistics (UIS)
5.3.5	Research talent, % in business enterprise	n/a	2016	UNESCO Institute for Statistics (UIS)
6.1.2	PCT patents by origin/bn PPP\$ GDP	n/a	2017	WIPO, Intellectual Property Statistics
6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	2016	WIPO, Intellectual Property Statistics
7.2.1	Cultural & creative services exports, % total trade	n/a	2016	WTO, Trade in Commercial Services
7.2.2	National feature films/mn pop. 15–69	n/a	2015	UNESCO Institute for Statistics (UIS)

Outdated Data

Code	Indicator	Country Year	Model Year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	2011	2014	UNESCO Institute for Statistics (UIS)
2.1.5	Pupil-teacher ratio, secondary	2014	2016	UNESCO Institute for Statistics (UIS)
2.2.2	Graduates in science & engineering, %	2015	2016	UNESCO Institute for Statistics (UIS)
7.3.3	Wikipedia edits/mn pop. 15–69	2016	2017	Wikimedia Foundation



Output rank	Input rank	Income	Region	Efficiency ratio	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2017 rank
67	88	Lower-middle	NAWA	50	9.7	89.0	12,494.4	83

	Score/Value	Rank
Institutions	60.6	68 ◆
1.1 Political environment	49.8	70
1.1.1 Political stability & safety*	52.3	92
1.1.2 Government effectiveness*	48.5	62 ◆
1.2 Regulatory environment	74.5	38 ●◆
1.2.1 Regulatory quality*	45.4	70
1.2.2 Rule of law*	52.5	51 ◆
1.2.3 Cost of redundancy dismissal, salary weeks	8.0	1 ●◆
1.3 Business environment	57.5	108 ○
1.3.1 Ease of starting a business*	84.4	82
1.3.2 Ease of resolving insolvency*	30.5	115 ○
Human capital & research	31.0	62 ◆
2.1 Education	35.9	96
2.1.1 Expenditure on education, % GDP	3.9	81
2.1.2 Government funding/pupil, secondary, % GDP/cap [Ⓔ]	18.5	55
2.1.3 School life expectancy, years	n/a	n/a
2.1.4 PISA scales in reading, maths & science	399.0	62 ○
2.1.5 Pupil-teacher ratio, secondary [Ⓔ]	14.6	66
2.2 Tertiary education	49.8	18 ●◆
2.2.1 Tertiary enrolment, % gross	36.3	71
2.2.2 Graduates in science & engineering, % [Ⓔ]	26.4	23 ●
2.2.3 Tertiary inbound mobility, %	14.9	11 ●◆
2.3 Research & development (R&D)	7.2	69
2.3.1 Researchers, FTE/mn pop.	598.6	63
2.3.2 Gross expenditure on R&D, % GDP	0.3	74
2.3.3 Global R&D companies, top 3, mn US\$	0.0	40 ○◇
2.3.4 QS university ranking, average score top 3*	14.3	56
Infrastructure	40.4	79
3.1 Information & communication technologies (ICTs)	52.3	79
3.1.1 ICT access*	60.3	71 ◆
3.1.2 ICT use*	57.3	49 ◆
3.1.3 Government's online service*	45.7	90
3.1.4 E-participation*	45.8	94
3.2 General infrastructure	32.1	87
3.2.1 Electricity output, kWh/cap	2,501.8	72 ◆
3.2.2 Logistics performance*	41.3	66
3.2.3 Gross capital formation, % GDP	20.3	84
3.3 Ecological sustainability	36.7	69
3.3.1 GDP/unit of energy use	8.8	62
3.3.2 Environmental performance*	62.2	55 ◆
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP	0.9	72
Market sophistication	36.2	112 ○◇
4.1 Credit	20.9	113 ○
4.1.1 Ease of getting credit*	25.0	121 ○◇
4.1.2 Domestic credit to private sector, % GDP	75.1	42 ◆
4.1.3 Microfinance gross loans, % GDP	0.4	42
4.2 Investment	29.4	119 ○
4.2.1 Ease of protecting minority investors*	40.0	112 ○◇
4.2.2 Market capitalization, % GDP	67.6	23 ●◆
4.2.3 Venture capital deals/bn PPP\$ GDP	0.0	44
4.3 Trade, competition, & market scale	58.4	71
4.3.1 Applied tariff rate, weighted mean, %	4.3	80
4.3.2 Intensity of local competition [†]	75.0	25 ●◆
4.3.3 Domestic market scale, bn PPP\$	89.0	77

	Score/Value	Rank
Business sophistication	18.7	123 ○◇
5.1 Knowledge workers	0.0	[126] n/a
5.1.1 Knowledge-intensive employment, %	n/a	n/a
5.1.2 Firms offering formal training, % firms	3.4	91 ○◇
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, %	n/a	n/a
5.2 Innovation linkages	34.5	49
5.2.1 University/industry research collaboration [†]	41.2	61
5.2.2 State of cluster development [†]	57.3	29 ●◆
5.2.3 GERD financed by abroad, %	n/a	n/a
5.2.4 JV-strategic alliance deals/bn PPP\$ GDP	0.0	41
5.2.5 Patent families 2+ offices/bn PPP\$ GDP	0.0	78
5.3 Knowledge absorption	21.5	98
5.3.1 Intellectual property payments, % total trade	0.2	90
5.3.2 High-tech net imports, % total trade	7.2	78
5.3.3 ICT services imports, % total trade	0.3	113 ○
5.3.4 FDI net inflows, % GDP	4.8	33 ●
5.3.5 Research talent, % in business enterprise	n/a	n/a
Knowledge & technology outputs	18.6	85
6.1 Knowledge creation	13.4	59
6.1.1 Patents by origin/bn PPP\$ GDP	0.3	90
6.1.2 PCT patents by origin/bn PPP\$ GDP	n/a	n/a
6.1.3 Utility models by origin/bn PPP\$ GDP	n/a	n/a
6.1.4 Scientific & technical articles/bn PPP\$ GDP	12.0	41 ●
6.1.5 Citable documents H index	8.1	77
6.2 Knowledge impact	30.8	85
6.2.1 Growth rate of PPP\$ GDP/worker, %	(0.4)	92 ○
6.2.2 New businesses/th pop. 15-64	0.6	80
6.2.3 Computer software spending, % GDP	0.3	56
6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	5.0	62
6.2.5 High- & medium-high-tech manufactures, %	0.2	54
6.3 Knowledge diffusion	11.6	112 ○
6.3.1 Intellectual property receipts, % total trade	0.2	38
6.3.2 High-tech net exports, % total trade	0.9	69
6.3.3 ICT services exports, % total trade	0.0	124 ○
6.3.4 FDI net outflows, % GDP	0.1	100
Creative outputs	29.8	57
7.1 Intangible assets	38.9	72
7.1.1 Trademarks by origin/bn PPP\$ GDP	35.2	69
7.1.2 Industrial designs by origin/bn PPP\$ GDP	0.6	80
7.1.3 ICTs & business model creation [†]	65.0	49 ◆
7.1.4 ICTs & organizational model creation [†]	53.6	63
7.2 Creative goods & services	27.8	47 ◆
7.2.1 Cultural & creative services exports, % total trade	n/a	n/a
7.2.2 National feature films/mn pop. 15-69	n/a	n/a
7.2.3 Entertainment & Media market/th pop. 15-69	2.0	53 ○◇
7.2.4 Printing & other media, % manufacturing	1.6	25 ●
7.2.5 Creative goods exports, % total trade	1.2	41
7.3 Online creativity	13.6	51 ◆
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	6.3	51 ◆
7.3.2 Country-code TLDs/th pop. 15-69	0.3	101
7.3.3 Wikipedia edits/mn pop. 15-69 [Ⓔ]	21.7	48
7.3.4 Mobile app creation/bn PPP\$ GDP	33.2	25 ●◆

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * an index; † a survey question.

Ⓔ indicates that the country'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 (DMC) requirements were not met at the sub-pillar or pillar level; see page 75 of this appendix for details.