JORDAN

78th Jordan ranks 78th among the 132 economies featured in the GII 2022.

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.

The following table shows the rankings of Jordan over the past three years, noting that 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 2022 is between ranks 74 and 79.

Rankings for Jordan (2020–2022)

GIIYR	GII	Innovation inputs	Innovation outputs
2020	81	77	81
2021	81	79	81
2022	78	71	78

- Jordan performs better in innovation inputs than innovation outputs in 2022.
- This year Jordan ranks 71st in innovation inputs, higher than both 2021 and 2020.
- As for innovation outputs, Jordan ranks 78th. This position is higher than both 2021 and 2020.

24th Jordan ranks 24th among the 36 upper-middle-income group economies.

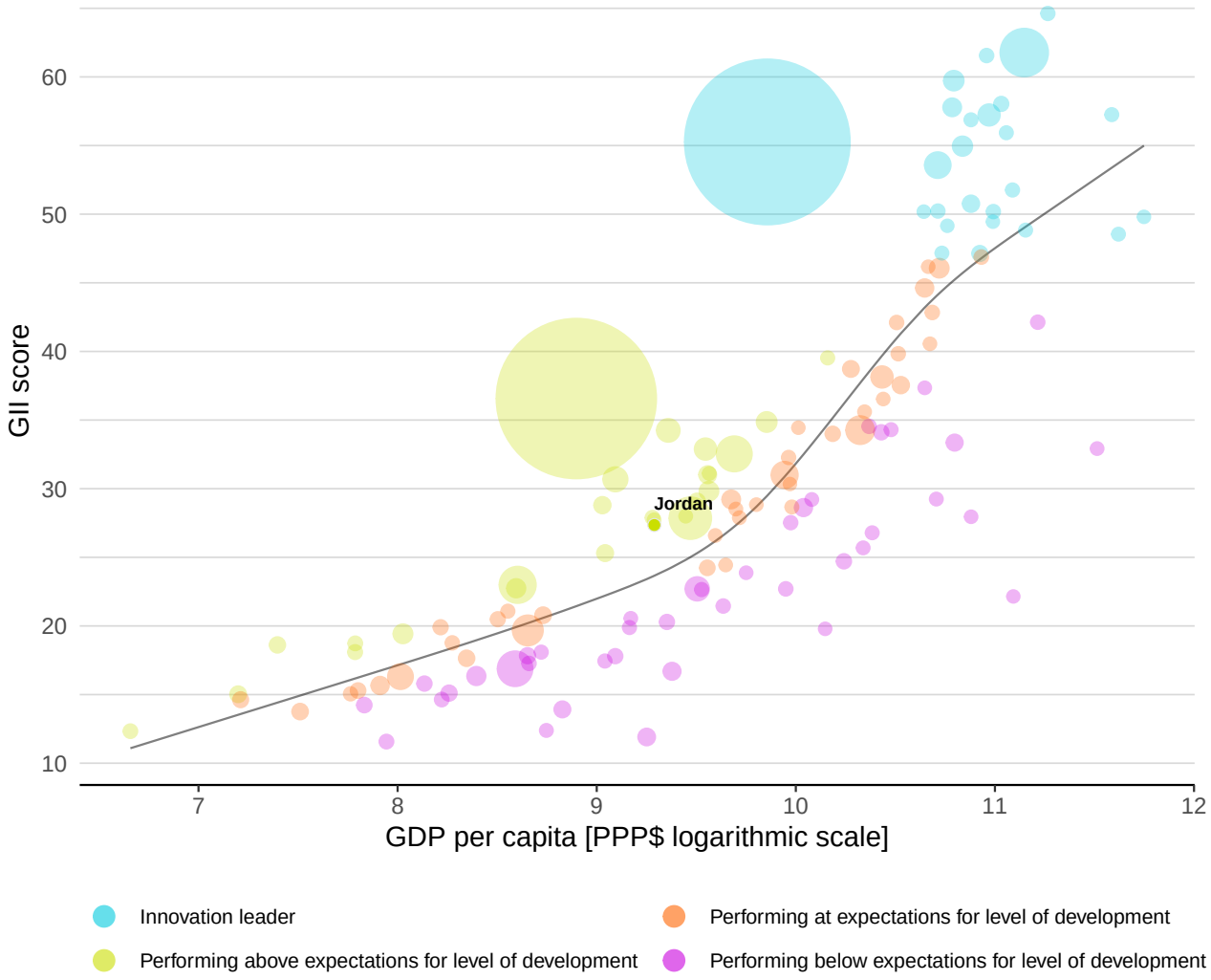
12th Jordan ranks 12th among the 19 economies in Northern Africa and Western Asia.

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's performance is above expectations for its level of development.

The positive relationship between innovation and development

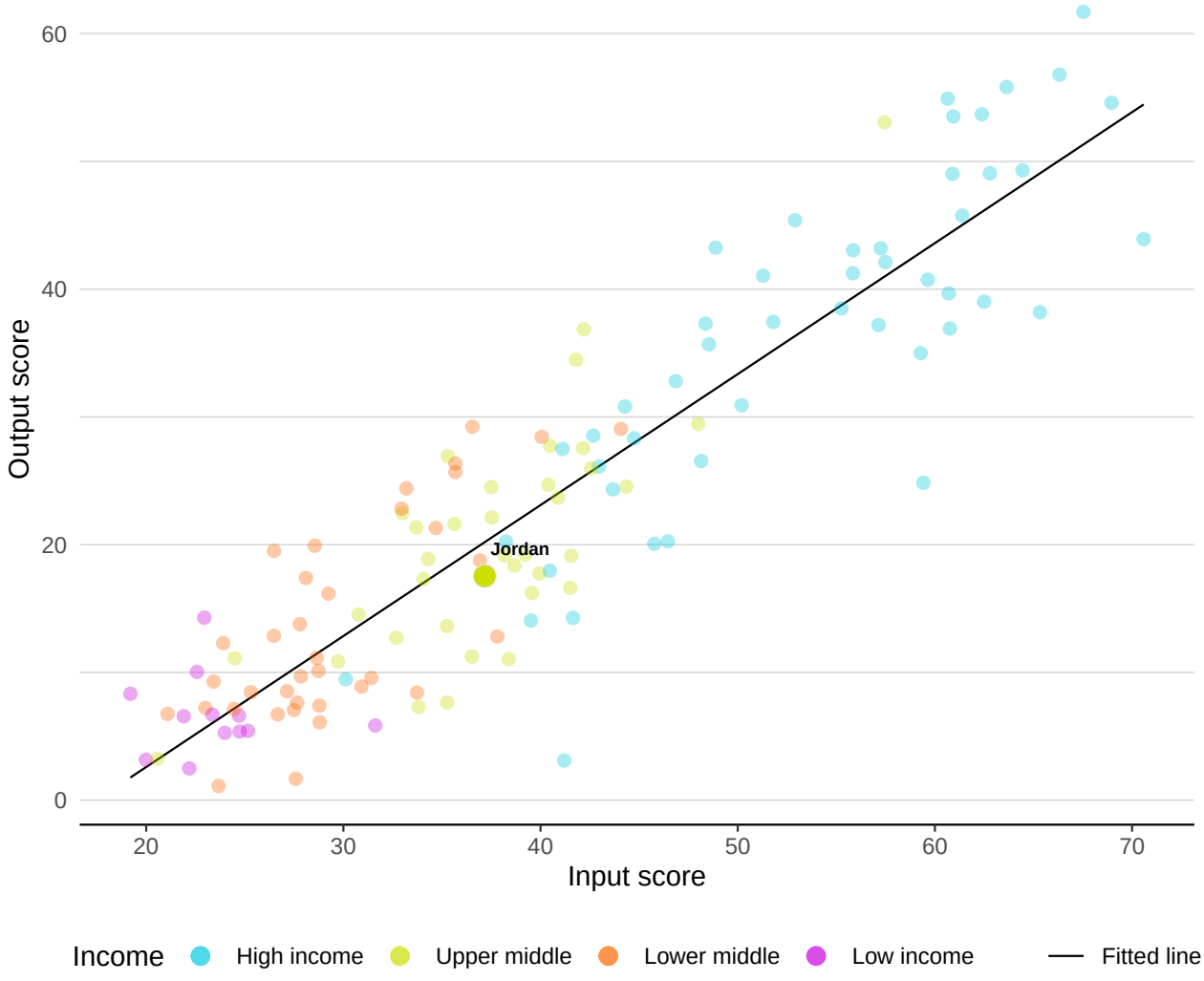


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

Innovation input to output performance



BENCHMARKING AGAINST OTHER UPPER MIDDLE-INCOME GROUP ECONOMIES AND NORTHERN AFRICA AND WESTERN ASIA

The seven GII pillar scores for Jordan

Upper-middle-income group economies

Jordan performs above the upper-middle-income group average in two pillars, namely: Institutions; and, Market sophistication.

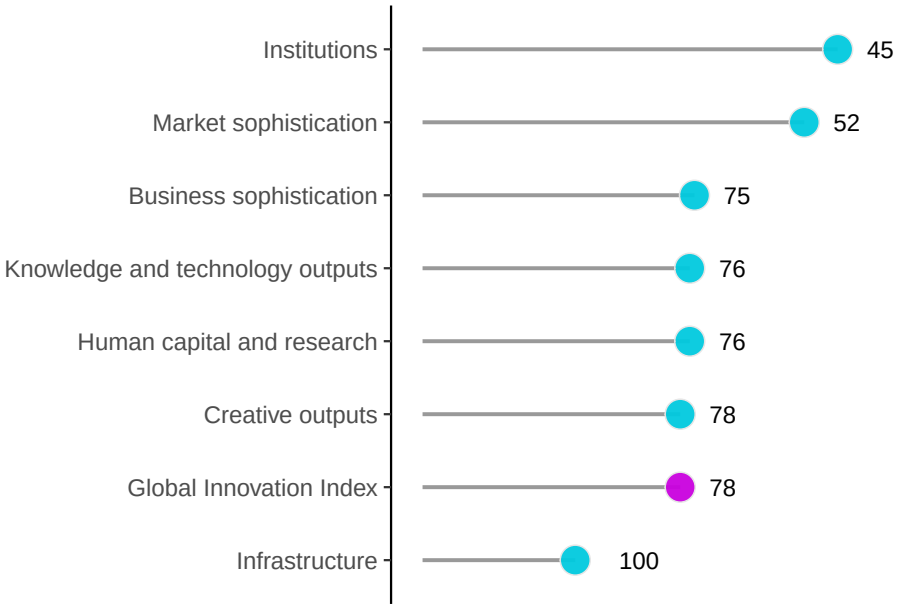
Northern Africa and Western Asia

Jordan performs above the regional average in two pillars, namely: Institutions; and, Market sophistication.

OVERVIEW OF RANKINGS IN THE SEVEN GII 2022 AREAS

Jordan performs best in Institutions and its weakest performance is in Infrastructure.

The seven GII pillar ranks for Jordan



Note: The highest possible ranking in each pillar is 1.

The full WIPO Intellectual Property Statistics profile for Jordan can be found at:

https://www.wipo.int/ipstats/en/statistics/country_profile/profile.jsp?code=JO.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the indicator strengths and weaknesses of Jordan in the GII 2022.

Strengths and weaknesses for Jordan

Strengths			Weaknesses		
Code	**Indicator name**	**Rank**	**Code**	**Indicator name**	**Rank**
1.2.3	Cost of redundancy dismissal	1	2.1.1	Expenditure on education, % GDP	109
2.2.2	Graduates in science and engineering, %	25	2.1.3	School life expectancy, years	100
2.2.3	Tertiary inbound mobility, %	18	2.3.3	Global corporate R&D investors, top 3, mn USD	38
4.2.3	Venture capital recipients, deals/bn PPP$ GDP	30	3.1.3	Government's online service	118
4.2.4	Venture capital received, value, % GDP	15	3.1.4	E-participation	118
4.3.2	Domestic industry diversification	31	5.1.2	Firms offering formal training, %	88
5.2.1	University-industry R&D collaboration	37	5.3.3	ICT services imports, % total trade	125
5.2.2	State of cluster development and depth	23	6.3.4	ICT services exports, % total trade	130
6.1.4	Scientific and technical articles/bn PPP$ GDP	26	7.2.1	Cultural and creative services exports, % total trade	111
7.2.4	Printing and other media, % manufacturing	10	7.2.3	Entertainment and media market/th pop. 15–69	57

GII 2022 rank

Jordan

78

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
78	71	Upper middle	NAWA	10.3	111.7	10,821

			Score/ Value	Rank	
Institutions			**63.5**	**45**	
1.1	**Political environment**		58.8	67	
1.1.1	Political and operational stability*		65.5	74	
1.1.2	Government effectiveness*		52.2	63	
1.2	**Regulatory environment**		75.5	35 ● ◆	
1.2.1	Regulatory quality*		50.6	62	
1.2.2	Rule of law*		51.6	55	
1.2.3	Cost of redundancy dismissal		8.0	1 ● ◆	
1.3	**Business environment**		56.1	41	
1.3.1	Policies for doing business†		56.7	46	
1.3.2	Entrepreneurship policies and culture*	◴	55.6	27	
Human capital and research			**28.3**	**76**	
2.1	**Education**		37.6	106	◇
2.1.1	Expenditure on education, % GDP	◴	3.0	109 ○	
2.1.2	Government funding/pupil, secondary, % GDP/cap		16.0	77	
2.1.3	School life expectancy, years		10.6	100 ○ ◇	
2.1.4	PISA scales in reading, maths and science		416.0	58	
2.1.5	Pupil-teacher ratio, secondary		13.3	59	
2.2	**Tertiary education**		39.0	39	
2.2.1	Tertiary enrolment, % gross		33.6	81	
2.2.2	Graduates in science and engineering, %		28.4	25 ●	
2.2.3	Tertiary inbound mobility, %		12.2	18 ● ◆	
2.3	**Research and development (R&D)**		8.4	62	
2.3.1	Researchers, FTE/mn pop.	◴	596.0	63	
2.3.2	Gross expenditure on R&D, % GDP	◴	0.7	51	
2.3.3	Global corporate R&D investors, top 3, mn USD		0.0	38 ○ ◇	
2.3.4	QS university ranking, top 3*		15.5	57	
Infrastructure			**31.9**	**100**	◇
3.1	**Information and communication technologies (ICTs)**		48.8	104	◇
3.1.1	ICT access*		68.8	101	◇
3.1.2	ICT use*		57.2	81	
3.1.3	Government's online service*		35.9	118 ○ ◇	
3.1.4	E-participation*		33.3	118 ○ ◇	
3.2	**General infrastructure**		20.7	105	
3.2.1	Electricity output, GWh/mn pop.	◴	2,028.7	80	
3.2.2	Logistics performance*		29.8	81	
3.2.3	Gross capital formation, % GDP		18.5	104	
3.3	**Ecological sustainability**		26.2	62	
3.3.1	GDP/unit of energy use		10.1	68	
3.3.2	Environmental performance*		43.6	60	
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP		1.4	60	
Market sophistication			**36.9**	**52**	
4.1	**Credit**		28.7	59	
4.1.1	Finance for startups and scaleups*	◴	43.6	30	
4.1.2	Domestic credit to private sector, % GDP		83.1	39	
4.1.3	Loans from microfinance institutions, % GDP		0.8	31	
4.2	**Investment**		25.4	28 ● ◆	
4.2.1	Market capitalization, % GDP		47.3	38	
4.2.2	Venture capital investors, deals/bn PPP$ GDP		0.1	30	
4.2.3	Venture capital recipients, deals/bn PPP$ GDP		0.1	30 ● ◆	
4.2.4	Venture capital received, value, % GDP		0.0	15 ● ◆	
4.3	**Trade, diversification, and market scale**		56.6	65	
4.3.1	Applied tariff rate, weighted avg., %		4.0	83	
4.3.2	Domestic industry diversification	◴	93.3	31 ●	
4.3.3	Domestic market scale, bn PPP$		111.7	85	

			Score/ Value	Rank	
Business sophistication			**25.2**	**75**	
5.1	**Knowledge workers**		23.7	[83]	
5.1.1	Knowledge-intensive employment, %	◴	21.0	74	
5.1.2	Firms offering formal training, %		16.9	88 ○	
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, %	◴	7.8	82	◇
5.2	**Innovation linkages**		32.2	35 ● ◆	
5.2.1	University-industry R&D collaboration†		52.8	37 ● ◆	
5.2.2	State of cluster development and depth†		61.2	23 ● ◆	
5.2.3	GERD financed by abroad, % GDP		n/a	n/a	
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP		0.0	38	◆
5.2.5	Patent families/bn PPP$ GDP		0.0	69	
5.3	**Knowledge absorption**		19.9	111	◇
5.3.1	Intellectual property payments, % total trade		0.1	96	
5.3.2	High-tech imports, % total trade		8.3	67	
5.3.3	ICT services imports, % total trade		0.3	125 ○	◇
5.3.4	FDI net inflows, % GDP		1.8	80	
5.3.5	Research talent, % in businesses		n/a	n/a	
Knowledge and technology outputs			**19.0**	**76**	
6.1	**Knowledge creation**		16.8	55	
6.1.1	Patents by origin/bn PPP$ GDP		0.3	84	
6.1.2	PCT patents by origin/bn PPP$ GDP		0.2	50	
6.1.3	Utility models by origin/bn PPP$ GDP		n/a	n/a	
6.1.4	Scientific and technical articles/bn PPP$ GDP		35.4	26 ● ◆	
6.1.5	Citable documents H-index		10.2	71	
6.2	**Knowledge impact**		24.0	75	
6.2.1	Labor productivity growth, %		0.7	70	
6.2.2	New businesses/th pop. 15–64		0.4	100	
6.2.3	Software spending, % GDP		0.3	48	
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP		5.4	52	
6.2.5	High-tech manufacturing, %	◴	22.4	58	
6.3	**Knowledge diffusion**		16.3	84	
6.3.1	Intellectual property receipts, % total trade		0.1	65	
6.3.2	Production and export complexity		40.8	63	
6.3.3	High-tech exports, % total trade		1.3	70	
6.3.4	ICT services exports, % total trade		0.1	130 ○	
Creative outputs			**16.0**	**78**	
7.1	**Intangible assets**		22.4	73	
7.1.1	Intangible asset intensity, top 15, %		44.8	58	
7.1.2	Trademarks by origin/bn PPP$ GDP		26.1	84	
7.1.3	Global brand value, top 5,000, % GDP		7.9	61	
7.1.4	Industrial designs by origin/bn PPP$ GDP		0.7	77	
7.2	**Creative goods and services**		14.4	67	
7.2.1	Cultural and creative services exports, % total trade		0.0	111 ○	
7.2.2	National feature films/mn pop. 15–69	◴	1.0	58	
7.2.3	Entertainment and media market/th pop. 15–69		1.0	57 ○	◇
7.2.4	Printing and other media, % manufacturing	◴	2.3	10 ●	◆
7.2.5	Creative goods exports, % total trade		0.6	59	
7.3	**Online creativity**		5.0	63	
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69		4.8	54	
7.3.2	Country-code TLDs/th pop. 15–69		0.2	108	
7.3.3	GitHub commit pushes received/mn pop. 15–69		4.4	64	
7.3.4	Mobile app creation/bn PPP$ GDP		10.8	39	

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/global_innovation_index/en/2022. 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 Jordan.

Missing data for Jordan

Code	Indicator name	Economy year	Model year	Source
5.1.3	GERD performed by business, % GDP	n/a	2020	UNESCO Institute for Statistics
5.1.4	GERD financed by business, %	n/a	2019	UNESCO Institute for Statistics
5.2.3	GERD financed by abroad, % GDP	n/a	2019	UNESCO Institute for Statistics
5.3.5	Research talent, % in businesses	n/a	2020	UNESCO Institute for Statistics
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2020	World Intellectual Property Organization

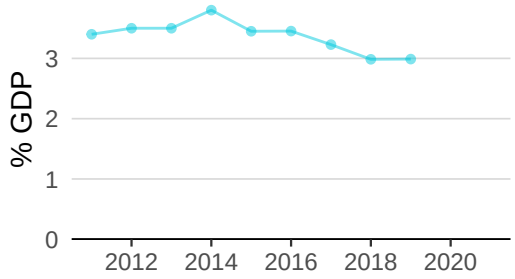
Outdated data for Jordan

Code	Indicator name	Economy year	Model year	Source
1.3.2	Entrepreneurship policies and culture	2019	2021	Global Entrepreneurship Monitor
2.1.1	Expenditure on education, % GDP	2019	2020	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2017	2020	UNESCO Institute for Statistics
2.3.2	Gross expenditure on R&D, % GDP	2016	2020	UNESCO Institute for Statistics
3.2.1	Electricity output, GWh/mn pop.	2019	2020	International Energy Agency
4.1.1	Finance for startups and scaleups	2019	2021	Global Entrepreneurship Monitor
4.3.2	Domestic industry diversification	2018	2019	United Nations Industrial Development Organization
5.1.1	Knowledge-intensive employment, %	2020	2021	International Labour Organization
5.1.5	Females employed w/advanced degrees, %	2020	2021	International Labour Organization
6.2.5	High-tech manufacturing, %	2018	2019	United Nations Industrial Development Organization
7.2.2	National feature films/mn pop. 15–69	2015	2019	OMDIA
7.2.4	Printing and other media, % manufacturing	2018	2019	United Nations Industrial Development Organization

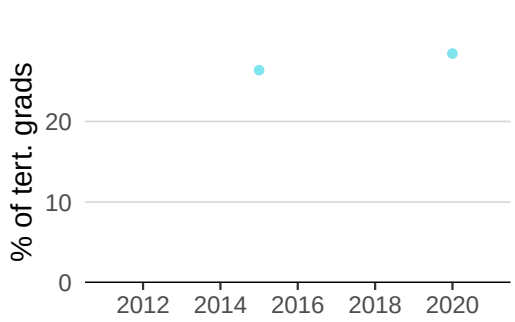
JORDAN'S INNOVATION SYSTEM

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

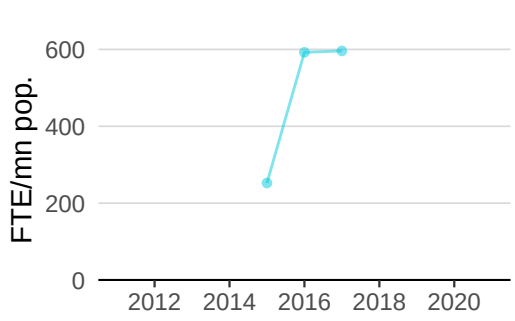
Innovation inputs



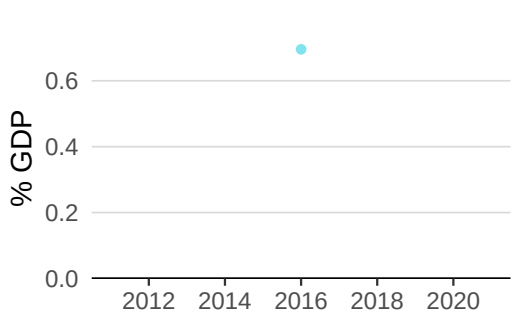
2.1.1 Expenditure on education was equal to 3.0% GDP in 2019–effectively unchanged from the year prior–and equivalent to an indicator rank of 109.



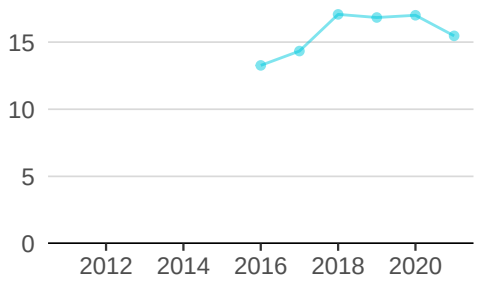
2.2.2 Graduates in science and engineering was equal to 28.4% of tert. grads in 2020 and equivalent to an indicator rank of 25.



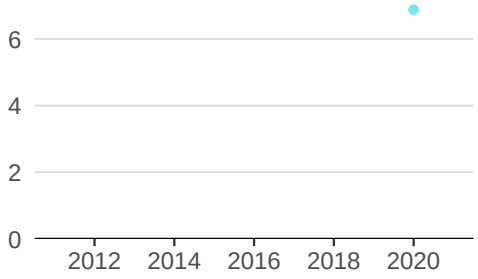
2.3.1 Researchers was equal to 596.0 FTE/mn pop. in 2017–up by 1 percentage point from the year prior–and equivalent to an indicator rank of 63.



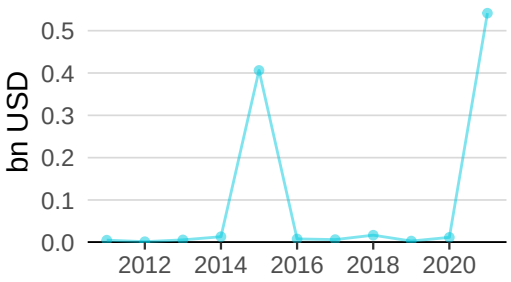
2.3.2 Gross expenditure on R&D was equal to 0.7% GDP in 2016 and equivalent to an indicator rank of 51.



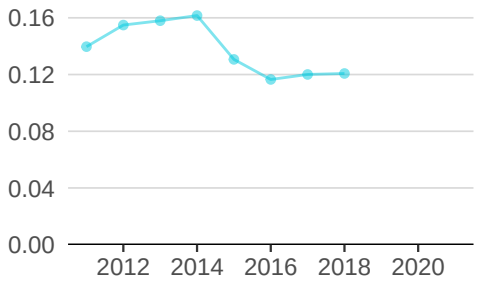
2.3.4 QS university ranking was equal to 15.5 in 2021–down by 9 percentage points from the year prior–and equivalent to an indicator rank of 57.



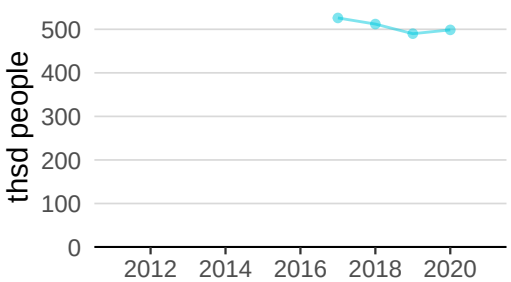
3.1.1 ICT access was equal to 6.9 in 2020 and equivalent to an indicator rank of 101.



4.2.4 Venture capital received was equal to 0.5 bn USD in 2021–up by 4579 percentage points from the year prior–and equivalent to an indicator rank of 15.

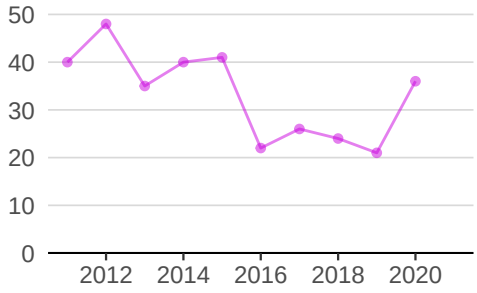


4.3.2 Domestic industry diversification was equal to 0.1 in 2018–up by 1 percentage point from the year prior–and equivalent to an indicator rank of 31.

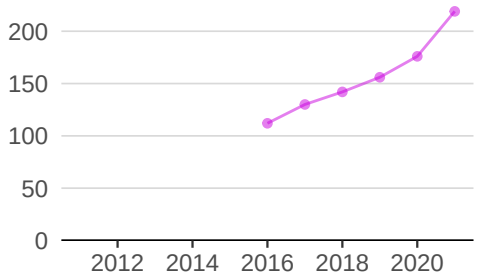


5.1.1 Knowledge-intensive employment was equal to 498.6 thsd people in 2020–up by 2 percentage points from the year prior–and equivalent to an indicator rank of 74.

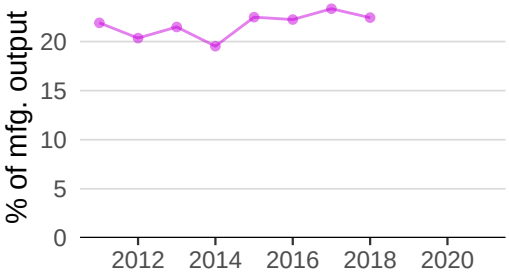
Innovation outputs



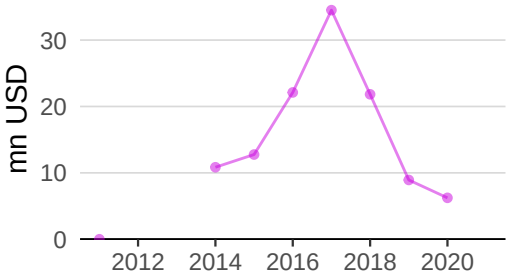
6.1.1 Patents by origin was equal to 36.0 in 2020–up by 71 percentage points from the year prior–and equivalent to an indicator rank of 84.



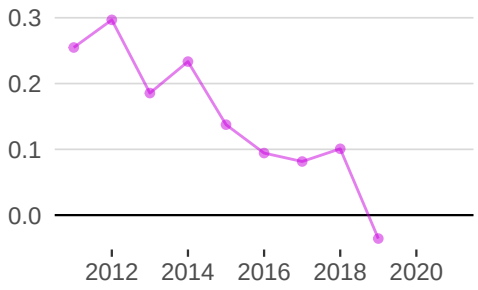
6.1.5 Citable documents H-index was equal to 219.0 in 2021–up by 24 percentage points from the year prior–and equivalent to an indicator rank of 71.



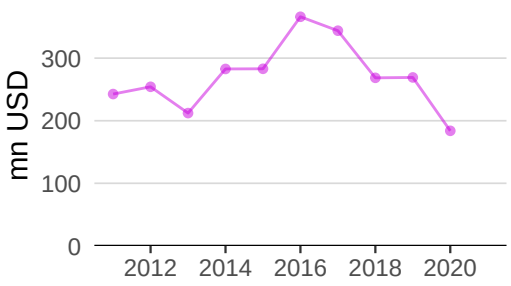
6.2.5 High-tech manufacturing was equal to 22.4% of mfg. output in 2018–down by 4 percentage points from the year prior–and equivalent to an indicator rank of 58.



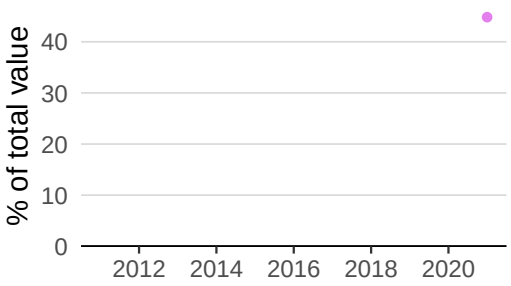
6.3.1 Intellectual property receipts was equal to 6.2 mn USD in 2020–down by 30 percentage points from the year prior–and equivalent to an indicator rank of 65.



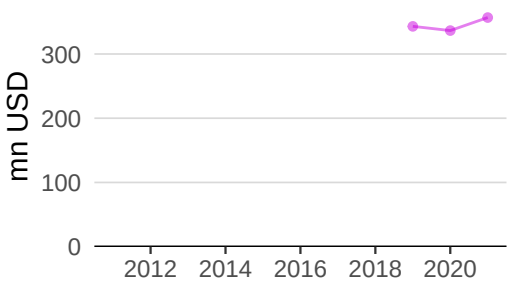
6.3.2 Production and export complexity was equal to -0.0 in 2019–down by 135 percentage points from the year prior–and equivalent to an indicator rank of 63.



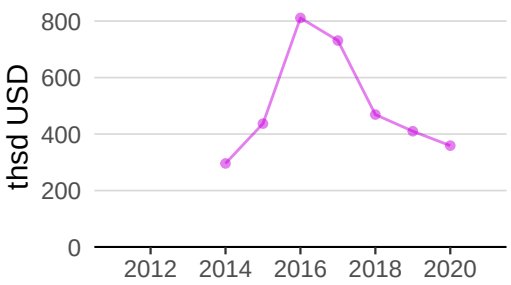
6.3.3 High-tech exports was equal to 183.9 mn USD in 2020–down by 32 percentage points from the year prior–and equivalent to an indicator rank of 70.



7.1.1 Intangible asset intensity was equal to 44.8% of total value in 2021 and equivalent to an indicator rank of 58.



7.1.3 Global brand value was equal to 356.7 mn USD in 2021–up by 6 percentage points from the year prior–and equivalent to an indicator rank of 61.



7.2.1 Cultural and creative services exports was equal to 359.0 thsd USD in 2020–down by 12 percentage points from the year prior–and equivalent to an indicator rank of 111.

JORDAN'S INNOVATION TOP PERFORMERS

2.3.3 Global corporate R&D investors

Firm	Industry	R&D	R&D Growth	R&D Intensity	Rank

No observations

Source: European Commission's Joint Research Centre (https://iri.jrc.ec.europa.eu/scoreboard/2021-eu-industrial-rd-investment-scoreboard).

2.3.4 QS university ranking

University	Score	Rank
UNIVERSITY OF JORDAN	19.2	601-650
JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY	14.8	801-1000
PRINCESS SUMAYA UNIVERSITY FOR TECHNOLOGY	12.4	801-1000

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings/2022).
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 Intangible asset intensity, top 15

Firm	Rank
HIKMA PHARMACEUTICALS	1
ARAB POTASH/THE	2
JORDAN PHOSPHATE MINES	3

Source: Brand Finance (https://brandirectory.com/reports/gift-2021).
Note: Brand Finance only provides within economy ranks.

7.1.3 Global brand value, top 5,000

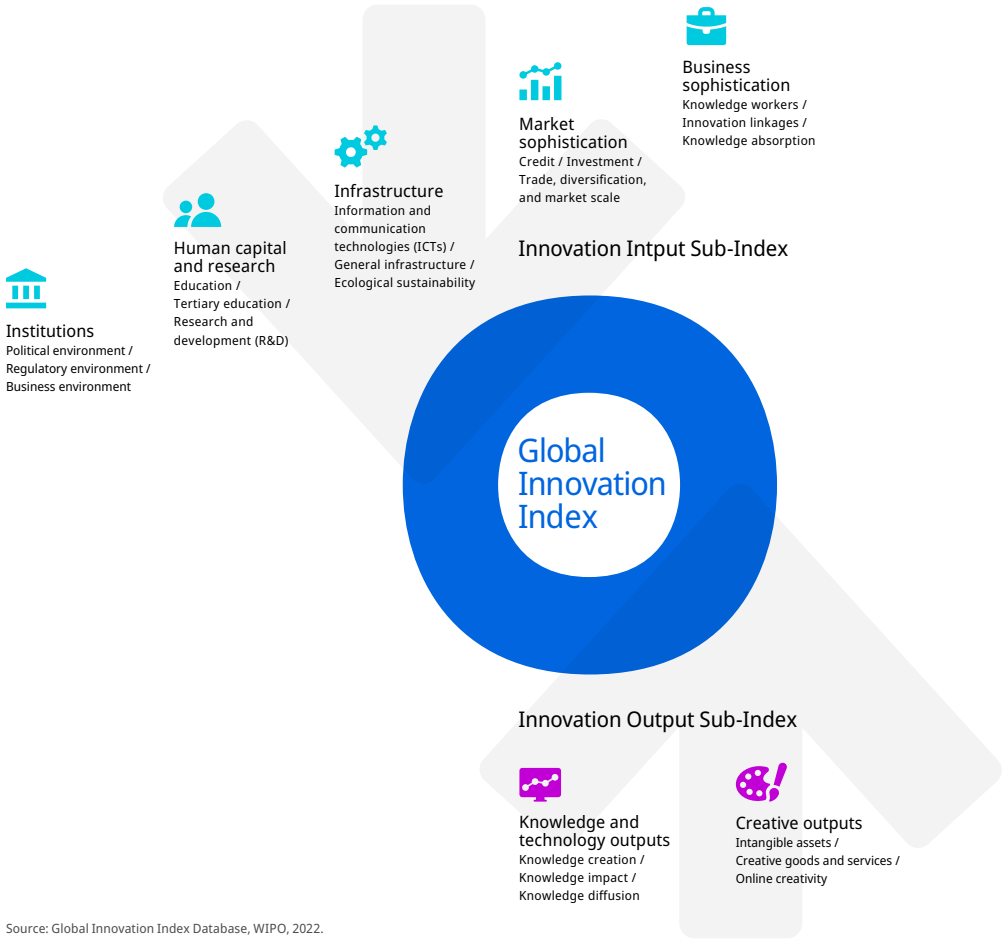
Brand	Industry	Rank
ARAB BANK	Banking	1

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

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, 2022.

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.