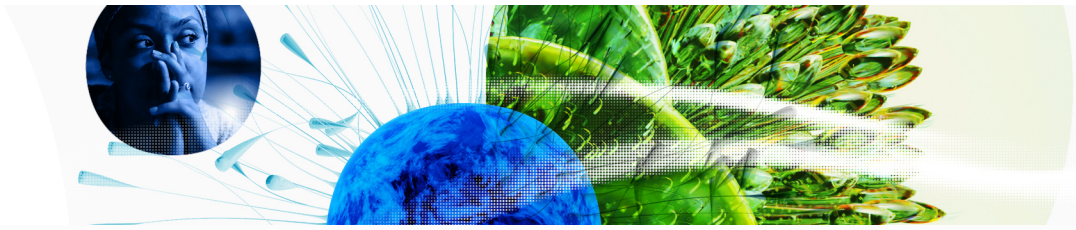
Global Innovation Index 2023



The Global Innovation Index (GII) **ranks world economies according to their innovation capabilities.**

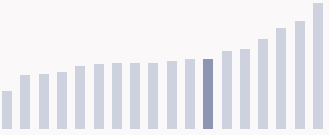
Consisting of **roughly 80 indicators**, grouped into innovation inputs and outputs, the GII **aims to capture the multi-dimensional facets of innovation**.

Kuwait ranking in the Global Innovation Index 2023

> Kuwait ranks 64th among the 132 economies featured in the GII 2023.

> Kuwait ranks 45th among the 50 high-income group economies.

> Kuwait ranks 7th among the 18 economies in Northern Africa and Western Asia.



> Kuwait GII Ranking (2020-2023)

The table shows the rankings of Kuwait 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 Kuwait in the GII 2023 is between ranks 61 and 72.

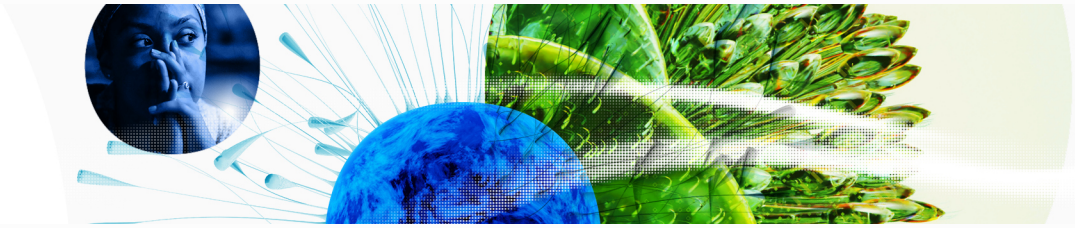
	GII Position	Innovation Inputs	Innovation Outputs
2020	78th	73rd	79th
2021	72nd	73rd	73rd
2022	62nd	66th	66th
2023	64th	67th	65th

Kuwait performs better in innovation outputs than innovation inputs in 2023.

This year Kuwait ranks 67th in innovation inputs. This position is lower than last year.

Kuwait ranks 65th in innovation outputs. This position is higher than last year.

Global Innovation Index 2023

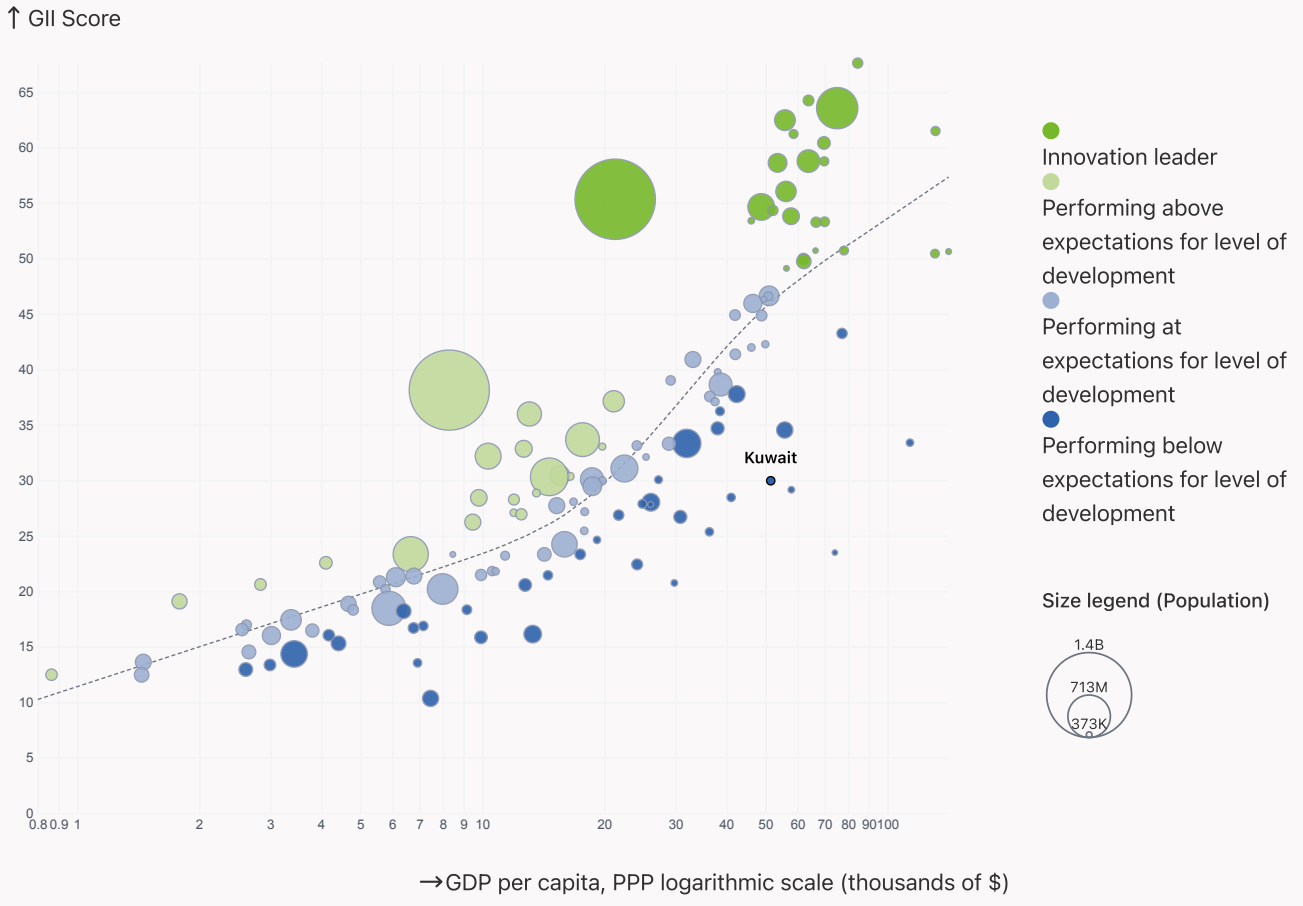


→ Expected vs. observed innovation performance

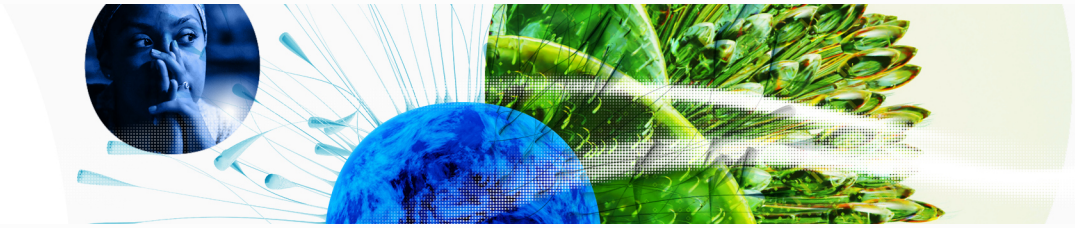
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are performing below expectations.

> Relative to GDP, Kuwait's performance is below expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2023

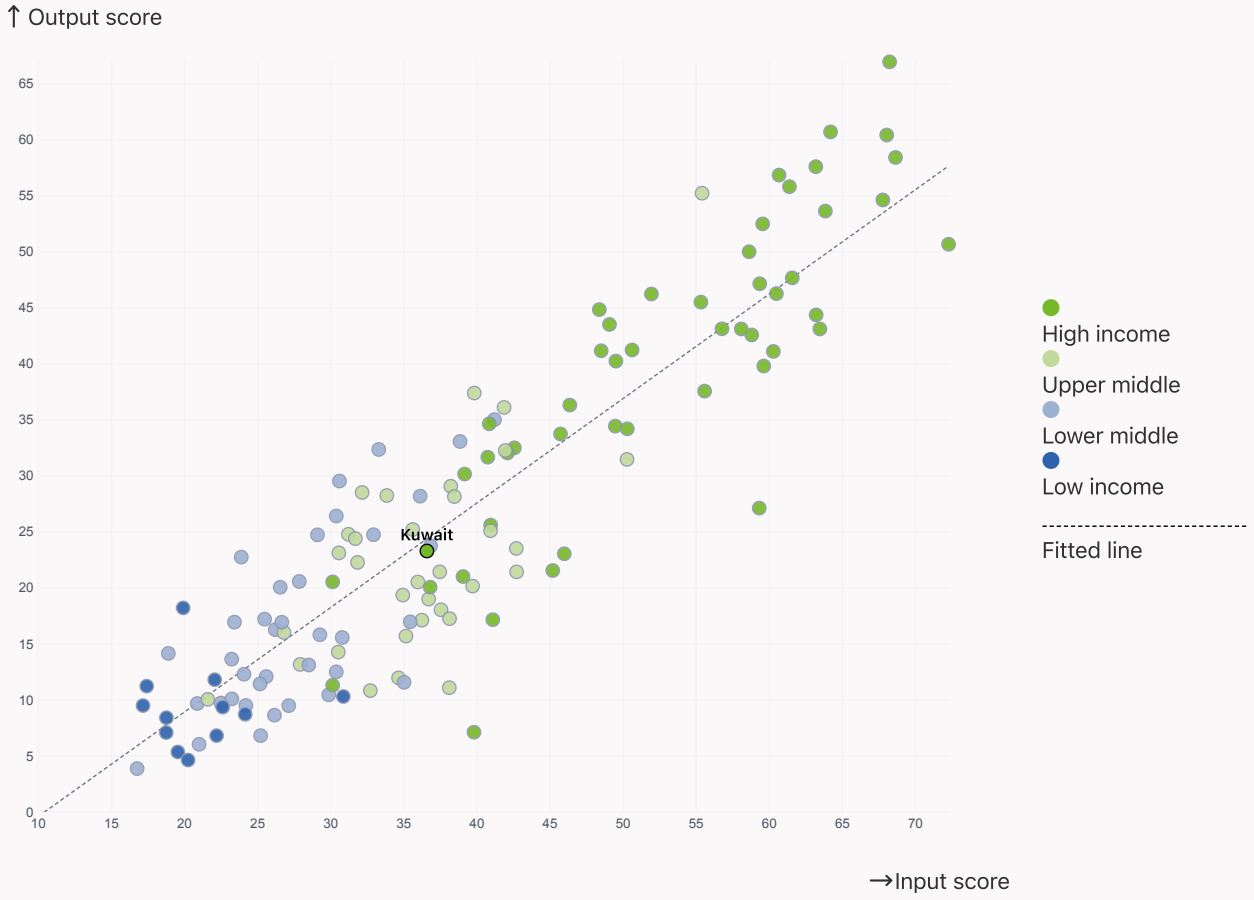


→ Effectively translating innovation investments into innovation outputs

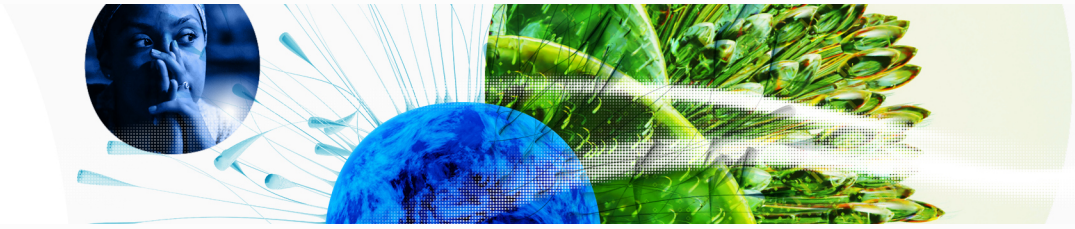
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

> Kuwait produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

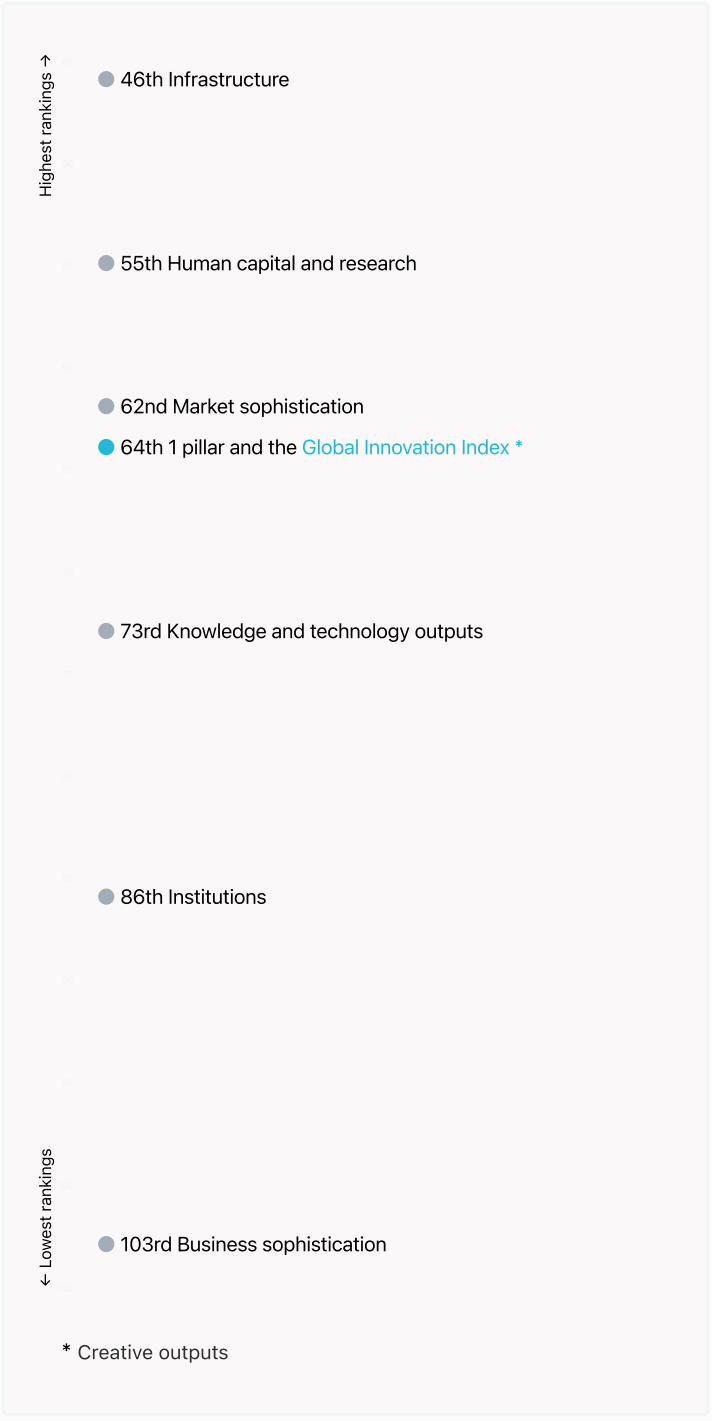


Global Innovation Index 2023



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



> Highest rankings

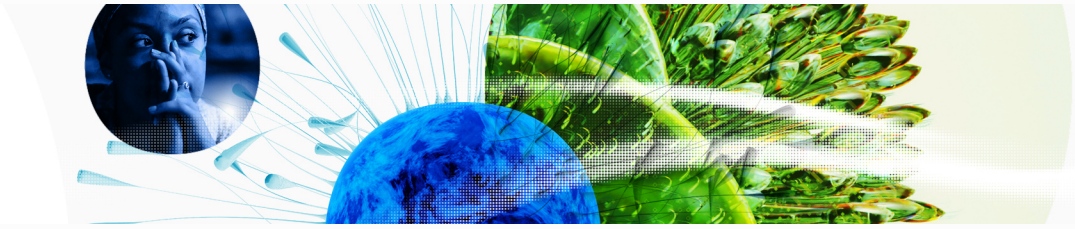
Kuwait ranks highest in Infrastructure (46th), Human capital and research (55th), Market sophistication (62nd) and Creative outputs (64th).

> Lowest rankings

Kuwait ranks lowest in Business sophistication (103rd), Institutions (86th) and Knowledge and technology outputs (73rd).

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

Global Innovation Index 2023



→ Benchmark of Kuwait against other country groupings for each of the seven areas of the GII Index

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

> High-Income economies

Kuwait performs below the high-income group average in all the pillars.

> Northern Africa And Western Asia

Kuwait performs below the regional average in Knowledge and technology outputs, Business sophistication, Market sophistication, Institutions.

Knowledge and technology outputs

- Top 10 | Score: 58.96
- High income | Score: 38.62
- NAWA | Score: 24.01
- Kuwait | Score: 21.42

Creative outputs

- Top 10 | 56.09
- High income | 40.27
- Kuwait | 25.09
- NAWA | 24.51

Business sophistication

- Top 10 | 64.39
- High income | 46.38
- NAWA | 29.44
- Kuwait | 21.18

Market sophistication

- Top 10 | 61.93
- High income | 46.42
- NAWA | 36.12
- Kuwait | 35.56

Human capital and research

- Top 10 | 60.28
- High income | 46.30
- Kuwait | 33.64
- NAWA | 32.72

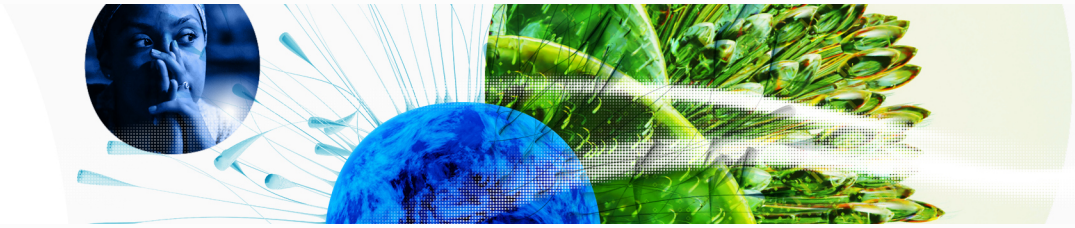
Infrastructure

- Top 10 | 62.83
- High income | 55.85
- Kuwait | 48.49
- NAWA | 41.60

Institutions

- Top 10 | 79.85
- High income | 68.16
- NAWA | 53.39
- Kuwait | 44.22

Global Innovation Index 2023



→ Innovation strengths and weaknesses in Kuwait

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

> Kuwait's main innovation strengths are **Electricity output, GWh/mn pop.** (rank 4), **Pupil-teacher ratio, secondary** (rank 4) and **ICT access** (rank 9).

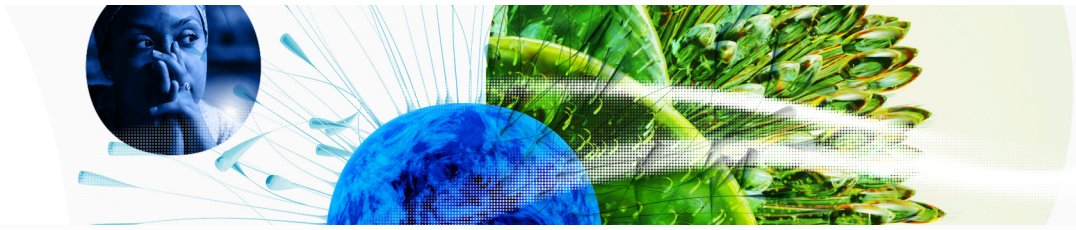
Strengths

Rank	Code	Indicator name
4	3.2.1	Electricity output, GWh/mn pop.
4	2.1.5	Pupil-teacher ratio, secondary
9	3.1.1	ICT access
11	6.3.4	ICT services exports, % total trade
17	4.2.1	Market capitalization, % GDP
18	4.1.2	Domestic credit to private sector, % GDP
24	6.2.3	Software spending, % GDP
26	7.1.3	Global brand value, top 5,000
40	5.2.2	State of cluster development
43	3.1.2	ICT use

Weaknesses

Rank	Code	Indicator name
128	5.3.3	ICT services imports, % total trade
123	5.3.4	FDI net inflows, % GDP
121	3.3.1	GDP/unit of energy use
117	6.1.1	Patents by origin/bn PPP$ GDP
116	1.2.3	Cost of redundancy dismissal
102	4.3.2	Domestic industry diversification
48	6.2.2	Unicorn valuation, % GDP
40	2.3.3	Global corporate R&D investors, top 3, mn US$

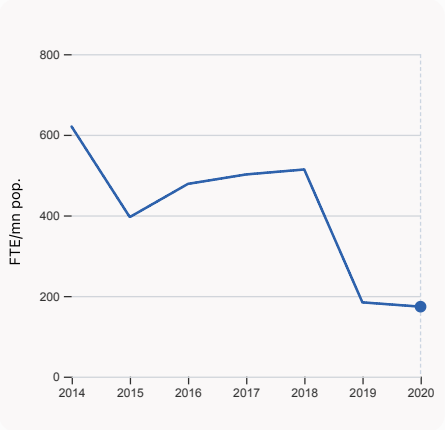
Global Innovation Index 2023



→ Kuwait's innovation system

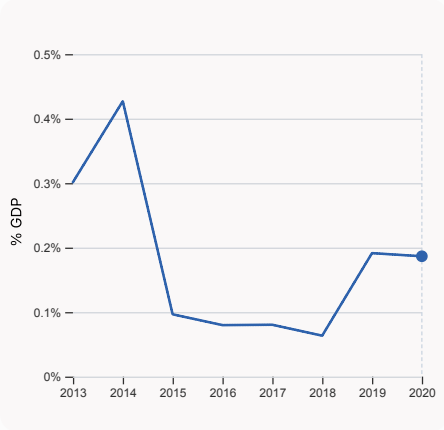
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Kuwait



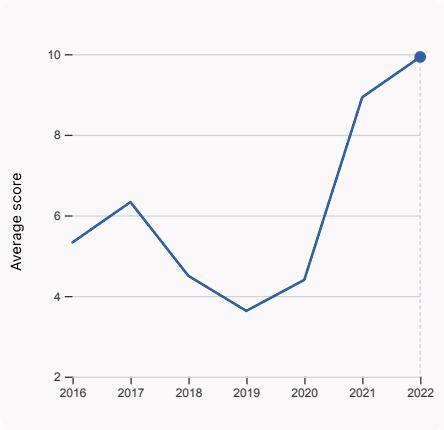
2.3.1 Researchers, FTE/mn pop.

was equal to 173.51 FTE/mn pop. in 2020, down by 5.81% from the year prior – and equivalent to an indicator rank of 85.



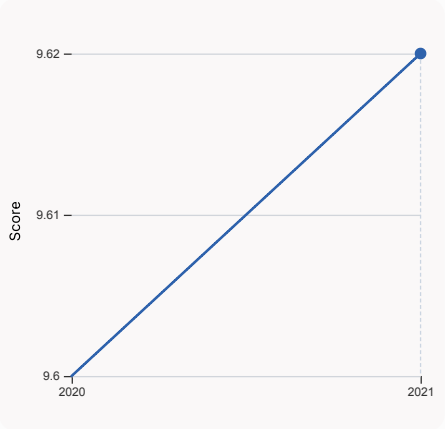
2.3.2 Gross expenditure on R&D, % GDP

was equal to 0.187% GDP in 2020, down by 0.0048 percentage points from the year prior – and equivalent to an indicator rank of 90.



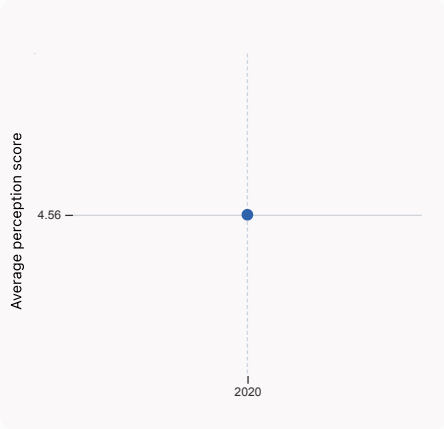
2.3.4 QS university ranking, top 3

was equal to an average score of 9.93 for the top 3 universities in 2022, up by 11.2% from the year prior – and equivalent to an indicator rank of 64.



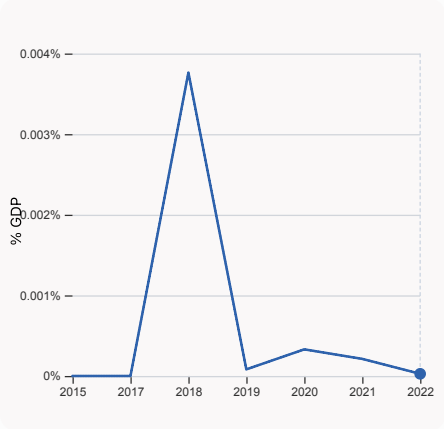
3.1.1 ICT access

was equal to a score of 9.62 in 2021, up by 0.21% from the year prior – and equivalent to an indicator rank of 9.



4.1.1 Finance for startups and scaleups

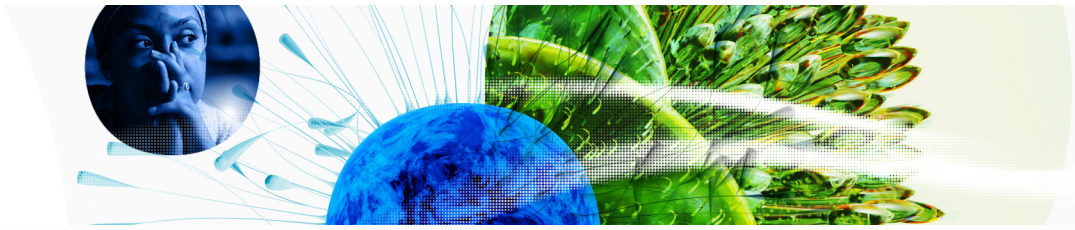
was equal to an average perception score of 4.56 in 2020, equivalent to an indicator rank of 46.

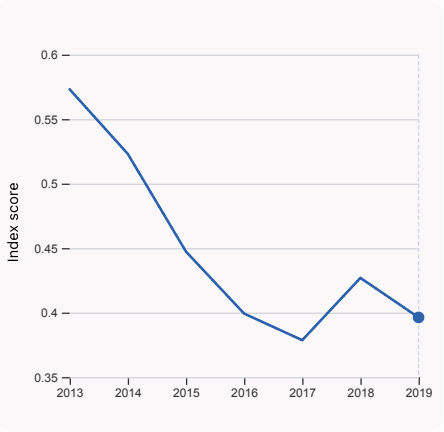


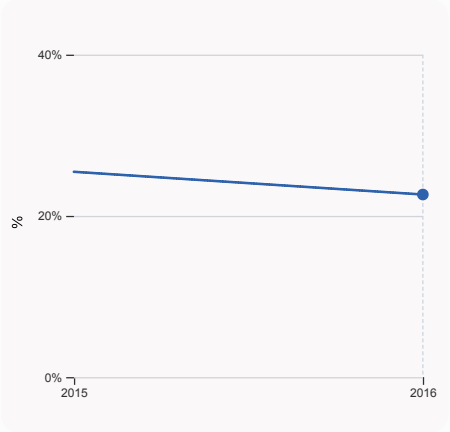
4.2.4 VC received, value, % GDP

was equal to 0.00003% GDP in 2022, down by 0.00019 percentage points from the year prior – and equivalent to an indicator rank of 73.

Global Innovation Index 2023







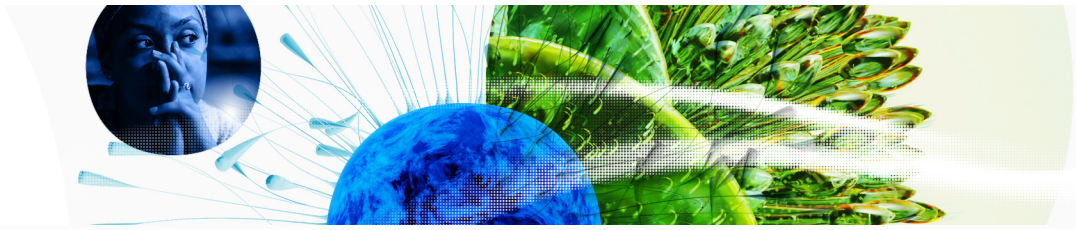
4.3.2 Domestic industry diversification

was equal to an index score of 0.396 in 2019, down by 7.18% from the year prior – and equivalent to an indicator rank of 102.

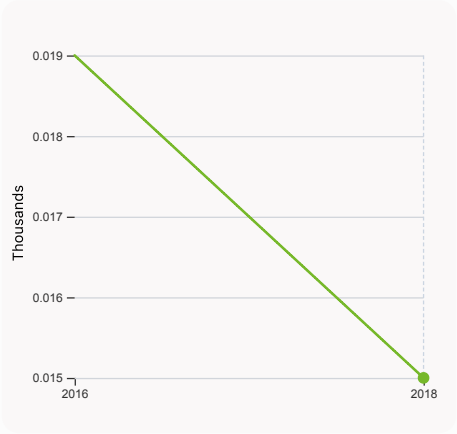
5.1.1 Knowledge-intensive employment, %

was equal to 22.65% in 2016, down by 2.82 percentage points from the year prior – and equivalent to an indicator rank of 66.

Global Innovation Index 2023

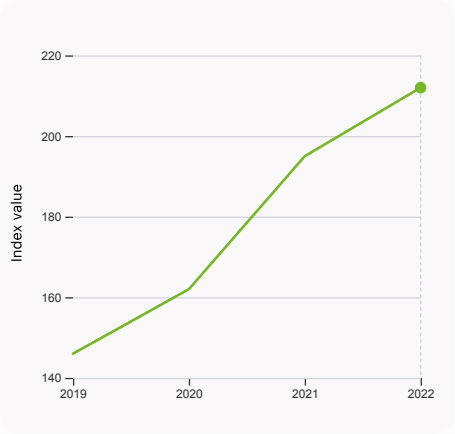


> Innovation outputs in Kuwait



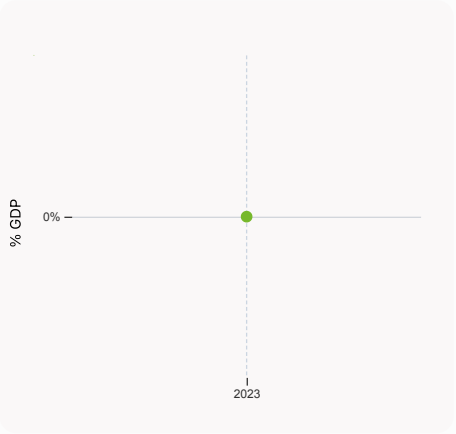
6.1.1 Patents by origin

was equal to 0.015 Thousands in 2018, down by 21.053% from the year prior – and equivalent to an indicator rank of 117.



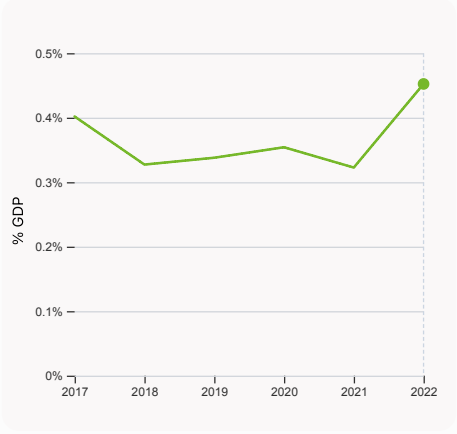
6.1.5 Citable documents H-index

was equal to an index value of 212 in 2022, up by 8.72% from the year prior – and equivalent to an indicator rank of 84.



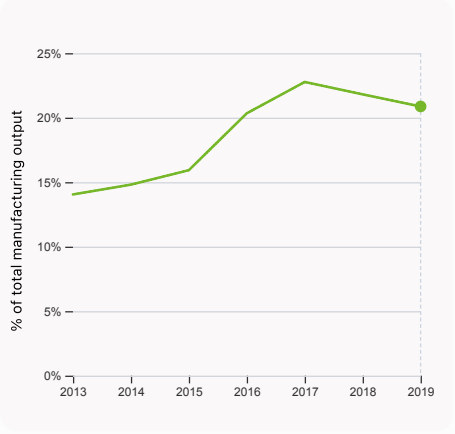
6.2.2 Unicorn valuation, % GDP

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



6.2.3 Software spending, % GDP

was equal to 0.452% GDP in 2022, up by 0.13 percentage points from the year prior – and equivalent to an indicator rank of 24.



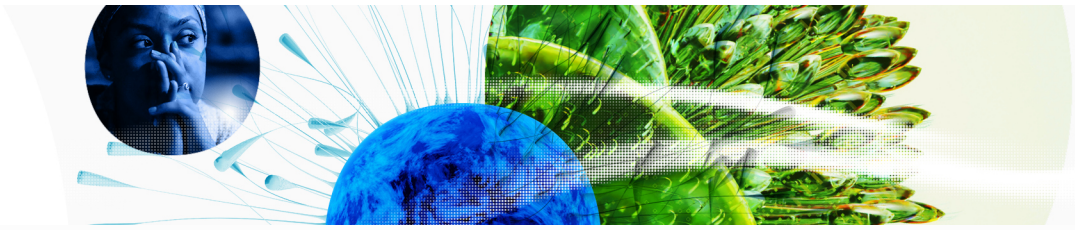
6.2.4 High-tech manufacturing, %

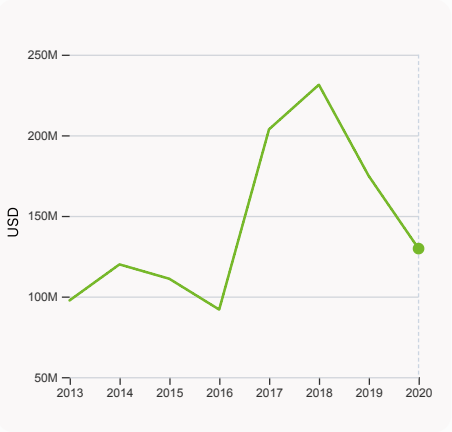
was equal to 20.87% of total manufacturing output in 2019, down by 0.94 percentage points from the year prior – and equivalent to an indicator rank of 62.

6.3.2 Production and export complexity

was equal to a score of -0.407 in 2020, up by 48.85% from the year prior – and equivalent to an indicator rank of 85.

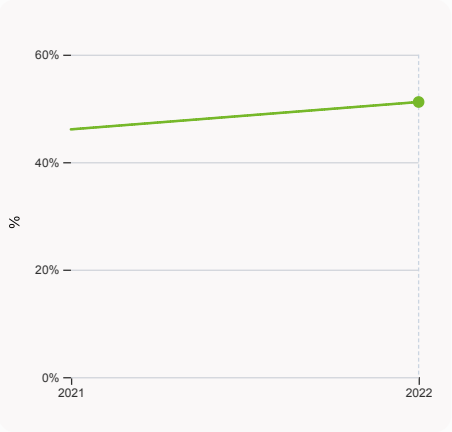
Global Innovation Index 2023





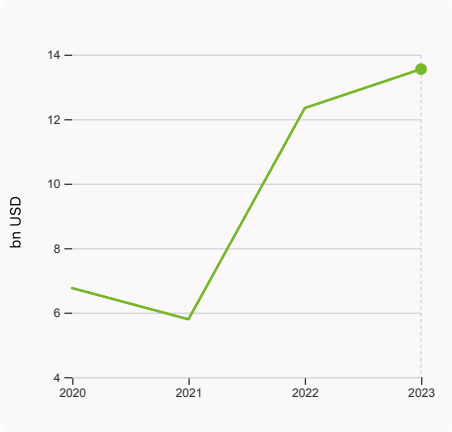
6.3.3 High-tech exports

was equal to 129,706,672 USD in 2020, down by 25.78% from the year prior – and equivalent to an indicator rank of 99.



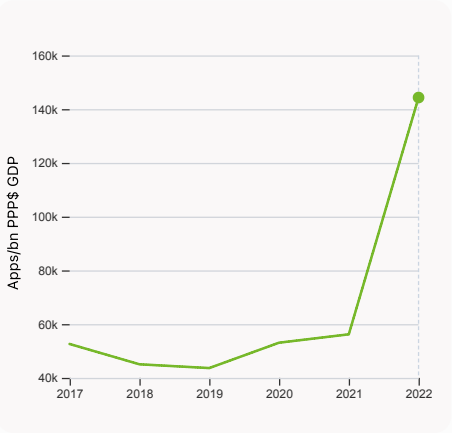
7.1.1 Intangible asset intensity, top 15, %

was equal to 51.19% in 2022, up by 5.09 percentage points from the year prior – and equivalent to an indicator rank of 48.



7.1.3 Global brand value, top 5,000

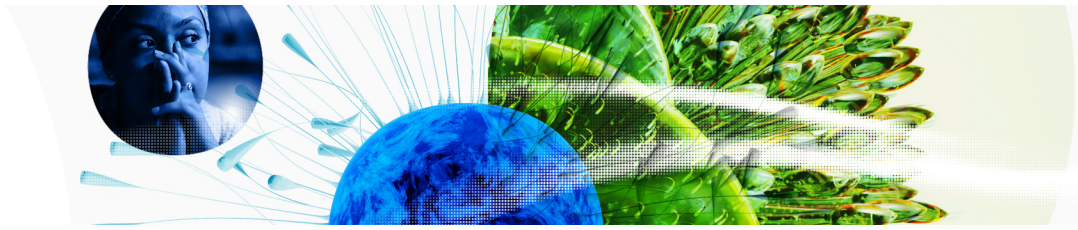
was equal to 13.552 bn USD in 2023, up by 9.79% from the year prior – and equivalent to an indicator rank of 26.



7.3.4 Mobile app creation/bn PPP$ GDP

was equal to 144,330.22 Apps/bn PPP$ GDP in 2022, up by 156.76% from the year prior – and equivalent to an indicator rank of 73.

Global Innovation Index 2023



→ Kuwait's innovation top performers

> 2.3.4 QS university ranking of Kuwait's top universities

Rank	University	Score
701-750	AMERICAN UNIVERSITY OF THE MIDDLE EAST	17.30
801-1000	GULF UNIVERSITY FOR SCIENCE AND TECHNOLOGY	12.50
1001-1200	KUWAIT UNIVERSITY	10.40

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 Kuwait

Rank	Firm	Intensity, %
1	KUWAIT FINANCE HOUSE KSCP	75.85
2	NATIONAL BANK OF KUWAIT SAKP	53.48
3	MOBILE TELECOMMUNICATIONS CO KSCP	80.17

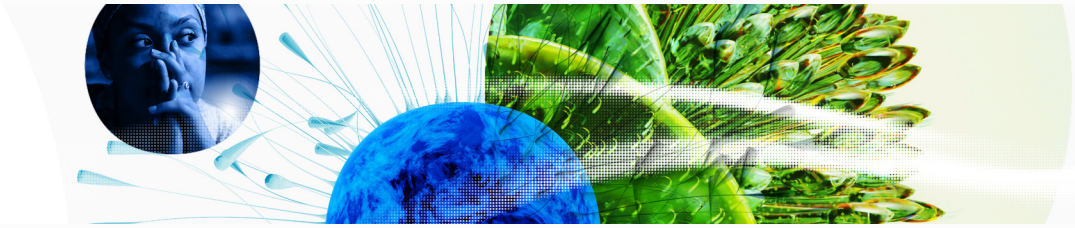
Source: Brand Finance (https://brandirectory.com/reports/gift-2022).
Note: Brand Finance only provides within economy ranks.

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

Rank	Brand	Industry	Brand Value, mn USD
1	KPC	Oil & Gas	4,149.8
2	ZAIN	Telecoms	2,736.5
3	KOC	Oil & Gas	1,998.6

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

Global Innovation Index 2023



Kuwait

GII 2023 rank **64**

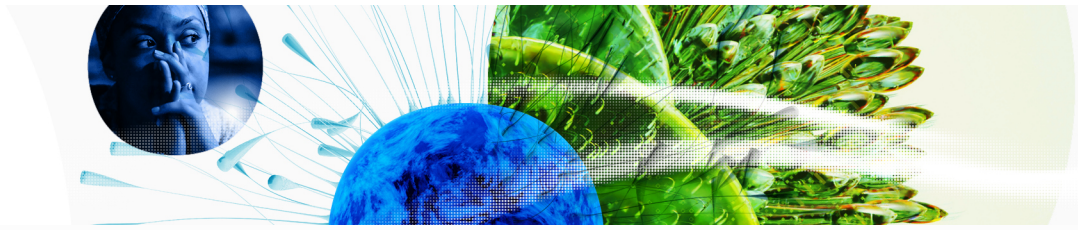
Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
65	67	High	NAWA	4.3	248.1	51,527.9

	Score / Value	Rank	
Institutions	**44.2**	**86**	◇
1.1 Institutional environment	**38.7**	**82**	◇
1.1.1 Operational stability for businesses*	41.7	87	◇
1.1.2 Government effectiveness*	35.7	73	◇
1.2 Regulatory environment	**53.6**	**91**	◇
1.2.1 Regulatory quality*	46.6	62	◇
1.2.2 Rule of law*	47.4	53	◇
1.2.3 Cost of redundancy dismissal	28.1	116	○ ◇
1.3 Business environment	**40.4**	**84**	
1.3.1 Policies for doing business†	52.0	57	
1.3.2 Entrepreneurship policies and culture†	28.8	61	
Human capital and research	**33.6**	**55**	
2.1 Education	**60.0**	**37**	
2.1.1 Expenditure on education, % GDP	n/a	n/a	
2.1.2 Government funding/pupil, secondary, % GDP/cap	17.9	62	
2.1.3 School life expectancy, years	14.7	61	◇
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil-teacher ratio, secondary	7.6	4	●
2.2 Tertiary education	**37.2**	**40**	
2.2.1 Tertiary enrolment, % gross	58.8	54	
2.2.2 Graduates in science and engineering, %	n/a	n/a	
2.2.3 Tertiary inbound mobility, %	n/a	n/a	
2.3 Research and development (R&D)	**3.7**	**81**	◇
2.3.1 Researchers, FTE/mn pop.	173.5	85	◇
2.3.2 Gross expenditure on R&D, % GDP	0.2	90	◇
2.3.3 Global corporate R&D investors, top 3, mn US$	0.0	40	○ ◇
2.3.4 QS university ranking, top 3*	10.1	64	
Infrastructure	**48.5**	**46**	◇
3.1 Information and communication technologies (ICTs)	**74.7**	**52**	
3.1.1 ICT access*	94.5	9	●
3.1.2 ICT use*	84.2	43	●
3.1.3 Government's online service*	66.5	66	◇
3.1.4 E-participation*	53.5	67	
3.2 General infrastructure	**51.7**	**14**	
3.2.1 Electricity output, GWh/mn pop.	17,504.1	4	●
3.2.2 Logistics performance*	50.0	50	◇
3.2.3 Gross capital formation, % GDP	21.5	84	
3.3 Ecological sustainability	**19.1**	**82**	◇
3.3.1 GDP/unit of energy use	4.3	121	○ ◇
3.3.2 Environmental performance*	39.8	63	◇
3.3.3 ISO 14001 environment/bn PPP$ GDP	1.5	57	
Market sophistication	**35.6**	**62**	
4.1 Credit	**48.8**	**31**	
4.1.1 Finance for startups and scaleups†	49.8	46	
4.1.2 Domestic credit to private sector, % GDP	126.5	18	●
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**10.7**	**54**	
4.2.1 Market capitalization, % GDP	93.4	17	●
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	0.1	52	
4.2.3 VC recipients, deals/bn PPP$ GDP	0.0	89	
4.2.4 VC received, value, % GDP	0.0	73	◇
4.3 Trade, diversification, and market scale	**47.2**	**93**	◇
4.3.1 Applied tariff rate, weighted avg., %	3.0	73	
4.3.2 Domestic industry diversification	56.0	102	○ ◇
4.3.3 Domestic market scale, bn PPP$	248.1	63	

	Score / Value	Rank	
Business sophistication	**21.2**	**103**	
5.1 Knowledge workers	**16.8**	**110**	
5.1.1 Knowledge-intensive employment, %	22.7	66	
5.1.2 Firms offering formal training, %	n/a	n/a	
5.1.3 GERD performed by business, % GDP	n/a	n/a	
5.1.4 GERD financed by business, %	1.0	92	
5.1.5 Females employed w/advanced degrees, %	n/a	n/a	
5.2 Innovation linkages	**19.8**	**75**	◇
5.2.1 University-industry R&D collaboration†	35.6	84	◇
5.2.2 State of cluster development†	53.1	40	●
5.2.3 GERD financed by abroad, % GDP	0.0	96	
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.0	52	
5.2.5 Patent families/bn PPP$ GDP	0.0	76	
5.3 Knowledge absorption	**27.0**	**91**	
5.3.1 Intellectual property payments, % total trade	n/a	n/a	
5.3.2 High-tech imports, % total trade	7.1	86	
5.3.3 ICT services imports, % total trade	0.2	128	○ ◇
5.3.4 FDI net inflows, % GDP	-0.1	123	○
5.3.5 Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs	**21.4**	**73**	◇
6.1 Knowledge creation	**6.1**	**106**	◇
6.1.1 Patents by origin/bn PPP$ GDP	0.1	117	○ ◇
6.1.2 PCT patents by origin/bn PPP$ GDP	0.0	91	◇
6.1.3 Utility models by origin/bn PPP$ GDP	n/a	n/a	
6.1.4 Scientific and technical articles/bn PPP$ GDP	n/a	n/a	
6.1.5 Citable documents H-index	9.4	84	◇
6.2 Knowledge impact	**30.7**	**55**	
6.2.1 Labor productivity growth, %	1.1	59	
6.2.2 Unicorn valuation, % GDP	0.0	48	○ ◇
6.2.3 Software spending, % GDP	0.5	24	●
6.2.4 High-tech manufacturing, %	20.9	62	
6.3 Knowledge diffusion	**27.5**	**57**	
6.3.1 Intellectual property receipts, % total trade	n/a	n/a	
6.3.2 Production and export complexity	44.0	85	◇
6.3.3 High-tech exports, % total trade	0.3	99	◇
6.3.4 ICT services exports, % total trade	6.8	11	●
6.3.5 ISO 9001 quality/bn PPP$ GDP	3.0	74	
Creative outputs	**25.1**	**64**	◇
7.1 Intangible assets	**39.3**	**45**	
7.1.1 Intangible asset intensity, top 15, %	51.2	48	
7.1.2 Trademarks by origin/bn PPP$ GDP	16.4	98	◇
7.1.3 Global brand value, top 5,000	7.9	26	●
7.1.4 Industrial designs by origin/bn PPP$ GDP	n/a	n/a	
7.2 Creative goods and services	**3.2**	**94**	
7.2.1 Cultural and 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 and media market/th pop. 15-69	5.4	42	◇
7.2.4 Creative goods exports, % total trade	0.1	100	
7.3 Online creativity	**18.6**	**75**	◇
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	8.7	45	
7.3.2 Country-code TLDs/th pop. 15-69	0.3	105	◇
7.3.3 GitHub commits/mn pop. 15-69	1.8	102	◇
7.3.4 Mobile app creation/bn PPP$ GDP	63.4	73	

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

Global Innovation Index 2023



→ Data availability

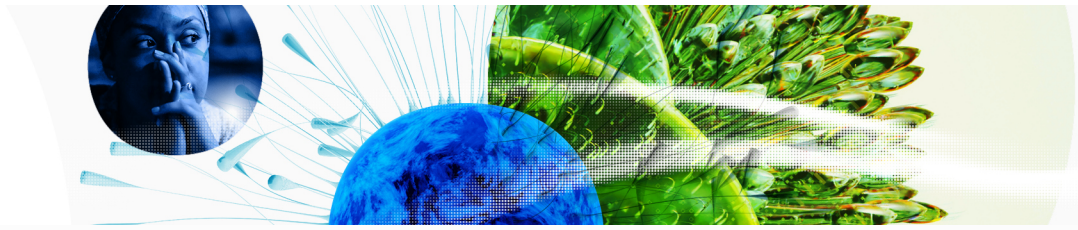
The following tables list indicators that are either missing or outdated for Kuwait.

> Kuwait has missing data for fifteen indicators and outdated data for nineteen indicators.

> Missing data for Kuwait

Code	Indicator name	Economy Year	Model Year	Source
2.1.1	Expenditure on education, % GDP	n/a	2021	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths and science	n/a	2018	OECD, PISA
2.2.2	Graduates in science and engineering, %	n/a	2020	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	n/a	2020	UNESCO Institute for Statistics
4.1.3	Loans from microfinance institutions, % GDP	n/a	2021	International Monetary Fund, Financial Access Survey (FAS)
5.1.2	Firms offering formal training, %	n/a	2019	World Bank Enterprise Surveys
5.1.3	GERD performed by business, % GDP	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	Females employed w/advanced degrees, %	n/a	2022	International Labour Organization
5.3.1	Intellectual property payments, % total trade	n/a	2021	World Trade Organization and United Nations Conference on Trade and Development
5.3.5	Research talent, % in businesses	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2021	World Intellectual Property Organization; International Monetary Fund
6.3.1	Intellectual property receipts, % total trade	n/a	2021	World Trade Organization and United Nations Conference on Trade and Development
7.1.4	Industrial designs by origin/bn PPP$ GDP	n/a	2021	World Intellectual Property Organization; International Monetary Fund
7.2.1	Cultural and creative services exports, % total trade	n/a	2021	World Trade Organization and United Nations Conference on Trade and Development
7.2.2	National feature films/mn pop. 15-69	n/a	2021	OMDIA; United Nations, World Population Prospects

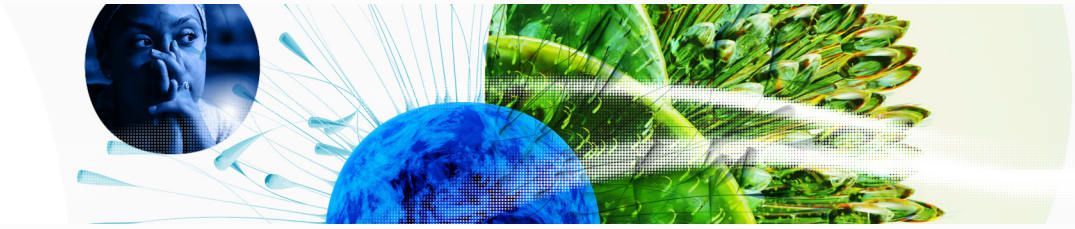
Global Innovation Index 2023



> Outdated data for Kuwait

Code	Indicator name	Economy Year	Model Year	Source
1.3.2	Entrepreneurship policies and culture	2020	2022	Global Entrepreneurship Monitor
2.1.2	Government funding/pupil, secondary, % GDP/cap	2014	2019	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2015	2020	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	2015	2020	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2020	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	2020	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.2.1	Electricity output, GWh/mn pop.	2020	2021	International Energy Agency
4.1.1	Finance for startups and scaleups	2020	2022	Global Entrepreneurship Monitor
4.3.2	Domestic industry diversification	2019	2020	United Nations Industrial Development Organization
5.1.1	Knowledge-intensive employment, %	2016	2022	International Labour Organization
5.1.4	GERD financed by business, %	2014	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.2.3	GERD financed by abroad, % GDP	2014	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.2	High-tech imports, % total trade	2020	2021	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development
5.3.4	FDI net inflows, % GDP	2020	2021	International Monetary Fund; World Bank; and OECD;
6.1.1	Patents by origin/bn PPP$ GDP	2018	2021	World Intellectual Property Organization; International Monetary Fund
6.2.4	High-tech manufacturing, %	2019	2020	United Nations Industrial Development Organization
6.3.3	High-tech exports, % total trade	2020	2021	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development; Trade Data Monitor.
7.1.2	Trademarks by origin/bn PPP$ GDP	2018	2021	World Intellectual Property Organization; International Monetary Fund
7.2.4	Creative goods exports, % total trade	2020	2021	United Nations Comtrade Database; World Trade Organization and United Nations Conference on Trade and Development

Global Innovation Index 2023



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, 2023.

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.