Global Innovation Index 2025

Saudi Arabia ranking in the Global Innovation Index 2025

Saudi Arabia ranks 46th among the 139 economies featured in the GII 2025.

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.

Saudi Arabia ranks 40th among the 54 High-income group economies.

Saudi Arabia ranks 5th among the 18 economies in Northern Africa and Western Asia.

Saudi Arabia GII Ranking (2020-2025)

The table shows the rankings of Saudi Arabia over the past six 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 Saudi Arabia in the GII 2025 is between ranks 45 and 50.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	66th	50th	77th
2021	66th	59th	72nd
2022	51st	37th	65th
2023	48th	37th	67th
2024	47th	36th	66th
2025	46th	31st	61st

Saudi Arabia performs worse in innovation outputs than innovation inputs in 2025.

This year **Saudi Arabia ranks 31st in innovation inputs.** This position is higher than last year.

Saudi Arabia ranks 61st in innovation outputs. This position is higher than last year.

Saudi Arabia has no clusters in the world's top innovation clusters of the Global Innovation Index.

Global Innovation Index 2025

> Global Innovation Tracker

The Global Innovation Tracker 2025 shows what is the current state of innovation in Saudi Arabia, how rapidly is technology being embraced and what are the resulting societal impacts.

For Saudi Arabia, 7 indicators have improved in the short-term and 4 indicators have worsened.

Science and innovation investment

	Scientific publications	R&D investments	Venture capital deal numbers	International patent filings
Short term	▲ 9 % 2023 - 2024	▲ 21 % 2022 - 2023	▲ 38.8 % 2023 - 2024	▲ 25.5 % 2023 - 2024
Long term (annual growth)	▲ 14.8 % 2014 - 2024	▼ -1.3 % 2013 - 2023	▲ 20 % 2020 - 2024	▲ 2.6 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▼ -0.1% 2023 - 2024	▲ 7.7% 2022 - 2023	▼ -29.7% 2021 - 2022	▲ 62.3% 2022 - 2023	n/a
Long term (annual growth)	▼ -0.1% 2014 - 2024	▲ 17.2% 2012 - 2023	n/a	▲ 21.5% 2013 - 2023	n/a
Penetration	83.7 per 100 inhabitants in 2024	43.6 per 100 inhabitants in 2023	53 per 100 inhabitants in 2022	n/a	n/a

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▼ -1.2 % 2023 - 2024	▲ 1.8 % 2022 - 2023	+ 2.3 °C 2024
Long term (annual growth)	▼ -3 % 2014 - 2024	▲ 0.3 % 2013 - 2023	+ 1.3 °C 2014
Level	132,663.6 USD in 2024	78.7 years in 2023	n/a

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 countries. from 1951–1980. Figures are rounded.

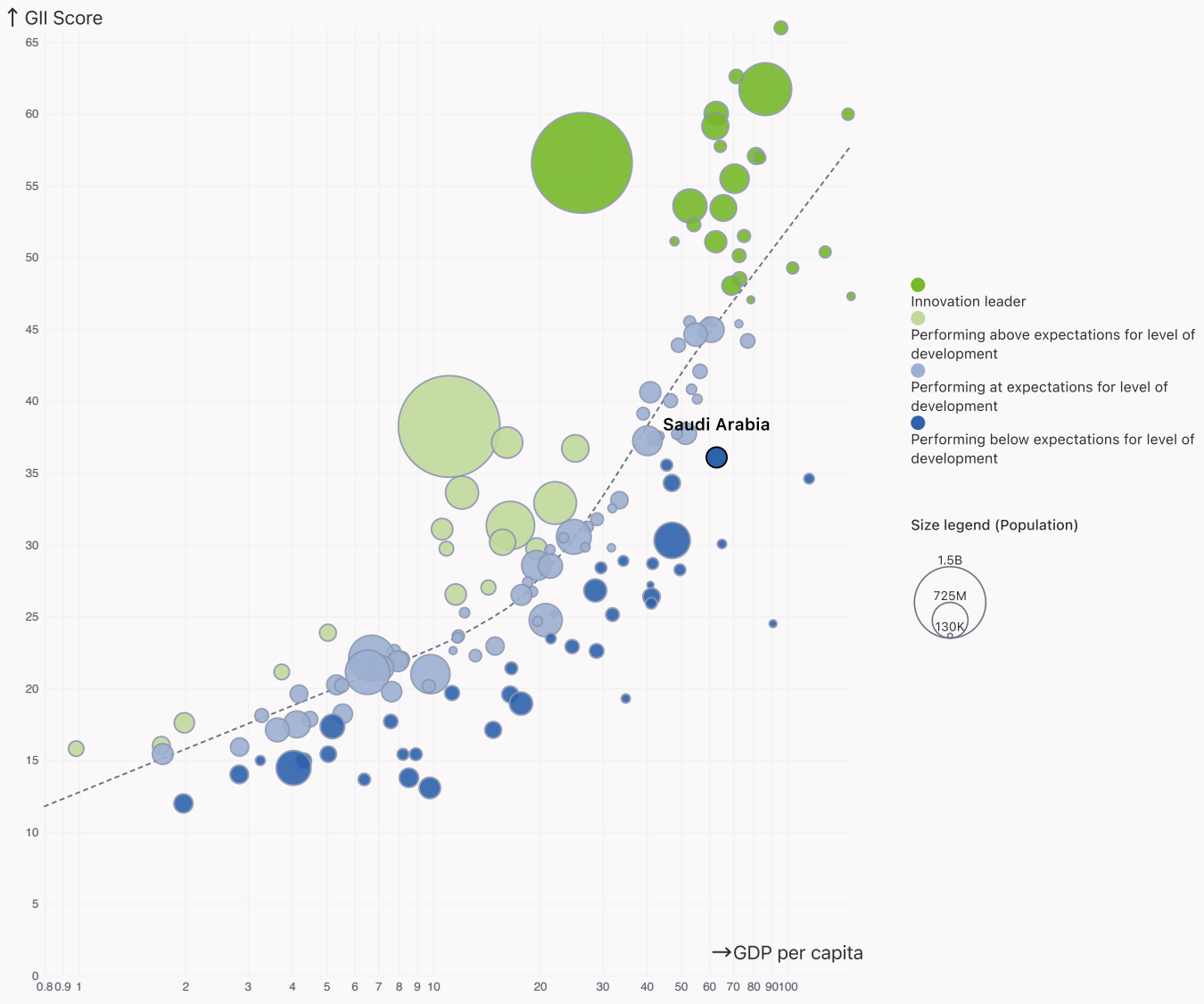
Global Innovation Index 2025

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 Saudi Arabia performs below expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2025

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.

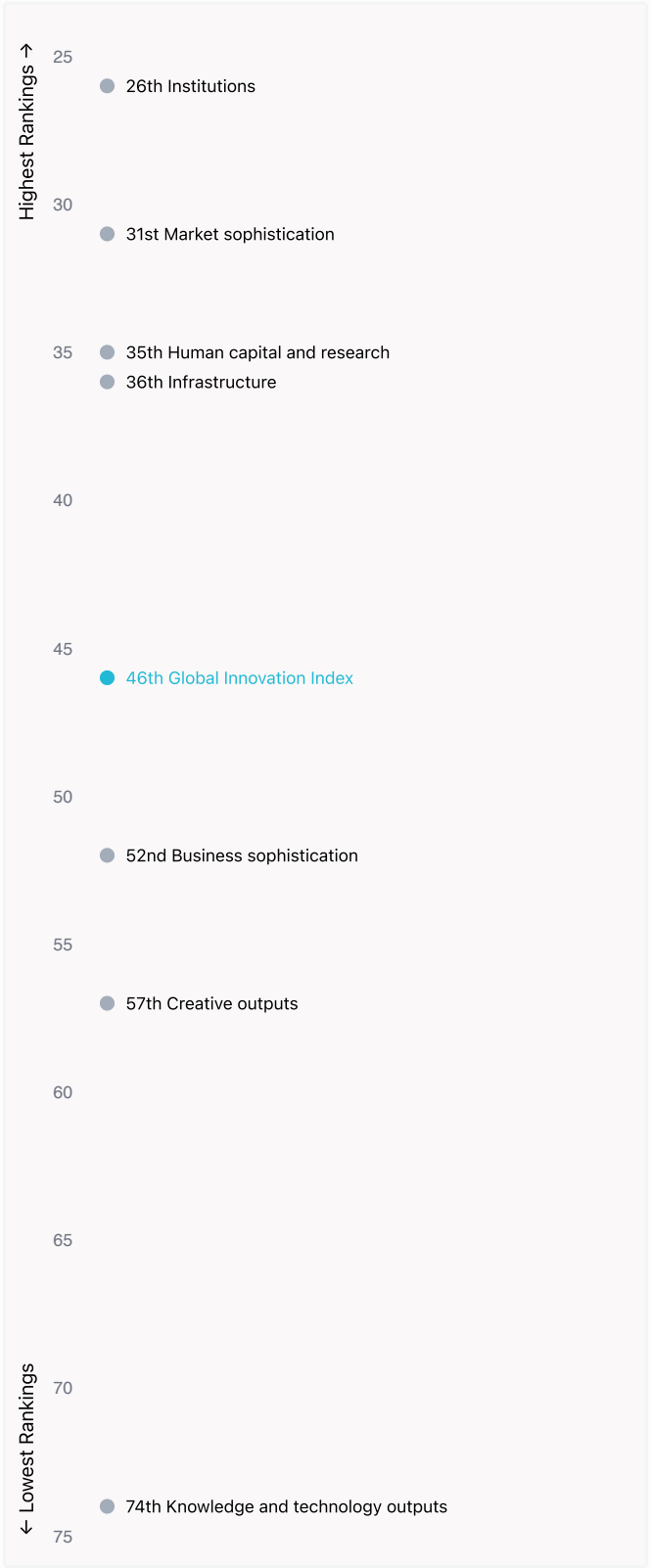
Saudi Arabia produces less innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

Global Innovation Index 2025

Overview of Saudi Arabia's rankings in the seven areas of the GII in 2025

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Saudi Arabia are those that rank above the GII (shown in blue) and the weakest are those that rank below.



Highest Rankings

Saudi Arabia ranks highest in Institutions (26th), Market sophistication (31st), Human capital and research (35th) and Infrastructure (36th).

Lowest Rankings

Saudi Arabia ranks lowest in Knowledge and technology outputs (74th), Creative outputs (57th) and Business sophistication (52nd).

The full WIPO Intellectual Property Statistics profile for Saudi Arabia can be found on https://www.wipo.int/edocs/statistics-country-profile/en/sa.pdf

Global Innovation Index 2025

Benchmark of Saudi Arabia against other economy groupings for each of the seven areas of the GII Index

The charts shows the relative position of Saudi Arabia (blue bar) against other economy groupings (grey bars)

High-income economies

Saudi Arabia performs above the High-income group average in Institutions.

Northern Africa and Western Asia

Saudi Arabia performs above the regional average in Institutions, Human capital and research, Infrastructure, Market sophistication, Business sophistication, Creative outputs.

Institutions

- Top 10 | Score: 78.63
- Saudi Arabia | Score: 68.97
- High-income | Score: 65.99
- NAWA | Score: 54.35

Human capital and research

- Top 10 | Score: 59.30
- High-income | Score: 45.45
- Saudi Arabia | Score: 42.75
- NAWA | Score: 33.89

Infrastructure

- Top 10 | Score: 61.36
- High-income | Score: 54.18
- Saudi Arabia | Score: 52.97
- NAWA | Score: 43.93

Market sophistication

- Top 10 | Score: 61.82
- High-income | Score: 47.12
- Saudi Arabia | Score: 46.68
- NAWA | Score: 38.18

Business sophistication

- Top 10 | Score: 59.10
- High-income | Score: 42.22
- Saudi Arabia | Score: 32.28
- NAWA | Score: 30.52

Knowledge and technology outputs

- Top 10 | Score: 54.93
- High-income | Score: 33.94
- NAWA | Score: 22.17
- Saudi Arabia | Score: 19.85

Creative outputs

- Top 10 | Score: 55.98
- High-income | Score: 38.68
- Saudi Arabia | Score: 26.87
- NAWA | Score: 25.50

Global Innovation Index 2025

Innovation strengths and weaknesses in Saudi Arabia

The table below gives an overview of the indicator strengths and weaknesses of Saudi Arabia in the GII 2025.

Saudi Arabia's best-ranked innovation strengths are **ICT use*** (rank 1), **Market capitalization, % GDP** (rank 1) and **State of cluster development†** (rank 3).

Strengths

Rank	Code	Indicator name
1	3.1.2	ICT use*
1	4.2.1	Market capitalization, % GDP
3	5.2.4	State of cluster development†
4	4.1.1	Finance for startups and scaleups†
4	3.1.3	Government's online service*
5	1.3.2	Entrepreneurship policies and culture†
12	1.3.1	Policy stability for doing business†
13	3.2.1	Electricity output, GWh/mn pop.
16	7.1.3	Global brand value, top 5,000, % GDP
18	4.3.3	Domestic market scale, bn PPP$
18	2.3.3	Global corporate R&D investors, top 3, mn USD

Weaknesses

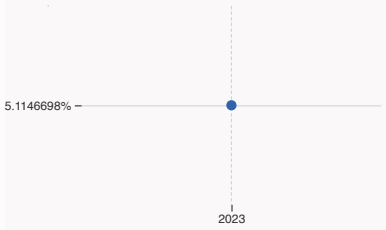
Rank	Code	Indicator name
132	6.2.1	Labor productivity growth, %
132	3.3.2	Low-carbon energy use, %
106	6.3.4	ICT services exports, % total trade
106	5.2.1	Public research–industry co-publications, %
105	7.2.1	Cultural and creative services exports, % total trade
104	7.1.2	Trademarks by origin/bn PPP$ GDP
100	4.3.2	Domestic industry diversification
74	7.2.2	National feature films/mn pop. 15–69
68	2.1.4	PISA scales in reading, maths and science
68	5.3.5	Research talent, % in businesses

Global Innovation Index 2025

Saudi Arabia's innovation system

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

Innovation inputs in Saudi Arabia

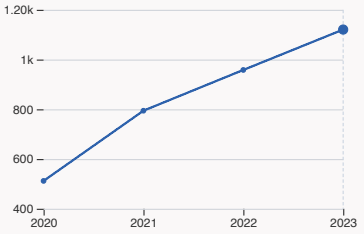


2.1.1 Expenditure on education

was equal to 5.11 % GDP in 2023 – and equivalent to an indicator rank of 35.

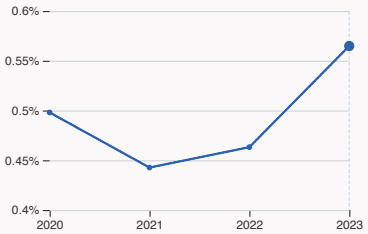
2.2.2 Graduates in science and engineering

was equal to 28.07 % of total graduates in 2022, up by 5.29 percentage points from the year prior – and equivalent to an indicator rank of 30.



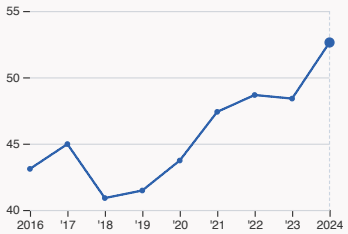
2.3.1 Researchers

was equal to 1120.63 FTE per million population in 2023, up by 16.95% from the year prior – and equivalent to an indicator rank of 50.



2.3.2 Gross expenditure on R&D

was equal to 0.56 % GDP in 2023, up by 0.1 percentage points from the year prior – and equivalent to an indicator rank of 63.



2.3.4 QS university ranking

was equal to an average score of 52.63 for the top three universities in 2024, up by 8.74% from the year prior – and equivalent to an indicator rank of 19.

4.3.2 Domestic industry diversification

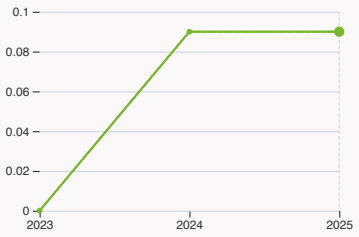
was equal to an index score of 0.27 in 2022, up by 15.76% from the year prior – and equivalent to an indicator rank of 100.

Global Innovation Index 2025

Innovation outputs in Saudi Arabia

6.1.1 Patents by origin

was equal to 3.19 thousand patents in 2023, up by 22.22% from the year prior – and equivalent to an indicator rank of 35.

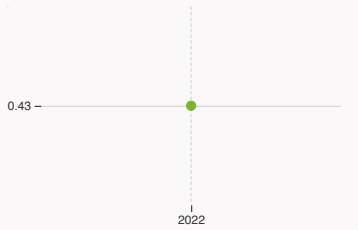


6.2.2 Unicorn valuation

was equal to 0.09 % GDP in 2025 with no change from the year prior – and equivalent to an indicator rank of 52.

6.2.4 High-tech manufacturing

was equal to 101.55 high-tech manufacturing output in billion USD in 2022, up by 31.2% from the year prior – and equivalent to an indicator rank of 46.

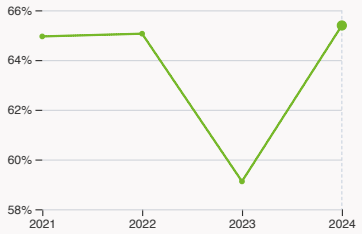


6.3.2 Production and export complexity

was equal to a score of 0.43 in 2022 – and equivalent to an indicator rank of 43.

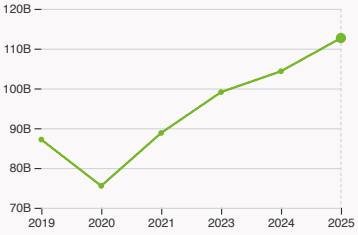
6.3.3 High-tech exports

was equal to 4.4 billion USD in 2023, up by 30.56% from the year prior – and equivalent to an indicator rank of 71.



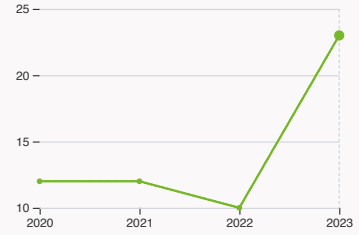
7.1.1 Intangible asset intensity, top 15

was equal to 65.39 % for the top 15 companies in 2024, up by 6.27 percentage points from the year prior – and equivalent to an indicator rank of 24.



7.1.3 Global brand value, top 5,000

was equal to 112.67 billion USD for the brands in the top 5,000 in 2025, up by 8.004% from the year prior – and equivalent to an indicator rank of 16.



7.2.2 National feature films

was equal to 23 films in 2023, up by 130% from the year prior – and equivalent to an indicator rank of 74.

7.3.3 Mobile app creation

was equal to 325.07 million global downloads of mobile apps in 2024, up by 1.92% from the year prior – and equivalent to an indicator rank of 69.

Saudi Arabia's innovation top performers

Disclaimer: This section contains only the top performers per country. For the complete list, please visit the GII Innovation Ecosystems and Data Explorer website.

2.3.3 Global corporate R&D investors from Saudi Arabia

Rank	Firm	Industry	R&D [mn EUR]	R&D Growth [%]	R&D Intensity [%]
1	SAUDI ARABIAN OIL	Oil & Gas Producers	1,262	18	0.3
2	SAUDI BASIC INDUSTRIES	Chemicals	404	n/a	1

Source: WIPO, based on European Commission's Joint Research Centre (https://iri.jrc.ec.europa.eu/scoreboard/2024-eu-industrial-rd-investment-scoreboard) and Orbis database (https://www.moodys.com/web/en/us/capabilities/company-reference-data/orbis.html).
Note: Data is based on the 2024 EU Industrial R&D Investment Scoreboard from the European Commission's Joint Research Centre, which ranks the top 2,000 firms by R&D investment annually. For countries not represented in the Scoreboard, companies from Orbis with R&D expenditure above USD 50 million were identified and used to complement the dataset.

2.3.4 QS university ranking of Saudi Arabia's top universities

Rank	University	Score
101	KING FAHD UNIVERSITY OF PETROLEUM & MINERALS (KFUPM)	59.50
149	KING ABDULAZIZ UNIVERSITY (KAU)	52.20
200	KING SAUD UNIVERSITY (KSU)	46.20

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings/2024).
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'.

5.2.3 University industry and international engagement, top 5 universities

Rank	University	Score
1	KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS	91.85
2	KING SAUD UNIVERSITY	83.75
3	KING KHALID UNIVERSITY	74.70

Source: Times Higher Education (THE), World University Rankings 2025.
Note: Rank corresponds to within economy ranks. The score is calculated as the average of the International Outlook score (encompassing international staff, students, and co-authorship) and the industry score (reflecting industry income and patent citations). The 2025 ranking corresponds to data from the academic year that ended in 2022.

6.2.2 Top Unicorn Companies in Saudi Arabia

Rank	Unicorn Company	Industry	City	Valuation, bn USD
1	TAMARA	Financial Services	Riyadh	1

Source: CBInsights, Tracker – The Complete List of Unicorn Companies: https://www.cbinsights.com/research-unicorn-companies.

7.1.1 Top 15 intangible-asset intensive companies in Saudi Arabia

Rank	Firm	Intensity, %
1	SAUDI ARABIAN OIL COMPANY	77.62
2	ACWA POWER COMPANY	87.12
3	AL RAJHI BANKING AND INVESTMENT CORPORATION	60.41

Source: Brand Finance (https://brandirectory.com/reports/gift-2024).
Note: Brand Finance only provides within economy ranks.

7.1.3 Top 5,000 companies in Saudi Arabia with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	ARAMCO	Oil & Gas	41,666.7
2	STC	Telecoms	16,141.4
3	AL RAJHI BANK	Banking	7,515.6

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

Saudi Arabia

GII 2025 rank **46**

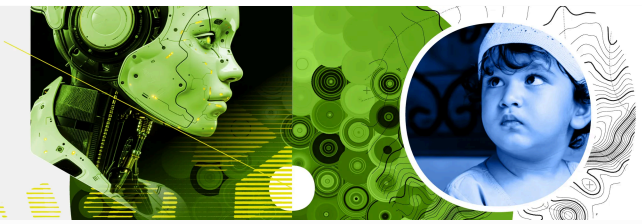
Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
61	31	High	Northern Africa and Western Asia	34.0	2,112.9	63,117.9

	Score / Value	Rank	
Institutions	**69**	**26**	
1.1 Institutional environment	**67**	**38**	
1.1.1 Operational stability for businesses*	71.3	43	
1.1.2 Government effectiveness*	62.6	34	
1.2 Regulatory environment	**60.5**	**47**	
1.2.1 Regulatory quality*	58.7	48	
1.2.2 Rule of law*	62.3	48	
1.3 Business environment	**79.5**	**5**	
1.3.1 Policy stability for doing business†	77.1	12	●
1.3.2 Entrepreneurship policies and culture†	81.8	5	●
Human capital and research	**42.8**	**35**	
2.1 Education	**56.3**	**53**	
2.1.1 Expenditure on education, % GDP	5.1	35	
2.1.2 Government funding/pupil, secondary, % GDP/cap	n/a	n/a	
2.1.3 School life expectancy, years	16.9	22	
2.1.4 PISA scales in reading, maths and science	387.2	68	○ ◇
2.1.5 Pupil–teacher ratio, secondary	14.4	71	◇
2.2 Tertiary education	**37.4**	**40**	
2.2.1 Tertiary enrolment, % gross	73.7	40	
2.2.2 Graduates in science and engineering, %	28.1	30	
2.2.3 Tertiary inbound mobility, %	4.1	60	
2.3 Research and development (R&D)	**34.6**	**32**	
2.3.1 Researchers, FTE/mn pop.	1,120.6	50	◇
2.3.2 Gross expenditure on R&D, % GDP	0.6	63	
2.3.3 Global corporate R&D investors, top 3, mn USD	64.8	18	●
2.3.4 QS university ranking, top 3*	53.9	19	
Infrastructure	**53**	**36**	
3.1 Information and communication technologies (ICTs)	**98.2**	**2**	
3.1.1 ICT access*	95.9	38	
3.1.2 ICT use*	100	1	●
3.1.3 Government's online service*	98.8	4	●
3.2 General infrastructure	**52.8**	**16**	
3.2.1 Electricity output, GWh/mn pop.	11,503.4	13	●
3.2.2 Logistics performance*	59.1	37	
3.2.3 Gross capital formation, % GDP	28.7	28	
3.3 Ecological sustainability	**7.9**	**123**	◇
3.3.1 GDP/unit of energy use	7.6	97	
3.3.2 Low-carbon energy use, %	0.5	132	○ ◇
3.3.3 ISO 14001 environment/bn PPP$ GDP	1.1	67	
Market sophistication	**46.7**	**31**	
4.1 Credit	**54**	**23**	
4.1.1 Finance for startups and scaleups†	89.8	4	●
4.1.2 Domestic credit to private sector, % GDP	52	62	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**23.1**	**27**	
4.2.1 Market capitalization, % GDP	291.5	1	●
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.06	75	◇
4.2.3 Late-stage VC deal count, % global VC	0.06	39	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.1	66	
4.2.5 VC investor co-participation/bn PPP$ GDP	0.06	59	
4.3 Trade, diversification and market scale	**62.9**	**83**	
4.3.1 Applied tariff rate, weighted avg., %	5.3	99	◇
4.3.2 Domestic industry diversification	57.7	100	○ ◇
4.3.3 Domestic market scale, bn PPP$	2,112.9	18	●

	Score / Value	Rank	
Business sophistication	**32.3**	**52**	
5.1 Knowledge workers	**32**	**[88]**	
5.1.1 Knowledge-intensive employment, %	n/a	n/a	
5.1.2 Females employed w/advanced degrees, %	n/a	n/a	
5.1.3 Youth demographic dividend, %	38.6	63	
5.1.4 GERD performed by business, % GDP	0.2	56	◇
5.1.5 GERD financed by business, %	39.4	47	
5.2 Innovation linkages	**46**	**28**	
5.2.1 Public research–industry co-publications, %	0.7	106	○ ◇
5.2.2 University–industry R&D collaboration†	53	34	
5.2.3 University industry & international engagement, top 5*	73.2	21	
5.2.4 State of cluster development†	92.9	3	●
5.2.5 Patent families/bn PPP$ GDP	0.3	42	
5.3 Knowledge absorption	**18.8**	**112**	◇
5.3.1 Intellectual property payments, % total trade	0.4	77	
5.3.2 High-tech imports, % total trade	7.5	81	
5.3.3 ICT services imports, % total trade	0.8	100	
5.3.4 FDI net inflows, % GDP	2.6	67	
5.3.5 Research talent, % in businesses	6	68	○ ◇
Knowledge and technology outputs	**19.9**	**74**	◇
6.1 Knowledge creation	**25.5**	**39**	
6.1.1 Patents by origin/bn PPP$ GDP	1.6	35	
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	0.2	49	
6.1.3 Utility models by origin/bn PPP$ GDP	-	-	
6.1.4 Scientific and technical articles/bn PPP$ GDP	21.1	31	
6.1.5 Citable documents H-index	28.3	36	
6.2 Knowledge impact	**18.3**	**105**	◇
6.2.1 Labor productivity growth, %	-2.8	132	○ ◇
6.2.2 Unicorn valuation, % GDP	0.09	52	
6.2.3 Software spending, % GDP	0.3	46	
6.2.4 High-tech manufacturing	26.9	46	
6.3 Knowledge diffusion	**15.8**	**81**	◇
6.3.1 Intellectual property receipts, % total trade	0.08	63	
6.3.2 Production and export complexity	58.5	43	
6.3.3 High-tech exports, % total trade	1.4	71	
6.3.4 ICT services exports, % total trade	0.5	106	○
6.3.5 ISO 9001 quality/bn PPP$ GDP	2.4	80	
Creative outputs	**26.9**	**57**	
7.1 Intangible assets	**37.6**	**43**	
7.1.1 Intangible asset intensity, top 15, %	65.4	24	
7.1.2 Trademarks by origin/bn PPP$ GDP	14.4	104	○ ◇
7.1.3 Global brand value, top 5,000, % GDP	9.9	16	●
7.1.4 Industrial designs by origin/bn PPP$ GDP	0.5	82	
7.2 Creative goods and services	**8.9**	**73**	◇
7.2.1 Cultural and creative services exports, % total trade	0.04	105	○ ◇
7.2.2 National feature films/mn pop. 15–69	0.9	74	○ ◇
7.2.3 Entertainment and media market/th pop. 15–69	22.9	27	
7.2.4 Creative goods exports, % total trade	0.6	59	
7.3 Online creativity	**23.4**	**80**	◇
7.3.1 Top-level domains (TLDs)/th pop. 15–69	1.9	87	◇
7.3.2 GitHub commits/mn pop. 15–69	3.4	94	◇
7.3.3 Mobile app creation/bn PPP$ GDP	64.9	69	

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 2025



Data Availability

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

Saudi Arabia has missing data for five indicators and outdated data for eight indicators.

Missing data for Saudi Arabia

Code	Indicator name	Economy year	Model year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2021	UNESCO Institute for Statistics
4.1.3	Loans from microfinance institutions, % GDP	n/a	2023	International Monetary Fund, Financial Access Survey (FAS)
5.1.1	Knowledge-intensive employment, %	n/a	2024	International Labour Organization
5.1.2	Females employed w/advanced degrees, %	n/a	2024	International Labour Organization
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2023	World Intellectual Property Organization; International Monetary Fund

Outdated data for Saudi Arabia

Code	Indicator name	Economy year	Model year	Source
2.1.3	School life expectancy, years	2022	2023	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2022	2023	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2022	2023	UNESCO Institute for Statistics
2.2.3	Tertiary inbound mobility, %	2022	2023	UNESCO Institute for Statistics
3.2.1	Electricity output, GWh/mn pop.	2022	2023	International Energy Agency
4.1.2	Domestic credit to private sector, % GDP	2017	2023	International Monetary Fund; World Bank and OECD GDP estimates
5.1.4	GERD performed by business, % GDP	2022	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.5	Research talent, % in businesses	2022	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT

Global Innovation Index 2025

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 140 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a "tool for action" for economies that incorporate the GII into their innovation agendas.

The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that include institutions, human capital and research infrastructure, credit, investment, linkages, the creation, absorption and diffusion of knowledge and creative outputs.

The GII has two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index, and seven pillars, each consisting of three sub-pillars.