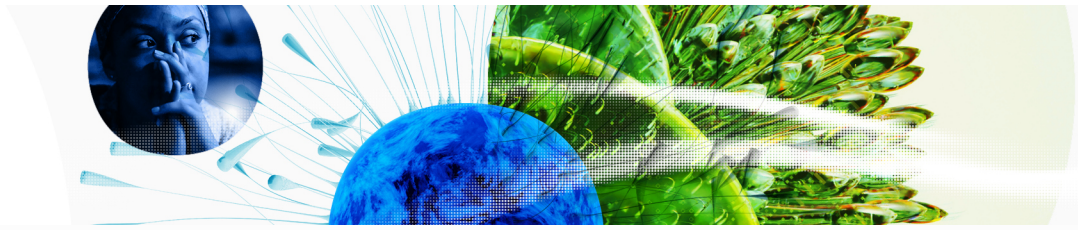
Global Innovation Index 2023



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

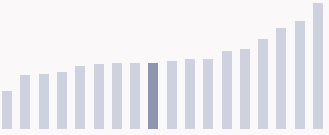
Consisting of **roughly 80 indicators**, grouped into innovation inputs and outputs, the GII **aims to capture the multi-dimensional facets of innovation**.

Oman ranking in the Global Innovation Index 2023

> Oman ranks 69th among the 132 economies featured in the GII 2023.

> Oman ranks 47th among the 50 high-income group economies.

> Oman ranks 10th among the 18 economies in Northern Africa and Western Asia.



> Oman GII Ranking (2020-2023)

The table shows the rankings of Oman 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 Oman in the GII 2023 is between ranks 67 and 74.

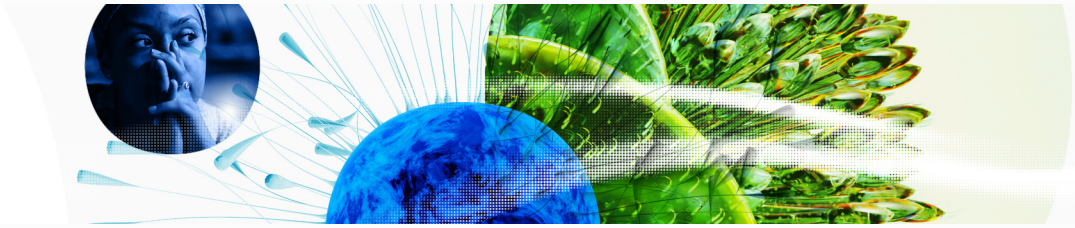
	GII Position	Innovation Inputs	Innovation Outputs
2020	84th	68th	109th
2021	76th	67th	90th
2022	79th	62nd	87th
2023	69th	65th	78th

Oman performs worse in innovation outputs than innovation inputs in 2023.

This year **Oman ranks 65th in innovation inputs.** This position is lower than last year.

Oman ranks 78th in innovation outputs. This position is higher than last year.

Global Innovation Index 2023

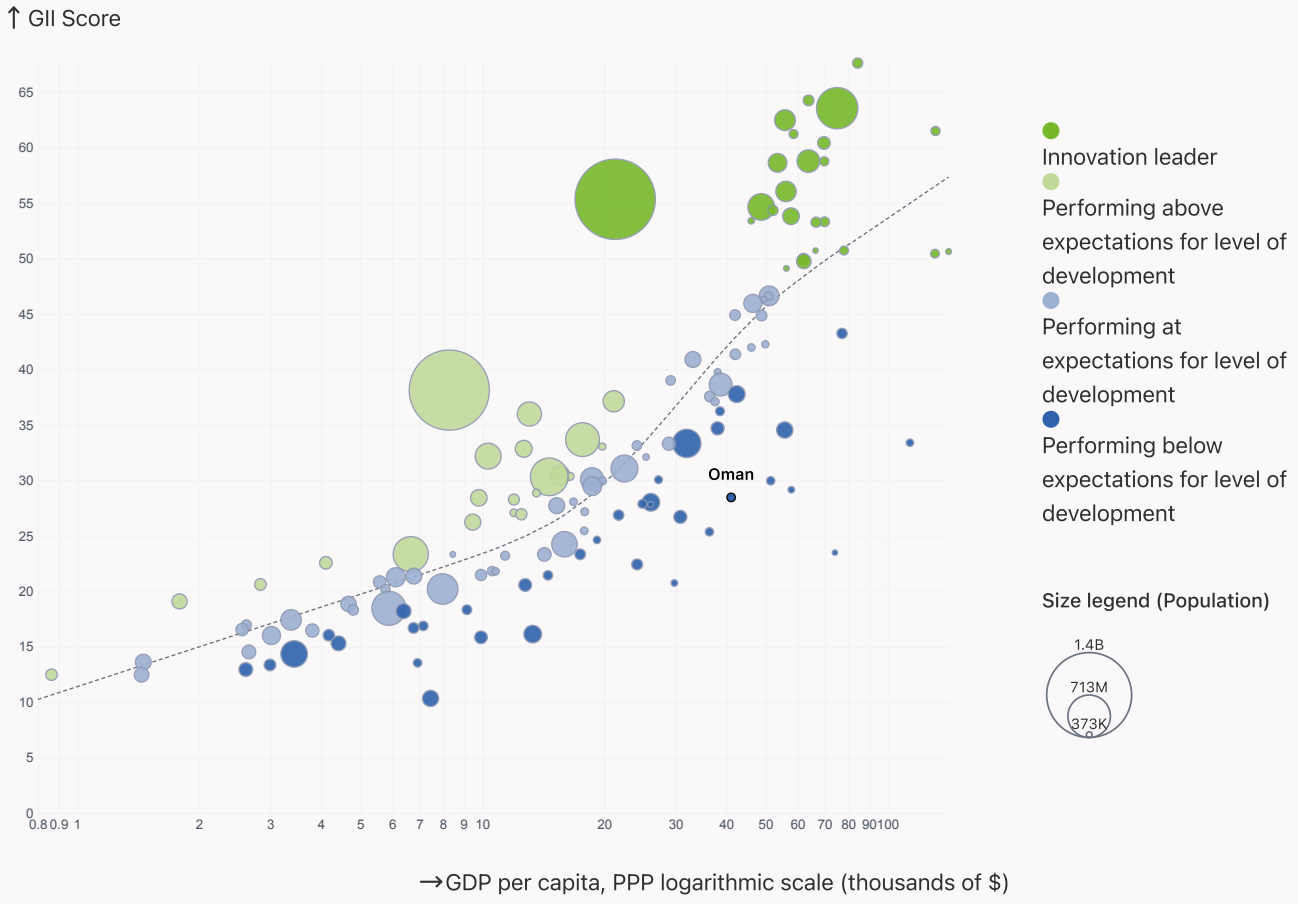


→ Expected vs. observed innovation performance

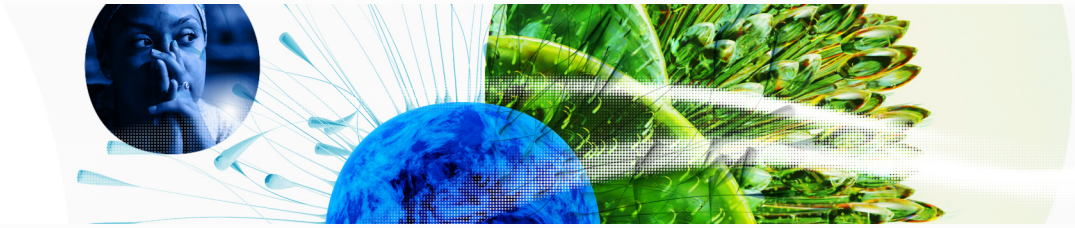
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected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

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

> Innovation overperformers relative to their economic development



Global Innovation Index 2023

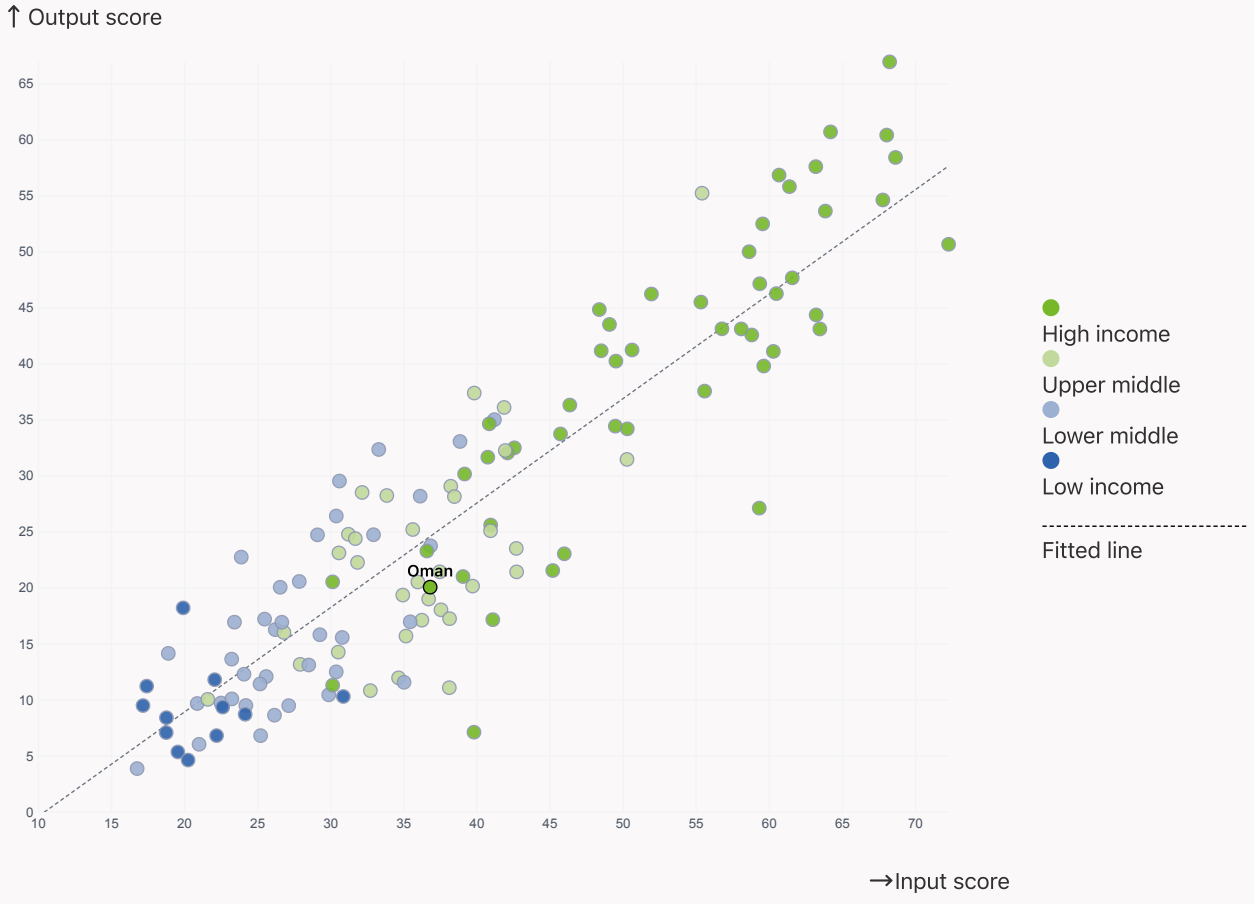


→ Effectively translating innovation investments into innovation outputs

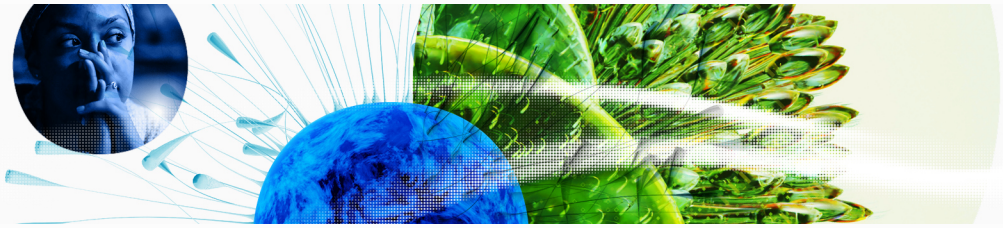
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

> Oman produces less innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

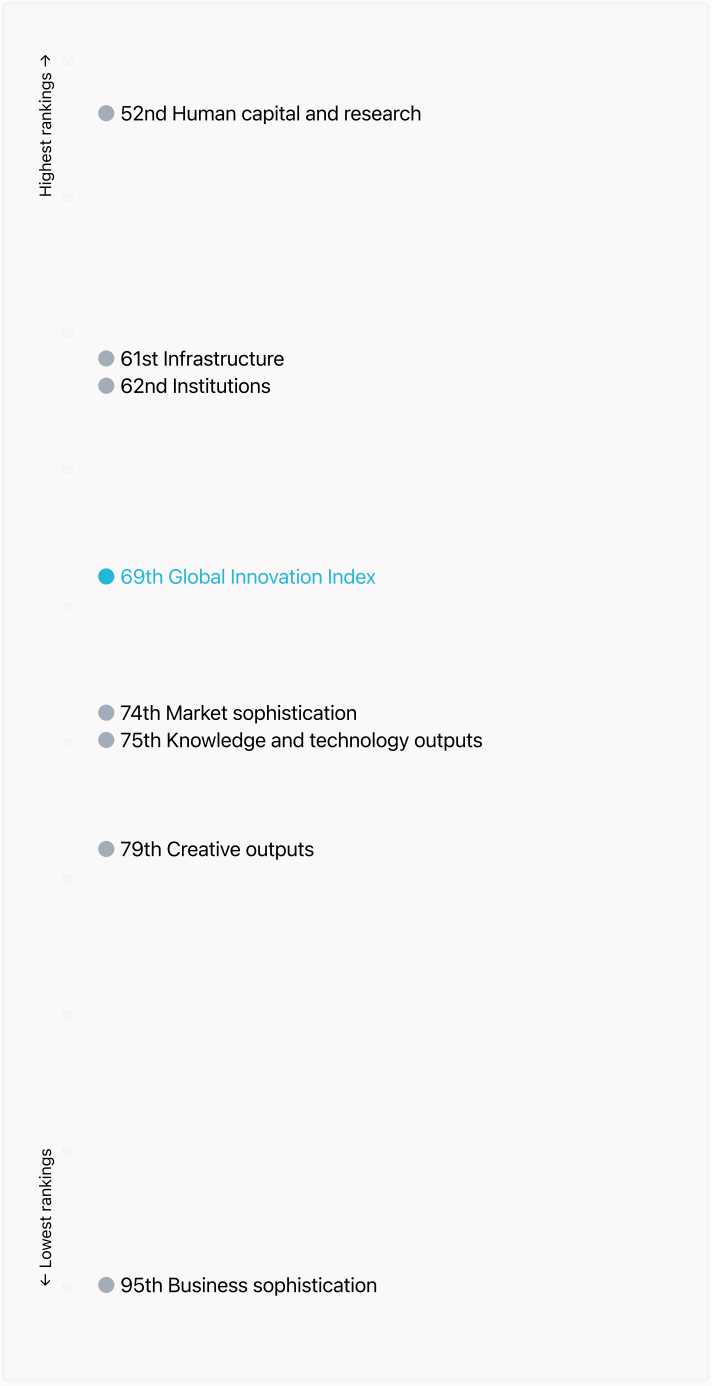


Global Innovation Index 2023



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



> Highest rankings

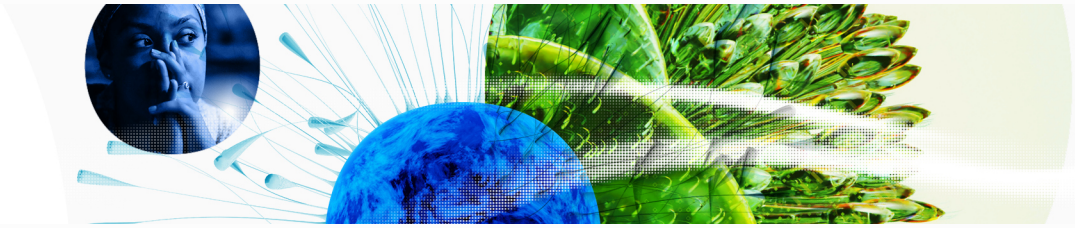
Oman ranks highest in Human capital and research (52nd), Infrastructure (61st) and Institutions (62nd).

> Lowest rankings

Oman ranks lowest in Business sophistication (95th), Creative outputs (79th) and Knowledge and technology outputs (75th).

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

Global Innovation Index 2023



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

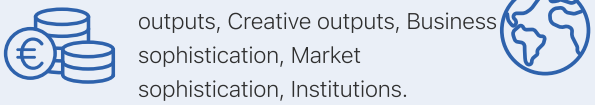
The charts shows the relative position of Oman (blue bar) against other country groupings (grey bars), for each of the seven areas of the GII Index.

> High-Income economies

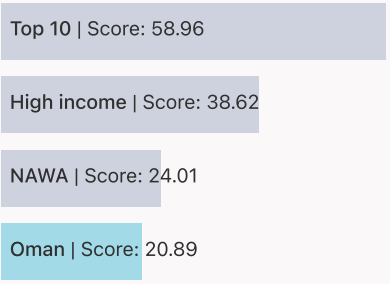
Oman performs below the high-income group average in all the pillars.

> Northern Africa And Western Asia

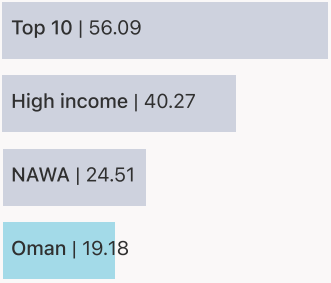
Oman performs below the regional average in Knowledge and technology outputs, Creative outputs, Business sophistication, Market sophistication, Institutions.



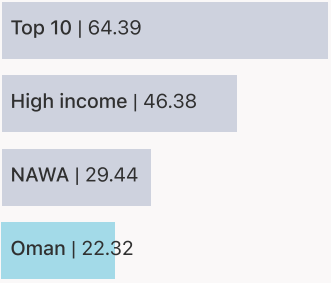
Knowledge and technology outputs



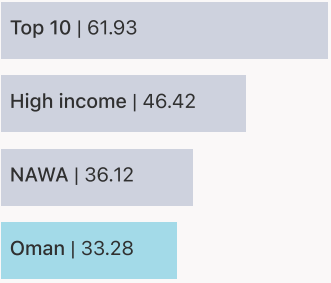
Creative outputs



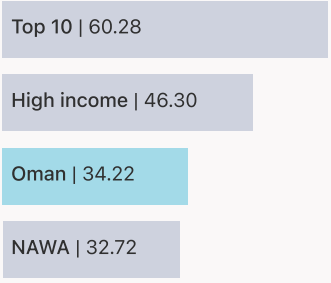
Business sophistication



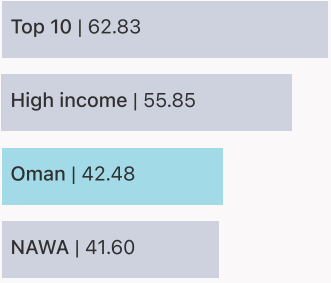
Market sophistication



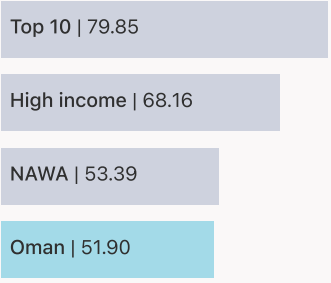
Human capital and research



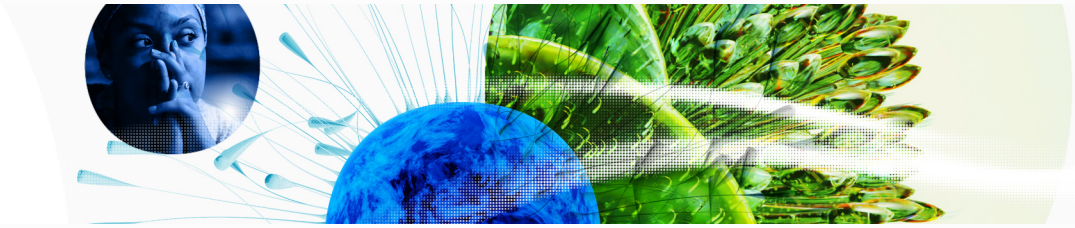
Infrastructure



Institutions



Global Innovation Index 2023



→ Innovation strengths and weaknesses in Oman

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

> Oman's main innovation strengths are **Graduates in science and engineering, %** (rank 2), **Government funding/pupil, secondary, % GDP/cap** (rank 9) and **ICT access** (rank 16).

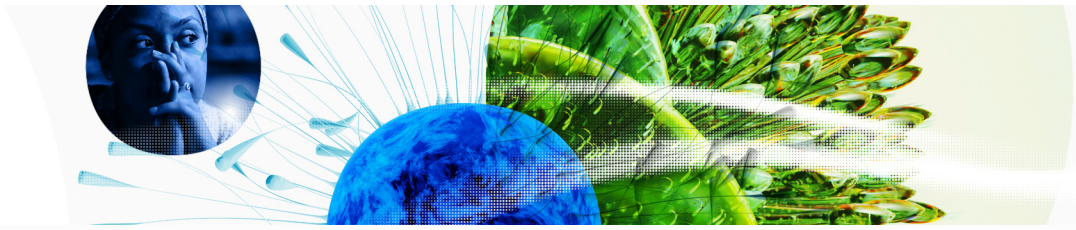
Strengths

Rank	Code	Indicator name
2	2.2.2	Graduates in science and engineering, %
9	2.1.2	Government funding/pupil, secondary, % GDP/cap
16	3.1.1	ICT access
19	6.2.1	Labor productivity growth, %
19	1.3.1	Policies for doing business
21	5.2.2	State of cluster development
23	6.1.1	Patents by origin/bn PPP$ GDP
24	3.2.1	Electricity output, GWh/mn pop.
27	5.3.4	FDI net inflows, % GDP
31	7.3.4	Mobile app creation/bn PPP$ GDP

Weaknesses

Rank	Code	Indicator name
119	5.1.5	Females employed w/advanced degrees, %
116	3.3.1	GDP/unit of energy use
116	5.3.2	High-tech imports, % total trade
113	7.1.4	Industrial designs by origin/bn PPP$ GDP
92	4.2.3	VC recipients, deals/bn PPP$ GDP
91	4.2.4	VC received, value, % GDP
86	5.2.3	GERD financed by abroad, % GDP
83	5.3.5	Research talent, % in businesses
48	6.2.2	Unicorn valuation, % GDP
40	2.3.3	Global corporate R&D investors, top 3, mn US$

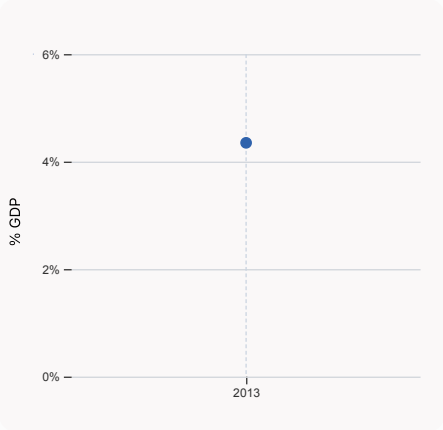
Global Innovation Index 2023



→ Oman's innovation system

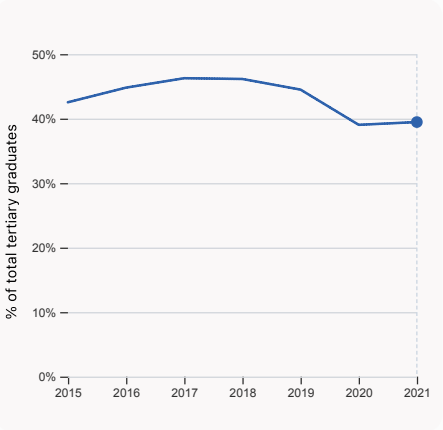
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Oman



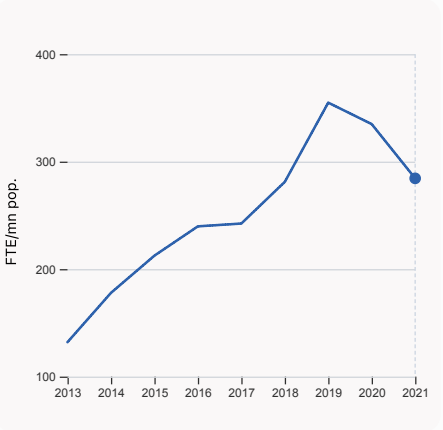
2.1.1 Expenditure on education, % GDP

was equal to 4.35 % GDP in 2013, equivalent to an indicator rank of 59.



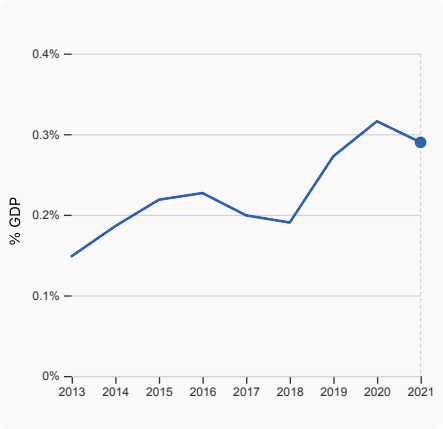
2.2.2 Graduates in science and engineering, %

was equal to 39.47% of total tertiary graduates in 2021, up by 0.43 percentage points from the year prior – and equivalent to an indicator rank of 2.



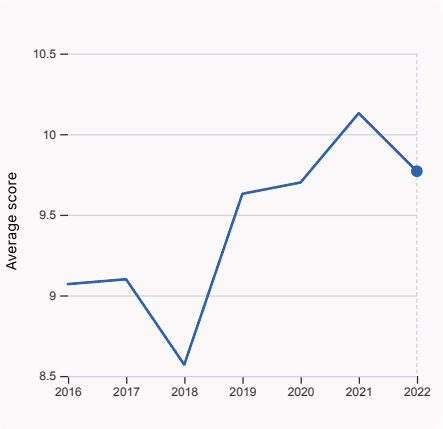
2.3.1 Researchers, FTE/mn pop.

was equal to 284.45 FTE/mn pop. in 2021, down by 15.069% from the year prior – and equivalent to an indicator rank of 80.



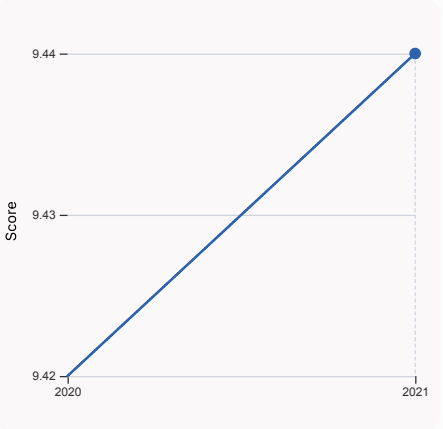
2.3.2 Gross expenditure on R&D, % GDP

was equal to 0.29% GDP in 2021, down by 0.026 percentage points from the year prior – and equivalent to an indicator rank of 77.



2.3.4 QS university ranking, top 3

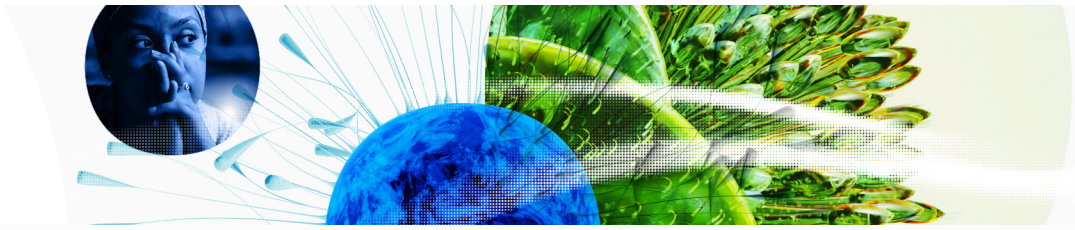
was equal to an average score of 9.77 for the top 3 universities in 2022, down by 3.55% from the year prior – and equivalent to an indicator rank of 65.

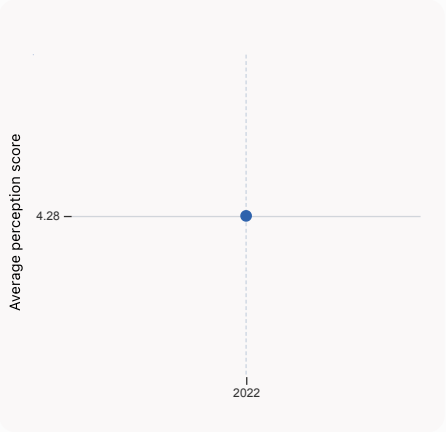


3.1.1 ICT access

was equal to a score of 9.44 in 2021, up by 0.21% from the year prior – and equivalent to an indicator rank of 16.

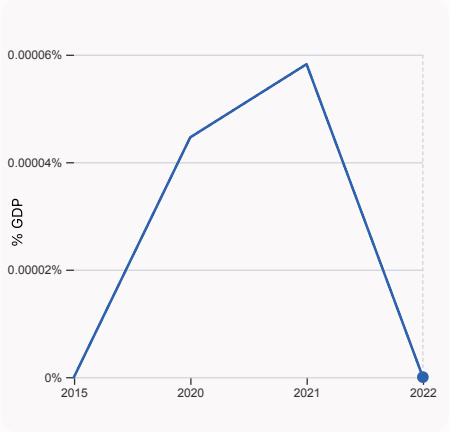
Global Innovation Index 2023





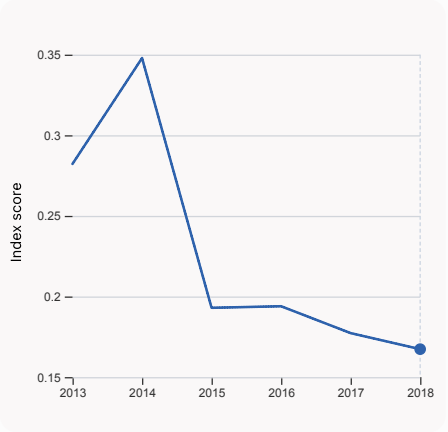
4.1.1 Finance for startups and scaleups

was equal to an average perception score of 4.28 in 2022, equivalent to an indicator rank of 55.



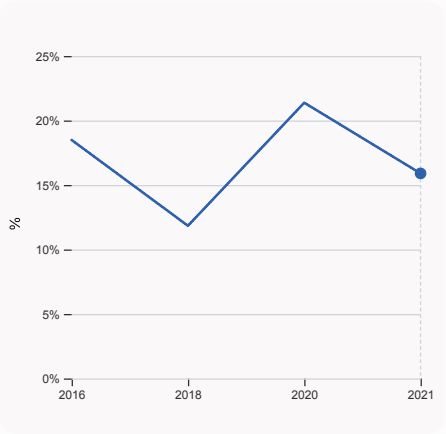
4.2.4 VC received, value, % GDP

was equal to 0% GDP in 2022, down by 0.000058 percentage points from the year prior – and equivalent to an indicator rank of 91.



4.3.2 Domestic industry diversification

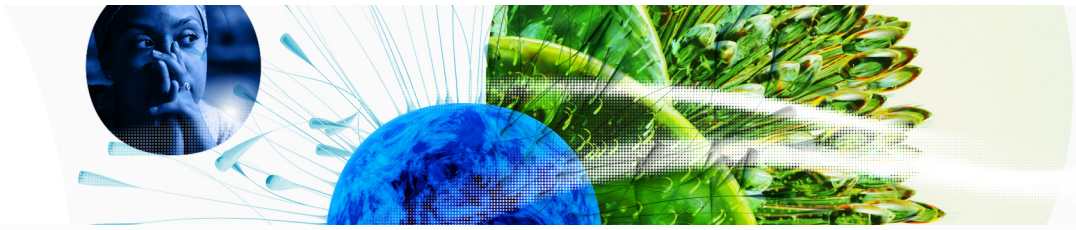
was equal to an index score of 0.167 in 2018, down by 5.62% from the year prior – and equivalent to an indicator rank of 57.



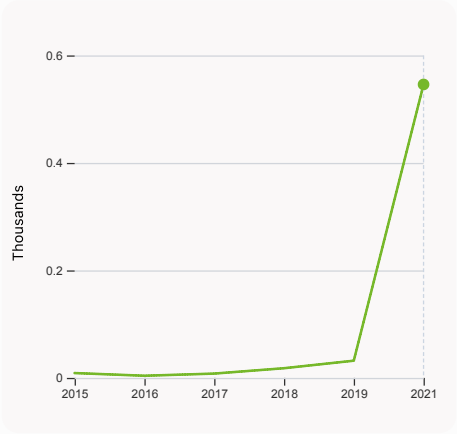
5.1.1 Knowledge-intensive employment, %

was equal to 15.9% in 2021, down by 5.48 percentage points from the year prior – and equivalent to an indicator rank of 85.

Global Innovation Index 2023

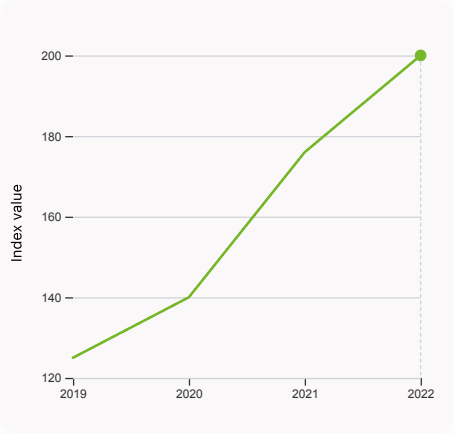


> Innovation outputs in Oman



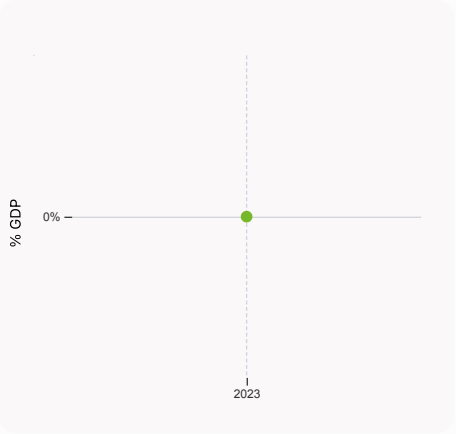
6.1.1 Patents by origin

was equal to 0.55 Thousands in 2021, up by 1606.25% from the year prior – and equivalent to an indicator rank of 23.



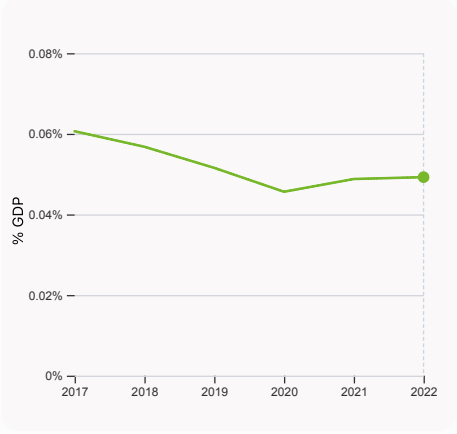
6.1.5 Citable documents H-index

was equal to an index value of 200 in 2022, up by 13.64% from the year prior – and equivalent to an indicator rank of 85.



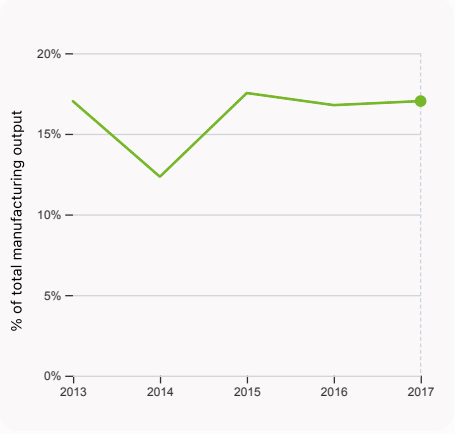
6.2.2 Unicorn valuation, % GDP

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



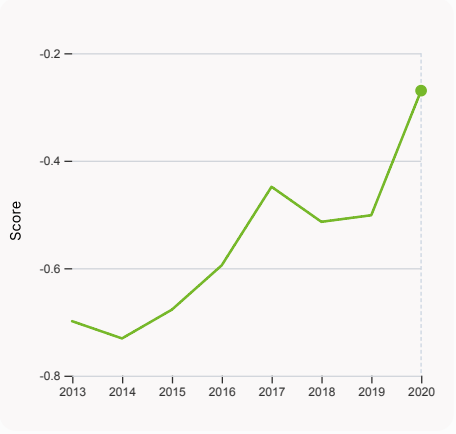
6.2.3 Software spending, % GDP

was equal to 0.049% GDP in 2022, up by 0.00046 percentage points from the year prior – and equivalent to an indicator rank of 105.



6.2.4 High-tech manufacturing, %

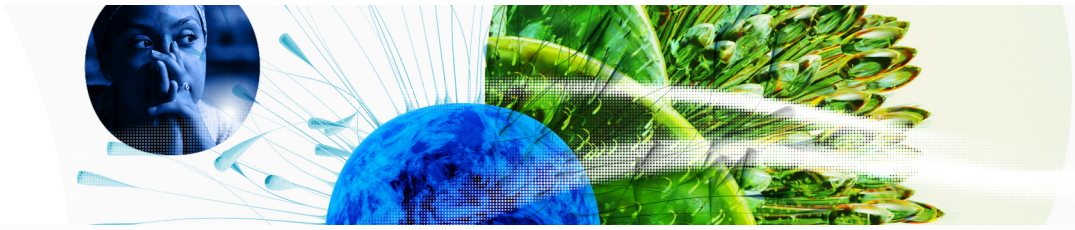
was equal to 17.03% of total manufacturing output in 2017, up by 0.25 percentage points from the year prior – and equivalent to an indicator rank of 72.

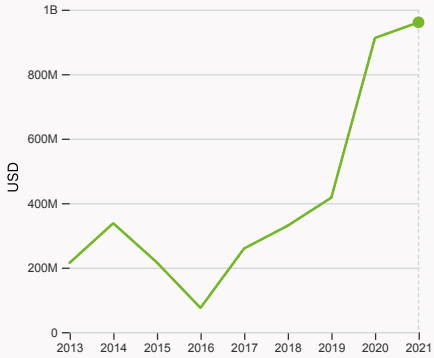


6.3.2 Production and export complexity

was equal to a score of -0.27 in 2020, up by 46.23% from the year prior – and equivalent to an indicator rank of 78.

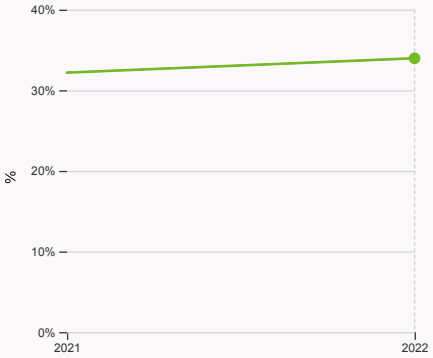
Global Innovation Index 2023





6.3.3 High-tech exports

was equal to 960,667,977 USD in 2021, up by 5.31% from the year prior – and equivalent to an indicator rank of 56.

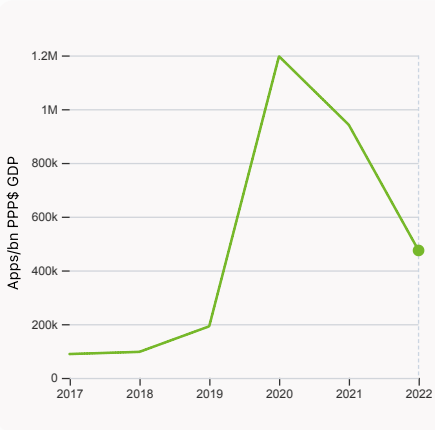


7.1.1 Intangible asset intensity, top 15, %

was equal to 33.97% in 2022, up by 1.78 percentage points from the year prior – and equivalent to an indicator rank of 66.

7.1.3 Global brand value, top 5,000

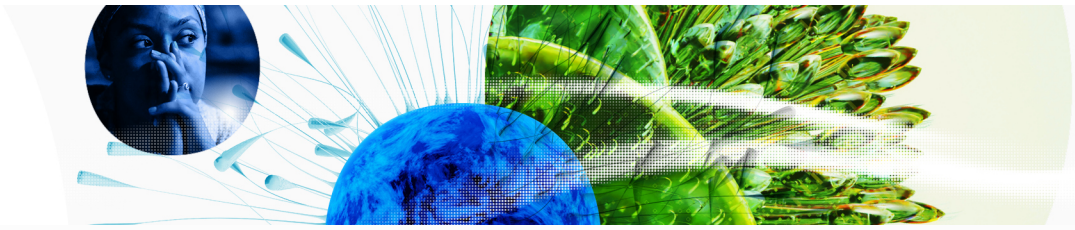
was equal to 0.76 bn USD in 2023, up by 9.93% from the year prior – and equivalent to an indicator rank of 60.



7.3.4 Mobile app creation/bn PPP$ GDP

was equal to 474,253.04 Apps/bn PPP$ GDP in 2022, down by 49.64% from the year prior – and equivalent to an indicator rank of 31.

Global Innovation Index 2023



→ Oman's innovation top performers

> 2.3.4 QS university ranking of Oman’s top universities

Rank	University	Score
384	SULTAN QABOOS UNIVERSITY	29.30

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 Oman

Rank	Firm	Intensity, %
1	OMAN TELECOMMUNICATIONS CO SAOG	68.80
2	BANK MUSCAT SAOG	5.36
3	OMANI QATARI TELECOMMUNICATIONS CO SAOG	29.90

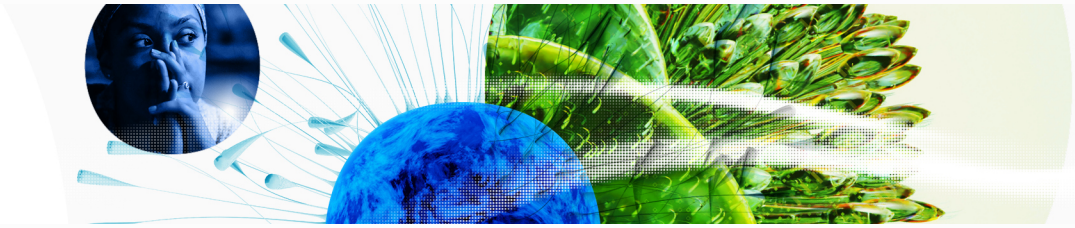
Source: Brand Finance (https://brandirectory.com/reports/gift-2022).
Note: Brand Finance only provides within economy ranks.

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

Rank	Brand	Industry	Brand Value, mn USD
1	BANK MUSCAT	Banking	415.6
2	OMANTEL	Telecoms	339.6

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

Global Innovation Index 2023



Oman

GII 2023 rank **69**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
78	65	High	NAWA	4.6	190.5	41,150.0

	Score / Value	Rank	
Institutions	**51.9**	**62**	◇
1.1 Institutional environment	**47.0**	**61**	◇
1.1.1 Operational stability for businesses*	60.4	46	
1.1.2 Government effectiveness*	33.5	78	◇
1.2 Regulatory environment	**51.1**	**96**	◇
1.2.1 Regulatory quality*	50.7	54	◇
1.2.2 Rule of law*	51.6	47	◇
1.2.3 Cost of redundancy dismissal	n/a	n/a	
1.3 Business environment	**57.6**	**39**	
1.3.1 Policies for doing business†	74.8	19	●
1.3.2 Entrepreneurship policies and culture†	40.5	48	
Human capital and research	**34.2**	**52**	◇
2.1 Education	**56.3**	**52**	
2.1.1 Expenditure on education, % GDP	4.4	59	
2.1.2 Government funding/pupil, secondary, % GDP/cap	28.5	9	●
2.1.3 School life expectancy, years	14.6	63	◇
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil-teacher ratio, secondary	12.2	54	
2.2 Tertiary education	**41.9**	**27**	
2.2.1 Tertiary enrolment, % gross	47.4	69	◇
2.2.2 Graduates in science and engineering, %	39.5	2	●
2.2.3 Tertiary inbound mobility, %	3.1	63	
2.3 Research and development (R&D)	**4.4**	**79**	◇
2.3.1 Researchers, FTE/mn pop.	284.4	80	◇
2.3.2 Gross expenditure on R&D, % GDP	0.3	77	◇
2.3.3 Global corporate R&D investors, top 3, mn US$	0.0	40	○ ◇
2.3.4 QS university ranking, top 3*	9.9	65	◇
Infrastructure	**42.5**	**61**	◇
3.1 Information and communication technologies (ICTs)	**76.3**	**46**	
3.1.1 ICT access*	91.7	16	●
3.1.2 ICT use*	76.6	58	◇
3.1.3 Government's online service*	71.5	58	
3.1.4 E-participation*	65.1	50	
3.2 General infrastructure	**37.0**	**38**	
3.2.1 Electricity output, GWh/mn pop.	7,474.1	24	●
3.2.2 Logistics performance*	54.5	42	
3.2.3 Gross capital formation, % GDP	23.2	71	
3.3 Ecological sustainability	**14.2**	**107**	◇
3.3.1 GDP/unit of energy use	5.3	116	○ ◇
3.3.2 Environmental performance*	20.0	107	◇
3.3.3 ISO 14001 environment/bn PPP$ GDP	1.7	53	
Market sophistication	**33.3**	**74**	
4.1 Credit	**36.0**	**49**	
4.1.1 Finance for startups and scaleups†	43.9	55	◇
4.1.2 Domestic credit to private sector, % GDP	76.6	44	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**3.6**	**89**	◇
4.2.1 Market capitalization, % GDP	20.6	58	
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	0.1	46	
4.2.3 VC recipients, deals/bn PPP$ GDP	0.0	92	○ ◇
4.2.4 VC received, value, % GDP	0.0	91	○ ◇
4.3 Trade, diversification, and market scale	**60.3**	**53**	
4.3.1 Applied tariff rate, weighted avg., %	1.7	54	
4.3.2 Domestic industry diversification	87.8	57	
4.3.3 Domestic market scale, bn PPP$	190.5	71	

	Score / Value	Rank	
Business sophistication	**22.3**	**95**	◇
5.1 Knowledge workers	**16.1**	**111**	◇
5.1.1 Knowledge-intensive employment, %	15.9	85	◇
5.1.2 Firms offering formal training, %	n/a	n/a	
5.1.3 GERD performed by business, % GDP	0.1	65	◇
5.1.4 GERD financed by business, %	31.8	56	
5.1.5 Females employed w/advanced degrees, %	0.9	119	○ ◇
5.2 Innovation linkages	**27.9**	**46**	
5.2.1 University-industry R&D collaboration†	54.4	43	
5.2.2 State of cluster development†	71.4	21	●
5.2.3 GERD financed by abroad, % GDP	0.0	86	○ ◇
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.0	37	
5.2.5 Patent families/bn PPP$ GDP	0.0	87	
5.3 Knowledge absorption	**23.0**	**115**	◇
5.3.1 Intellectual property payments, % total trade	n/a	n/a	
5.3.2 High-tech imports, % total trade	5.0	116	○
5.3.3 ICT services imports, % total trade	0.7	97	◇
5.3.4 FDI net inflows, % GDP	4.4	27	●
5.3.5 Research talent, % in businesses	0.3	83	○ ◇
Knowledge and technology outputs	**20.9**	**75**	◇
6.1 Knowledge creation	**14.7**	**65**	◇
6.1.1 Patents by origin/bn PPP$ GDP	3.2	23	●
6.1.2 PCT patents by origin/bn PPP$ GDP	0.0	77	◇
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	8.7	85	◇
6.2 Knowledge impact	**23.8**	**83**	◇
6.2.1 Labor productivity growth, %	2.9	19	●
6.2.2 Unicorn valuation, % GDP	0.0	48	○ ◇
6.2.3 Software spending, % GDP	0.0	105	◇
6.2.4 High-tech manufacturing, %	17.0	72	◇
6.3 Knowledge diffusion	**24.1**	**59**	◇
6.3.1 Intellectual property receipts, % total trade	n/a	n/a	
6.3.2 Production and export complexity	46.9	78	◇
6.3.3 High-tech exports, % total trade	2.2	56	
6.3.4 ICT services exports, % total trade	1.2	80	
6.3.5 ISO 9001 quality/bn PPP$ GDP	3.8	64	
Creative outputs	**19.2**	**79**	◇
7.1 Intangible assets	**27.2**	**75**	
7.1.1 Intangible asset intensity, top 15, %	34.0	66	
7.1.2 Trademarks by origin/bn PPP$ GDP	49.8	45	
7.1.3 Global brand value, top 5,000	0.7	60	
7.1.4 Industrial designs by origin/bn PPP$ GDP	0.1	113	○ ◇
7.2 Creative goods and services	**2.9**	**99**	
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	3.0	50	◇
7.2.4 Creative goods exports, % total trade	0.2	74	
7.3 Online creativity	**19.5**	**68**	◇
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	2.3	78	◇
7.3.2 Country-code TLDs/th pop. 15-69	0.4	103	◇
7.3.3 GitHub commits/mn pop. 15-69	1.3	112	◇
7.3.4 Mobile app creation/bn PPP$ GDP	74.2	31	●

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.

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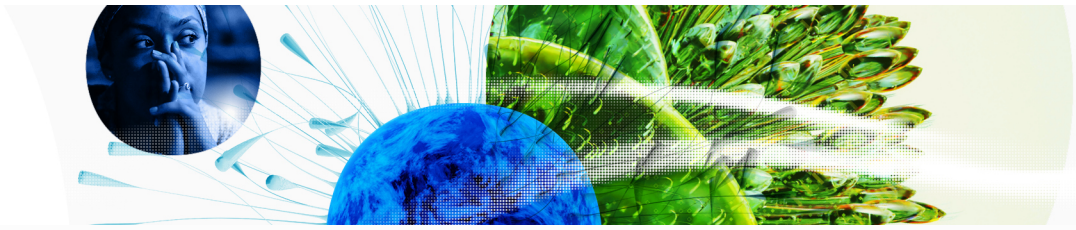

→ Data availability

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

> Oman has missing data for nine indicators and outdated data for fourteen indicators.

> Missing data for Oman

Code	Indicator name	Economy Year	Model Year	Source
1.2.3	Cost of redundancy dismissal	n/a	2020	World Bank, Employing Workers Project
2.1.4	PISA scales in reading, maths and science	n/a	2018	OECD, PISA
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
5.3.1	Intellectual property payments, % total trade	n/a	2021	World Trade Organization and United Nations Conference on Trade and Development
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
7.2.1	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

> Outdated data for Oman

Code	Indicator name	Economy Year	Model Year	Source
1.3.1	Policies for doing business	2020	2022	World Economic Forum, Executive Opinion Survey (EOS)
2.1.1	Expenditure on education, % GDP	2013	2021	UNESCO Institute for Statistics
3.2.1	Electricity output, GWh/mn pop.	2020	2021	International Energy Agency
4.3.2	Domestic industry diversification	2018	2020	United Nations Industrial Development Organization
5.1.1	Knowledge-intensive employment, %	2021	2022	International Labour Organization

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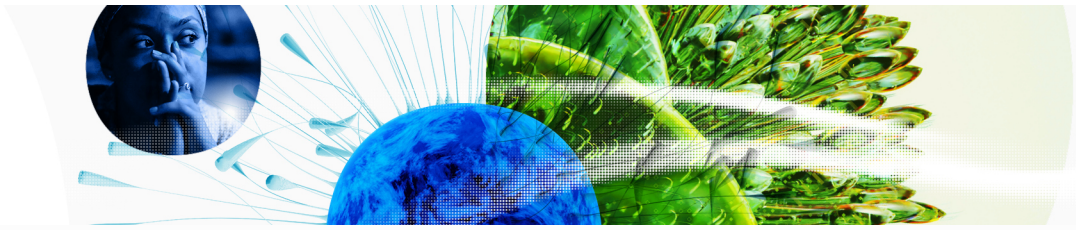

Code	Indicator name	Economy Year	Model Year	Source
5.1.3	GERD performed by business, % GDP	2018	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.4	GERD financed by business, %	2018	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	Females employed w/advanced degrees, %	2018	2022	International Labour Organization
5.2.1	University-industry R&D collaboration	2020	2022	World Economic Forum, Executive Opinion Survey (EOS)
5.2.2	State of cluster development	2020	2022	World Economic Forum, Executive Opinion Survey (EOS)
5.2.3	GERD financed by abroad, % GDP	2018	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.5	Research talent, % in businesses	2018	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing, %	2017	2020	United Nations Industrial Development Organization
7.1.2	Trademarks by origin/bn PPP$ GDP	2020	2021	World Intellectual Property Organization; International Monetary Fund

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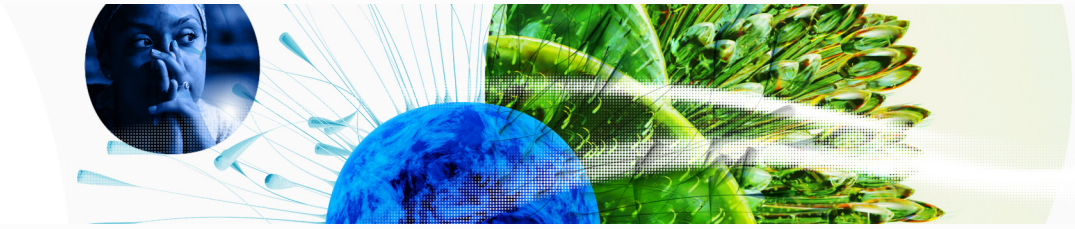

About the Global Innovation Index

- 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.