Global Innovation Index 2021

OMAN

76th Oman ranks 76th among the 132 economies featured in the GII 2021.

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 Oman 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 Oman in the GII 2021 is between ranks 73 and 79.

Rankings for Oman (2019–2021)

	GII	Innovation inputs	Innovation outputs
2021	76	67	90
2020	84	68	109
2019	80	57	101

- Oman performs better in innovation inputs than innovation outputs in 2021.
- This year Oman ranks 67th in innovation inputs, higher than last year but lower than 2019.
- As for innovation outputs, Oman ranks 90th. This position is higher than both 2020 and 2019.

47th Oman ranks 47th among the 51 high-income group economies.

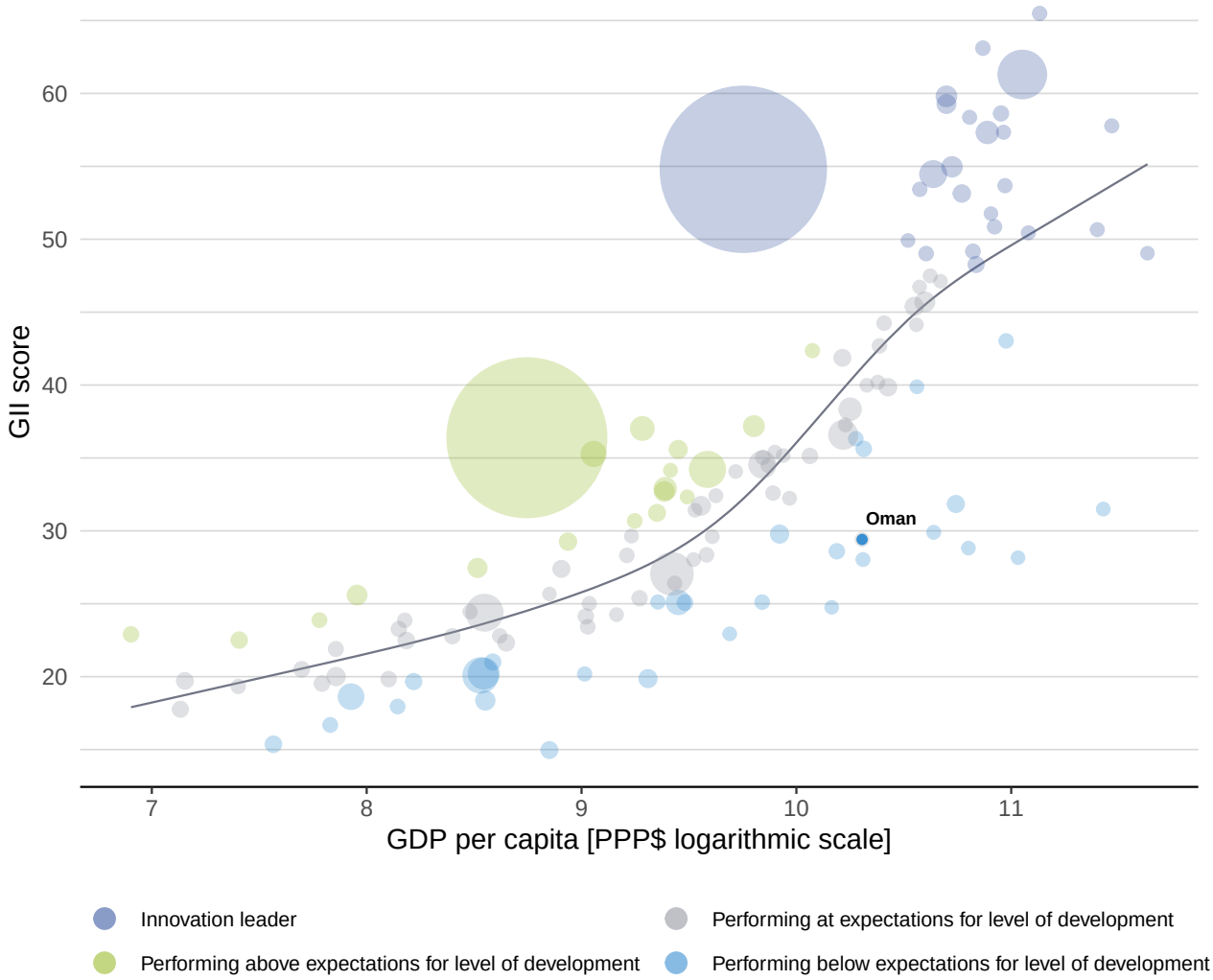
11th Oman ranks 11th among the 19 economies in Northern Africa and Western Asia.

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, Oman's performance is below expectations for its level of development.

The positive relationship between innovation and development

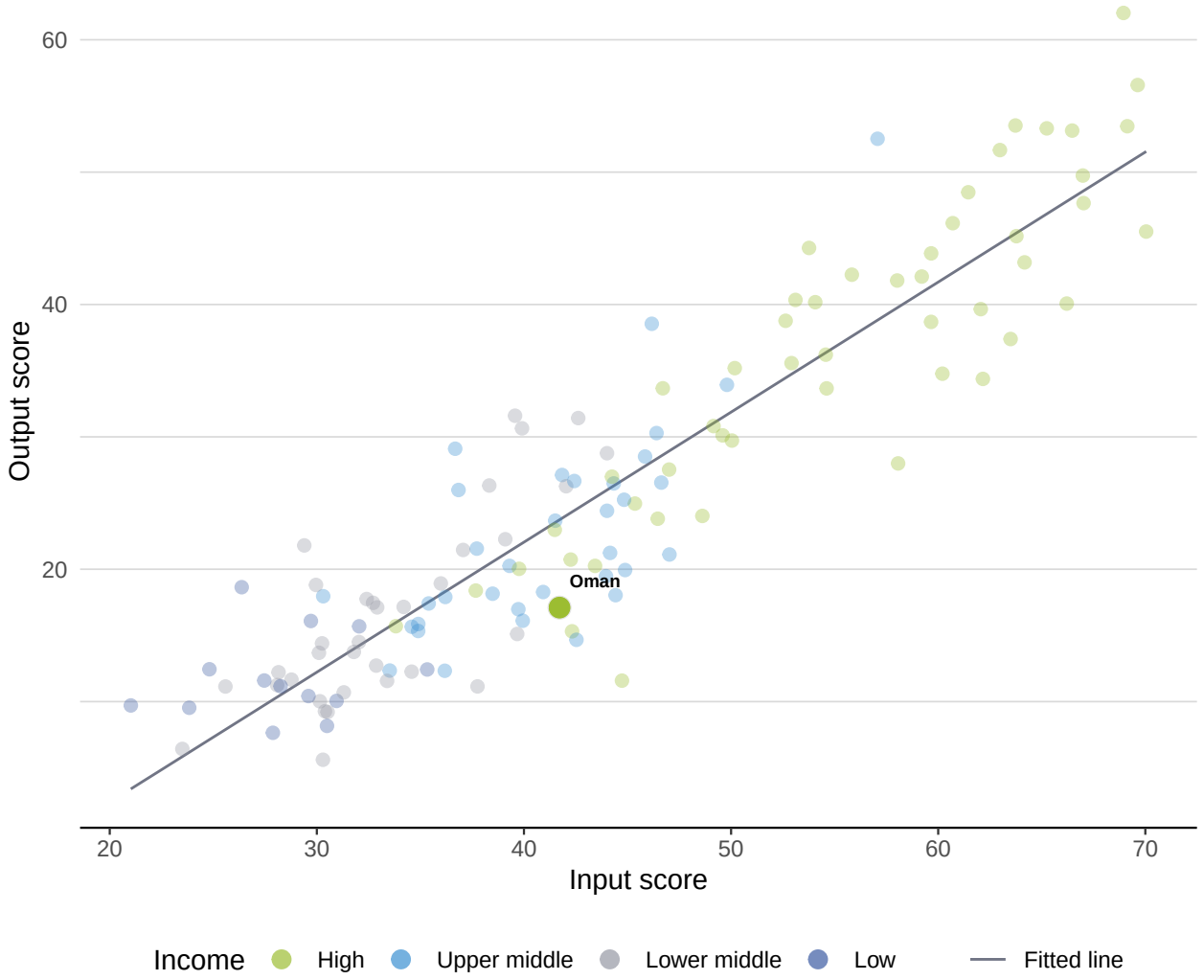


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

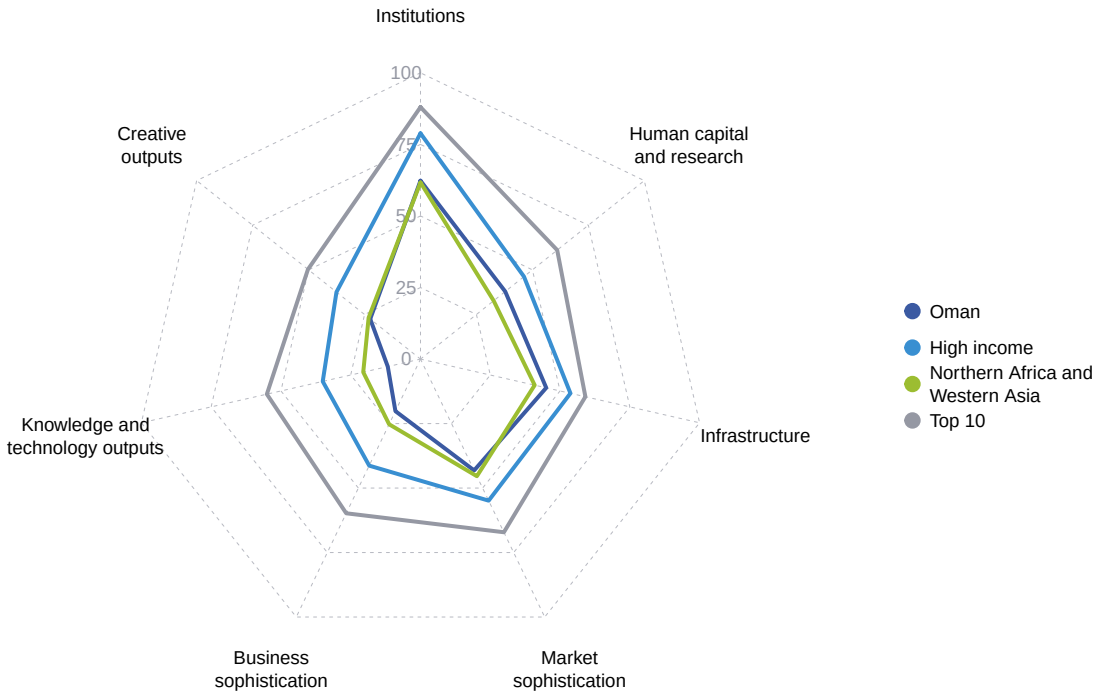
Oman produces less innovation outputs relative to its level of innovation investments.

Innovation input to output performance



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

The seven GII pillar scores for Oman



High-income group economies

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

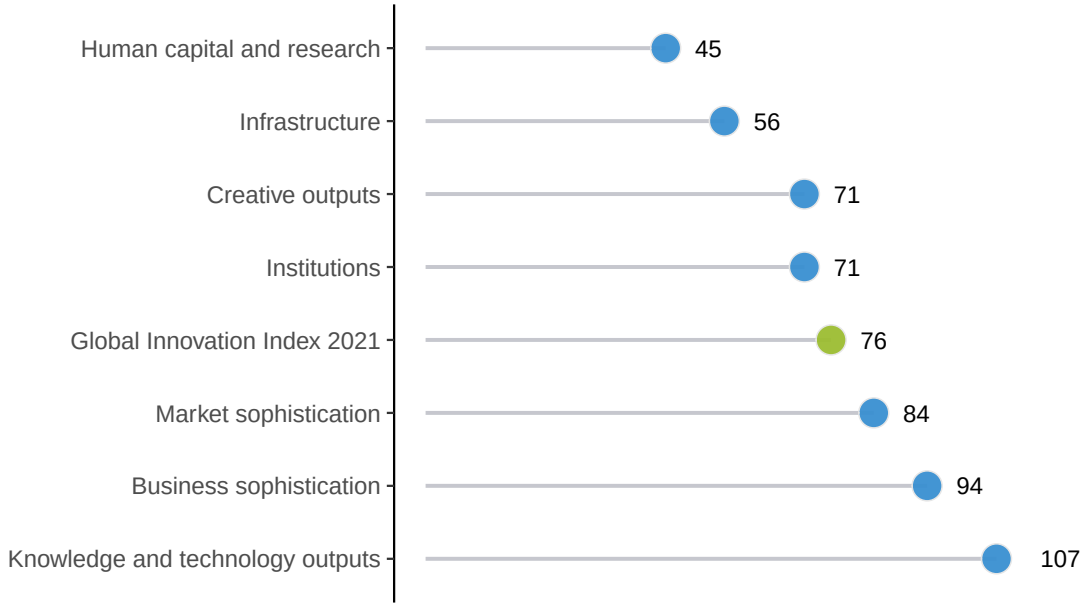
Northern Africa and Western Asia

Oman performs above the regional average in three pillars, namely: Institutions; Human capital and research; and, Infrastructure.

OVERVIEW OF RANKINGS IN THE SEVEN GII 2021 AREAS

Oman performs best in Human capital and research and its weakest performance is in Knowledge and technology outputs.

The seven GII pillar ranks for Oman



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

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Oman in the GII 2021.

Strengths and weaknesses for Oman

Strengths			Weaknesses		
Code	**Indicator name**	**Rank**	**Code**	**Indicator name**	**Rank**
1.3.1	Ease of starting a business	30	2.3.3	Global corporate R&D investors, top 3, mn US$	41
2.1.2	Government funding/pupil, secondary, % GDP/cap	13	4.1.1	Ease of getting credit	118
2.2	Tertiary education	10	5.2.3	GERD financed by abroad, % GDP	88
2.2.2	Graduates in science and engineering, %	1	5.3	Knowledge absorption	121
3.1.1	ICT access	30	5.3.2	High-tech imports, % total trade	106
3.1.3	Government's online service	24	5.3.3	ICT services imports, % total trade	117
3.2.1	Electricity output, GWh/mn pop.	24	5.3.5	Research talent, % in businesses	85
4.3.1	Applied tariff rate, weighted avg., %	23	6.2	Knowledge impact	107
5.2.2	State of cluster development and depth	21	6.2.3	Software spending, % GDP	102
5.3.4	FDI net inflows, % GDP	18	6.3.4	ICT services exports, % total trade	113
7.1.1	Trademarks by origin/bn PPP$ GDP	22	7.1.3	Industrial designs by origin/bn PPP$ GDP	114
7.3.4	Mobile app creation/bn PPP$ GDP	23	7.2.4	Printing and other media, % manufacturing	89

Oman

GII 2021 rank **76**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$	GII 2020 rank
90	67	High	NAWA	5.1	129.2	29,908	84

		Score/ Value	Rank	
Institutions		**62.3**	**71**	◇
1.1	**Political environment**	**62.0**	**52**	◇
1.1.1	Political and operational stability*	73.2	44	
1.1.2	Government effectiveness*	56.4	57	◇
1.2	**Regulatory environment**	**56.2**	**91**	◇
1.2.1	Regulatory quality*	51.1	57	◇
1.2.2	Rule of law*	61.3	41	
1.2.3	Cost of redundancy dismissal	n/a	n/a	
1.3	**Business environment**	**68.7**	**73**	◇
1.3.1	Ease of starting a business*	93.5	30 ●	
1.3.2	Ease of resolving insolvency*	44.0	88	◇
Human capital and research		**37.9**	**45**	
2.1	**Education**	**56.6**	**44**	
2.1.1	Expenditure on education, % GDP	5.0	41	
2.1.2	Government funding/pupil, secondary, % GDP/cap	27.0	13 ● ◆	
2.1.3	School life expectancy, years	14.3	66	◇
2.1.4	PISA scales in reading, maths and science	n/a	n/a	
2.1.5	Pupil-teacher ratio, secondary	10.6	35	
2.2	**Tertiary education**	**52.8**	**10 ● ◆**	
2.2.1	Tertiary enrolment, % gross	40.4	73	◇
2.2.2	Graduates in science and engineering, %	44.5	1 ● ◆	
2.2.3	Tertiary inbound mobility, %	2.8	67	
2.3	**Research and development (R&D)**	**4.3**	**81**	◇
2.3.1	Researchers, FTE/mn pop.	281.2	77	◇
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	41 ○	◇
2.3.4	QS university ranking, top 3*	9.7	65	
Infrastructure		**45.1**	**56**	◇
3.1	**Information and communication technologies (ICTs)**	**79.7**	**33**	
3.1.1	ICT access*	80.3	30 ●	
3.1.2	ICT use*	69.8	47	◇
3.1.3	Government's online service*	85.3	24 ●	
3.1.4	E-participation*	83.3	38	
3.2	**General infrastructure**	**33.5**	**46**	
3.2.1	Electricity output, GWh/mn pop.	7,801.0	24 ●	
3.2.2	Logistics performance*	53.4	42	
3.2.3	Gross capital formation, % GDP	22.0	68	
3.3	**Ecological sustainability**	**21.9**	**87**	◇
3.3.1	GDP/unit of energy use	7.5	98	
3.3.2	Environmental performance*	38.5	91	◇
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	1.7	50	
Market sophistication		**43.2**	**84**	
4.1	**Credit**	**32.6**	**99**	◇
4.1.1	Ease of getting credit*	35.0	118 ○	◇
4.1.2	Domestic credit to private sector, % GDP	75.1	42	
4.1.3	Microfinance gross loans, % GDP	n/a	n/a	
4.2	**Investment**	**24.4**	**88**	
4.2.1	Ease of protecting minority investors*	56.0	82	
4.2.2	Market capitalization, % GDP	25.4	52	
4.2.3	Venture capital investors, deals/bn PPP$ GDP	0.0	45	
4.2.4	Venture capital recipients, deals/bn PPP$ GDP	n/a	n/a	
4.3	**Trade, diversification, and market scale**	**72.5**	**54**	
4.3.1	Applied tariff rate, weighted avg., %	1.7	23 ●	
4.3.2	Domestic industry diversification	88.0	59	
4.3.3	Domestic market scale, bn PPP$	129.2	76	

		Score/ Value	Rank	
Business sophistication		**20.2**	**94**	◇
5.1	**Knowledge workers**	**22.4**	**[95]**	
5.1.1	Knowledge-intensive employment, %	18.5	84	◇
5.1.2	Firms offering formal training, %	n/a	n/a	
5.1.3	GERD performed by business, % GDP	0.1	66	◇
5.1.4	GERD financed by business, %	31.8	57	
5.1.5	Females employed w/advanced degrees, %	n/a	n/a	
5.2	**Innovation linkages**	**23.7**	**52**	
5.2.1	University-industry R&D collaboration†	51.5	37	
5.2.2	State of cluster development and depth†	62.5	21 ●	
5.2.3	GERD financed by abroad, % GDP	0.0	88 ○	◇
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	0.1	30	
5.2.5	Patent families/bn PPP$ GDP	0.0	97	
5.3	**Knowledge absorption**	**14.5**	**121** ○	◇
5.3.1	Intellectual property payments, % total trade	n/a	n/a	
5.3.2	High-tech imports, % total trade	5.5	106 ○	
5.3.3	ICT services imports, % total trade	0.3	117 ○	◇
5.3.4	FDI net inflows, % GDP	5.4	18 ●	
5.3.5	Research talent, % in businesses	0.3	85 ○	◇
Knowledge and technology outputs		**11.7**	**107** ○	◇
6.1	**Knowledge creation**	**7.1**	**96**	◇
6.1.1	Patents by origin/bn PPP$ GDP	0.2	94	
6.1.2	PCT patents by origin/bn PPP$ GDP	0.1	67	
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	n/a	
6.1.4	Scientific and technical articles/bn PPP$ GDP	9.9	86	◇
6.1.5	Citable documents H-index	7.5	87	◇
6.2	**Knowledge impact**	**19.4**	**107** ○	◇
6.2.1	Labor productivity growth, %	–1.7	96	
6.2.2	New businesses/th pop. 15–64	1.4	72	
6.2.3	Software spending, % GDP	0.0	102 ○	◇
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	4.5	59	
6.2.5	High-tech manufacturing, %	17.5	67	◇
6.3	**Knowledge diffusion**	**8.8**	**99**	◇
6.3.1	Intellectual property receipts, % total trade	n/a	n/a	
6.3.2	Production and export complexity	32.7	82	◇
6.3.3	High-tech exports, % total trade	0.8	78	
6.3.4	ICT services exports, % total trade	0.3	113 ○	
Creative outputs		**22.5**	**71**	◇
7.1	**Intangible assets**	**34.5**	**53**	
7.1.1	Trademarks by origin/bn PPP$ GDP	78.2	22 ● ◆	
7.1.2	Global brand value, top 5,000, % GDP	10.4	60	
7.1.3	Industrial designs by origin/bn PPP$ GDP	0.1	114 ○	
7.1.4	ICTs and organizational model creation†	52.5	72	◇
7.2	**Creative goods and services**	**5.0**	**105**	◇
7.2.1	Cultural and creative services exports, % total trade	n/a	n/a	
7.2.2	National feature films/mn pop. 15–69	1.1	82	◇
7.2.3	Entertainment and media market/th pop. 15–69	5.0	48	◇
7.2.4	Printing and other media, % manufacturing	0.5	89 ○	
7.2.5	Creative goods exports, % total trade	0.4	65	
7.3	**Online creativity**	**15.8**	**70**	◇
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	1.6	86	◇
7.3.2	Country-code TLDs/th pop. 15–69	0.3	106	◇
7.3.3	Wikipedia edits/mn pop. 15–69	39.3	85	◇
7.3.4	Mobile app creation/bn PPP$ GDP	23.7	23 ●	

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 Appendix IV for details, including the year of the data, at http://globalinnovationindex.org. Square brackets [ ] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.

DATA AVAILABILITY

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

Missing data for Oman

Code	Indicator name	Economy year	Model year	Source
1.2.3	Cost of redudancy dismissal	n/a	2019	World Bank
2.1.4	PISA scales in reading, maths and science	n/a	2018	OECD Programme for International Student Assessment (PISA)
4.1.3	Microfinance gross loans, % GDP	n/a	2018	Microfinance Information Exchange
4.2.4	Venture capital recipients, deals/bn PPP$ GDP	n/a	2020	Refinitiv Eikon
5.1.2	Firms offering formal training, %	n/a	2019	World Bank
5.1.5	Females employed w/advanced degrees, %	n/a	2019	International Labour Organization
5.3.1	Intellectual property payments, % total trade	n/a	2019	World Trade Organization
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2019	World Intellectual Property Organization
6.3.1	Intellectual property receipts, % total trade	n/a	2019	World Trade Organization
7.2.1	Cultural and creative services exports, % total trade	n/a	2019	World Trade Organization

Outdated data for Oman

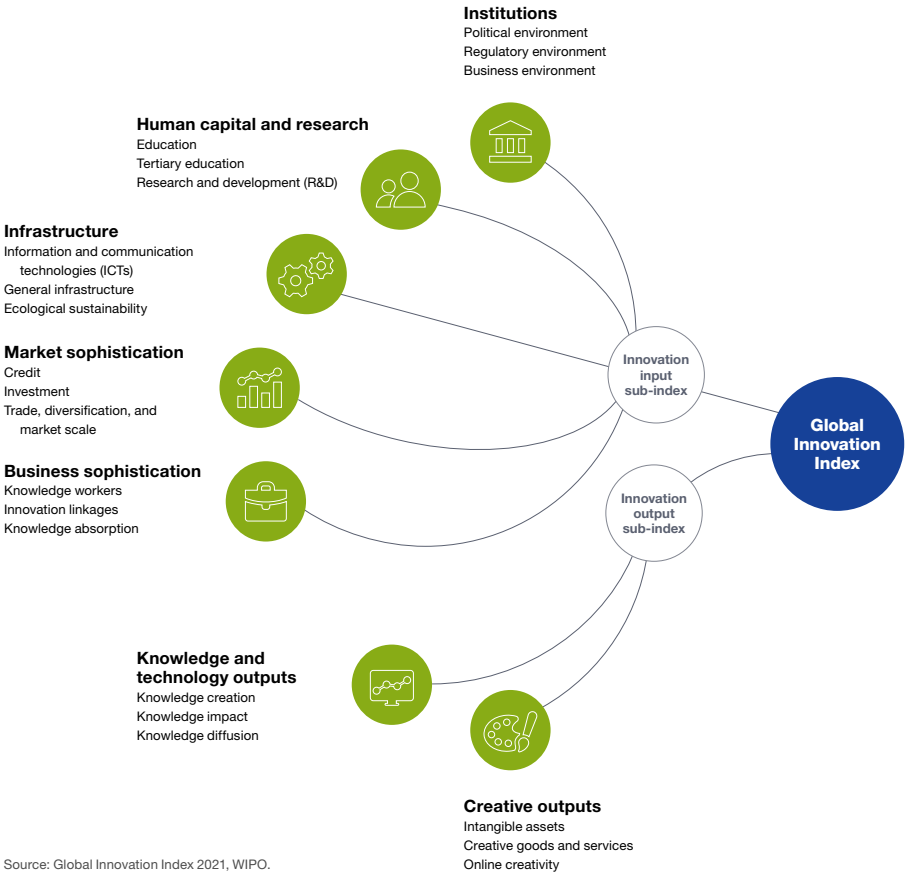
Code	Indicator name	Economy year	Model year	Source
2.1.1	Expenditure on education, % GDP	2013	2017	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.1.1	Knowledge-intensive employment, %	2016	2019	International Labour Organization

Code	Indicator name	Economy year	Model year	Source
5.1.3	GERD performed by business, % GDP	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.3.2	High-tech imports, % total trade	2018	2019	United Nations, COMTRADE
5.3.5	Research talent, % in businesses	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
6.3.3	High-tech exports, % total trade	2018	2019	United Nations, COMTRADE
7.2.5	Creative goods exports, % total trade	2018	2019	United Nations, COMTRADE

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 2021, WIPO.

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.