GLOBAL INNOVATION INDEX 2020

OMAN

84th Oman ranks 84th among the 131 economies featured in the GII 2020.

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 2020 is between ranks 81 and 98.

Rankings of Oman (2018–2020)

	GII	Innovation inputs	Innovation outputs
2020	84	68	109
2019	80	57	101
2018	69	57	75

- Oman performs better in innovation inputs than innovation outputs in 2020.
- This year Oman ranks 68th in innovation inputs, lower than last year and lower compared to 2018.
- As for innovation outputs, Oman ranks 109th. This position is lower than last year and lower compared to 2018.

48th Oman ranks 48th among the 49 high-income group economies.

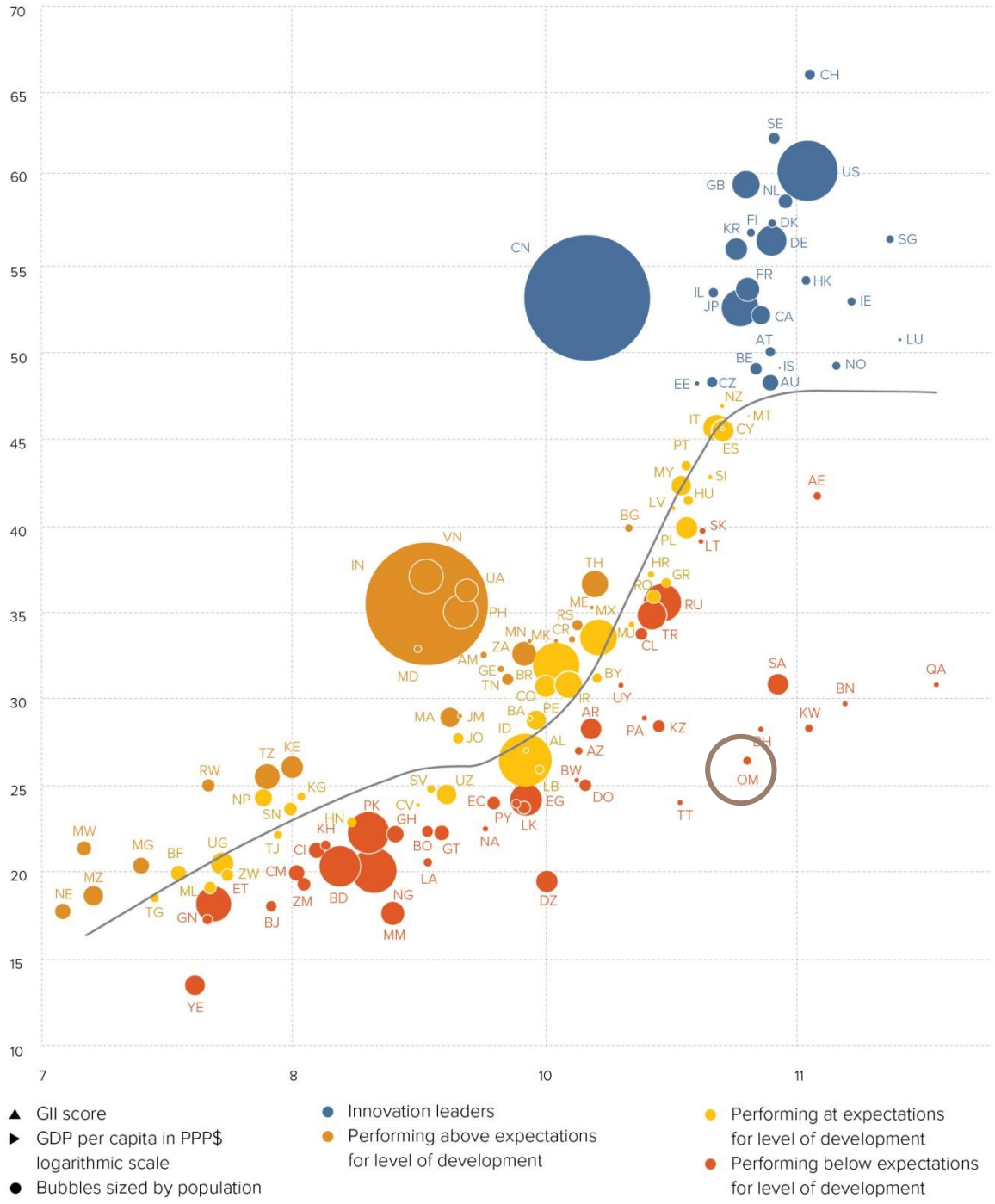
15th Oman ranks 15th among the 19 economies in Northern Africa and Western Asia.

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

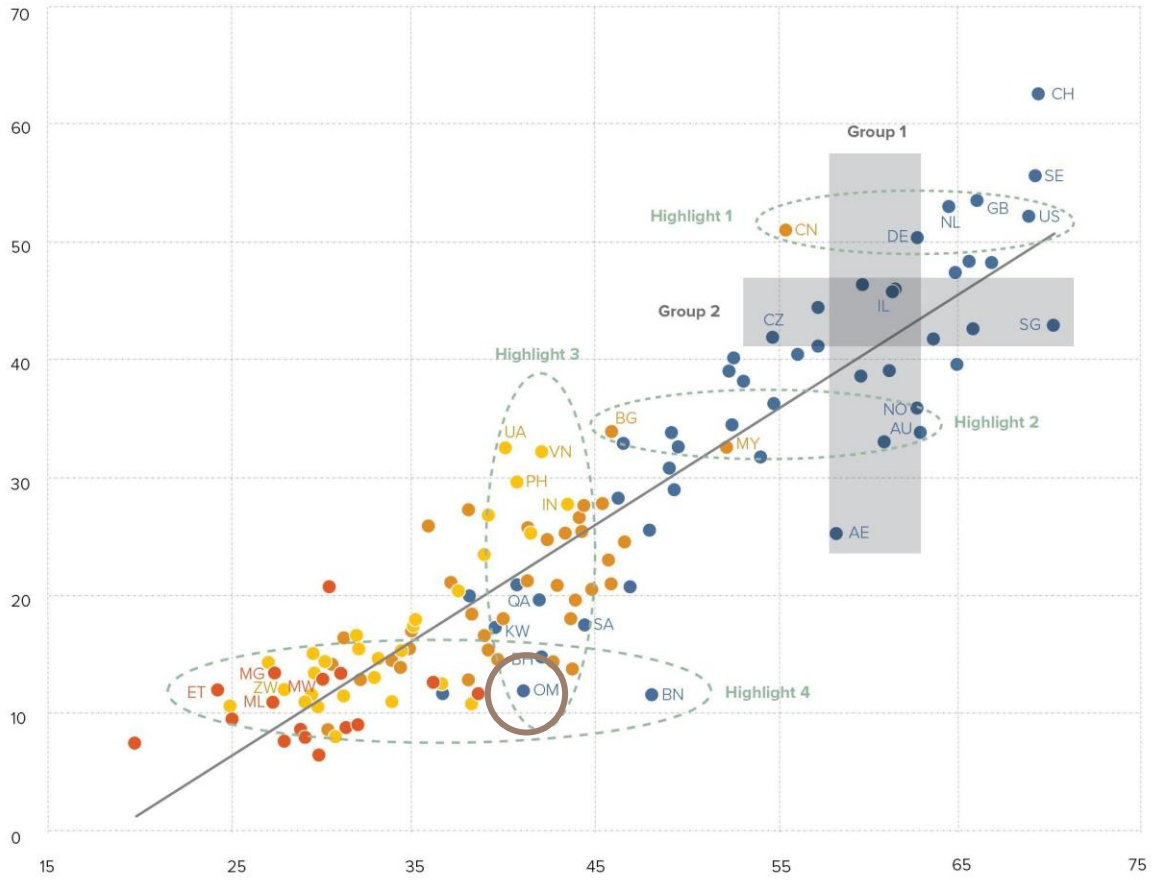


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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, 2020



▲ Output score
► Input score

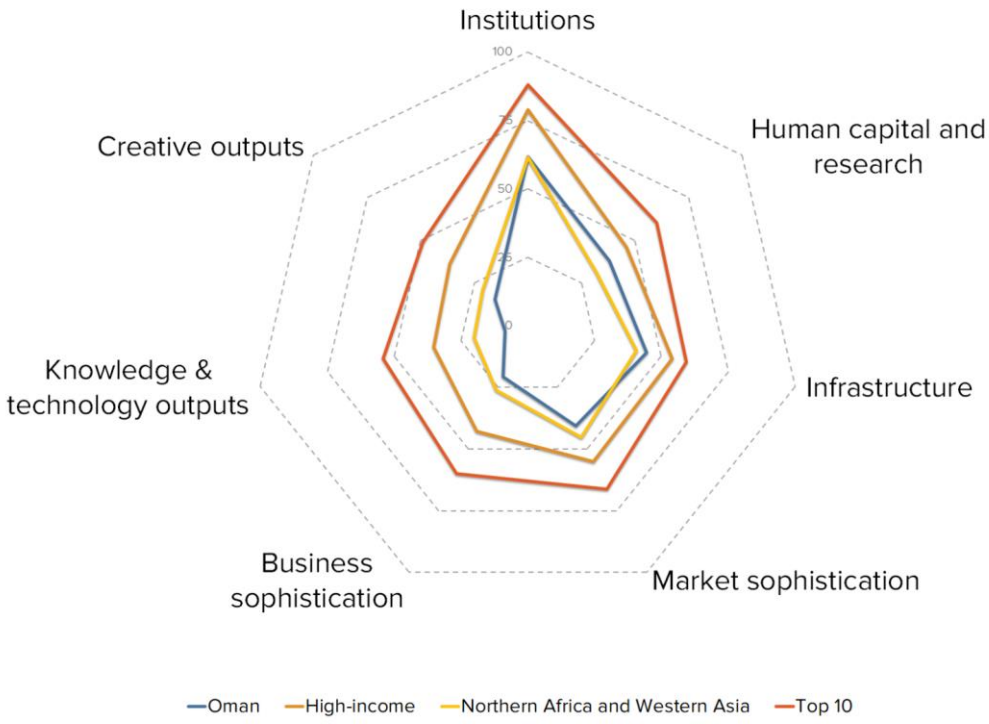
● High income group
● Upper middle-income group
● Lower middle-income group
● Low income group

— Fitted values

AU	Australia	IN	India	NL	Netherlands	CH	Switzerland
BH	Bahrain	IL	Israel	NO	Norway	UA	Ukraine
BN	Brunei Darussalam	KW	Kuwait	OM	Oman	AE	United Arab Emirates
BG	Bulgaria	MG	Madagascar	PH	Philippines	GB	United Kingdom
CN	China	MW	Malawi	QA	Qatar	US	United States of America
CZ	Czech Republic	ML	Mali	SA	Saudi Arabia	VN	Viet Nam
ET	Ethiopia	MY	Malaysia	SG	Singapore	ZW	Zimbabwe
DE	Germany			SE	Sweden		

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

Oman's scores in the seven GII pillars



High-income group economies

Oman scores below average for its income group in all GII pillars.

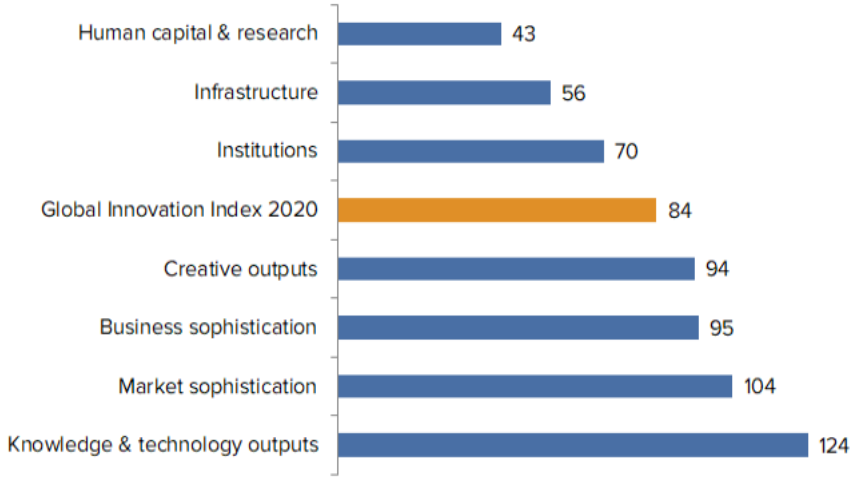
Northern Africa and Western Asia

Compared to other economies in Northern Africa and Western Asia, Oman performs:

- above average in three out of the seven GII pillars: Institutions, Human capital & research and Infrastructure; and
- below average in four out of the seven GII pillars: Market sophistication, Business sophistication, Knowledge & technology outputs and Creative outputs.

OVERVIEW OF OMAN RANKINGS IN THE SEVEN GII AREAS

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



*The highest possible ranking in each pillar is 1.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Oman in the GII 2020.

Strengths

Code	Indicator name	Rank
1.3.1	Ease of starting a business*	30
2.1	Education	24
2.1.2	Government funding/pupil, secondary, % GDP/cap	6
2.1.5	Pupil-teacher ratio, secondary	36
2.2	Tertiary education	12
2.2.2	Graduates in science & engineering, %	1
3.1.1	ICT access*	37
3.2	General infrastructure	29
3.2.1	Electricity output, GWh/mn pop	23
3.2.3	Gross capital formation, % GDP	21
5.2.1	University/industry research collaboration†	38
5.2.2	State of cluster development†	27
5.3.4	FDI net inflows, % GDP	24
7.1.1	Trademarks by origin/bn PPP$ GDP	38

Weaknesses

Code	Indicator name	Rank
2.3.3	Global R&D companies, top 3, mn US$	42
4.1.1	Ease of getting credit*	118
4.2	Investment	118
5.2.3	GERD financed by abroad, % GDP	88
5.3	Knowledge absorption	118
5.3.2	High-tech imports, % total trade	107
5.3.3	ICT services imports, % total trade	116
5.3.5	Research talent, % in business enterprise	86
6	Knowledge & technology outputs	124
6.1.1	Patents by origin/bn PPP$ GDP	117
6.2	Knowledge impact	121
6.2.1	Growth rate of PPP$ GDP/worker, %	118
6.3	Knowledge diffusion	114
7.1.3	Industrial designs by origin/bn PPP$ GDP	118
7.2.4	Printing and other media, % manufacturing	86

STRENGTHS

GII strengths for Oman are found in five of the seven GII pillars.

- Institutions (70): exhibits strengths in the indicator Ease of starting a business (30).
- Human capital & research (43): shows strengths in the sub-pillars Education (24) and Tertiary education (12) and in the indicators Government funding/pupil (6), Pupil-teacher ratio (36) and Graduates in science & engineering (1).
- Infrastructure (56): demonstrates strengths in the sub-pillar General infrastructure (29) and in the indicators ICT access (37), Electricity output (23) and Gross capital formation (21).
- Business sophistication (95): reveals strengths in the indicators University/industry research collaboration (38), State of cluster development (27) and FDI net inflows (24).
- Creative outputs (94): displays strengths in the indicator Trademarks by origin (38).

WEAKNESSES

GII weaknesses for Oman are found in five of the seven GII pillars.

- Human capital & research (43): exhibits weaknesses in the indicator Global R&D companies (42).
- Market sophistication (104): shows weaknesses in the sub-pillar Investment (118) and in the indicator Ease of getting credit (118).
- Business sophistication (95): demonstrates weaknesses in the sub-pillar Knowledge absorption (118) and in the indicators GERD financed by abroad (88), High-tech imports (107), ICT services imports (116) and Research talent (86).
- Knowledge & technology outputs (124): displays weaknesses in the sub-pillars Knowledge impact (121) and Knowledge diffusion (114) and in the indicators Patents by origin (117) and Growth rate of PPP$ GDP/worker (118).
- Creative outputs (94): reveals weaknesses in the indicators Industrial designs by origin (118) and Printing and other media (86).

OMAN

GII 2020 rank

84

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$	GDP per capita, PPP$	GII 2019 rank
109	68	High	NAWA	5.0	204.0	41,351.8	80

		Score/Value	Rank	
INSTITUTIONS		**61.8**	**70**	◇
1.1	**Political environment**	**62.4**	**52**	◇
1.1.1	Political and operational stability*	78.6	38	
1.1.2	Government effectiveness*	54.3	59	◇
1.2	**Regulatory environment**	**54.4**	**94**	◇
1.2.1	Regulatory quality*	50.0	56	◇
1.2.2	Rule of law*	58.8	44	◇
1.2.3	Cost of redundancy dismissal, salary weeks	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 & RESEARCH		**38.1**	**43**	
2.1	**Education**	**56.8**	**24**	●
2.1.1	Expenditure on education, % GDP 🕒	5.0	42	
2.1.2	Government funding/pupil, secondary, % GDP/cap	36.0	6	● ◆
2.1.3	School life expectancy, years	14.1	70	◇
2.1.4	PISA scales in reading, maths, & science	n/a	n/a	
2.1.5	Pupil-teacher ratio, secondary	10.2	36	●
2.2	**Tertiary education**	**53.3**	**12**	●
2.2.1	Tertiary enrolment, % gross	38.0	72	◇
2.2.2	Graduates in science & engineering, %	46.1	1	● ◆
2.2.3	Tertiary inbound mobility, %	2.7	69	◇
2.3	**Research & development (R&D)**	**4.1**	**80**	◇
2.3.1	Researchers, FTE/mn pop	236.0	79	◇
2.3.2	Gross expenditure on R&D, % GDP	0.2	89	◇
2.3.3	Global R&D companies, avg. exp. top 3, mn $US	0.0	42	○ ◇
2.3.4	QS university ranking, average score top 3*	9.6	64	◇
INFRASTRUCTURE		**44.5**	**56**	◇
3.1	**Information & communication technologies (ICTs)**	**75.2**	**47**	
3.1.1	ICT access*	76.6	37	●
3.1.2	ICT use*	60.0	57	◇
3.1.3	Government's online service*	81.3	43	
3.1.4	E-participation*	83.2	43	
3.2	**General infrastructure**	**37.6**	**29**	●
3.2.1	Electricity output, kWh/mn pop	7,785.8	23	●
3.2.2	Logistics performance*	52.9	42	
3.2.3	Gross capital formation, % GDP	31.8	21	● ◆
3.3	**Ecological sustainability**	**20.6**	**97**	◇
3.3.1	GDP/unit of energy use	6.5	97	
3.3.2	Environmental performance*	38.5	91	◇
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	0.9	64	
MARKET SOPHISTICATION		**40.7**	**104**	◇
4.1	**Credit**	**32.7**	**99**	◇
4.1.1	Ease of getting credit*	35.0	118	○ ◇
4.1.2	Domestic credit to private sector, % GDP	70.5	44	
4.1.3	Microfinance gross loans, % GDP	n/a	n/a	
4.2	**Investment**	**24.4**	**118**	○ ◇
4.2.1	Ease of protecting minority investors*	56.0	82	
4.2.2	Market capitalization, % GDP	29.7	48	
4.2.3	Venture capital deals/bn PPP$ GDP	0.0	50	
4.3	**Trade, competition, and market scale**	**65.0**	**51**	
4.3.1	Applied tariff rate, weighted avg., %	1.7	52	
4.3.2	Intensity of local competition+	66.2	76	
4.3.3	Domestic market scale, bn PPP$	204.0	64	

		Score/Value	Rank	
BUSINESS SOPHISTICATION		**20.7**	**95**	◇
5.1	**Knowledge workers**	**22.9**	**[90]**	
5.1.1	Knowledge-intensive employment, % 🕒	18.5	81	◇
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	54	
5.1.5	Females employed w/advanced degrees, %	n/a	n/a	
5.2	**Innovation linkages**	**22.1**	**59**	◇
5.2.1	University/industry research collaboration+	50.7	38	●
5.2.2	State of cluster development+	59.4	27	●
5.2.3	GERD financed by abroad, % GDP	0.0	88	○ ◇
5.2.4	JV-strategic alliance deals/bn PPP$ GDP	0.0	42	
5.2.5	Patent families 2+ offices/bn PPP$ GDP	0.0	95	
5.3	**Knowledge absorption**	**17.0**	**118**	○ ◇
5.3.1	Intellectual property payments, % total trade	n/a	n/a	
5.3.2	High-tech imports, % total trade 🕒	5.3	107	○
5.3.3	ICT services imports, % total trade 🕒	0.3	116	○ ◇
5.3.4	FDI net inflows, % GDP	5.2	24	●
5.3.5	Research talent, % in business enterprise	0.3	86	○ ◇
KNOWLEDGE & TECHNOLOGY OUTPUTS		**8.4**	**124**	○ ◇
6.1	**Knowledge creation**	**5.0**	**107**	◇
6.1.1	Patents by origin/bn PPP$ GDP	0.1	117	○
6.1.2	PCT patents by origin/bn PPP$ GDP	0.0	81	◇
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	n/a	
6.1.4	Scientific & technical articles/bn PPP$ GDP	3.7	99	◇
6.1.5	Citable documents H-index	7.3	88	◇
6.2	**Knowledge impact**	**8.8**	**121**	○ ◇
6.2.1	Growth rate of PPP$ GDP/worker, %	-3.4	118	○ ◇
6.2.2	New businesses/th pop. 15-64	1.4	72	
6.2.3	Computer software spending, % GDP	0.0	97	◇
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	2.6	80	
6.2.5	High- and medium-high-tech manufacturing, %	16.5	62	
6.3	**Knowledge diffusion**	**11.5**	**114**	○ ◇
6.3.1	Intellectual property receipts, % total trade	n/a	n/a	
6.3.2	High-tech net exports, % total trade 🕒	0.1	106	◇
6.3.3	ICT services exports, % total trade 🕒	0.3	106	
6.3.4	FDI net outflows, % GDP	1.6	43	
CREATIVE OUTPUTS		**15.2**	**94**	◇
7.1	**Intangible assets**	**23.1**	**82**	◇
7.1.1	Trademarks by origin/bn PPP$ GDP	57.3	38	●
7.1.2	Global brand value, top 5,000, % GDP	9.7	60	
7.1.3	Industrial designs by origin/bn PPP$ GDP	0.0	118	○
7.1.4	ICTs & organizational model creation+	52.5	72	◇
7.2	**Creative goods and services**	**6.4**	**99**	◇
7.2.1	Cultural & creative services exports, % total trade	n/a	n/a	
7.2.2	National feature films/mn pop. 15-69	1.1	84	◇
7.2.3	Entertainment & Media market/th pop. 15-69	7.3	43	◇
7.2.4	Printing and other media, % manufacturing	0.5	86	○
7.2.5	Creative goods exports, % total trade 🕒	0.5	61	
7.3	**Online creativity**	**8.3**	**94**	◇
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	1.7	85	◇
7.3.2	Country-code TLDs/th pop. 15-69	0.3	107	◇
7.3.3	Wikipedia edits/mn pop. 15-69	30.0	94	◇
7.3.4	Mobile app creation/bn PPP$ GDP	5.0	55	

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 II 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

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

Outdated data

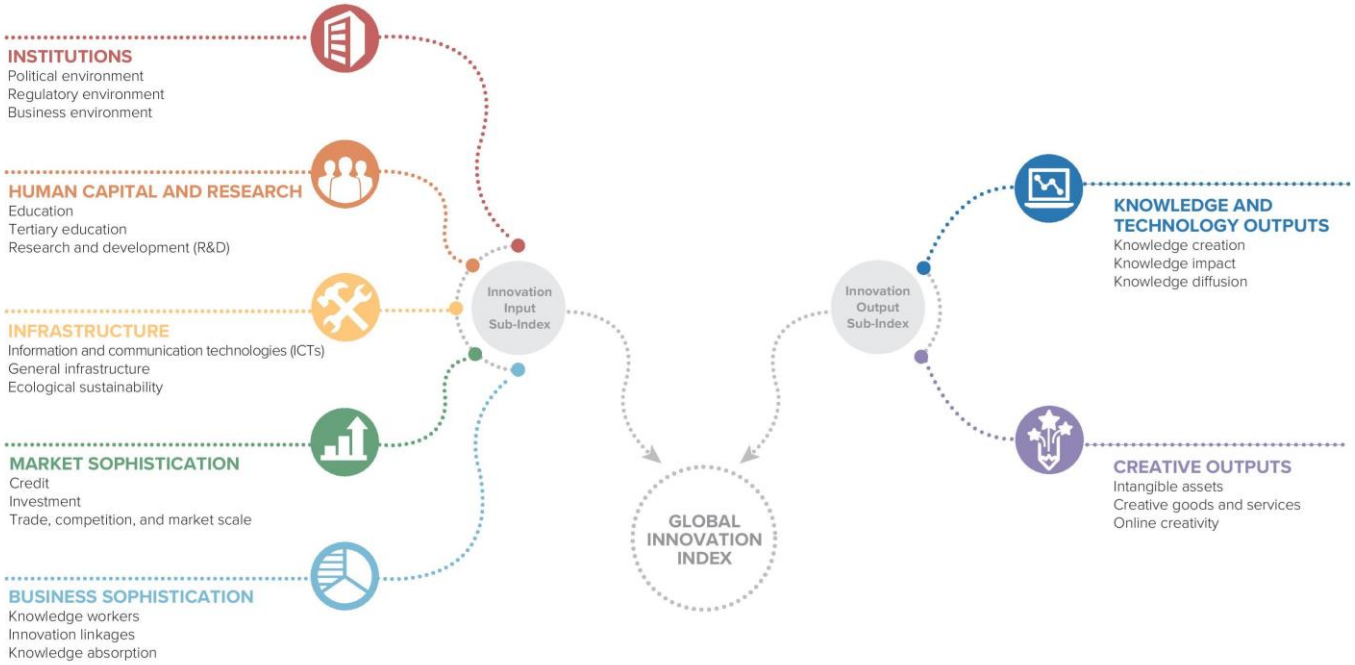
Code	Indicator name	Country year	Model year	Source
2.1.1	Expenditure on education, % GDP	2013	2018	UNESCO Institute for Statistics
5.1.1	Knowledge-intensive employment, %	2016	2018	International Labour Organization
5.3.2	High-tech imports, % total trade	2017	2018	United Nations, COMTRADE
5.3.3	ICT services imports, % total trade	2017	2018	World Trade Organization
6.3.2	High-tech net exports, % total trade	2017	2018	United Nations, COMTRADE
6.3.3	ICT services exports, % total trade	2017	2018	World Trade Organization
7.2.5	Creative goods exports, % total trade	2017	2018	United Nations, COMTRADE

ABOUT THE GLOBAL INNOVATION INDEX

The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2020, the GII presents its 13th edition devoted to the theme *Who Will Finance Innovation?*

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.

Framework of the Global Innovation Index 2020



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.