

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
84	102	Lower middle	SSF	16.3	64.6	3,363.7	96
		Score/Value	Rank			Score/Value	Rank
INSTITUTIONS..... 61.4 73				BUSINESS SOPHISTICATION..... 12.7 130			
1.1	Political environment.....	53.2	80	5.1	Knowledge workers.....	5.8	126
1.1.1	Political and operational stability*.....	71.4	59	5.1.1	Knowledge-intensive employment, %.....	6.4	111
1.1.2	Government effectiveness*.....	44.2	88	5.1.2	Firms offering formal training, %.....	17.4	81
1.2	Regulatory environment.....	63.3	71	5.1.3	GERD performed by business, % GDP.....	0.0	88
1.2.1	Regulatory quality*.....	39.0	80	5.1.4	GERD financed by business, %.....	2.1	91
1.2.2	Rule of law*.....	41.2	73	5.1.5	Females employed w/advanced degrees, %.....	1.8	104
1.2.3	Cost of redundancy dismissal, salary weeks.....	14.8	58	5.2	Innovation linkages.....	15.6	107
1.3	Business environment.....	67.7	76	5.2.1	University/industry research collaboration*.....	37.9	83
1.3.1	Ease of starting a business*.....	91.2	51	5.2.2	State of cluster development*.....	42.4	85
1.3.2	Ease of resolving insolvency*.....	44.3	87	5.2.3	GERD financed by abroad, % GDP.....	0.0	52
				5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	115
				5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	101
HUMAN CAPITAL & RESEARCH..... 16.2 106				KNOWLEDGE & TECHNOLOGY OUTPUTS..... 17.7 74			
2.1	Education.....	26.8	112	5.3	Knowledge absorption.....	16.7	120
2.1.1	Expenditure on education, % GDP.....	4.7	57	5.3.1	Intellectual property payments, % total trade.....	0.1	99
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	11.4	89	5.3.2	High-tech imports, % total trade.....	4.7	113
2.1.3	School life expectancy, years.....	8.6	115	5.3.3	ICT services imports, % total trade.....	2.6	12
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a	5.3.4	FDI net inflows, % GDP.....	2.6	66
2.1.5	Pupil-teacher ratio, secondary.....	18.9	93	5.3.5	Research talent, % in business enterprise.....	0.1	87
2.2	Tertiary education.....	17.1	102	5.3	Knowledge absorption.....	16.7	120
2.2.1	Tertiary enrolment, % gross.....	12.8	102	5.3.1	Intellectual property payments, % total trade.....	0.1	99
2.2.2	Graduates in science & engineering, %.....	n/a	n/a	5.3.2	High-tech imports, % total trade.....	4.7	113
2.2.3	Tertiary inbound mobility, %.....	7.8	30	5.3.3	ICT services imports, % total trade.....	2.6	12
2.3	Research & development (R&D).....	4.5	78	5.3.4	FDI net inflows, % GDP.....	2.6	66
2.3.1	Researchers, FTE/mn pop.....	564.3	65	5.3.5	Research talent, % in business enterprise.....	0.1	87
2.3.2	Gross expenditure on R&D, % GDP.....	0.6	58				
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*.....	0.0	77				
INFRASTRUCTURE..... 27.5 106				CREATIVE OUTPUTS..... 13.3 103			
3.1	Information & communication technologies (ICTs).....	41.7	105	7.1	Intangible assets.....	19.7	92
3.1.1	ICT access*.....	38.4	107	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	8.5	112
3.1.2	ICT use*.....	29.8	104	7.1.2	Global brand value, top 5,000, % GDP.....	15.8	50
3.1.3	Government's online service*.....	47.9	108	7.1.3	Industrial designs by origin/bn PPP\$ GDP.....	0.9	73
3.1.4	E-participation*.....	50.6	104	7.1.4	ICTs & organizational model creation*.....	58.1	52
3.2	General infrastructure.....	18.6	110	7.2	Creative goods and services.....	8.7	84
3.2.1	Electricity output, kWh/mn pop.....	301.3	113	7.2.1	Cultural & creative services exports, % total trade.....	1.0	25
3.2.2	Logistics performance*.....	8.6	121	7.2.2	National feature films/mn pop. 15-69.....	0.2	106
3.2.3	Gross capital formation, % GDP.....	30.3	26	7.2.3	Entertainment & Media market/th pop. 15-69.....	n/a	n/a
3.3	Ecological sustainability.....	22.3	88	7.2.4	Printing and other media, % manufacturing.....	0.8	67
3.3.1	GDP/unit of energy use.....	11.4	40	7.2.5	Creative goods exports, % total trade.....	0.1	105
3.3.2	Environmental performance*.....	30.7	119	7.3	Online creativity.....	5.1	109
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....	0.2	103	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	1.0	95
				7.3.2	Country-code TLDs/th pop. 15-69.....	0.1	113
				7.3.3	Wikipedia edits/mn pop. 15-69.....	18.5	110
				7.3.4	Mobile app creation/bn PPP\$ GDP.....	n/a	n/a
MARKET SOPHISTICATION..... 42.3 95							
4.1	Credit.....	34.7	89				
4.1.1	Ease of getting credit*.....	65.0	61				
4.1.2	Domestic credit to private sector, % GDP.....	28.3	96				
4.1.3	Microfinance gross loans, % GDP.....	1.5	22				
4.2	Investment.....	44.0	[37]				
4.2.1	Ease of protecting minority investors*.....	44.0	98				
4.2.2	Market capitalization, % GDP.....	n/a	n/a				
4.2.3	Venture capital deals/bn PPP\$ GDP.....	n/a	n/a				
4.3	Trade, competition, and market scale.....	48.2	120				
4.3.1	Applied tariff rate, weighted avg., %.....	11.5	123				
4.3.2	Intensity of local competition*.....	68.0	68				
4.3.3	Domestic market scale, bn PPP\$.....	64.6	95				

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.