

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
93	113	Lower middle	SSF	30.4	209.8	6,072.6	106
			Score/Value Rank				Score/Value Rank
INSTITUTIONS 46.3 121				BUSINESS SOPHISTICATION 17.9 113			
1.1	Political environment	52.9	83	5.1	Knowledge workers	15.1	109
1.1.1	Political and operational stability*.....	67.9	73	5.1.1	Knowledge-intensive employment, %.....	12.2	102
1.1.2	Government effectiveness*.....	45.4	82	5.1.2	Firms offering formal training, %.....	40.1	29 ●
1.2	Regulatory environment	30.7	127 ◇	5.1.3	GERD performed by business, % GDP.....	0.0	88 ○ ◇
1.2.1	Regulatory quality*.....	39.7	79	5.1.4	GERD financed by business, %.....	0.1	101 ○ ◇
1.2.2	Rule of law*.....	48.5	59 ◆	5.1.5	Females employed w/advanced degrees, %.....	3.5	96
1.2.3	Cost of redundancy dismissal, salary weeks.....	49.8	126 ○ ◇	5.2	Innovation linkages	21.5	61
1.3	Business environment	55.2	118	5.2.1	University/industry research collaboration*.....	48.2	44 ● ◆
1.3.1	Ease of starting a business*.....	85.0	89	5.2.2	State of cluster development*.....	49.5	50
1.3.2	Ease of resolving insolvency*.....	25.4	127	5.2.3	GERD financed by abroad, % GDP.....	0.1	33 ●
				5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	90
				5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	101 ○ ◇
HUMAN CAPITAL & RESEARCH 17.2 104				KNOWLEDGE & TECHNOLOGY OUTPUTS 12.6 104			
2.1	Education	36.0	92	6.1	Knowledge creation	4.4	112
2.1.1	Expenditure on education, % GDP.....	4.0	73	6.1.1	Patents by origin/bn PPP\$ GDP.....	0.1	122
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	19.3	53	6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.0	100 ○ ◇
2.1.3	School life expectancy, years.....	11.5	97	6.1.3	Utility models by origin/bn PPP\$ GDP.....	0.0	70 ○
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	4.4	94
2.1.5	Pupil-teacher ratio, secondary.....	15.2	75	6.1.5	Citable documents H-index.....	8.6	83
2.2	Tertiary education	13.7	108	6.2	Knowledge impact	16.8	93
2.2.1	Tertiary enrolment, % gross.....	15.7	98	6.2.1	Growth rate of PPP\$ GDP/worker, %.....	4.3	17 ●
2.2.2	Graduates in science & engineering, %.....	16.4	86	6.2.2	New businesses/th pop. 15-64.....	0.9	85
2.2.3	Tertiary inbound mobility, %.....	2.2	74	6.2.3	Computer software spending, % GDP.....	0.0	123 ○ ◇
2.3	Research & development (R&D)	1.9	97	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	0.4	123 ◇
2.3.1	Researchers, FTE/mn pop.....	38.0	98	6.2.5	High- and medium-high-tech manufacturing, %.....	10.6	78
2.3.2	Gross expenditure on R&D, % GDP.....	0.4	72	6.3	Knowledge diffusion	16.7	[86]
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....	0.0	42 ○ ◇	6.3.1	Intellectual property receipts, % total trade.....	n/a	n/a
2.3.4	QS university ranking, average score top 3*.....	0.0	77 ○ ◇	6.3.2	High-tech net exports, % total trade.....	0.2	97
				6.3.3	ICT services exports, % total trade.....	n/a	n/a
				6.3.4	FDI net outflows, % GDP.....	0.1	110
INFRASTRUCTURE 32.5 96				CREATIVE OUTPUTS 16.1 90			
3.1	Information & communication technologies (ICTs)	55.6	87	7.1	Intangible assets	24.5	75
3.1.1	ICT access*.....	46.2	97	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	4.3	122
3.1.2	ICT use*.....	43.7	87	7.1.2	Global brand value, top 5,000, % GDP.....	n/a	n/a
3.1.3	Government's online service*.....	69.4	71	7.1.3	Industrial designs by origin/bn PPP\$ GDP.....	4.1	29 ●
3.1.4	E-participation*.....	62.9	83	7.1.4	ICTs & organizational model creation*.....	49.7	84
3.2	General infrastructure	19.2	103	7.2	Creative goods and services	10.0	[77]
3.2.1	Electricity output, kWh/mn pop.....	488.0	106	7.2.1	Cultural & creative services exports, % total trade.....	n/a	n/a
3.2.2	Logistics performance*.....	23.2	101	7.2.2	National feature films/mn pop. 15-69.....	n/a	n/a
3.2.3	Gross capital formation, % GDP.....	25.8	44 ●	7.2.3	Entertainment & Media market/th pop. 15-69.....	n/a	n/a
3.3	Ecological sustainability	22.7	87	7.2.4	Printing and other media, % manufacturing.....	1.6	25 ●
3.3.1	GDP/unit of energy use.....	12.5	29 ● ◆	7.2.5	Creative goods exports, % total trade.....	0.0	127 ○
3.3.2	Environmental performance*.....	27.6	124 ◇	7.3	Online creativity	5.2	108
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....	0.2	105	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	0.6	104
				7.3.2	Country-code TLDs/th pop. 15-69.....	0.1	121
				7.3.3	Wikipedia edits/mn pop. 15-69.....	19.3	109
				7.3.4	Mobile app creation/bn PPP\$ GDP.....	n/a	n/a
MARKET SOPHISTICATION 37.1 111							
4.1	Credit	26.9	115				
4.1.1	Ease of getting credit*.....	60.0	74				
4.1.2	Domestic credit to private sector, % GDP.....	11.7	124 ◇				
4.1.3	Microfinance gross loans, % GDP.....	0.6	32 ●				
4.2	Investment	31.9	89				
4.2.1	Ease of protecting minority investors*.....	60.0	71				
4.2.2	Market capitalization, % GDP.....	8.5	67				
4.2.3	Venture capital deals/bn PPP\$ GDP.....	n/a	n/a				
4.3	Trade, competition, and market scale	52.7	104				
4.3.1	Applied tariff rate, weighted avg., %.....	10.3	117 ◇				
4.3.2	Intensity of local competition*.....	63.4	88				
4.3.3	Domestic market scale, bn PPP\$.....	209.8	62				

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.