

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank		
107	88	Lower middle	CSA	6.4	25.9	3,541.3	90		
			Score/Value Rank				Score/Value Rank		
INSTITUTIONS				56.1	92	BUSINESS SOPHISTICATION		18.6	105
1.1	Political environment	42.2	114	5.1	Knowledge workers	22.4	92		
1.1.1	Political and operational stability*.....	53.6	120 ○ ◇	5.1.1	Knowledge-intensive employment, %.....	18.8	80		
1.1.2	Government effectiveness*.....	36.5	109	5.1.2	Firms offering formal training, %.....	41.4	25 ●		
1.2	Regulatory environment	54.7	93	5.1.3	GERD performed by business, % GDP.....	0.0	78		
1.2.1	Regulatory quality*.....	32.6	97	5.1.4	GERD financed by business, %.....	6.4	83		
1.2.2	Rule of law*.....	23.0	119	5.1.5	Females employed w/advanced degrees, %.....	10.8	62		
1.2.3	Cost of redundancy dismissal, salary weeks.....	17.3	69	5.2	Innovation linkages	10.7	126 ○ ◇		
1.3	Business environment	71.5	66	5.2.1	University/industry research collaboration*.....	28.9	115		
1.3.1	Ease of starting a business*.....	93.0	40 ●	5.2.2	State of cluster development*.....	29.1	124 ○ ◇		
1.3.2	Ease of resolving insolvency*.....	50.0	70	5.2.3	GERD financed by abroad, % GDP.....	0.0	87		
				5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	92		
				5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	101 ○ ◇		
HUMAN CAPITAL & RESEARCH				29.0	73	KNOWLEDGE & TECHNOLOGY OUTPUTS		15.6	81
2.1	Education	55.7	[33]	6.1	Knowledge creation	16.9	59		
2.1.1	Expenditure on education, % GDP.....	6.0	16 ● ◆	6.1.1	Patents by origin/bn PPP\$ GDP.....	6.0	16 ● ◆		
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	n/a	n/a	6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.1	68		
2.1.3	School life expectancy, years.....	13.0	81	6.1.3	Utility models by origin/bn PPP\$ GDP.....	0.9	24		
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	4.7	92		
2.1.5	Pupil-teacher ratio, secondary.....	10.6	40 ● ◆	6.1.5	Citable documents H-index.....	3.0	122 ○		
2.2	Tertiary education	30.8	74	6.2	Knowledge impact	14.8	103		
2.2.1	Tertiary enrolment, % gross.....	41.3	68	6.2.1	Growth rate of PPP\$ GDP/worker, %.....	3.4	23 ●		
2.2.2	Graduates in science & engineering, %.....	20.8	67	6.2.2	New businesses/th pop. 15-64.....	1.3	77		
2.2.3	Tertiary inbound mobility, %.....	7.6	31 ● ◆	6.2.3	Computer software spending, % GDP.....	0.0	90		
2.3	Research & development (R&D)	0.6	109	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	0.4	121 ○ ◇		
2.3.1	Researchers, FTE/mn pop.....	n/a	n/a	6.2.5	High- and medium-high-tech manufacturing, %.....	2.7	105 ○ ◇		
2.3.2	Gross expenditure on R&D, % GDP.....	0.1	104	6.3	Knowledge diffusion	15.2	93		
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....	0.0	42 ○ ◇	6.3.1	Intellectual property receipts, % total trade.....	0.0	68		
2.3.4	QS university ranking, average score top 3*.....	0.0	77 ○ ◇	6.3.2	High-tech net exports, % total trade.....	1.0	69		
				6.3.3	ICT services exports, % total trade.....	0.7	91		
				6.3.4	FDI net outflows, % GDP.....	0.1	104		
INFRASTRUCTURE				32.3	97	CREATIVE OUTPUTS		9.2	117
3.1	Information & communication technologies (ICTs)	56.6	86	7.1	Intangible assets	12.9	121		
3.1.1	ICT access*.....	46.3	96	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	22.5	88		
3.1.2	ICT use*.....	47.1	80	7.1.2	Global brand value, top 5,000, % GDP.....	0.0	80 ○ ◇		
3.1.3	Government's online service*.....	64.6	84	7.1.3	Industrial designs by origin/bn PPP\$ GDP.....	0.5	84		
3.1.4	E-participation*.....	68.5	74	7.1.4	ICTs & organizational model creation*.....	34.8	121 ○ ◇		
3.2	General infrastructure	22.5	85	7.2	Creative goods and services	4.3	106		
3.2.1	Electricity output, kWh/mn pop.....	2,502.2	71 ◆	7.2.1	Cultural & creative services exports, % total trade.....	0.4	55		
3.2.2	Logistics performance*.....	22.3	102	7.2.2	National feature films/mn pop. 15-69.....	0.2	105 ○		
3.2.3	Gross capital formation, % GDP.....	28.1	34 ●	7.2.3	Entertainment & Media market/th pop. 15-69.....	n/a	n/a		
3.3	Ecological sustainability	17.6	112	7.2.4	Printing and other media, % manufacturing.....	0.6	83		
3.3.1	GDP/unit of energy use.....	5.4	105 ○	7.2.5	Creative goods exports, % total trade.....	0.1	104		
3.3.2	Environmental performance*.....	39.8	89	7.3	Online creativity	6.5	102		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....	0.2	111	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	0.2	118		
				7.3.2	Country-code TLDs/th pop. 15-69.....	0.8	91		
				7.3.3	Wikipedia edits/mn pop. 15-69.....	28.7	97		
				7.3.4	Mobile app creation/bn PPP\$ GDP.....	0.1	87		
MARKET SOPHISTICATION				47.1	66				
4.1	Credit	50.4	34 ● ◆						
4.1.1	Ease of getting credit*.....	85.0	14 ● ◆						
4.1.2	Domestic credit to private sector, % GDP.....	23.9	107						
4.1.3	Microfinance gross loans, % GDP.....	4.4	8 ● ◆						
4.2	Investment	40.0	[60]						
4.2.1	Ease of protecting minority investors*.....	40.0	110						
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	51.0	110						
4.3.1	Applied tariff rate, weighted avg., %.....	2.9	64						
4.3.2	Intensity of local competition*.....	56.5	118 ○						
4.3.3	Domestic market scale, bn PPP\$.....	25.9	124 ○ ◇						

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.