

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
127	121	Low	SSF	8.1	15.0	1,594.0	126
		Score/Value	Rank				Score/Value Rank
INSTITUTIONS 56.3 90				BUSINESS SOPHISTICATION 14.2 [129]			
1.1	Political environment		39.1	122	5.1	Knowledge workers 23.5 [89]	
1.1.1	Political and operational stability*		64.3	83	5.1.1	Knowledge-intensive employment, %...Ⓞ	
1.1.2	Government effectiveness*		26.5	126	5.1.2	Firms offering formal training, %...Ⓞ	
1.2	Regulatory environment		58.9	81	5.1.3	GERD performed by business, % GDP.....	
1.2.1	Regulatory quality*		24.6	110	5.1.4	GERD financed by business, %.....	
1.2.2	Rule of law*		31.3	101	5.1.5	Females employed w/advanced degrees, %...Ⓞ	
1.2.3	Cost of redundancy dismissal, salary weeks.....		13.1	47 ●	5.2	Innovation linkages 3.1 [129]	
1.3	Business environment		71.1	67 ◆	5.2.1	University/industry research collaboration*.....	
1.3.1	Ease of starting a business*		95.1	14 ● ◆	5.2.2	State of cluster development*.....	
1.3.2	Ease of resolving insolvency*		47.0	80	5.2.3	GERD financed by abroad, % GDP...Ⓞ	
		Score/Value	Rank		5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	
		Rank			5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	
HUMAN CAPITAL & RESEARCH 16.0 109				KNOWLEDGE & TECHNOLOGY OUTPUTS 7.8 126			
2.1	Education		36.4	90	6.1	Knowledge creation 4.6 110	
2.1.1	Expenditure on education, % GDP.....		5.4	25 ● ◆	6.1.1	Patents by origin/bn PPP\$ GDP.....	
2.1.2	Government funding/pupil, secondary, % GDP/cap...Ⓞ		15.3	76	6.1.2	PCT patents by origin/bn PPP\$ GDP.....	
2.1.3	School life expectancy, years.....		12.7	85 ◆	6.1.3	Utility models by origin/bn PPP\$ GDP.....	
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	
2.1.5	Pupil-teacher ratio, secondary...Ⓞ		26.2	110	6.1.5	Citable documents H-index.....	
2.2	Tertiary education		10.1	[114]	6.2	Knowledge impact 4.0 [126]	
2.2.1	Tertiary enrolment, % gross.....		14.5	100	6.2.1	Growth rate of PPP\$ GDP/worker, %.....	
2.2.2	Graduates in science & engineering, %.....		n/a	n/a	6.2.2	New businesses/th pop. 15-64.....	
2.2.3	Tertiary inbound mobility, %.....		n/a	n/a	6.2.3	Computer software spending, % GDP.....	
2.3	Research & development (R&D)		1.4	104	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	
2.3.1	Researchers, FTE/mn pop...Ⓞ		38.8	97	6.2.5	High- and medium-high-tech manufacturing, %.....	
2.3.2	Gross expenditure on R&D, % GDP...Ⓞ		0.3	84	6.3	Knowledge diffusion 14.8 95	
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....		0.0	42 ○ ◇	6.3.1	Intellectual property receipts, % total trade...Ⓞ	
2.3.4	QS university ranking, average score top 3*.....		0.0	77 ○ ◇	6.3.2	High-tech net exports, % total trade...Ⓞ	
		Score/Value	Rank		6.3.3	ICT services exports, % total trade...Ⓞ	
		Rank			6.3.4	FDI net outflows, % GDP.....	
INFRASTRUCTURE 24.3 116				CREATIVE OUTPUTS 8.3 [121]			
3.1	Information & communication technologies (ICTs)		40.3	108	7.1	Intangible assets 11.7 125	
3.1.1	ICT access*.....		36.3	114 ◆	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	
3.1.2	ICT use*.....		15.0	119	7.1.2	Global brand value, top 5,000, % GDP.....	
3.1.3	Government's online service*.....		55.6	99	7.1.3	Industrial designs by origin/bn PPP\$ GDP.....	
3.1.4	E-participation*.....		54.5	99	7.1.4	ICTs & organizational model creation*.....	
3.2	General infrastructure		19.2	102	7.2	Creative goods and services 9.6 [79]	
3.2.1	Electricity output, kWh/mn pop.....		29.7	120 ○	7.2.1	Cultural & creative services exports, % total trade.....	
3.2.2	Logistics performance*.....		17.7	110	7.2.2	National feature films/mn pop. 15-69.....	
3.2.3	Gross capital formation, % GDP.....		28.3	32 ●	7.2.3	Entertainment & Media market/th pop. 15-69.....	
3.3	Ecological sustainability		13.2	130 ○	7.2.4	Printing and other media, % manufacturing.....	
3.3.1	GDP/unit of energy use.....		3.2	118 ○	7.2.5	Creative goods exports, % total trade...Ⓞ	
3.3.2	Environmental performance*.....		29.5	121	7.3	Online creativity 0.3 [125]	
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....		0.9	65 ◆	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	
		Score/Value	Rank		7.3.2	Country-code TLDs/th pop. 15-69.....	
		Rank			7.3.3	Wikipedia edits/mn pop. 15-69.....	
		Rank			7.3.4	Mobile app creation/bn PPP\$ GDP.....	
MARKET SOPHISTICATION 34.3 121							
4.1	Credit		39.8	71			
4.1.1	Ease of getting credit*.....		70.0	44			
4.1.2	Domestic credit to private sector, % GDP.....		36.9	83			
4.1.3	Microfinance gross loans, % GDP.....		2.0	13 ●			
4.2	Investment		42.0	[47]			
4.2.1	Ease of protecting minority investors*.....		42.0	102			
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		21.3	131 ○ ◇			
4.3.1	Applied tariff rate, weighted avg., %.....		12.9	128 ○ ◇			
4.3.2	Intensity of local competition*.....		n/a	n/a			
4.3.3	Domestic market scale, bn PPP\$.....		15.0	129 ○ ◇			

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.