

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
116	126	Low	SSF	19.7	47.2	2,157.1	112
		Score/Value	Rank				Score/Value Rank
INSTITUTIONS				52.0	107		
1.1	Political environment	34.5	128	○			
1.1.1	Political and operational stability*.....	48.2	128	○			
1.1.2	Government effectiveness*.....	27.7	124				
1.2	Regulatory environment	57.7	85				
1.2.1	Regulatory quality*.....	27.3	106				
1.2.2	Rule of law*.....	25.9	112				
1.2.3	Cost of redundancy dismissal, salary weeks.....	13.6	50	●			
1.3	Business environment	63.8	89				
1.3.1	Ease of starting a business*.....	84.3	95				
1.3.2	Ease of resolving insolvency*.....	43.4	91				
HUMAN CAPITAL & RESEARCH				11.6	120		
2.1	Education	30.6	104				
2.1.1	Expenditure on education, % GDP.....	3.8	81				
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	25.4	20	●			
2.1.3	School life expectancy, years.....	7.5	119	○	◇		
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a				
2.1.5	Pupil-teacher ratio, secondary.....	17.4	85		◆		
2.2	Tertiary education	2.6	125	◇			
2.2.1	Tertiary enrolment, % gross.....	4.5	120				
2.2.2	Graduates in science & engineering, %.....	n/a	n/a				
2.2.3	Tertiary inbound mobility, %.....	0.6	94				
2.3	Research & development (R&D)	1.5	103				
2.3.1	Researchers, FTE/mn pop.....	32.9	101				
2.3.2	Gross expenditure on R&D, % GDP.....	0.3	82				
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				19.8	125		
3.1	Information & communication technologies (ICTs)	25.4	126				
3.1.1	ICT access*.....	36.4	113		◆		
3.1.2	ICT use*.....	14.8	121				
3.1.3	Government's online service*.....	26.4	121				
3.1.4	E-participation*.....	24.2	121		◇		
3.2	General infrastructure	18.5	111				
3.2.1	Electricity output, kWh/mn pop.....	n/a	n/a				
3.2.2	Logistics performance*.....	24.4	92				
3.2.3	Gross capital formation, % GDP.....	18.6	106				
3.3	Ecological sustainability	15.4	124				
3.3.1	GDP/unit of energy use.....	n/a	n/a				
3.3.2	Environmental performance*.....	29.4	122				
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....	0.2	110				
MARKET SOPHISTICATION				34.8	119		
4.1	Credit	16.7	125				
4.1.1	Ease of getting credit*.....	30.0	122				
4.1.2	Domestic credit to private sector, % GDP.....	25.4	104				
4.1.3	Microfinance gross loans, % GDP.....	0.3	41	●			
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	45.8	126				
4.3.1	Applied tariff rate, weighted avg., %.....	9.4	111				
4.3.2	Intensity of local competition*.....	58.3	112				
4.3.3	Domestic market scale, bn PPP\$.....	47.2	103				
BUSINESS SOPHISTICATION				18.5	106		
5.1	Knowledge workers	5.5	127	◇			
5.1.1	Knowledge-intensive employment, %.....	4.3	116				
5.1.2	Firms offering formal training, %.....	17.7	80				
5.1.3	GERD performed by business, % GDP.....	n/a	n/a				
5.1.4	GERD financed by business, %.....	0.8	97				
5.1.5	Females employed w/advanced degrees, %.....	0.5	117	○			
5.2	Innovation linkages	21.1	65	●			
5.2.1	University/industry research collaboration*.....	40.2	72				
5.2.2	State of cluster development*.....	44.5	78				
5.2.3	GERD financed by abroad, % GDP.....	0.1	28	◆			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	71				
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	101	○	◇		
5.3	Knowledge absorption	28.8	62	●			
5.3.1	Intellectual property payments, % total trade.....	0.1	107				
5.3.2	High-tech imports, % total trade.....	6.8	75				
5.3.3	ICT services imports, % total trade.....	3.1	9	◆			
5.3.4	FDI net inflows, % GDP.....	3.0	58	●			
5.3.5	Research talent, % in business enterprise.....	31.4	40	◆			
KNOWLEDGE & TECHNOLOGY OUTPUTS				13.4	93		
6.1	Knowledge creation	3.5	119				
6.1.1	Patents by origin/bn PPP\$ GDP.....	0.2	104				
6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.0	100	○	◇		
6.1.3	Utility models by origin/bn PPP\$ GDP.....	n/a	n/a				
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	2.6	110	◇			
6.1.5	Citable documents H-index.....	5.0	104				
6.2	Knowledge impact	12.7	111				
6.2.1	Growth rate of PPP\$ GDP/worker, %.....	1.5	54	●			
6.2.2	New businesses/th pop. 15-64.....	0.3	108				
6.2.3	Computer software spending, % GDP.....	0.0	112				
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	0.3	126				
6.2.5	High- and medium-high-tech manufacturing, %.....	n/a	n/a				
6.3	Knowledge diffusion	24.0	64	◆			
6.3.1	Intellectual property receipts, % total trade.....	0.0	94				
6.3.2	High-tech net exports, % total trade.....	0.1	116				
6.3.3	ICT services exports, % total trade.....	5.0	11	◆			
6.3.4	FDI net outflows, % GDP.....	0.3	91				
CREATIVE OUTPUTS				8.5	120		
7.1	Intangible assets	13.3	118				
7.1.1	Trademarks by origin/bn PPP\$ GDP.....	4.4	121				
7.1.2	Global brand value, top 5,000, % GDP.....	0.0	80	○	◇		
7.1.3	Industrial designs by origin/bn PPP\$ GDP.....	0.3	94				
7.1.4	ICTs & organizational model creation*.....	45.0	96				
7.2	Creative goods and services	0.9	[126]				
7.2.1	Cultural & creative services exports, % total trade.....	0.1	75				
7.2.2	National feature films/mn pop. 15-69.....	0.1	109	○	◇		
7.2.3	Entertainment & Media market/th pop. 15-69.....	n/a	n/a				
7.2.4	Printing and other media, % manufacturing.....	n/a	n/a				
7.2.5	Creative goods exports, % total trade.....	0.0	129	○			
7.3	Online creativity	6.6	100				
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	0.1	122				
7.3.2	Country-code TLDs/th pop. 15-69.....	7.0	45	◆			
7.3.3	Wikipedia edits/mn pop. 15-69.....	17.1	112				
7.3.4	Mobile app creation/bn PPP\$ GDP.....	n/a	n/a				

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.