

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
99	108	Low	CSA	9.3	33.4	3,133.4	100
				Score/Value	Rank		
INSTITUTIONS				47.0	118		
1.1	Political environment		36.7	126			
1.1.1	Political and operational stability*.....		58.9	104			
1.1.2	Government effectiveness*.....		25.6	128			
1.2	Regulatory environment		43.3	118	◇		
1.2.1	Regulatory quality*.....		14.1	126	◇		
1.2.2	Rule of law*.....		13.2	130	○ ◇		
1.2.3	Cost of redundancy dismissal, salary weeks.....		21.7	92			
1.3	Business environment		60.8	105			
1.3.1	Ease of starting a business*.....		93.2	34	● ◆		
1.3.2	Ease of resolving insolvency*.....		28.4	122	◇		
HUMAN CAPITAL & RESEARCH				22.8	87	◇	
2.1	Education		44.7	[70]			
2.1.1	Expenditure on education, % GDP.....		5.2	35	●		
2.1.2	Government funding/pupil, secondary, % GDP/cap.....		n/a	n/a			
2.1.3	School life expectancy, years.....		11.4	98			
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		15.4	78	◆		
2.2	Tertiary education		23.3	86	◆		
2.2.1	Tertiary enrolment, % gross.....		31.3	81	◆		
2.2.2	Graduates in science & engineering, %.....		22.0	57	●		
2.2.3	Tertiary inbound mobility, %.....		0.8	91			
2.3	Research & development (R&D)		0.6	112			
2.3.1	Researchers, FTE/mn pop.....		n/a	n/a			
2.3.2	Gross expenditure on R&D, % GDP.....		0.1	107	◇		
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				21.8	123		
3.1	Information & communication technologies (ICTs)		31.2	119			
3.1.1	ICT access*.....		37.0	111	◆		
3.1.2	ICT use*.....		15.0	120			
3.1.3	Government's online service*.....		34.0	116			
3.1.4	E-participation*.....		38.8	114			
3.2	General infrastructure		13.4	122			
3.2.1	Electricity output, kWh/mn pop.....		2,030.7	77	◆		
3.2.2	Logistics performance*.....		12.6	118			
3.2.3	Gross capital formation, % GDP.....		19.6	99			
3.3	Ecological sustainability		20.8	95			
3.3.1	GDP/unit of energy use.....		7.8	82			
3.3.2	Environmental performance*.....		38.2	95	◆		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....		0.4	85	◆		
MARKET SOPHISTICATION				48.4	60	● ◆	
4.1	Credit		54.0	22	● ◆		
4.1.1	Ease of getting credit*.....		90.0	10	● ◆		
4.1.2	Domestic credit to private sector, % GDP.....		12.3	123			
4.1.3	Microfinance gross loans, % GDP.....		5.7	2	● ◆		
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		51.3	109			
4.3.1	Applied tariff rate, weighted avg., %.....		5.0	91	◆		
4.3.2	Intensity of local competition*.....		61.2	104			
4.3.3	Domestic market scale, bn PPP\$.....		33.4	116			
BUSINESS SOPHISTICATION				15.1	[128]		
5.1	Knowledge workers		13.1	[117]			
5.1.1	Knowledge-intensive employment, %.....		n/a	n/a			
5.1.2	Firms offering formal training, %.....		24.3	63			
5.1.3	GERD performed by business, % GDP.....		n/a	n/a			
5.1.4	GERD financed by business, %.....		1.6	93			
5.1.5	Females employed w/advanced degrees, %.....		4.0	93	◆		
5.2	Innovation linkages		15.0	112			
5.2.1	University/industry research collaboration*.....		49.0	43	●		
5.2.2	State of cluster development*.....		36.8	107			
5.2.3	GERD financed by abroad, % GDP.....		0.0	100	◇		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	78			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	101	○ ◇		
5.3	Knowledge absorption		17.4	[116]			
5.3.1	Intellectual property payments, % total trade.....		0.0	118	○ ◇		
5.3.2	High-tech imports, % total trade.....		n/a	n/a			
5.3.3	ICT services imports, % total trade.....		0.3	119			
5.3.4	FDI net inflows, % GDP.....		3.0	53	●		
5.3.5	Research talent, % in business enterprise.....		n/a	n/a			
KNOWLEDGE & TECHNOLOGY OUTPUTS				16.4	77	◆	
6.1	Knowledge creation		17.7	55	● ◆		
6.1.1	Patents by origin/bn PPP\$ GDP.....		0.1	118			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.0	100	○ ◇		
6.1.3	Utility models by origin/bn PPP\$ GDP.....		3.7	5	● ◆		
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		2.4	112	◇		
6.1.5	Citable documents H-index.....		1.2	130	○ ◇		
6.2	Knowledge impact		15.8	95			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		4.6	13	● ◆		
6.2.2	New businesses/th pop. 15-64.....		0.2	114			
6.2.3	Computer software spending, % GDP.....		0.0	93	◆		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		0.1	131	○ ◇		
6.2.5	High- and medium-high-tech manufacturing, %.....		2.8	104	◇		
6.3	Knowledge diffusion		15.7	[90]			
6.3.1	Intellectual property receipts, % total trade.....		n/a	n/a			
6.3.2	High-tech net exports, % total trade.....		n/a	n/a			
6.3.3	ICT services exports, % total trade.....		0.3	112			
6.3.4	FDI net outflows, % GDP.....		0.6	71			
CREATIVE OUTPUTS				10.4	113		
7.1	Intangible assets		13.2	120			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		6.1	114			
7.1.2	Global brand value, top 5,000, % GDP.....		0.0	80	○ ◇		
7.1.3	Industrial designs by origin/bn PPP\$ GDP.....		0.0	120	○ ◇		
7.1.4	ICTs & organizational model creation*.....		44.4	99			
7.2	Creative goods and services		8.6	[85]			
7.2.1	Cultural & creative services exports, % total trade.....		0.0	95			
7.2.2	National feature films/mn pop. 15-69.....		1.8	73			
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing and other media, % manufacturing.....		1.1	52	●		
7.2.5	Creative goods exports, % total trade.....		n/a	n/a			
7.3	Online creativity		6.9	99	◆		
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.0	128			
7.3.2	Country-code TLDs/th pop. 15-69.....		0.4	103			
7.3.3	Wikipedia edits/mn pop. 15-69.....		24.4	100			
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.