

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
106	112	Lower middle	SSF	24.7	95.1	3,828.2	111
				Score/Value	Rank		
INSTITUTIONS				49.6	111		
1.1	Political environment		36.5	118	◇		
1.1.1	Political and operational stability*.....		56.1	105			
1.1.2	Government effectiveness*.....		26.7	118	◇		
1.2	Regulatory environment		50.8	110			
1.2.1	Regulatory quality*.....		19.9	117	◇		
1.2.2	Rule of law*.....		19.3	120	◇		
1.2.3	Cost of redundancy dismissal, salary weeks.....		19.9	82			
1.3	Business environment		61.4	98			
1.3.1	Ease of starting a business*.....		86.3	73	●		
1.3.2	Ease of resolving insolvency*.....		36.6	108			
HUMAN CAPITAL & RESEARCH				18.8	98		
2.1	Education		34.5	98			
2.1.1	Expenditure on education, % GDP.....		3.1	102			
2.1.2	Government funding/pupil, secondary, % GDP/cap.Ⓞ		17.4	68			
2.1.3	School life expectancy, years.....		12.7	82			
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.Ⓞ		19.3	85			
2.2	Tertiary education		21.9	88			
2.2.1	Tertiary enrolment, % gross.Ⓞ		19.2	95			
2.2.2	Graduates in science & engineering, %Ⓞ		21.3	54	●		
2.2.3	Tertiary inbound mobility, %Ⓞ		1.1	86			
2.3	Research & development (R&D)		0.0	[120]			
2.3.1	Researchers, FTE/mn pop.....		n/a	n/a			
2.3.2	Gross expenditure on R&D, % GDP.....		n/a	n/a			
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....		0.0	43	○ ◇		
2.3.4	QS university ranking, average score top 3*.....		0.0	78	○ ◇		
INFRASTRUCTURE				29.9	113	◇	
3.1	Information & communication technologies (ICTs)		31.7	117	◇		
3.1.1	ICT access*.....		34.6	112	◇		
3.1.2	ICT use*.....		13.7	119	○ ◇		
3.1.3	Government's online service*.....		45.8	110			
3.1.4	E-participation*.....		32.6	116	◇		
3.2	General infrastructure		31.8	77			
3.2.1	Electricity output, kWh/mn pop.....		357.0	110			
3.2.2	Logistics performance*.....		24.9	90			
3.2.3	Gross capital formation, % GDP.....		29.1	24	●		
3.3	Ecological sustainability		26.3	111			
3.3.1	GDP/unit of energy use.....		8.3	71			
3.3.2	Environmental performance*.....		40.8	119	○ ◇		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.2	114			
MARKET SOPHISTICATION				36.4	115	◇	
4.1	Credit		22.4	114			
4.1.1	Ease of getting credit*.....		60.0	66			
4.1.2	Domestic credit to private sector, % GDP.....		14.5	117	◇		
4.1.3	Microfinance gross loans, % GDP.....		0.2	47			
4.2	Investment		41.7	[65]			
4.2.1	Ease of protecting minority investors*.....		41.7	108	◇		
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, & market scale		45.1	117	◇		
4.3.1	Applied tariff rate, weighted avg., %Ⓞ		12.7	125	○ ◇		
4.3.2	Intensity of local competition*.....		63.2	88			
4.3.3	Domestic market scale, bn PPP\$.....		95.1	79			
BUSINESS SOPHISTICATION				23.9	106		
5.1	Knowledge workers		26.3	[94]			
5.1.1	Knowledge-intensive employment, %Ⓞ		10.9	98			
5.1.2	Firms offering formal training, % firms.....		37.6	37	●		
5.1.3	GERD performed by business, % GDP.....		n/a	n/a			
5.1.4	GERD financed by business, %.....		n/a	n/a			
5.1.5	Females employed w/advanced degrees, %Ⓞ		2.0	100			
5.2	Innovation linkages		18.3	102			
5.2.1	University/industry research collaboration*.....		38.4	77			
5.2.2	State of cluster development*.....		35.3	104			
5.2.3	GERD financed by abroad, %.....		n/a	n/a			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	103	○		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	93	○ ◇		
5.3	Knowledge absorption		27.0	94			
5.3.1	Intellectual property payments, % total trade.....		0.1	106	◇		
5.3.2	High-tech imports, % total trade.....		5.4	101			
5.3.3	ICT services imports, % total trade.....		1.1	67	●		
5.3.4	FDI net inflows, % GDP.....		2.2	78			
5.3.5	Research talent, % in business enterprise.....		n/a	n/a			
KNOWLEDGE & TECHNOLOGY OUTPUTS				15.7	93		
6.1	Knowledge creation		6.5	87			
6.1.1	Patents by origin/bn PPP\$ GDP.....		0.3	83			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.0	94			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		6.8	64	●		
6.1.5	Citable documents H-index.....		6.0	89			
6.2	Knowledge impact		29.9	94			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		1.0	62	● ◇		
6.2.2	New businesses/th pop. 15-64.....		n/a	n/a			
6.2.3	Computer software spending, % GDP.....		0.2	76			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		0.7	116	◇		
6.2.5	High- & medium-high-tech manufactures, %Ⓞ		0.0	103	○ ◇		
6.3	Knowledge diffusion		10.6	100			
6.3.1	Intellectual property receipts, % total trade.....		0.0	89			
6.3.2	High-tech net exports, % total trade.....		0.2	95			
6.3.3	ICT services exports, % total trade.....		1.9	57	●		
6.3.4	FDI net outflows, % GDP.....		0.0	105			
CREATIVE OUTPUTS				16.5	109		
7.1	Intangible assets		27.6	113	◇		
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		5.9	113			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		0.3	95			
7.1.3	ICTs & business model creation*.....		52.0	99			
7.1.4	ICTs & organizational model creation*.....		42.4	106			
7.2	Creative goods & services		10.4	84			
7.2.1	Cultural & creative services exports, % total trade.....		0.3	61	●		
7.2.2	National feature films/mn pop. 15-69.Ⓞ		1.9	68			
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing & other media, % manufacturing.Ⓞ		1.3	40	●		
7.2.5	Creative goods exports, % total trade.....		0.0	121	○		
7.3	Online creativity		0.5	108			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.2	117	◇		
7.3.2	Country-code TLDs/th pop. 15-69.....		1.3	75			
7.3.3	Wikipedia edits/mn pop. 15-69.Ⓞ		0.1	119	○		
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.