

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
114	118	Low	SSF	30.5	39.3	1,291.4	n/a
				Score/Value	Rank		
INSTITUTIONS				43.7	126		
1.1	Political environment		35.9	119			
1.1.1	Political and operational stability*		57.9	101			
1.1.2	Government effectiveness*		24.9	120			
1.2	Regulatory environment		38.0	123	◇		
1.2.1	Regulatory quality*		22.4	112			
1.2.2	Rule of law*		19.8	119			
1.2.3	Cost of redundancy dismissal, salary weeks		37.5	122	◇		
1.3	Business environment		57.2	110			
1.3.1	Ease of starting a business*		67.6	124	◇		
1.3.2	Ease of resolving insolvency*		46.9	76	● ◆		
HUMAN CAPITAL & RESEARCH				17.4	105		
2.1	Education		48.9	64	● ◆		
2.1.1	Expenditure on education, % GDP		6.5	15	● ◆		
2.1.2	Government funding/pupil, secondary, % GDP/cap		44.0	2	● ◆		
2.1.3	School life expectancy, years		9.7	107			
2.1.4	PISA scales in reading, maths, & science		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary		36.5	111	○ ◇		
2.2	Tertiary education		1.5	126	○ ◇		
2.2.1	Tertiary enrolment, % gross		6.9	114			
2.2.2	Graduates in science & engineering, %		9.0	101	○ ◇		
2.2.3	Tertiary inbound mobility, %		0.3	103			
2.3	Research & development (R&D)		1.9	94			
2.3.1	Researchers, FTE/mn pop.		41.5	93			
2.3.2	Gross expenditure on R&D, % GDP		0.3	74			
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				33.6	107		
3.1	Information & communication technologies (ICTs)		30.8	119			
3.1.1	ICT access*		20.8	126	○ ◇		
3.1.2	ICT use*		15.6	115			
3.1.3	Government's online service*		42.4	113			
3.1.4	E-participation*		44.4	107			
3.2	General infrastructure		50.4	17	● ◆		
3.2.1	Electricity output, kWh/mn pop.		649.7	103			
3.2.2	Logistics performance*		n/a	n/a			
3.2.3	Gross capital formation, % GDP		40.0	6	● ◆		
3.3	Ecological sustainability		19.6	124			
3.3.1	GDP/unit of energy use		2.4	120	○		
3.3.2	Environmental performance*		46.4	107			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP		0.5	86			
MARKET SOPHISTICATION				34.8	120		
4.1	Credit		11.8	124			
4.1.1	Ease of getting credit*		25.0	122			
4.1.2	Domestic credit to private sector, % GDP		25.6	106			
4.1.3	Microfinance gross loans, % GDP		0.0	68			
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		50.9	104			
4.3.1	Applied tariff rate, weighted avg., %		3.6	70	● ◆		
4.3.2	Intensity of local competition*		54.9	122			
4.3.3	Domestic market scale, bn PPP\$		39.3	105			
BUSINESS SOPHISTICATION				25.1	98		
5.1	Knowledge workers		2.5	128	○ ◇		
5.1.1	Knowledge-intensive employment, %		3.9	109			
5.1.2	Firms offering formal training, % firms		n/a	n/a			
5.1.3	GERD performed by business, % GDP		0.0	88	◇		
5.1.4	GERD financed by business, %		0.5	93			
5.1.5	Females employed w/advanced degrees, %		0.7	110			
5.2	Innovation linkages		44.4	22	● ◆		
5.2.1	University/industry research collaboration*		37.2	87			
5.2.2	State of cluster development*		36.5	102			
5.2.3	GERD financed by abroad, %		39.9	8	●		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP		0.0	87			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP		n/a	n/a			
5.3	Knowledge absorption		28.5	90			
5.3.1	Intellectual property payments, % total trade		0.3	77			
5.3.2	High-tech imports, % total trade		3.7	120			
5.3.3	ICT services imports, % total trade		1.5	44	●		
5.3.4	FDI net inflows, % GDP		24.3	7	● ◆		
5.3.5	Research talent, % in business enterprise		0.3	85	○		
KNOWLEDGE & TECHNOLOGY OUTPUTS				14.7	104		
6.1	Knowledge creation		3.9	108			
6.1.1	Patents by origin/bn PPP\$ GDP		0.4	77	◆		
6.1.2	PCT patents by origin/bn PPP\$ GDP		0.0	99	○ ◇		
6.1.3	Utility models by origin/bn PPP\$ GDP		0.2	44			
6.1.4	Scientific & technical articles/bn PPP\$ GDP		4.2	91			
6.1.5	Citable documents H-index		4.1	101			
6.2	Knowledge impact		33.0	[82]			
6.2.1	Growth rate of PPP\$ GDP/worker, %		0.4	79			
6.2.2	New businesses/th pop. 15-64		n/a	n/a			
6.2.3	Computer software spending, % GDP		0.0	117			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP		1.6	94			
6.2.5	High- & medium-high-tech manufactures, %		n/a	n/a			
6.3	Knowledge diffusion		7.3	118			
6.3.1	Intellectual property receipts, % total trade		0.0	97			
6.3.2	High-tech net exports, % total trade		0.5	79	◆		
6.3.3	ICT services exports, % total trade		0.3	111			
6.3.4	FDI net outflows, % GDP		0.2	90			
CREATIVE OUTPUTS				14.9	116		
7.1	Intangible assets		28.8	109			
7.1.1	Trademarks by origin/bn PPP\$ GDP		36.8	68	● ◆		
7.1.2	Industrial designs by origin/bn PPP\$ GDP		0.8	73			
7.1.3	ICTs & business model creation*		48.4	113			
7.1.4	ICTs & organizational model creation*		35.8	119			
7.2	Creative goods & services		1.9	[117]			
7.2.1	Cultural & creative services exports, % total trade		0.0	104			
7.2.2	National feature films/mn pop. 15-69		2.0	65	● ◆		
7.2.3	Entertainment & Media market/th pop. 15-69		n/a	n/a			
7.2.4	Printing & other media, % manufacturing		n/a	n/a			
7.2.5	Creative goods exports, % total trade		0.0	127	○		
7.3	Online creativity		0.1	124			
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		0.1	110			
7.3.3	Wikipedia edits/mn pop. 15-69		0.2	116			
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.