

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
80	124	Low	SSF	105.0	195.8	2,160.8	n/a
				Score/Value	Rank		
INSTITUTIONS				47.5	119		
1.1	Political environment		37.9	114			
1.1.1	Political and operational stability*		54.4	111			
1.1.2	Government effectiveness*		29.6	113			
1.2	Regulatory environment		53.8	103			
1.2.1	Regulatory quality*		15.0	124			
1.2.2	Rule of law*		34.4	93			
1.2.3	Cost of redundancy dismissal, salary weeks		19.1	79	●		
1.3	Business environment		50.7	124	◇		
1.3.1	Ease of starting a business*		70.8	120	◇		
1.3.2	Ease of resolving insolvency*		30.5	118	◇		
HUMAN CAPITAL & RESEARCH				10.6	124		
2.1	Education		22.7	121			
2.1.1	Expenditure on education, % GDP		4.7	57	●		
2.1.2	Government funding/pupil, secondary, % GDP/cap		16.6	74			
2.1.3	School life expectancy, years		8.4	115			
2.1.4	PISA scales in reading, maths, & science		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary		40.4	113	○ ◇		
2.2	Tertiary education		5.8	[119]			
2.2.1	Tertiary enrolment, % gross		8.1	112			
2.2.2	Graduates in science & engineering, %		n/a	n/a			
2.2.3	Tertiary inbound mobility, %		n/a	n/a			
2.3	Research & development (R&D)		3.3	86	◆		
2.3.1	Researchers, FTE/mn pop.		45.0	92			
2.3.2	Gross expenditure on R&D, % GDP		0.6	52	◆		
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				35.6	99		
3.1	Information & communication technologies (ICTs)		38.5	108			
3.1.1	ICT access*		22.5	124	◇		
3.1.2	ICT use*		10.9	122			
3.1.3	Government's online service*		63.2	87	◆		
3.1.4	E-participation*		57.3	95			
3.2	General infrastructure		48.9	21	◆		
3.2.1	Electricity output, kWh/mn pop.		109.6	118			
3.2.2	Logistics performance*		n/a	n/a			
3.2.3	Gross capital formation, % GDP		39.5	7	◆		
3.3	Ecological sustainability		19.4	126			
3.3.1	GDP/unit of energy use		3.1	116			
3.3.2	Environmental performance*		44.8	109			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP		0.0	127			
MARKET SOPHISTICATION				27.3	128	◇	
4.1	Credit		7.7	127	◇		
4.1.1	Ease of getting credit*		15.0	124	◇		
4.1.2	Domestic credit to private sector, % GDP		n/a	n/a			
4.1.3	Microfinance gross loans, % GDP		0.0	62			
4.2	Investment		28.3	[122]	◇		
4.2.1	Ease of protecting minority investors*		28.3	127	○ ◇		
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		45.8	116			
4.3.1	Applied tariff rate, weighted avg., %		12.1	120			
4.3.2	Intensity of local competition*		45.6	125	○ ◇		
4.3.3	Domestic market scale, bn PPP\$		220.7	59	◆		
BUSINESS SOPHISTICATION				20.2	118		
5.1	Knowledge workers		8.5	124			
5.1.1	Knowledge-intensive employment, %		4.5	108			
5.1.2	Firms offering formal training, % firms		20.8	73			
5.1.3	GERD performed by business, % GDP		0.0	84			
5.1.4	GERD financed by business, %		0.7	92			
5.1.5	Females employed w/advanced degrees, %		0.3	115			
5.2	Innovation linkages		17.4	112			
5.2.1	University/industry research collaboration*		43.9	54	●		
5.2.2	State of cluster development*		42.7	83			
5.2.3	GERD financed by abroad, %		2.1	75	◇		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP		0.0	99			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP		0.0	93	○ ◇		
5.3	Knowledge absorption		34.7	58	●		
5.3.1	Intellectual property payments, % total trade		0.0	109			
5.3.2	High-tech imports, % total trade		21.8	6	◆		
5.3.3	ICT services imports, % total trade		0.7	89			
5.3.4	FDI net inflows, % GDP		4.8	32	●		
5.3.5	Research talent, % in business enterprise		0.5	81			
KNOWLEDGE & TECHNOLOGY OUTPUTS				17.0	88		
6.1	Knowledge creation		9.0	[73]			
6.1.1	Patents by origin/bn PPP\$ GDP		n/a	n/a			
6.1.2	PCT patents by origin/bn PPP\$ GDP		n/a	n/a			
6.1.3	Utility models by origin/bn PPP\$ GDP		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP		4.9	82			
6.1.5	Citable documents H-index		7.0	83	◆		
6.2	Knowledge impact		39.8	49	◆		
6.2.1	Growth rate of PPP\$ GDP/worker, %		5.5	5	◆		
6.2.2	New businesses/th pop. 15-64		n/a	n/a			
6.2.3	Computer software spending, % GDP		0.0	127	○ ◇		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP		0.3	125			
6.2.5	High- & medium-high-tech manufactures, %		0.1	70			
6.3	Knowledge diffusion		2.1	129	○ ◇		
6.3.1	Intellectual property receipts, % total trade		0.0	105			
6.3.2	High-tech net exports, % total trade		0.1	114			
6.3.3	ICT services exports, % total trade		0.6	97			
6.3.4	FDI net outflows, % GDP		n/a	n/a			
CREATIVE OUTPUTS				23.2	[80]		
7.1	Intangible assets		39.4	[70]			
7.1.1	Trademarks by origin/bn PPP\$ GDP		n/a	n/a			
7.1.2	Industrial designs by origin/bn PPP\$ GDP		n/a	n/a			
7.1.3	ICTs & business model creation*		40.6	119			
7.1.4	ICTs & organizational model creation*		38.2	116			
7.2	Creative goods & services		14.2	[71]			
7.2.1	Cultural & creative services exports, % total trade		0.0	100			
7.2.2	National feature films/mn pop. 15-69		n/a	n/a			
7.2.3	Entertainment & Media market/th pop. 15-69		n/a	n/a			
7.2.4	Printing & other media, % manufacturing		1.8	21	●		
7.2.5	Creative goods exports, % total trade		0.0	115			
7.3	Online creativity		0.0	129	○		
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69		0.0	129	○ ◇		
7.3.2	Country-code TLDs/th pop. 15-69		0.0	129	○ ◇		
7.3.3	Wikipedia edits/mn pop. 15-69		0.0	123			
7.3.4	Mobile app creation/bn PPP\$ GDP		0.0	98	○ ◇		

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.