

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
81	103	Low	SSF	16.3	60.0	3,651.2	100
				Score/Value	Rank		
INSTITUTIONS				60.4	75		
1.1	Political environment		49.3	86			
1.1.1	Political and operational stability*		70.2	61			
1.1.2	Government effectiveness*		38.8	89			
1.2	Regulatory environment		64.9	67			
1.2.1	Regulatory quality*		38.0	80			
1.2.2	Rule of law*		42.4	68			
1.2.3	Cost of redundancy dismissal, salary weeks		14.8	59			
1.3	Business environment		67.1	73			
1.3.1	Ease of starting a business*		89.9	54			
1.3.2	Ease of resolving insolvency*		44.3	84			
HUMAN CAPITAL & RESEARCH				20.6	93		
2.1	Education		36.8	97			
2.1.1	Expenditure on education, % GDP		6.2	19			
2.1.2	Government funding/pupil, secondary, % GDP/cap		15.2	83			
2.1.3	School life expectancy, years		9.0	111			
2.1.4	PISA scales in reading, maths, & science		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary		18.9	83			
2.2	Tertiary education		19.4	96			
2.2.1	Tertiary enrolment, % gross		11.2	106			
2.2.2	Graduates in science & engineering, %		n/a	n/a			
2.2.3	Tertiary inbound mobility, %		8.3	25			
2.3	Research & development (R&D)		5.7	74			
2.3.1	Researchers, FTE/mn pop.		549.3	65			
2.3.2	Gross expenditure on R&D, % GDP		0.8	48			
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				31.1	111		
3.1	Information & communication technologies (ICTs)		39.0	106			
3.1.1	ICT access*		38.4	106			
3.1.2	ICT use*		19.2	109			
3.1.3	Government's online service*		47.9	106			
3.1.4	E-participation*		50.6	103			
3.2	General infrastructure		24.2	103			
3.2.1	Electricity output, kWh/mn pop.		289.2	112			
3.2.2	Logistics performance*		8.8	118			
3.2.3	Gross capital formation, % GDP		25.9	40			
3.3	Ecological sustainability		30.1	94			
3.3.1	GDP/unit of energy use		8.3	70			
3.3.2	Environmental performance*		49.5	100			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP		0.3	105			
MARKET SOPHISTICATION				35.6	118		
4.1	Credit		20.7	116			
4.1.1	Ease of getting credit*		30.0	115			
4.1.2	Domestic credit to private sector, % GDP		29.5	96			
4.1.3	Microfinance gross loans, % GDP		1.2	17			
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		44.3	119			
4.3.1	Applied tariff rate, weighted avg., %		12.3	123			
4.3.2	Intensity of local competition*		68.0	68			
4.3.3	Domestic market scale, bn PPP\$		60.0	93			
BUSINESS SOPHISTICATION				20.2	119		
5.1	Knowledge workers		9.1	123			
5.1.1	Knowledge-intensive employment, %		6.4	106			
5.1.2	Firms offering formal training, % firms		17.4	81			
5.1.3	GERD performed by business, % GDP		0.0	87			
5.1.4	GERD financed by business, %		2.1	88			
5.1.5	Females employed w/advanced degrees, %		1.8	102			
5.2	Innovation linkages		21.5	78			
5.2.1	University/industry research collaboration†		39.8	71			
5.2.2	State of cluster development†		40.3	92			
5.2.3	GERD financed by abroad, %		7.9	49			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP		n/a	n/a			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP		0.0	93			
5.3	Knowledge absorption		29.9	83			
5.3.1	Intellectual property payments, % total trade		0.1	95			
5.3.2	High-tech imports, % total trade		5.9	93			
5.3.3	ICT services imports, % total trade		2.6	12			
5.3.4	FDI net inflows, % GDP		2.4	71			
5.3.5	Research talent, % in business enterprise		0.1	86			
KNOWLEDGE & TECHNOLOGY OUTPUTS				19.4	77		
6.1	Knowledge creation		5.1	96			
6.1.1	Patents by origin/bn PPP\$ GDP		0.4	80			
6.1.2	PCT patents by origin/bn PPP\$ GDP		0.1	71			
6.1.3	Utility models by origin/bn PPP\$ GDP		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP		4.0	93			
6.1.5	Citable documents H-index		5.9	90			
6.2	Knowledge impact		34.7	75			
6.2.1	Growth rate of PPP\$ GDP/worker, %		3.4	19			
6.2.2	New businesses/th pop. 15-64		0.4	90			
6.2.3	Computer software spending, % GDP		0.3	40			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP		0.9	108			
6.2.5	High- & medium-high-tech manufactures, %		0.2	63			
6.3	Knowledge diffusion		18.3	58			
6.3.1	Intellectual property receipts, % total trade		0.1	61			
6.3.2	High-tech net exports, % total trade		0.3	89			
6.3.3	ICT services exports, % total trade		4.4	12			
6.3.4	FDI net outflows, % GDP		0.5	65			
CREATIVE OUTPUTS				20.8	92		
7.1	Intangible assets		36.9	85			
7.1.1	Trademarks by origin/bn PPP\$ GDP		11.4	103			
7.1.2	Industrial designs by origin/bn PPP\$ GDP		0.8	75			
7.1.3	ICTs & business model creation†		65.3	51			
7.1.4	ICTs & organizational model creation†		58.1	52			
7.2	Creative goods & services		9.0	90			
7.2.1	Cultural & creative services exports, % total trade		0.9	30			
7.2.2	National feature films/mn pop. 15-69		0.2	104			
7.2.3	Entertainment & Media market/th pop. 15-69		n/a	n/a			
7.2.4	Printing & other media, % manufacturing		0.8	74			
7.2.5	Creative goods exports, % total trade		0.1	102			
7.3	Online creativity		0.4	109			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69		1.0	95			
7.3.2	Country-code TLDs/th pop. 15-69		0.1	111			
7.3.3	Wikipedia edits/mn pop. 15-69		0.2	114			
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.