

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
121	126	Lower middle	SSF	17.6	73.2	4,103.5	n/a
				Score/Value	Rank		
INSTITUTIONS				47.1	120		
1.1	Political environment		43.2	97			
1.1.1	Political and operational stability*		66.7	74	●		
1.1.2	Government effectiveness*		31.5	105			
1.2	Regulatory environment		34.4	125	○ ◇		
1.2.1	Regulatory quality*		29.4	101			
1.2.2	Rule of law*		37.7	81	●		
1.2.3	Cost of redundancy dismissal, salary weeks		50.6	124	○ ◇		
1.3	Business environment		63.7	86			
1.3.1	Ease of starting a business*		85.1	78	●		
1.3.2	Ease of resolving insolvency*		42.4	87			
HUMAN CAPITAL & RESEARCH				1.4	[129]		
2.1	Education		0.0	[129]			
2.1.1	Expenditure on education, % GDP		1.1	119	○ ◇		
2.1.2	Government funding/pupil, secondary, % GDP/cap		n/a	n/a			
2.1.3	School life expectancy, years		n/a	n/a			
2.1.4	PISA scales in reading, maths, & science		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary		n/a	n/a			
2.2	Tertiary education		2.6	[123]			
2.2.1	Tertiary enrolment, % gross		4.0	121	○ ◇		
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)		1.5	98			
2.3.1	Researchers, FTE/mn pop		41.0	94			
2.3.2	Gross expenditure on R&D, % GDP		0.3	81			
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				36.6	95		
3.1	Information & communication technologies (ICTs)		35.8	114	◇		
3.1.1	ICT access*		31.1	116	◇		
3.1.2	ICT use*		24.5	101			
3.1.3	Government's online service*		47.9	106			
3.1.4	E-participation*		39.9	110	◇		
3.2	General infrastructure		48.0	25	● ◆		
3.2.1	Electricity output, kWh/mn pop		704.9	101			
3.2.2	Logistics performance*		21.6	103			
3.2.3	Gross capital formation, % GDP		44.4	3	● ◆		
3.3	Ecological sustainability		25.9	113			
3.3.1	GDP/unit of energy use		5.3	105			
3.3.2	Environmental performance*		51.0	95			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP		0.4	95			
MARKET SOPHISTICATION				37.7	112	◇	
4.1	Credit		32.7	79	●		
4.1.1	Ease of getting credit*		95.0	3	● ◆		
4.1.2	Domestic credit to private sector, % GDP		11.2	123	○ ◇		
4.1.3	Microfinance gross loans, % GDP		0.0	63			
4.2	Investment		26.8	126	○ ◇		
4.2.1	Ease of protecting minority investors*		50.0	93			
4.2.2	Market capitalization, % GDP		13.6	65			
4.2.3	Venture capital deals/bn PPP\$ GDP		0.0	49	●		
4.3	Trade, competition, & market scale		53.5	94			
4.3.1	Applied tariff rate, weighted avg., %		6.2	96			
4.3.2	Intensity of local competition*		66.4	75	●		
4.3.3	Domestic market scale, bn PPP\$		73.2	90			
BUSINESS SOPHISTICATION				17.1	127	○ ◇	
5.1	Knowledge workers		12.9	121	◇		
5.1.1	Knowledge-intensive employment, %		2.0	115	○ ◇		
5.1.2	Firms offering formal training, % firms		28.2	55	●		
5.1.3	GERD performed by business, % GDP		0.0	85			
5.1.4	GERD financed by business, %		3.2	86			
5.1.5	Females employed w/advanced degrees, %		5.8	86			
5.2	Innovation linkages		17.4	111			
5.2.1	University/industry research collaboration*		31.6	102			
5.2.2	State of cluster development*		42.1	85			
5.2.3	GERD financed by abroad, %		1.6	83			
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		21.1	121			
5.3.1	Intellectual property payments, % total trade		0.0	112	◇		
5.3.2	High-tech imports, % total trade		5.7	95			
5.3.3	ICT services imports, % total trade		0.7	94			
5.3.4	FDI net inflows, % GDP		4.7	35	●		
5.3.5	Research talent, % in business enterprise		4.9	71			
KNOWLEDGE & TECHNOLOGY OUTPUTS				12.1	115	◇	
6.1	Knowledge creation		3.9	107			
6.1.1	Patents by origin/bn PPP\$ GDP		0.2	102			
6.1.2	PCT patents by origin/bn PPP\$ GDP		0.0	86			
6.1.3	Utility models by origin/bn PPP\$ GDP		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP		2.7	107			
6.1.5	Citable documents H-index		5.7	92			
6.2	Knowledge impact		23.6	108			
6.2.1	Growth rate of PPP\$ GDP/worker, %		0.0	88	◇		
6.2.2	New businesses/th pop. 15-64		1.1	68			
6.2.3	Computer software spending, % GDP		0.0	112	◇		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP		0.6	118	◇		
6.2.5	High- & medium-high-tech manufactures, %		0.1	78			
6.3	Knowledge diffusion		8.8	110			
6.3.1	Intellectual property receipts, % total trade		n/a	n/a			
6.3.2	High-tech net exports, % total trade		0.4	85			
6.3.3	ICT services exports, % total trade		0.4	104			
6.3.4	FDI net outflows, % GDP		-0.2	120	○ ◇		
CREATIVE OUTPUTS				13.4	121	◇	
7.1	Intangible assets		25.4	120	◇		
7.1.1	Trademarks by origin/bn PPP\$ GDP		15.6	94			
7.1.2	Industrial designs by origin/bn PPP\$ GDP		0.4	88			
7.1.3	ICTs & business model creation*		45.2	115	◇		
7.1.4	ICTs & organizational model creation*		37.3	118	◇		
7.2	Creative goods & services		2.5	[113]			
7.2.1	Cultural & creative services exports, % total trade		0.3	63	●		
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		n/a	n/a			
7.2.5	Creative goods exports, % total trade		0.0	116			
7.3	Online creativity		0.1	125	○		
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69		0.1	123	○ ◇		
7.3.2	Country-code TLDs/th pop. 15-69		0.1	115			
7.3.3	Wikipedia edits/mn pop. 15-69		0.1	120			
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.