

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
126	128	Low	SSF	10.9	8.0	735.2	n/a
				Score/Value	Rank		
INSTITUTIONS				45.6	123		
1.1	Political environment	22.8	128	○ ◇			
1.1.1	Political and operational stability*	40.4	128	○			
1.1.2	Government effectiveness*	14.1	128	○ ◇			
1.2	Regulatory environment	51.2	108				
1.2.1	Regulatory quality*	19.5	118				
1.2.2	Rule of law*	9.5	128	○ ◇			
1.2.3	Cost of redundancy dismissal, salary weeks	15.9	66	●			
1.3	Business environment	62.7	92				
1.3.1	Ease of starting a business*	94.8	15	● ◆			
1.3.2	Ease of resolving insolvency*	30.6	117	◇			
HUMAN CAPITAL & RESEARCH				17.7	103		
2.1	Education	38.7	88				
2.1.1	Expenditure on education, % GDP	4.3	68				
2.1.2	Government funding/pupil, secondary, % GDP/cap.Ⓞ	28.0	15	●			
2.1.3	School life expectancy, years	11.3	95				
2.1.4	PISA scales in reading, maths, & science	n/a	n/a				
2.1.5	Pupil-teacher ratio, secondary	28.0	103				
2.2	Tertiary education	13.8	101				
2.2.1	Tertiary enrolment, % gross	6.2	115				
2.2.2	Graduates in science & engineering, %	16.2	80				
2.2.3	Tertiary inbound mobility, %	2.9	66				
2.3	Research & development (R&D)	0.8	109				
2.3.1	Researchers, FTE/mn pop.	n/a	n/a				
2.3.2	Gross expenditure on R&D, % GDP.Ⓞ	0.1	100				
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				14.0	129	○ ◇	
3.1	Information & communication technologies (ICTs)	22.9	126				
3.1.1	ICT access*	24.0	122				
3.1.2	ICT use*	6.1	126	○ ◇			
3.1.3	Government's online service*	30.6	119				
3.1.4	E-participation*	30.9	119				
3.2	General infrastructure	0.2	129	○ ◇			
3.2.1	Electricity output, kWh/mn pop.	n/a	n/a				
3.2.2	Logistics performance*	0.0	122	○ ◇			
3.2.3	Gross capital formation, % GDP	6.0	124	◇			
3.3	Ecological sustainability	18.9	128	○			
3.3.1	GDP/unit of energy use	n/a	n/a				
3.3.2	Environmental performance*	27.4	127	○ ◇			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..	0.2	108				
MARKET SOPHISTICATION				26.1	129	○ ◇	
4.1	Credit	6.1	128	○ ◇			
4.1.1	Ease of getting credit*	10.0	126	◇			
4.1.2	Domestic credit to private sector, % GDP	15.5	115				
4.1.3	Microfinance gross loans, % GDP.Ⓞ	0.2	42	●			
4.2	Investment	43.3	[61]				
4.2.1	Ease of protecting minority investors*	43.3	105				
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	28.8	128	○ ◇			
4.3.1	Applied tariff rate, weighted avg., %Ⓞ	5.9	94				
4.3.2	Intensity of local competition*	48.5	124	◇			
4.3.3	Domestic market scale, bn PPP\$	8.2	129	○ ◇			
BUSINESS SOPHISTICATION				29.3	74		
5.1	Knowledge workers	16.0	[115]				
5.1.1	Knowledge-intensive employment, %	2.3	114				
5.1.2	Firms offering formal training, % firms	32.0	47	●			
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, %Ⓞ	0.2	116				
5.2	Innovation linkages	38.7	30	●			
5.2.1	University/industry research collaboration*	33.8	96				
5.2.2	State of cluster development*	35.1	106				
5.2.3	GERD financed by abroad, %Ⓞ	39.9	7	●			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP	n/a	n/a				
5.2.5	Patent families 2+ offices/bn PPP\$ GDP	0.5	33	● ◆			
5.3	Knowledge absorption	33.1	65	●			
5.3.1	Intellectual property payments, % total trade	0.0	116				
5.3.2	High-tech imports, % total trade	9.0	44	●			
5.3.3	ICT services imports, % total trade	1.6	37	●			
5.3.4	FDI net inflows, % GDP	0.5	118				
5.3.5	Research talent, % in business enterprise	n/a	n/a				
KNOWLEDGE & TECHNOLOGY OUTPUTS				4.8	[127]	◇	
6.1	Knowledge creation	3.8	[112]				
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	4.3	89				
6.1.5	Citable documents H-index	0.0	128	○ ◇			
6.2	Knowledge impact	3.6	[126]				
6.2.1	Growth rate of PPP\$ GDP/worker, %	n/a	n/a				
6.2.2	New businesses/th pop. 15-64	n/a	n/a				
6.2.3	Computer software spending, % GDP	0.1	96				
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	0.5	120				
6.2.5	High- & medium-high-tech manufactures, %Ⓞ	0.0	97				
6.3	Knowledge diffusion	7.1	122				
6.3.1	Intellectual property receipts, % total trade	0.0	98				
6.3.2	High-tech net exports, % total trade	0.0	120				
6.3.3	ICT services exports, % total trade	0.6	96				
6.3.4	FDI net outflows, % GDP	0.0	113				
CREATIVE OUTPUTS				12.7	125		
7.1	Intangible assets	24.0	123				
7.1.1	Trademarks by origin/bn PPP\$ GDP	6.6	111				
7.1.2	Industrial designs by origin/bn PPP\$ GDP	n/a	n/a				
7.1.3	ICTs & business model creation*	37.3	123	◇			
7.1.4	ICTs & organizational model creation*	33.3	121				
7.2	Creative goods & services	2.6	[112]				
7.2.1	Cultural & creative services exports, % total trade	0.3	66	●			
7.2.2	National feature films/mn pop. 15-69	0.8	89				
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	0.1	109				
7.3	Online creativity	0.1	126				
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	0.0	127				
7.3.2	Country-code TLDs/th pop. 15-69	0.1	114				
7.3.3	Wikipedia edits/mn pop. 15-69.Ⓞ	0.1	122				
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.