

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
104	101	Lower middle	LCN	9.4	49.0	5,212.0	105
				Score/Value	Rank		
INSTITUTIONS				46.9	121		
1.1	Political environment	40.9	101				
1.1.1	Political and operational stability*.....	54.4	111				
1.1.2	Government effectiveness*.....	34.1	98				
1.2	Regulatory environment	45.2	117				
1.2.1	Regulatory quality*.....	30.2	99				
1.2.2	Rule of law*.....	18.7	121	○ ◇			
1.2.3	Cost of redundancy dismissal, salary weeks.....	30.3	116				
1.3	Business environment	54.6	118	◇			
1.3.1	Ease of starting a business*.....	77.1	115				
1.3.2	Ease of resolving insolvency*.....	32.1	114	◇			
HUMAN CAPITAL & RESEARCH				18.3	100		
2.1	Education	42.1	78				
2.1.1	Expenditure on education, % GDP.....	6.0	21	● ◆			
2.1.2	Government funding/pupil, secondary, % GDP/cap.Ⓞ	20.0	50				
2.1.3	School life expectancy, years.Ⓞ	10.2	105	◇			
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a				
2.1.5	Pupil-teacher ratio, secondary.....	16.7	74				
2.2	Tertiary education	12.6	106				
2.2.1	Tertiary enrolment, % gross.Ⓞ	20.8	91				
2.2.2	Graduates in science & engineering, %Ⓞ	14.7	89				
2.2.3	Tertiary inbound mobility, %Ⓞ	0.8	93				
2.3	Research & development (R&D)	0.0	119				
2.3.1	Researchers, FTE/mn pop.Ⓞ	22.8	102	○			
2.3.2	Gross expenditure on R&D, % GDP.Ⓞ	0.0	113	○ ◇			
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				32.5	109		
3.1	Information & communication technologies (ICTs)	41.7	101				
3.1.1	ICT access*.....	40.7	103				
3.1.2	ICT use*.....	20.3	108	◇			
3.1.3	Government's online service*.....	51.4	104				
3.1.4	E-participation*.....	54.5	98				
3.2	General infrastructure	27.0	91				
3.2.1	Electricity output, kWh/mn pop.....	964.1	93				
3.2.2	Logistics performance*.....	25.3	88				
3.2.3	Gross capital formation, % GDP.....	24.1	53	●			
3.3	Ecological sustainability	28.8	105				
3.3.1	GDP/unit of energy use.....	6.7	91				
3.3.2	Environmental performance*.....	51.5	93				
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..	0.6	79				
MARKET SOPHISTICATION				45.7	75		
4.1	Credit	38.7	58	●			
4.1.1	Ease of getting credit*.....	85.0	11	●			
4.1.2	Domestic credit to private sector, % GDP.....	57.4	57	●			
4.1.3	Microfinance gross loans, % GDP.....	0.3	40				
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	56.9	81				
4.3.1	Applied tariff rate, weighted avg., %Ⓞ	2.8	62				
4.3.2	Intensity of local competition*.....	69.5	63				
4.3.3	Domestic market scale, bn PPP\$.....	49.0	96				
BUSINESS SOPHISTICATION				28.9	76		
5.1	Knowledge workers	33.5	[77]				
5.1.1	Knowledge-intensive employment, %.....	12.2	94				
5.1.2	Firms offering formal training, % firms.....	47.7	24	●			
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, %.....	3.5	96				
5.2	Innovation linkages	21.8	74				
5.2.1	University/industry research collaboration*.....	37.9	81				
5.2.2	State of cluster development*.....	46.0	68				
5.2.3	GERD financed by abroad, %.....	n/a	n/a				
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	106	○			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	93	○ ◇			
5.3	Knowledge absorption	31.5	76				
5.3.1	Intellectual property payments, % total trade.....	0.7	56	●			
5.3.2	High-tech imports, % total trade.....	7.5	64				
5.3.3	ICT services imports, % total trade.....	0.8	82				
5.3.4	FDI net inflows, % GDP.....	5.7	27	●			
5.3.5	Research talent, % in business enterprise.....	n/a	n/a				
KNOWLEDGE & TECHNOLOGY OUTPUTS				12.9	110		
6.1	Knowledge creation	1.8	124	○			
6.1.1	Patents by origin/bn PPP\$ GDP.....	0.1	112				
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	46				
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	1.5	120	○			
6.1.5	Citable documents H-index.....	1.6	121	○ ◇			
6.2	Knowledge impact	15.1	[114]				
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.....	0.3	60				
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	3.7	66				
6.2.5	High- & medium-high-tech manufactures, %.....	n/a	n/a				
6.3	Knowledge diffusion	21.6	45	●			
6.3.1	Intellectual property receipts, % total trade.....	n/a	n/a				
6.3.2	High-tech net exports, % total trade.....	0.5	78				
6.3.3	ICT services exports, % total trade.....	3.0	29	●			
6.3.4	FDI net outflows, % GDP.....	1.3	47	● ◆			
CREATIVE OUTPUTS				20.2	96		
7.1	Intangible assets	38.7	75				
7.1.1	Trademarks by origin/bn PPP\$ GDP.....	49.5	49	●			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	0.1	111	○			
7.1.3	ICTs & business model creation*.....	60.3	64				
7.1.4	ICTs & organizational model creation*.....	55.3	59				
7.2	Creative goods & services	2.4	[114]				
7.2.1	Cultural & creative services exports, % total trade.....	0.0	107				
7.2.2	National feature films/mn pop. 15-69.....	2.2	61				
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	108				
7.3	Online creativity	0.7	104				
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	0.6	106				
7.3.2	Country-code TLDs/th pop. 15-69.....	0.4	98				
7.3.3	Wikipedia edits/mn pop. 15-69.Ⓞ	2.9	95				
7.3.4	Mobile app creation/bn PPP\$ GDP.....	0.1	86				

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.