

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
69	84	Upper middle	LCN	2.9	27.0	9,446.6	81
INSTITUTIONS 71.3 42 ◆				BUSINESS SOPHISTICATION 31.5 64			
1.1	Political environment	62.9	48 ◆	5.1	Knowledge workers	33.6	[75]
1.1.1	Political and operational stability*.....	71.9	58	5.1.1	Knowledge-intensive employment, %.....	21.7	70
1.1.2	Government effectiveness*.....	58.4	45 ◆	5.1.2	Firms offering formal training, % firms..Ⓞ	25.9	61
1.2	Regulatory environment	67.4	63	5.1.3	GERD performed by business, % GDP.....	n/a	n/a
1.2.1	Regulatory quality*.....	45.8	64	5.1.4	GERD financed by business, %.....	n/a	n/a
1.2.2	Rule of law*.....	42.2	70	5.1.5	Females employed w/advanced degrees, %.....	n/a	n/a
1.2.3	Cost of redundancy dismissal, salary weeks.....	14.0	54	5.2	Innovation linkages	28.8	52 ◆
1.3	Business environment	83.6	22 ● ◆	5.2.1	University/industry research collaboration*.....	47.1	45
1.3.1	Ease of starting a business*.....	97.4	6 ● ◆	5.2.2	State of cluster development*.....	48.2	55
1.3.2	Ease of resolving insolvency*.....	69.8	31 ◆	5.2.3	GERD financed by abroad, %.....	n/a	n/a
				5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.1	25 ● ◆
				5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	69
HUMAN CAPITAL & RESEARCH 24.4 86				5.3	Knowledge absorption	32.2	71
2.1	Education	52.4	[50]	5.3.1	Intellectual property payments, % total trade.....	0.9	43
2.1.1	Expenditure on education, % GDP.....	5.3	34	5.3.2	High-tech imports, % total trade.....	4.4	113 ○
2.1.2	Government funding/pupil, secondary, % GDP/cap...	26.7	18 ● ◆	5.3.3	ICT services imports, % total trade.....	1.3	57
2.1.3	School life expectancy, years.....	n/a	n/a	5.3.4	FDI net inflows, % GDP.....	6.4	21 ● ◆
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a	5.3.5	Research talent, % in business enterprise.....	n/a	n/a
2.1.5	Pupil-teacher ratio, secondary.....	15.5	71	5.4	Knowledge creation	5.7	[94]
2.2	Tertiary education	20.8	[93]	6.1.1	Patents by origin/bn PPP\$ GDP.....	0.4	79
2.2.1	Tertiary enrolment, % gross.Ⓞ	26.9	88 ○	6.1.2	PCT patents by origin/bn PPP\$ GDP.....	n/a	n/a
2.2.2	Graduates in science & engineering, %.....	n/a	n/a	6.1.3	Utility models by origin/bn PPP\$ GDP.....	n/a	n/a
2.2.3	Tertiary inbound mobility, %.....	n/a	n/a	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	4.6	84
2.3	Research & development (R&D)	0.0	[120]	6.1.5	Citable documents H-index.....	4.2	100
2.3.1	Researchers, FTE/mn pop.....	n/a	n/a	6.2	Knowledge impact	28.5	97
2.3.2	Gross expenditure on R&D, % GDP.....	n/a	n/a	6.2.1	Growth rate of PPP\$ GDP/worker, %.....	-1.9	107 ○ ○
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....	0.0	43 ○ ○	6.2.2	New businesses/th pop. 15-64.....	1.3	63
2.3.4	QS university ranking, average score top 3*.....	0.0	78 ○ ○	6.2.3	Computer software spending, % GDP.....	0.4	25 ● ◆
				6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	1.5	98
				6.2.5	High- & medium-high-tech manufactures, %.....	n/a	n/a
INFRASTRUCTURE 33.7 105 ○				6.3	Knowledge diffusion	12.7	87
3.1	Information & communication technologies (ICTs)	38.5	107 ○	6.3.1	Intellectual property receipts, % total trade.....	0.1	58
3.1.1	ICT access*.....	53.6	81	6.3.2	High-tech net exports, % total trade.....	0.0	124 ○
3.1.2	ICT use*.....	37.1	93 ○	6.3.3	ICT services exports, % total trade.....	2.1	53
3.1.3	Government's online service*.....	31.9	117 ○ ○	6.3.4	FDI net outflows, % GDP.....	0.8	57
3.1.4	E-participation*.....	31.5	118 ○ ○	7.1	Intangible assets	50.3	33
3.2	General infrastructure	23.1	110 ○	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	105.9	10 ●
3.2.1	Electricity output, kWh/mn pop.....	1,468.8	89	7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	4.9	26 ●
3.2.2	Logistics performance*.....	21.3	104 ○ ○	7.1.3	ICTs & business model creation*.....	63.6	54
3.2.3	Gross capital formation, % GDP.....	21.0	88	7.1.4	ICTs & organizational model creation*.....	55.2	60
3.3	Ecological sustainability	39.4	59	7.2	Creative goods & services	12.4	[76]
3.3.1	GDP/unit of energy use.....	7.9	76	7.2.1	Cultural & creative services exports, % total trade.....	1.3	21 ●
3.3.2	Environmental performance*.....	58.6	68	7.2.2	National feature films/mn pop. 15-69.....	n/a	n/a
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..	4.6	25 ●	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.....	0.2	84
MARKET SOPHISTICATION 36.4 114 ○ ○				7.3	Online creativity	1.4	98
4.1	Credit	33.8	74	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	1.8	81
4.1.1	Ease of getting credit*.....	85.0	11 ● ◆	7.3.2	Country-code TLDs/th pop. 15-69.....	1.0	81
4.1.2	Domestic credit to private sector, % GDP...Ⓞ	32.0	92	7.3.3	Wikipedia edits/mn pop. 15-69...Ⓞ	2.3	98
4.1.3	Microfinance gross loans, % GDP.....	0.2	44	7.3.4	Mobile app creation/bn PPP\$ GDP.....	n/a	n/a
4.2	Investment	32.9	109				
4.2.1	Ease of protecting minority investors*.....	55.0	84				
4.2.2	Market capitalization, % GDP...Ⓞ	32.1	46				
4.2.3	Venture capital deals/bn PPP\$ GDP.....	0.0	34				
4.3	Trade, competition, & market scale	42.5	124 ○ ○				
4.3.1	Applied tariff rate, weighted avg., %...Ⓞ	10.8	117 ○ ○				
4.3.2	Intensity of local competition*.....	72.1	45				
4.3.3	Domestic market scale, bn PPP\$.....	27.0	120 ○ ○				

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.