

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
101	57	High	NAWA	4.8	198.2	46,584.0	69
				Score/Value	Rank		
INSTITUTIONS				61.5	69		
1.1	Political environment	61.3	49	◇	5.1	Knowledge workers	28.7 [86]
1.1.1	Political and operational stability*.....	80.7	35		5.1.1	Knowledge-intensive employment, %.....	18.5 77 ◇
1.1.2	Government effectiveness*.....	51.6	57	◇	5.1.2	Firms offering formal training, % firms.....	n/a n/a
1.2	Regulatory environment	55.5	97	◇	5.1.3	GERD performed by business, % GDP.....	0.1 64 ◇
1.2.1	Regulatory quality*.....	53.2	50	◇	5.1.4	GERD financed by business, %.....	38.5 49
1.2.2	Rule of law*.....	57.8	45	◇	5.1.5	Females employed w/advanced degrees, %.....	n/a n/a
1.2.3	Cost of redundancy dismissal, salary weeks.....	n/a	n/a		5.2	Innovation linkages	24.9 67
1.3	Business environment	67.6	72	◇	5.2.1	University/industry research collaboration*.....	51.0 38
1.3.1	Ease of starting a business*.....	92.9	34	●	5.2.2	State of cluster development*.....	60.5 24 ●
1.3.2	Ease of resolving insolvency*.....	42.3	88	◇	5.2.3	GERD financed by abroad, %.....	0.1 99 ○ ◇
				Score/Value	Rank		
HUMAN CAPITAL & RESEARCH				43.3	35		
2.1	Education	64.4	10	●	5.3	Knowledge absorption	18.0 126 ○ ◇
2.1.1	Expenditure on education, % GDP.....	6.7	12	● ◆	5.3.1	Intellectual property payments, % total trade.....	n/a n/a
2.1.2	Government funding/pupil, secondary, % GDP/cap... 34.9	9	9	● ◆	5.3.2	High-tech imports, % total trade.....	4.9 108
2.1.3	School life expectancy, years.....	14.7	58		5.3.3	ICT services imports, % total trade.....	0.3 114 ○ ◇
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a		5.3.4	FDI net inflows, % GDP.....	1.4 98
2.1.5	Pupil-teacher ratio, secondary.....	10.0	29	●	5.3.5	Research talent, % in business enterprise.....	0.8 79 ○ ◇
2.2	Tertiary education	61.4	4	● ◆	KNOWLEDGE & TECHNOLOGY OUTPUTS 12.3 112 ○ ◇		
2.2.1	Tertiary enrolment, % gross.....	44.6	66	◇	6.1	Knowledge creation	4.2 104 ○ ◇
2.2.2	Graduates in science & engineering, %.....	44.8	1	● ◆	6.1.1	Patents by origin/bn PPP\$ GDP.....	0.0 120 ○
2.2.3	Tertiary inbound mobility, %.....	2.9	63		6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.1 70
2.3	Research & development (R&D)	4.0	82	◇	6.1.3	Utility models by origin/bn PPP\$ GDP.....	n/a n/a
2.3.1	Researchers, FTE/mn pop.....	244.0	75	◇	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	2.9 105 ◇
2.3.2	Gross expenditure on R&D, % GDP.....	0.2	88	◇	6.1.5	Citable documents H-index.....	6.1 88 ◇
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....	0.0	43	○ ◇	6.2	Knowledge impact	20.1 112 ○ ◇
2.3.4	QS university ranking, average score top 3*.....	8.6	65	◇	6.2.1	Growth rate of PPP\$ GDP/worker, %.....	-3.8 110 ○ ◇
				Score/Value	Rank		
INFRASTRUCTURE				51.3	48		
3.1	Information & communication technologies (ICTs)	75.8	42		6.2.2	New businesses/th pop. 15-64.....	2.1 48
3.1.1	ICT access*.....	76.6	38	◇	6.2.3	Computer software spending, % GDP.....	0.1 101 ◇
3.1.2	ICT use*.....	62.2	52	◇	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	3.5 71
3.1.3	Government's online service*.....	81.3	43		6.2.5	High- & medium-high-tech manufactures, %.....	0.2 61
3.1.4	E-participation*.....	83.2	43		6.3	Knowledge diffusion	12.6 89 ◇
3.2	General infrastructure	48.0	24	●	6.3.1	Intellectual property receipts, % total trade.....	n/a n/a
3.2.1	Electricity output, kWh/mn pop.....	7,722.3	25	●	6.3.2	High-tech net exports, % total trade.....	0.1 109 ○ ◇
3.2.2	Logistics performance*.....	53.0	42		6.3.3	ICT services exports, % total trade.....	0.3 108
3.2.3	Gross capital formation, % GDP.....	31.5	16	● ◆	6.3.4	FDI net outflows, % GDP.....	1.5 41
3.3	Ecological sustainability	30.0	95	◇	CREATIVE OUTPUTS 21.5 88 ◇		
3.3.1	GDP/unit of energy use.....	7.0	84		7.1	Intangible assets	38.8 74 ◇
3.3.2	Environmental performance*.....	51.3	94	◇	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	59.5 36
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..	1.2	62		7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	0.1 109 ○ ◇
				Score/Value	Rank		
MARKET SOPHISTICATION				45.5	78		
4.1	Credit	35.0	67	◇	7.1.3	ICTs & business model creation*.....	59.2 70 ◇
4.1.1	Ease of getting credit*.....	35.0	110	○ ◇	7.1.4	ICTs & organizational model creation*.....	52.5 71 ◇
4.1.2	Domestic credit to private sector, % GDP.....	75.0	42		7.2	Creative goods & services	6.2 97 ◇
4.1.3	Microfinance gross loans, % GDP.....	n/a	n/a		7.2.1	Cultural & creative services exports, % total trade.....	n/a n/a
4.2	Investment	36.6	94	◇	7.2.2	National feature films/mn pop. 15-69.....	1.1 79 ◇
4.2.1	Ease of protecting minority investors*.....	46.7	101	◇	7.2.3	Entertainment & Media market/th pop. 15-69.....	5.4 48 ◇
4.2.2	Market capitalization, % GDP.....	41.3	35		7.2.4	Printing & other media, % manufacturing.....	0.6 89 ○
4.2.3	Venture capital deals/bn PPP\$ GDP.....	n/a	n/a		7.2.5	Creative goods exports, % total trade.....	0.5 58
4.3	Trade, competition, & market scale	65.0	53		7.3	Online creativity	1.9 85 ◇
4.3.1	Applied tariff rate, weighted avg., %.....	1.7	21	●	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	1.7 84
4.3.2	Intensity of local competition*.....	66.2	76		7.3.2	Country-code TLDs/th pop. 15-69.....	0.2 106 ◇
4.3.3	Domestic market scale, bn PPP\$.....	198.2	62		7.3.3	Wikipedia edits/mn pop. 15-69.....	5.7 77
					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.