

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
60	44	Lower middle	NAWA	3.9	43.0	11,485.4	59
				Score/Value	Rank		
INSTITUTIONS.....				74.3	36	BUSINESS SOPHISTICATION..... 29.5 70	
1.1	Political environment.....	64.2	45	5.1	Knowledge workers.....	32.1	[81]
1.1.1	Political and operational stability*.....	71.9	58	5.1.1	Knowledge-intensive employment, %.....	25.3	54
1.1.2	Government effectiveness*.....	60.4	42	5.1.2	Firms offering formal training, % firms.....	10.5	88 ○ ◆
1.2	Regulatory environment.....	80.8	28	5.1.3	GERD performed by business, % GDP.....	n/a	n/a
1.2.1	Regulatory quality*.....	70.2	30	5.1.4	GERD financed by business, %.....	n/a	n/a
1.2.2	Rule of law*.....	55.1	49	5.1.5	Females employed w/advanced degrees, %.....	17.6	32 ◆
1.2.3	Cost of redundancy dismissal, salary weeks.....	8.6	17 ● ◆	5.2	Innovation linkages.....	25.0	65
1.3	Business environment.....	77.7	38	5.2.1	University/industry research collaboration*.....	32.0	98
1.3.1	Ease of starting a business*.....	99.3	2 ● ◆	5.2.2	State of cluster development*.....	34.8	107 ○
1.3.2	Ease of resolving insolvency*.....	56.0	55 ◆	5.2.3	GERD financed by abroad, %.....	14.7	28
HUMAN CAPITAL & RESEARCH..... 30.5 63				5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.1	19 ◆
2.1	Education.....	51.5	55	5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.2	48 ◆
2.1.1	Expenditure on education, % GDP.....	3.8	85	5.3	Knowledge absorption.....	31.4	78
2.1.2	Government funding/pupil, secondary, % GDP/cap... n/a	n/a	n/a	5.3.1	Intellectual property payments, % total trade.....	0.2	88
2.1.3	School life expectancy, years.....	15.4	39 ◆	5.3.2	High-tech imports, % total trade.....	7.5	63
2.1.4	PISA scales in reading, maths, & science.....	405.4	61 ○	5.3.3	ICT services imports, % total trade.....	0.7	90
2.1.5	Pupil-teacher ratio, secondary.....	7.4	5 ● ◆	5.3.4	FDI net inflows, % GDP.....	11.6	11 ● ◆
2.2	Tertiary education.....	34.3	57	5.3.5	Research talent, % in business enterprise.....	n/a	n/a
2.2.1	Tertiary enrolment, % gross.....	57.5	50 ◆	KNOWLEDGE & TECHNOLOGY OUTPUTS...22.5 62			
2.2.2	Graduates in science & engineering, %.....	21.9	52	6.1	Knowledge creation.....	16.1	55
2.2.3	Tertiary inbound mobility, %.....	5.6	38 ◆	6.1.1	Patents by origin/bn PPP\$ GDP.....	1.9	48
2.3	Research & development (R&D).....	5.6	75	6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.1	59
2.3.1	Researchers, FTE/mn pop.Ⓞ.....	1,336.6	45 ◆	6.1.3	Utility models by origin/bn PPP\$ GDP.....	1.4	19
2.3.2	Gross expenditure on R&D, % GDP.Ⓞ.....	0.3	79	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	14.1	37 ◆
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....	0.0	43 ○ ◆	6.1.5	Citable documents H-index.....	9.4	73
2.3.4	QS university ranking, average score top 3*.....	0.0	78 ○ ◆	6.2	Knowledge impact.....	38.3	55
INFRASTRUCTURE..... 44.7 72 ◆				6.2.1	Growth rate of PPP\$ GDP/worker, %.....	5.0	8 ● ◆
3.1	Information & communication technologies (ICTs).....	64.3	71	6.2.2	New businesses/th pop. 15-64.....	8.4	17 ◆
3.1.1	ICT access*.....	72.1	59 ◆	6.2.3	Computer software spending, % GDP.....	0.1	89
3.1.2	ICT use*.....	53.3	67 ◆	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	3.3	74
3.1.3	Government's online service*.....	69.4	70	6.2.5	High- & medium-high-tech manufactures, %.....	0.1	91 ○
3.1.4	E-participation*.....	62.4	84	6.3	Knowledge diffusion.....	12.9	86
3.2	General infrastructure.....	39.2	46	6.3.1	Intellectual property receipts, % total trade.....	0.0	90 ○
3.2.1	Electricity output, kWh/mn pop.....	3,111.3	61 ◆	6.3.2	High-tech net exports, % total trade.....	0.3	90
3.2.2	Logistics performance*.....	17.7	109 ○	6.3.3	ICT services exports, % total trade.....	1.1	80
3.2.3	Gross capital formation, % GDP.....	35.2	11 ● ◆	6.3.4	FDI net outflows, % GDP.....	2.2	28 ◆
3.3	Ecological sustainability.....	30.5	91	CREATIVE OUTPUTS..... 29.1 58			
3.3.1	GDP/unit of energy use.....	7.0	86	7.1	Intangible assets.....	44.7	50
3.3.2	Environmental performance*.....	55.7	80	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	68.8	29
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..	0.3	98	7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	11.8	12 ● ◆
MARKET SOPHISTICATION..... 62.1 15 ● ◆				7.1.3	ICTs & business model creation*.....	52.1	97
4.1	Credit.....	47.1	40	7.1.4	ICTs & organizational model creation*.....	43.6	99 ○
4.1.1	Ease of getting credit*.....	85.0	11 ●	7.2	Creative goods & services.....	16.9	62
4.1.2	Domestic credit to private sector, % GDP.....	62.5	52	7.2.1	Cultural & creative services exports, % total trade.....	0.5	51 ◆
4.1.3	Microfinance gross loans, % GDP.....	1.6	15	7.2.2	National feature films/mn pop. 15-69.....	6.6	33
4.2	Investment.....	81.7	[1]	7.2.3	Entertainment & Media market/th pop. 15-69.....	n/a	n/a
4.2.1	Ease of protecting minority investors*.....	81.7	2 ● ◆	7.2.4	Printing & other media, % manufacturing.....	1.6	29
4.2.2	Market capitalization, % GDP.....	n/a	n/a	7.2.5	Creative goods exports, % total trade.....	0.1	97
4.2.3	Venture capital deals/bn PPP\$ GDP.....	n/a	n/a	7.3	Online creativity.....	9.9	53
4.3	Trade, competition, & market scale.....	57.4	79	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	1.8	82
4.3.1	Applied tariff rate, weighted avg., %.....	0.7	5 ● ◆	7.3.2	Country-code TLDs/th pop. 15-69.....	3.4	57 ◆
4.3.2	Intensity of local competition*.....	62.7	94	7.3.3	Wikipedia edits/mn pop. 15-69.Ⓞ.....	44.5	31 ◆
4.3.3	Domestic market scale, bn PPP\$.....	43.0	102 ○ ◆	7.3.4	Mobile app creation/bn PPP\$ GDP.....	4.3	52

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.