

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
90	77	Upper middle	NAWA	9.9	178.5	18,075.9	82
				Score/Value	Rank		
INSTITUTIONS				64.5	59		
1.1	Political environment		51.2	77			
1.1.1	Political and operational stability*.....		68.4	71			
1.1.2	Government effectiveness*.....		42.6	82			
1.2	Regulatory environment		62.4	73			
1.2.1	Regulatory quality*.....		35.4	89			
1.2.2	Rule of law*.....		31.7	96			
1.2.3	Cost of redundancy dismissal, salary weeks.....		13.7	53			
1.3	Business environment		80.0	33	◆◆		
1.3.1	Ease of starting a business*.....		96.1	9	◆◆		
1.3.2	Ease of resolving insolvency*.....		63.8	42			
HUMAN CAPITAL & RESEARCH				17.0	106	◇	
2.1	Education		21.1	[123]			
2.1.1	Expenditure on education, % GDP.....		2.9	103	◇		
2.1.2	Government funding/pupil, secondary, % GDP/cap... n/a		n/a	n/a			
2.1.3	School life expectancy, years.....		n/a	n/a			
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		n/a	n/a			
2.2	Tertiary education		27.5	74			
2.2.1	Tertiary enrolment, % gross.....		27.1	87	◇		
2.2.2	Graduates in science & engineering, %.....		23.6	38			
2.2.3	Tertiary inbound mobility, %.....		2.1	74			
2.3	Research & development (R&D)		2.5	90			
2.3.1	Researchers, FTE/mn pop.....		n/a	n/a			
2.3.2	Gross expenditure on R&D, % GDP.....		0.2	90			
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*.....		3.7	72			
INFRASTRUCTURE				45.3	70		
3.1	Information & communication technologies (ICTs)		65.9	68			
3.1.1	ICT access*.....		67.0	64			
3.1.2	ICT use*.....		55.5	63			
3.1.3	Government's online service*.....		72.9	63			
3.1.4	E-participation*.....		68.0	77			
3.2	General infrastructure		30.8	83			
3.2.1	Electricity output, kWh/mn pop.....		2,556.7	70			
3.2.2	Logistics performance*.....		n/a	n/a			
3.2.3	Gross capital formation, % GDP.....		25.0	45			
3.3	Ecological sustainability		39.3	61			
3.3.1	GDP/unit of energy use.....		10.8	44			
3.3.2	Environmental performance*.....		62.3	52			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.4	92			
MARKET SOPHISTICATION				56.5	31	◆◆	
4.1	Credit		29.5	95			
4.1.1	Ease of getting credit*.....		80.0	20	●		
4.1.2	Domestic credit to private sector, % GDP.....		22.2	109	◇		
4.1.3	Microfinance gross loans, % GDP.....		0.0	66			
4.2	Investment		81.7	[1]			
4.2.1	Ease of protecting minority investors*.....		81.7	2	◆◆		
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		58.4	74			
4.3.1	Applied tariff rate, weighted avg., %.....		5.2	89			
4.3.2	Intensity of local competition*.....		61.3	102	◇		
4.3.3	Domestic market scale, bn PPP\$.....		178.5	66			
BUSINESS SOPHISTICATION				24.5	103		
5.1	Knowledge workers		29.4	83			
5.1.1	Knowledge-intensive employment, %.....		23.3	62			
5.1.2	Firms offering formal training, % firms.....		20.2	74	◇		
5.1.3	GERD performed by business, % GDP.....		0.0	82	○		
5.1.4	GERD financed by business, %.....		32.0	56			
5.1.5	Females employed w/advanced degrees, %.....		12.9	52			
5.2	Innovation linkages		21.4	79			
5.2.1	University/industry research collaboration*.....		54.2	32	◆◆		
5.2.2	State of cluster development*.....		55.7	33	◆◆		
5.2.3	GERD financed by abroad, %.....		0.1	100	○		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	84			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	79			
5.3	Knowledge absorption		22.9	113	◇		
5.3.1	Intellectual property payments, % total trade.....		0.1	105			
5.3.2	High-tech imports, % total trade.....		2.8	124	◇		
5.3.3	ICT services imports, % total trade.....		0.5	106			
5.3.4	FDI net inflows, % GDP.....		8.8	15	◆◆		
5.3.5	Research talent, % in business enterprise.....		n/a	n/a			
KNOWLEDGE & TECHNOLOGY OUTPUTS				14.9	101		
6.1	Knowledge creation		3.9	109			
6.1.1	Patents by origin/bn PPP\$ GDP.....		1.1	60			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.1	67			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		0.1	53			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		3.5	96			
6.1.5	Citable documents H-index.....		3.9	104			
6.2	Knowledge impact		21.4	111			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		-1.6	105	◇		
6.2.2	New businesses/th pop. 15-64.....		1.0	70			
6.2.3	Computer software spending, % GDP.....		0.1	95			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		1.2	104			
6.2.5	High- & medium-high-tech manufactures, %.....		0.1	79			
6.3	Knowledge diffusion		19.4	51			
6.3.1	Intellectual property receipts, % total trade.....		0.0	108	◇		
6.3.2	High-tech net exports, % total trade.....		0.1	115	○		
6.3.3	ICT services exports, % total trade.....		0.4	107			
6.3.4	FDI net outflows, % GDP.....		6.4	10	◆◆		
CREATIVE OUTPUTS				22.8	84		
7.1	Intangible assets		38.7	76			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		16.7	91			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		0.1	110	○		
7.1.3	ICTs & business model creation*.....		65.9	48	◆		
7.1.4	ICTs & organizational model creation*.....		63.4	35	◆◆		
7.2	Creative goods & services		8.7	92			
7.2.1	Cultural & creative services exports, % total trade.....		0.1	75			
7.2.2	National feature films/mn pop. 15-69.....		7.2	27	◆◆		
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing & other media, % manufacturing.....		0.7	82			
7.2.5	Creative goods exports, % total trade.....		0.0	122	○		
7.3	Online creativity		5.0	66			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		1.0	94			
7.3.2	Country-code TLDs/th pop. 15-69.....		1.2	76			
7.3.3	Wikipedia edits/mn pop. 15-69.....		26.2	41	●		
7.3.4	Mobile app creation/bn PPP\$ GDP.....		0.0	93	○		

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.