

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
70	53	High	NAWA	2.7	356.7	130,475.1	51
				Score/Value	Rank		
INSTITUTIONS				66.2	53	◇	
1.1	Political environment		67.6	40			
1.1.1	Political and operational stability*.....		73.7	50	◇		
1.1.2	Government effectiveness*.....		64.5	39			
1.2	Regulatory environment		68.1	62	◇		
1.2.1	Regulatory quality*.....		53.2	51	◇		
1.2.2	Rule of law*.....		65.5	35			
1.2.3	Cost of redundancy dismissal, salary weeks.....		23.2	97	◇		
1.3	Business environment		62.9	91	◇		
1.3.1	Ease of starting a business*.....		87.7	68			
1.3.2	Ease of resolving insolvency*.....		38.1	104	◇		
HUMAN CAPITAL & RESEARCH				28.9	70	◇	
2.1	Education		31.9	105	◇		
2.1.1	Expenditure on education, % GDP.....		2.9	106	◇		
2.1.2	Government funding/pupil, secondary, % GDP/cap.Ⓞ		10.5	95	◇		
2.1.3	School life expectancy, years.....		11.9	91	◇		
2.1.4	PISA scales in reading, maths, & science.....		407.3	60			
2.1.5	Pupil-teacher ratio, secondary.....		10.4	34			
2.2	Tertiary education		47.5	19	●		
2.2.1	Tertiary enrolment, % gross.....		16.4	98	◇		
2.2.2	Graduates in science & engineering, %.....		22.9	43			
2.2.3	Tertiary inbound mobility, %.....		35.3	1	◆		
2.3	Research & development (R&D)		7.2	68	◇		
2.3.1	Researchers, FTE/mn pop.Ⓞ		603.8	63	◇		
2.3.2	Gross expenditure on R&D, % GDP.Ⓞ		0.5	63			
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*.....		10.7	62			
INFRASTRUCTURE				58.0	28	●	
3.1	Information & communication technologies (ICTs)		75.0	44			
3.1.1	ICT access*.....		78.9	32			
3.1.2	ICT use*.....		70.7	32			
3.1.3	Government's online service*.....		79.2	48			
3.1.4	E-participation*.....		71.4	65	◇		
3.2	General infrastructure		62.3	3	◆		
3.2.1	Electricity output, kWh/mn pop.....		16,461.9	6	◆		
3.2.2	Logistics performance*.....		66.0	29	●		
3.2.3	Gross capital formation, % GDP.....		n/a	n/a			
3.3	Ecological sustainability		36.8	72	◇		
3.3.1	GDP/unit of energy use.....		7.0	86			
3.3.2	Environmental performance*.....		67.8	31	●		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		1.3	60			
MARKET SOPHISTICATION				44.7	82	◇	
4.1	Credit		38.1	59			
4.1.1	Ease of getting credit*.....		40.0	104	◇		
4.1.2	Domestic credit to private sector, % GDP.....		77.3	40			
4.1.3	Microfinance gross loans, % GDP.....		n/a	n/a			
4.2	Investment		31.6	114	◇		
4.2.1	Ease of protecting minority investors*.....		28.3	127	◇		
4.2.2	Market capitalization, % GDP.....		89.5	16	●		
4.2.3	Venture capital deals/bn PPP\$ GDP.....		n/a	n/a			
4.3	Trade, competition, & market scale		64.4	55			
4.3.1	Applied tariff rate, weighted avg., %.....		4.2	76			
4.3.2	Intensity of local competition*.....		65.6	79			
4.3.3	Domestic market scale, bn PPP\$.....		356.7	49			
BUSINESS SOPHISTICATION				30.2	67	◇	
5.1	Knowledge workers		17.3	113	◇		
5.1.1	Knowledge-intensive employment, %.....		18.1	80	◇		
5.1.2	Firms offering formal training, % firms.....		n/a	n/a			
5.1.3	GERD performed by business, % GDP.Ⓞ		0.1	63	◇		
5.1.4	GERD financed by business, %Ⓞ		7.1	76	◇		
5.1.5	Females employed w/advanced degrees, %Ⓞ		4.5	92	◇		
5.2	Innovation linkages		27.6	54			
5.2.1	University/industry research collaboration*.....		64.8	17	●		
5.2.2	State of cluster development*.....		65.4	15	●		
5.2.3	GERD financed by abroad, %Ⓞ		1.9	79	◇		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	38			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	68			
5.3	Knowledge absorption		45.7	25	●		
5.3.1	Intellectual property payments, % total trade.....		n/a	n/a			
5.3.2	High-tech imports, % total trade.Ⓞ		6.6	82			
5.3.3	ICT services imports, % total trade.....		3.9	3	◆		
5.3.4	FDI net inflows, % GDP.....		0.6	116	◇		
5.3.5	Research talent, % in business enterprise...Ⓞ		18.6	57	◇		
KNOWLEDGE & TECHNOLOGY OUTPUTS				18.4	80	◇	
6.1	Knowledge creation		5.1	97	◇		
6.1.1	Patents by origin/bn PPP\$ GDP.....		0.1	115	◇		
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.0	78	◇		
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		4.2	90	◇		
6.1.5	Citable documents H-index.....		6.6	85	◇		
6.2	Knowledge impact		32.3	84			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		-1.8	106	◇		
6.2.2	New businesses/th pop. 15-64.Ⓞ		1.7	56			
6.2.3	Computer software spending, % GDP.....		0.3	31	●		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		2.3	84	◇		
6.2.5	High- & medium-high-tech manufactures, %.....		0.4	23	●		
6.3	Knowledge diffusion		17.9	59			
6.3.1	Intellectual property receipts, % total trade.....		n/a	n/a			
6.3.2	High-tech net exports, % total trade.Ⓞ		0.0	128	◇		
6.3.3	ICT services exports, % total trade.....		0.8	85			
6.3.4	FDI net outflows, % GDP.....		2.9	24	●		
CREATIVE OUTPUTS				25.8	70	◇	
7.1	Intangible assets		43.6	54			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		3.3	120	◇		
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		n/a	n/a			
7.1.3	ICTs & business model creation*.....		66.7	44			
7.1.4	ICTs & organizational model creation*.....		63.9	33			
7.2	Creative goods & services		13.1	75	◇		
7.2.1	Cultural & creative services exports, % total trade.....		0.3	62			
7.2.2	National feature films/mn pop. 15-69.....		n/a	n/a			
7.2.3	Entertainment & Media market/th pop. 15-69.....		25.7	25			
7.2.4	Printing & other media, % manufacturing.....		1.2	55			
7.2.5	Creative goods exports, % total trade...Ⓞ		0.2	88			
7.3	Online creativity		3.0	78	◇		
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		3.7	60	◇		
7.3.2	Country-code TLDs/th pop. 15-69.....		2.4	61			
7.3.3	Wikipedia edits/mn pop. 15-69...Ⓞ		8.4	66	◇		
7.3.4	Mobile app creation/bn PPP\$ GDP.....		0.3	78			

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.