

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
58	24	High	NAWA	9.5	732.9	69,381.7	38
INSTITUTIONS 78.8 28				BUSINESS SOPHISTICATION 41.5 30			
1.1	Political environment	80.5	20	5.1	Knowledge workers	40.7	55
1.1.1	Political and operational stability*	80.7	35	5.1.1	Knowledge-intensive employment, %	18.4	79 ○ ◇
1.1.2	Government effectiveness*	80.4	19	5.1.2	Firms offering formal training, % firms	n/a	n/a
1.2	Regulatory environment	84.2	24	5.1.3	GERD performed by business, % GDP	0.7	26
1.2.1	Regulatory quality*	69.1	32	5.1.4	GERD financed by business, %	74.3	5 ● ◆
1.2.2	Rule of law*	67.5	34	5.1.5	Females employed w/advanced degrees, %	8.8	73 ○ ◇
1.2.3	Cost of redundancy dismissal, salary weeks	8.0	1 ● ◆	5.2	Innovation linkages	41.9	24
1.3	Business environment	71.9	58	5.2.1	University/industry research collaboration*	55.7	28
1.3.1	Ease of starting a business*	94.1	22	5.2.2	State of cluster development*	69.1	10 ● ◆
1.3.2	Ease of resolving insolvency*	49.7	67	5.2.3	GERD financed by abroad, %	n/a	n/a
HUMAN CAPITAL & RESEARCH 52.4 18				KNOWLEDGE & TECHNOLOGY OUTPUTS ... 22.2 63			
2.1	Education	61.9	[17]	5.3	Knowledge absorption	42.0	34
2.1.1	Expenditure on education, % GDP	n/a	n/a	5.3.1	Intellectual property payments, % total trade	0.7	54
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	n/a	5.3.2	High-tech imports, % total trade	9.4	38
2.1.3	School life expectancy, years	13.6	72 ○ ◇	5.3.3	ICT services imports, % total trade	0.9	74
2.1.4	PISA scales in reading, maths, & science	474.3	37	5.3.4	FDI net inflows, % GDP	2.6	67
2.1.5	Pupil-teacher ratio, secondary	9.5	23	5.3.5	Research talent, % in business enterprise	62.2	8 ●
2.2	Tertiary education	57.5	6 ● ◆	6.1	Knowledge creation	6.4	88 ○ ◇
2.2.1	Tertiary enrolment, % gross	n/a	n/a	6.1.1	Patents by origin/bn PPP\$ GDP	0.1	106 ○
2.2.2	Graduates in science & engineering, %	22.0	50	6.1.2	PCT patents by origin/bn PPP\$ GDP	0.1	60
2.2.3	Tertiary inbound mobility, %	48.6	1 ● ◆	6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	n/a
2.3	Research & development (R&D)	37.7	28	6.1.4	Scientific & technical articles/bn PPP\$ GDP	3.1	101 ○ ◇
2.3.1	Researchers, FTE/mn pop.	2,406.6	35	6.1.5	Citable documents H-index	10.5	62
2.3.2	Gross expenditure on R&D, % GDP	1.0	36	6.2	Knowledge impact	34.9	73
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$	69.7	18	6.2.1	Growth rate of PPP\$ GDP/worker, %	1.6	48
2.3.4	QS university ranking, average score top 3*	31.2	37	6.2.2	New businesses/th pop. 15-64	2.6	42
INFRASTRUCTURE 59.4 21				CREATIVE OUTPUTS 31.2 50			
3.1	Information & communication technologies (ICTs)	88.7	14 ●	6.3	Knowledge diffusion	25.2	37
3.1.1	ICT access*	84.8	15	6.3.1	Intellectual property receipts, % total trade	1.0	19
3.1.2	ICT use*	81.3	13 ●	6.3.2	High-tech net exports, % total trade	0.1	107 ○ ◇
3.1.3	Government's online service*	94.4	14 ●	6.3.3	ICT services exports, % total trade	1.8	59
3.1.4	E-participation*	94.4	17	6.3.4	FDI net outflows, % GDP	4.0	13 ●
3.2	General infrastructure	52.7	12 ●	7.1	Intangible assets	40.5	66 ○ ◇
3.2.1	Electricity output, kWh/mn pop.	13,980.2	8 ●	7.1.1	Trademarks by origin/bn PPP\$ GDP	8.7	107 ○ ◇
3.2.2	Logistics performance*	88.5	11 ● ◆	7.1.2	Industrial designs by origin/bn PPP\$ GDP	0.1	108 ○
3.2.3	Gross capital formation, % GDP	22.5	69	7.1.3	ICTs & business model creation*	71.7	29
3.3	Ecological sustainability	36.8	71 ○ ◇	7.1.4	ICTs & organizational model creation*	67.3	24
3.3.1	GDP/unit of energy use	8.2	72 ○	7.2	Creative goods & services	35.9	13 ●
3.3.2	Environmental performance*	58.9	67 ○ ◇	7.2.1	Cultural & creative services exports, % total trade	n/a	n/a
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	2.5	40	7.2.2	National feature films/mn pop. 15-69	10.6	16
MARKET SOPHISTICATION 56.1 34				7.3 Online creativity 7.9 57 ○ ◇			
4.1	Credit	53.5	27	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	10.8	38
4.1.1	Ease of getting credit*	70.0	40	7.3.2	Country-code TLDs/th pop. 15-69	7.3	43
4.1.2	Domestic credit to private sector, % GDP	78.8	38	7.3.3	Wikipedia edits/mn pop. 15-69	9.9	63 ○ ◇
4.1.3	Microfinance gross loans, % GDP	n/a	n/a	7.3.4	Mobile app creation/bn PPP\$ GDP	6.7	47
4.2	Investment	46.2	53	4.3	Trade, competition, & market scale	68.6	39
4.2.1	Ease of protecting minority investors*	75.0	14 ◆	4.3.1	Applied tariff rate, weighted avg., %	4.8	81 ○ ◇
4.2.2	Market capitalization, % GDP	60.4	29	4.3.2	Intensity of local competition*	71.0	49
4.2.3	Venture capital deals/bn PPP\$ GDP	0.0	32	4.3.3	Domestic market scale, bn PPP\$	732.9	32

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.