

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank						
83	107	Low	CSA	9.1	30.5	3,415.8	101						
Score/Value Rank				Score/Value Rank									
INSTITUTIONS..... 46.0 122				BUSINESS SOPHISTICATION..... 22.2 114									
1.1	Political environment.....			31.6	125	○	5.1	Knowledge workers.....			24.4	98	
1.1.1	Political and operational stability*			56.1	105		5.1.1	Knowledge-intensive employment, %.....			16.1	87	◆
1.1.2	Government effectiveness*			19.4	124		5.1.2	Firms offering formal training, % firms.....			33.1	44	●
							5.1.3	GERD performed by business, % GDP.....			n/a	n/a	
							5.1.4	GERD financed by business, %.....			1.6	89	
							5.1.5	Females employed w/advanced degrees, %.....			4.0	93	◆
1.2	Regulatory environment.....			45.6	116	◇	5.2	Innovation linkages.....			18.2	104	
1.2.1	Regulatory quality*			13.5	125	○	5.2.1	University/industry research collaboration*			46.5	47	●
1.2.2	Rule of law*			10.5	126	○ ◇	5.2.2	State of cluster development*			40.2	93	
1.2.3	Cost of redundancy dismissal, salary weeks.....			21.7	92		5.2.3	GERD financed by abroad, %.....			0.2	98	◇
							5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....			n/a	n/a	
							5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....			0.0	93	○ ◇
1.3	Business environment.....			60.8	102		5.3	Knowledge absorption.....			23.9	[107]	
1.3.1	Ease of starting a business*			90.7	51	●	5.3.1	Intellectual property payments, % total trade.....			0.0	119	○
1.3.2	Ease of resolving insolvency*			30.9	116		5.3.2	High-tech imports, % total trade.....			n/a	n/a	
							5.3.3	ICT services imports, % total trade.....			0.2	122	◇
							5.3.4	FDI net inflows, % GDP.....			3.5	49	●
							5.3.5	Research talent, % in business enterprise.....			n/a	n/a	
HUMAN CAPITAL & RESEARCH..... 24.0 87 ◆				KNOWLEDGE & TECHNOLOGY OUTPUTS.... 21.4 68 ◆									
2.1	Education.....			46.3	[69]		6.1	Knowledge creation.....			20.0	45	◆ ●
2.1.1	Expenditure on education, % GDP.....			5.2	40	●	6.1.1	Patents by origin/bn PPP\$ GDP.....			0.1	113	
2.1.2	Government funding/pupil, secondary, % GDP/cap.....			n/a	n/a		6.1.2	PCT patents by origin/bn PPP\$ GDP.....			n/a	n/a	
2.1.3	School life expectancy, years.....			11.2	97		6.1.3	Utility models by origin/bn PPP\$ GDP.....			3.7	5	◆ ●
2.1.4	PISA scales in reading, maths, & science.....			n/a	n/a		6.1.4	Scientific & technical articles/bn PPP\$ GDP.....			1.6	119	◇
2.1.5	Pupil-teacher ratio, secondary.....			15.4	70	◆	6.1.5	Citable documents H-index.....			0.0	128	○ ◇
2.2	Tertiary education.....			24.9	80	◆	6.2	Knowledge impact.....			31.2	89	
2.2.1	Tertiary enrolment, % gross.....			30.9	83	◆	6.2.1	Growth rate of PPP\$ GDP/worker, %.....			5.1	6	◆ ●
2.2.2	Graduates in science & engineering, %.....			22.0	49		6.2.2	New businesses/th pop. 15-64.....			0.2	94	
2.2.3	Tertiary inbound mobility, %.....			0.8	91		6.2.3	Computer software spending, % GDP.....			0.1	93	
							6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....			0.1	128	○ ◇
							6.2.5	High- & medium-high-tech manufactures, %.....			0.0	102	○ ◇
2.3	Research & development (R&D).....			0.7	110		6.3	Knowledge diffusion.....			13.0	85	
2.3.1	Researchers, FTE/mn pop.....			n/a	n/a		6.3.1	Intellectual property receipts, % total trade.....			0.0	83	
2.3.2	Gross expenditure on R&D, % GDP.....			0.1	103		6.3.2	High-tech net exports, % total trade.....			n/a	n/a	
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....			0.0	43	○ ◇	6.3.3	ICT services exports, % total trade.....			0.3	113	
2.3.4	QS university ranking, average score top 3*.....			0.0	78	○ ◇	6.3.4	FDI net outflows, % GDP.....			1.7	37	●
INFRASTRUCTURE..... 29.8 115				CREATIVE OUTPUTS..... 18.1 103									
3.1	Information & communication technologies (ICTs).....			36.4	[112]		7.1	Intangible assets.....			27.6	112	
3.1.1	ICT access*.....			n/a	n/a		7.1.1	Trademarks by origin/bn PPP\$ GDP.....			6.1	112	
3.1.2	ICT use*.....			n/a	n/a		7.1.2	Industrial designs by origin/bn PPP\$ GDP.....			0.0	115	○
3.1.3	Government's online service*.....			34.0	115		7.1.3	ICTs & business model creation*.....			50.7	102	
3.1.4	E-participation*.....			38.8	112		7.1.4	ICTs & organizational model creation*.....			44.4	97	
3.2	General infrastructure.....			23.4	109		7.2	Creative goods & services.....			16.5	[65]	
3.2.1	Electricity output, kWh/mn pop.....			1,971.6	77	◆	7.2.1	Cultural & creative services exports, % total trade.....			0.0	102	
3.2.2	Logistics performance*.....			12.9	116		7.2.2	National feature films/mn pop. 15-69.....			1.8	70	◆
3.2.3	Gross capital formation, % GDP.....			22.8	67		7.2.3	Entertainment & Media market/th pop. 15-69.....			n/a	n/a	
							7.2.4	Printing & other media, % manufacturing.....			1.5	30	●
							7.2.5	Creative goods exports, % total trade.....			n/a	n/a	
3.3	Ecological sustainability.....			29.5	99		7.3	Online creativity.....			0.7	105	
3.3.1	GDP/unit of energy use.....			8.2	73		7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....			0.1	125	○
3.3.2	Environmental performance*.....			47.9	102		7.3.2	Country-code TLDs/th pop. 15-69.....			0.3	103	
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..			0.5	85		7.3.3	Wikipedia edits/mn pop. 15-69.....			2.6	96	◆
							7.3.4	Mobile app creation/bn PPP\$ GDP.....			n/a	n/a	
MARKET SOPHISTICATION..... 43.7 86													
4.1	Credit.....			15.4	121								
4.1.1	Ease of getting credit*.....			40.0	104								
4.1.2	Domestic credit to private sector, % GDP.....			13.7	121								
4.1.3	Microfinance gross loans, % GDP.....			0.1	51								
4.2	Investment.....			66.7	[12]								
4.2.1	Ease of protecting minority investors*.....			66.7	35	◆ ●							
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.....			48.9	111								
4.3.1	Applied tariff rate, weighted avg., %.....			5.0	85	◆							
4.3.2	Intensity of local competition*.....			61.2	103								
4.3.3	Domestic market scale, bn PPP\$.....			30.5	114								

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.