

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank		
93	113	Lower middle	SSF	30.4	209.8	6,072.6	106		
Score/Value Rank				Score/Value Rank					
INSTITUTIONS..... 46.3 121				BUSINESS SOPHISTICATION..... 17.9 113					
1.1	Political environment.....		52.9	83	5.1	Knowledge workers.....		15.1	109
1.1.1	Political and operational stability*.....		67.9	73	5.1.1	Knowledge-intensive employment, %.....		12.2	102
1.1.2	Government effectiveness*.....		45.4	82	5.1.2	Firms offering formal training, %.....		40.1	29
1.2	Regulatory environment.....		30.7	127	5.1.3	GERD performed by business, % GDP.....		0.0	88
1.2.1	Regulatory quality*.....		39.7	79	5.1.4	GERD financed by business, %.....		0.1	101
1.2.2	Rule of law*.....		48.5	59	5.1.5	Females employed w/advanced degrees, %.....		3.5	96
1.2.3	Cost of redundancy dismissal, salary weeks.....		49.8	126	5.2	Innovation linkages.....		21.5	61
1.3	Business environment.....		55.2	118	5.2.1	University/industry research collaboration*.....		48.2	44
1.3.1	Ease of starting a business*.....		85.0	89	5.2.2	State of cluster development*.....		49.5	50
1.3.2	Ease of resolving insolvency*.....		25.4	127	5.2.3	GERD financed by abroad, % GDP.....		0.1	33
					5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	90
					5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	101
HUMAN CAPITAL & RESEARCH..... 17.2 104				5.3 Knowledge absorption..... 17.1 [117]					
2.1	Education.....		36.0	92	5.3.1	Intellectual property payments, % total trade.....		n/a	n/a
2.1.1	Expenditure on education, % GDP.....		4.0	73	5.3.2	High-tech imports, % total trade.....		3.4	125
2.1.2	Government funding/pupil, secondary, % GDP/cap.....		19.3	53	5.3.3	ICT services imports, % total trade.....		n/a	n/a
2.1.3	School life expectancy, years.....		11.5	97	5.3.4	FDI net inflows, % GDP.....		5.5	22
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a	5.3.5	Research talent, % in business enterprise.....		1.0	80
2.1.5	Pupil-teacher ratio, secondary.....		15.2	75					
2.2	Tertiary education.....		13.7	108					
2.2.1	Tertiary enrolment, % gross.....		15.7	98					
2.2.2	Graduates in science & engineering, %.....		16.4	86					
2.2.3	Tertiary inbound mobility, %.....		2.2	74					
2.3	Research & development (R&D).....		1.9	97					
2.3.1	Researchers, FTE/mn pop.....		38.0	98					
2.3.2	Gross expenditure on R&D, % GDP.....		0.4	72					
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....		0.0	42					
2.3.4	QS university ranking, average score top 3*.....		0.0	77					
INFRASTRUCTURE..... 32.5 96				KNOWLEDGE & TECHNOLOGY OUTPUTS.... 12.6 104					
3.1	Information & communication technologies (ICTs)....		55.6	87	6.1	Knowledge creation.....		4.4	112
3.1.1	ICT access*.....		46.2	97	6.1.1	Patents by origin/bn PPP\$ GDP.....		0.1	122
3.1.2	ICT use*.....		43.7	87	6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.0	100
3.1.3	Government's online service*.....		69.4	71	6.1.3	Utility models by origin/bn PPP\$ GDP.....		0.0	70
3.1.4	E-participation*.....		62.9	83	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		4.4	94
3.2	General infrastructure.....		19.2	103	6.1.5	Citable documents H-index.....		8.6	83
3.2.1	Electricity output, kWh/mn pop.....		488.0	106	6.2	Knowledge impact.....		16.8	93
3.2.2	Logistics performance*.....		23.2	101	6.2.1	Growth rate of PPP\$ GDP/worker, %.....		4.3	17
3.2.3	Gross capital formation, % GDP.....		25.8	44	6.2.2	New businesses/th pop. 15-64.....		0.9	85
3.3	Ecological sustainability.....		22.7	87	6.2.3	Computer software spending, % GDP.....		0.0	123
3.3.1	GDP/unit of energy use.....		12.5	29	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		0.4	123
3.3.2	Environmental performance*.....		27.6	124	6.2.5	High- and medium-high-tech manufacturing, %.....		10.6	78
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....		0.2	105	6.3	Knowledge diffusion.....		16.7	[86]
MARKET SOPHISTICATION..... 37.1 111				CREATIVE OUTPUTS..... 16.1 90					
4.1	Credit.....		26.9	115	7.1	Intangible assets.....		24.5	75
4.1.1	Ease of getting credit*.....		60.0	74	7.1.1	Trademarks by origin/bn PPP\$ GDP.....		4.3	122
4.1.2	Domestic credit to private sector, % GDP.....		11.7	124	7.1.2	Global brand value, top 5,000, % GDP.....		n/a	n/a
4.1.3	Microfinance gross loans, % GDP.....		0.6	32	7.1.3	Industrial designs by origin/bn PPP\$ GDP.....		4.1	29
4.2	Investment.....		31.9	89	7.1.4	ICTs & organizational model creation*.....		49.7	84
4.2.1	Ease of protecting minority investors*.....		60.0	71	7.2	Creative goods and services.....		10.0	[77]
4.2.2	Market capitalization, % GDP.....		8.5	67	7.2.1	Cultural & creative services exports, % total trade.....		n/a	n/a
4.2.3	Venture capital deals/bn PPP\$ GDP.....		n/a	n/a	7.2.2	National feature films/mn pop. 15-69.....		n/a	n/a
4.3	Trade, competition, and market scale.....		52.7	104	7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a
4.3.1	Applied tariff rate, weighted avg., %.....		10.3	117	7.2.4	Printing and other media, % manufacturing.....		1.6	25
4.3.2	Intensity of local competition*.....		63.4	88	7.2.5	Creative goods exports, % total trade.....		0.0	127
4.3.3	Domestic market scale, bn PPP\$.....		209.8	62	7.3	Online creativity.....		5.2	108
					7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.6	104
					7.3.2	Country-code TLDs/th pop. 15-69.....		0.1	121
					7.3.3	Wikipedia edits/mn pop. 15-69.....		19.3	109
					7.3.4	Mobile app creation/bn PPP\$ GDP.....		n/a	n/a

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.