

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank		
115	111	Low	SSF	19.8	38.8	1,996.1	124		
Score/Value Rank				Score/Value Rank					
INSTITUTIONS..... 56.4 88				BUSINESS SOPHISTICATION..... 23.3 111					
1.1	Political environment.....		40.2	103	5.1	Knowledge workers.....		18.1	[111]
1.1.1	Political and operational stability*		56.1	105	5.1.1	Knowledge-intensive employment, %.....		n/a	n/a
1.1.2	Government effectiveness*		32.3	102	5.1.2	Firms offering formal training, % firms..		24.8	65
1.2	Regulatory environment.....		64.5	68 ●	5.1.3	GERD performed by business, % GDP.....		n/a	n/a
1.2.1	Regulatory quality*		30.0	100	5.1.4	GERD financed by business, %.....		11.9	72 ◆
1.2.2	Rule of law*		35.7	86	5.1.5	Females employed w/advanced degrees, %.....		0.5	112 ○
1.2.3	Cost of redundancy dismissal, salary weeks.....		10.5	33 ●	5.2	Innovation linkages.....		18.1	105
1.3	Business environment.....		64.5	81	5.2.1	University/industry research collaboration*		31.9	99
1.3.1	Ease of starting a business*		88.2	64 ●	5.2.2	State of cluster development*		33.3	115
1.3.2	Ease of resolving insolvency*		40.9	94	5.2.3	GERD financed by abroad, %.....		1.5	86 ◇
				5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	86	
				5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		n/a	n/a	
HUMAN CAPITAL & RESEARCH..... 14.4 110				5.3	Knowledge absorption.....		33.8	63 ●	
2.1	Education.....		29.4	109	5.3.1	Intellectual property payments, % total trade.....		0.0	117 ○
2.1.1	Expenditure on education, % GDP.....		4.2	73 ●	5.3.2	High-tech imports, % total trade.....		4.4	112
2.1.2	Government funding/pupil, secondary, % GDP/cap...		17.6	65	5.3.3	ICT services imports, % total trade.....		2.2	21 ●
2.1.3	School life expectancy, years.....		8.9	112 ○	5.3.4	FDI net inflows, % GDP.....		3.3	51 ●
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a	5.3.5	Research talent, % in business enterprise.....		n/a	n/a
2.1.5	Pupil-teacher ratio, secondary.....		23.3	95	KNOWLEDGE & TECHNOLOGY OUTPUTS.... 15.1 98				
2.2	Tertiary education.....		12.6	105	6.1	Knowledge creation.....		4.9	100
2.2.1	Tertiary enrolment, % gross.....		6.0	116 ○	6.1.1	Patents by origin/bn PPP\$ GDP.....		0.2	103
2.2.2	Graduates in science & engineering, %.....		15.4	87	6.1.2	PCT patents by origin/bn PPP\$ GDP.....		n/a	n/a
2.2.3	Tertiary inbound mobility, %.....		2.9	65 ●	6.1.3	Utility models by origin/bn PPP\$ GDP.....		0.1	50
2.3	Research & development (R&D).....		1.2	102	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		5.5	75 ●
2.3.1	Researchers, FTE/mn pop.		47.6	91	6.1.5	Citable documents H-index.....		4.8	95
2.3.2	Gross expenditure on R&D, % GDP.....		0.2	87	6.2	Knowledge impact.....		31.1	90
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....		0.0	43 ○ ◇	6.2.1	Growth rate of PPP\$ GDP/worker, %.....		2.5	36 ●
2.3.4	QS university ranking, average score top 3*.....		0.0	78 ○ ◇	6.2.2	New businesses/th pop. 15-64.....		0.2	95
INFRASTRUCTURE..... 31.2 110				6.2.3	Computer software spending, % GDP.....		0.0	114	
3.1	Information & communication technologies (ICTs)		40.8	103	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		1.6	93
3.1.1	ICT access*.....		32.4	114	6.2.5	High- & medium-high-tech manufactures, %.....		n/a	n/a
3.1.2	ICT use*.....		14.9	116	6.3	Knowledge diffusion.....		9.3	106
3.1.3	Government's online service*.....		53.5	101	6.3.1	Intellectual property receipts, % total trade.....		0.0	80
3.1.4	E-participation*.....		62.4	84 ◆	6.3.2	High-tech net exports, % total trade.....		0.1	106
3.2	General infrastructure.....		23.8	106	6.3.3	ICT services exports, % total trade.....		1.2	74 ●
3.2.1	Electricity output, kWh/mn pop.....		n/a	n/a	6.3.4	FDI net outflows, % GDP.....		0.3	81
3.2.2	Logistics performance*.....		26.1	86	CREATIVE OUTPUTS..... 13.5 120				
3.2.3	Gross capital formation, % GDP.....		16.3	114	7.1	Intangible assets.....		26.3	117
3.3	Ecological sustainability.....		29.0	104	7.1.1	Trademarks by origin/bn PPP\$ GDP.....		5.7	114
3.3.1	GDP/unit of energy use.....		n/a	n/a	7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		0.5	84
3.3.2	Environmental performance*.....		42.8	116	7.1.3	ICTs & business model creation*		50.0	104
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.2	117	7.1.4	ICTs & organizational model creation*		39.5	112
MARKET SOPHISTICATION..... 36.2 116				7.2	Creative goods & services.....		1.2	[122]	
4.1	Credit.....		24.9	108	7.2.1	Cultural & creative services exports, % total trade.....		0.1	79
4.1.1	Ease of getting credit*.....		30.0	115	7.2.2	National feature films/mn pop. 15-69.....		0.5	95
4.1.2	Domestic credit to private sector, % GDP.....		31.3	94	7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a
4.1.3	Microfinance gross loans, % GDP.....		1.8	14 ●	7.2.4	Printing & other media, % manufacturing.....		n/a	n/a
4.2	Investment.....		40.0	[72]	7.2.5	Creative goods exports, % total trade.....		0.0	119
4.2.1	Ease of protecting minority investors*.....		40.0	114 ○	7.3	Online creativity.....		0.0	127 ○
4.2.2	Market capitalization, % GDP.....		n/a	n/a	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.1	124 ○
4.2.3	Venture capital deals/bn PPP\$ GDP.....		n/a	n/a	7.3.2	Country-code TLDs/th pop. 15-69.....		0.0	124 ○
4.3	Trade, competition, & market scale.....		43.7	122 ○	7.3.3	Wikipedia edits/mn pop. 15-69.....		0.0	125 ○
4.3.1	Applied tariff rate, weighted avg., %.....		9.1	108	7.3.4	Mobile app creation/bn PPP\$ GDP.....		n/a	n/a
4.3.2	Intensity of local competition*.....		57.7	116					
4.3.3	Domestic market scale, bn PPP\$.....		38.8	106					

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.