

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
109	122	Low	SSF	26.3	42.8	1,630.2	n/a
				Score/Value	Rank		
INSTITUTIONS				49.9	109		
1.1	Political environment		31.9	123			
1.1.1	Political and operational stability*.....		57.9	101			
1.1.2	Government effectiveness*.....		19.0	126		○	
1.2	Regulatory environment		56.7	94			
1.2.1	Regulatory quality*.....		23.3	110			
1.2.2	Rule of law*.....		23.7	115			
1.2.3	Cost of redundancy dismissal, salary weeks.....		14.7	58			
1.3	Business environment		61.2	100			
1.3.1	Ease of starting a business*.....		88.1	65			
1.3.2	Ease of resolving insolvency*.....		34.2	112			
HUMAN CAPITAL & RESEARCH				15.3	109		
2.1	Education		23.5	118			
2.1.1	Expenditure on education, % GDP.....		2.8	109		◇	
2.1.2	Government funding/pupil, secondary, % GDP/cap.....		8.4	101		◇	
2.1.3	School life expectancy, years.....		10.4	103			
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		20.0	88			
2.2	Tertiary education		22.2	86		◆	
2.2.1	Tertiary enrolment, % gross.....		4.8	118			
2.2.2	Graduates in science & engineering, %.....		23.3	41		●	
2.2.3	Tertiary inbound mobility, %.....		1.7	80			
2.3	Research & development (R&D)		0.1	118			
2.3.1	Researchers, FTE/mn pop.....		30.6	99			
2.3.2	Gross expenditure on R&D, % GDP.....		0.0	114		○ ◇	
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*.....		0.0	78		○ ◇	
INFRASTRUCTURE				22.6	126 ○		
3.1	Information & communication technologies (ICTs)		23.3	125		○	
3.1.1	ICT access*.....		22.3	125		○ ◇	
3.1.2	ICT use*.....		7.6	125		○ ◇	
3.1.3	Government's online service*.....		30.6	119			
3.1.4	E-participation*.....		32.6	116			
3.2	General infrastructure		21.4	113			
3.2.1	Electricity output, kWh/mn pop.....		n/a	n/a			
3.2.2	Logistics performance*.....		15.2	113			
3.2.3	Gross capital formation, % GDP.....		17.1	110			
3.3	Ecological sustainability		23.0	121			
3.3.1	GDP/unit of energy use.....		n/a	n/a			
3.3.2	Environmental performance*.....		33.7	123		○ ◇	
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.2	109			
MARKET SOPHISTICATION				40.3	98		
4.1	Credit		23.2	112			
4.1.1	Ease of getting credit*.....		40.0	104			
4.1.2	Domestic credit to private sector, % GDP.....		13.6	122		○	
4.1.3	Microfinance gross loans, % GDP.....		1.5	16		●	
4.2	Investment		51.7	[35]			
4.2.1	Ease of protecting minority investors*.....		51.7	89			
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		46.1	115			
4.3.1	Applied tariff rate, weighted avg., %.....		5.7	92			
4.3.2	Intensity of local competition*.....		n/a	n/a			
4.3.3	Domestic market scale, bn PPP\$.....		42.8	103			
BUSINESS SOPHISTICATION				18.4	[125]		
5.1	Knowledge workers		7.6	[126]			
5.1.1	Knowledge-intensive employment, %.....		3.4	113			
5.1.2	Firms offering formal training, % firms.....		12.7	86		◇	
5.1.3	GERD performed by business, % GDP.....		n/a	n/a			
5.1.4	GERD financed by business, %.....		n/a	n/a			
5.1.5	Females employed w/advanced degrees, %.....		1.9	101			
5.2	Innovation linkages		10.1	[128]			
5.2.1	University/industry research collaboration*.....		n/a	n/a			
5.2.2	State of cluster development*.....		n/a	n/a			
5.2.3	GERD financed by abroad, %.....		10.6	40		●	
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		○ ◇	
5.3	Knowledge absorption		37.6	45		● ◆	
5.3.1	Intellectual property payments, % total trade.....		0.4	72			
5.3.2	High-tech imports, % total trade.....		4.1	116			
5.3.3	ICT services imports, % total trade.....		2.5	14		● ◆	
5.3.4	FDI net inflows, % GDP.....		4.3	39		●	
5.3.5	Research talent, % in business enterprise.....		n/a	n/a			
KNOWLEDGE & TECHNOLOGY OUTPUTS				15.4	96		
6.1	Knowledge creation		3.7	113			
6.1.1	Patents by origin/bn PPP\$ GDP.....		0.2	95			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.0	88			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		3.6	95			
6.1.5	Citable documents H-index.....		3.8	105			
6.2	Knowledge impact		28.2	99			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		1.1	60			
6.2.2	New businesses/th pop. 15-64.....		0.1	103		○	
6.2.3	Computer software spending, % GDP.....		0.0	116			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		1.9	87			
6.2.5	High- & medium-high-tech manufactures, %.....		n/a	n/a			
6.3	Knowledge diffusion		14.4	79		● ◆	
6.3.1	Intellectual property receipts, % total trade.....		0.2	37		● ◆	
6.3.2	High-tech net exports, % total trade.....		0.1	112			
6.3.3	ICT services exports, % total trade.....		2.3	48		●	
6.3.4	FDI net outflows, % GDP.....		0.9	55			
CREATIVE OUTPUTS				15.5	113		
7.1	Intangible assets		23.8	[124]			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		60.4	35		● ◆	
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		4.1	31		● ◆	
7.1.3	ICTs & business model creation*.....		n/a	n/a			
7.1.4	ICTs & organizational model creation*.....		n/a	n/a			
7.2	Creative goods & services		14.3	70		◆	
7.2.1	Cultural & creative services exports, % total trade.....		0.1	82			
7.2.2	National feature films/mn pop. 15-69.....		0.8	88			
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing & other media, % manufacturing.....		2.0	20		● ◆	
7.2.5	Creative goods exports, % total trade.....		0.1	95			
7.3	Online creativity		0.2	120			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.1	122			
7.3.2	Country-code TLDs/th pop. 15-69.....		0.1	118			
7.3.3	Wikipedia edits/mn pop. 15-69.....		0.4	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.