

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
89	113	Lower middle	CSA	200.8	1,148.3	5,679.8	109
				Score/Value	Rank		
<b>INSTITUTIONS</b> .....				53.1	100		
1.1	<b>Political environment</b> .....		39.7	107			
1.1.1	Political and operational stability*.....		54.4	111			
1.1.2	Government effectiveness*.....		32.4	101			
1.2	<b>Regulatory environment</b> .....		48.7	113			
1.2.1	Regulatory quality*.....		26.0	107			
1.2.2	Rule of law*.....		27.2	109			
1.2.3	Cost of redundancy dismissal, salary weeks.....		27.2	105			
1.3	<b>Business environment</b> .....		70.9	62			
1.3.1	Ease of starting a business*.....		81.9	100			
1.3.2	Ease of resolving insolvency*.....		59.9	48	◆		
<b>HUMAN CAPITAL &amp; RESEARCH</b> .....				12.5	116		
2.1	<b>Education</b> .....		21.6	122	○ ◆		
2.1.1	Expenditure on education, % GDP.....		2.8	110	○		
2.1.2	Government funding/pupil, secondary, % GDP/cap... ..		10.9	92			
2.1.3	School life expectancy, years.....		8.5	114	○ ◆		
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		19.4	86			
2.2	<b>Tertiary education</b> .....		7.4	[115]	○		
2.2.1	Tertiary enrolment, % gross.....		10.1	108	○		
2.2.2	Graduates in science & engineering, %.....		n/a	n/a			
2.2.3	Tertiary inbound mobility, %.....		n/a	n/a			
2.3	<b>Research &amp; development (R&amp;D)</b> .....		8.6	62			
2.3.1	Researchers, FTE/mn pop.Ⓞ.....		293.6	73			
2.3.2	Gross expenditure on R&D, % GDP.Ⓞ.....		0.2	84			
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*.....		25.7	41	◆		
<b>INFRASTRUCTURE</b> .....				27.3	120	○ ◆	
3.1	<b>Information &amp; communication technologies (ICTs)</b> .....		38.5	109			
3.1.1	ICT access*.....		35.1	111	○		
3.1.2	ICT use*.....		13.9	118	○ ◆		
3.1.3	Government's online service*.....		54.9	100			
3.1.4	E-participation*.....		50.0	104			
3.2	<b>General infrastructure</b> .....		16.2	123	○ ◆		
3.2.1	Electricity output, kWh/mn pop.....		590.1	104			
3.2.2	Logistics performance*.....		16.6	110	○		
3.2.3	Gross capital formation, % GDP.....		16.4	113	○		
3.3	<b>Ecological sustainability</b> .....		27.4	108			
3.3.1	GDP/unit of energy use.....		9.6	60			
3.3.2	Environmental performance*.....		37.5	121	○ ◆		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.3	97			
<b>MARKET SOPHISTICATION</b> .....				39.6	102		
4.1	<b>Credit</b> .....		20.1	118	○		
4.1.1	Ease of getting credit*.....		45.0	94			
4.1.2	Domestic credit to private sector, % GDP.....		17.0	112	○		
4.1.3	Microfinance gross loans, % GDP.....		0.6	28	●		
4.2	<b>Investment</b> .....		38.8	83			
4.2.1	Ease of protecting minority investors*.....		71.7	24	◆		
4.2.2	Market capitalization, % GDP.Ⓞ.....		29.2	50			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.0	72	○		
4.3	<b>Trade, competition, &amp; market scale</b> .....		60.0	68			
4.3.1	Applied tariff rate, weighted avg., %Ⓞ.....		10.1	113	○		
4.3.2	Intensity of local competition*.....		57.7	115	○		
4.3.3	Domestic market scale, bn PPP\$.....		1,148.3	24	◆		
<b>BUSINESS SOPHISTICATION</b> .....				25.5	96		
5.1	<b>Knowledge workers</b> .....		23.6	[100]			
5.1.1	Knowledge-intensive employment, %.....		11.6	96			
5.1.2	Firms offering formal training, % firms.....		32.0	47			
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, %.....		1.6	104			
5.2	<b>Innovation linkages</b> .....		20.4	83			
5.2.1	University/industry research collaboration*.....		44.5	52			
5.2.2	State of cluster development*.....		49.2	52			
5.2.3	GERD financed by abroad, %Ⓞ.....		2.7	72			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	59			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	90			
5.3	<b>Knowledge absorption</b> .....		32.5	68			
5.3.1	Intellectual property payments, % total trade.....		0.5	63			
5.3.2	High-tech imports, % total trade.....		10.6	24	●		
5.3.3	ICT services imports, % total trade.....		0.9	73			
5.3.4	FDI net inflows, % GDP.....		0.8	110			
5.3.5	Research talent, % in business enterprise.....		n/a	n/a			
<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b> .....				20.6	70		
6.1	<b>Knowledge creation</b> .....		13.3	[59]			
6.1.1	Patents by origin/bn PPP\$ GDP.....		0.2	101			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		8.5	56			
6.1.5	Citable documents H-index.....		14.4	50	●		
6.2	<b>Knowledge impact</b> .....		36.1	68			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		2.9	27	●		
6.2.2	New businesses/th pop. 15-64.....		0.1	104	○		
6.2.3	Computer software spending, % GDP.....		0.3	52	●		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		1.7	91			
6.2.5	High- & medium-high-tech manufactures, %.....		n/a	n/a			
6.3	<b>Knowledge diffusion</b> .....		12.3	91			
6.3.1	Intellectual property receipts, % total trade.....		0.0	75			
6.3.2	High-tech net exports, % total trade.....		0.8	73			
6.3.3	ICT services exports, % total trade.....		2.2	49	●		
6.3.4	FDI net outflows, % GDP.....		0.0	109			
<b>CREATIVE OUTPUTS</b> .....				17.6	104		
7.1	<b>Intangible assets</b> .....		33.5	98			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		28.9	77			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		0.4	91			
7.1.3	ICTs & business model creation*.....		53.8	89			
7.1.4	ICTs & organizational model creation*.....		51.6	75			
7.2	<b>Creative goods &amp; services</b> .....		2.0	116			
7.2.1	Cultural & creative services exports, % total trade.....		0.1	77			
7.2.2	National feature films/mn pop. 15-69.....		0.1	106	○		
7.2.3	Entertainment & Media market/th pop. 15-69.....		0.4	62	○ ◆		
7.2.4	Printing & other media, % manufacturing.Ⓞ.....		0.3	100	○		
7.2.5	Creative goods exports, % total trade.....		0.3	72			
7.3	<b>Online creativity</b> .....		1.5	96			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.6	105			
7.3.2	Country-code TLDs/th pop. 15-69.....		0.2	109			
7.3.3	Wikipedia edits/mn pop. 15-69.....		1.6	101			
7.3.4	Mobile app creation/bn PPP\$ GDP.....		4.2	55			

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.