

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
107	88	Lower middle	CSA	6.4	25.9	3,541.3	90
			Score/Value Rank				Score/Value Rank
<b>INSTITUTIONS</b> .....				<b>56.1</b>	<b>92</b>		
<b>1.1</b>	<b>Political environment</b> .....	<b>42.2</b>	<b>114</b>				
1.1.1	Political and operational stability*.....	53.6	120	○ ◇			
1.1.2	Government effectiveness*.....	36.5	109				
<b>1.2</b>	<b>Regulatory environment</b> .....	<b>54.7</b>	<b>93</b>				
1.2.1	Regulatory quality*.....	32.6	97				
1.2.2	Rule of law*.....	23.0	119				
1.2.3	Cost of redundancy dismissal, salary weeks.....	17.3	69				
<b>1.3</b>	<b>Business environment</b> .....	<b>71.5</b>	<b>66</b>				
1.3.1	Ease of starting a business*.....	93.0	40	●			
1.3.2	Ease of resolving insolvency*.....	50.0	70				
<b>HUMAN CAPITAL &amp; RESEARCH</b> .....				<b>29.0</b>	<b>73</b>		
<b>2.1</b>	<b>Education</b> .....	<b>55.7</b>	<b>[33]</b>				
2.1.1	Expenditure on education, % GDP.....	6.0	16	● ◆			
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	n/a	n/a				
2.1.3	School life expectancy, years.....	13.0	81				
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a				
2.1.5	Pupil-teacher ratio, secondary.....	10.6	40	● ◆			
<b>2.2</b>	<b>Tertiary education</b> .....	<b>30.8</b>	<b>74</b>				
2.2.1	Tertiary enrolment, % gross.....	41.3	68				
2.2.2	Graduates in science & engineering, %.....	20.8	67				
2.2.3	Tertiary inbound mobility, %.....	7.6	31	● ◆			
<b>2.3</b>	<b>Research &amp; development (R&amp;D)</b> .....	<b>0.6</b>	<b>109</b>				
2.3.1	Researchers, FTE/mn pop.....	n/a	n/a				
2.3.2	Gross expenditure on R&D, % GDP.....	0.1	104				
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	○ ◇			
<b>INFRASTRUCTURE</b> .....				<b>32.3</b>	<b>97</b>		
<b>3.1</b>	<b>Information &amp; communication technologies (ICTs)</b> .....	<b>56.6</b>	<b>86</b>				
3.1.1	ICT access*.....	46.3	96				
3.1.2	ICT use*.....	47.1	80				
3.1.3	Government's online service*.....	64.6	84				
3.1.4	E-participation*.....	68.5	74				
<b>3.2</b>	<b>General infrastructure</b> .....	<b>22.5</b>	<b>85</b>				
3.2.1	Electricity output, kWh/mn pop.....	2,502.2	71	◆			
3.2.2	Logistics performance*.....	22.3	102				
3.2.3	Gross capital formation, % GDP.....	28.1	34	●			
<b>3.3</b>	<b>Ecological sustainability</b> .....	<b>17.6</b>	<b>112</b>				
3.3.1	GDP/unit of energy use.....	5.4	105	◇			
3.3.2	Environmental performance*.....	39.8	89				
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....	0.2	111				
<b>MARKET SOPHISTICATION</b> .....				<b>47.1</b>	<b>66</b>		
<b>4.1</b>	<b>Credit</b> .....	<b>50.4</b>	<b>34</b>	● ◆			
4.1.1	Ease of getting credit*.....	85.0	14	● ◆			
4.1.2	Domestic credit to private sector, % GDP.....	23.9	107				
4.1.3	Microfinance gross loans, % GDP.....	4.4	8	● ◆			
<b>4.2</b>	<b>Investment</b> .....	<b>40.0</b>	<b>[60]</b>				
4.2.1	Ease of protecting minority investors*.....	40.0	110				
4.2.2	Market capitalization, % GDP.....	n/a	n/a				
4.2.3	Venture capital deals/bn PPP\$ GDP.....	n/a	n/a				
<b>4.3</b>	<b>Trade, competition, and market scale</b> .....	<b>51.0</b>	<b>110</b>				
4.3.1	Applied tariff rate, weighted avg., %.....	2.9	64				
4.3.2	Intensity of local competition*.....	56.5	118	◇			
4.3.3	Domestic market scale, bn PPP\$.....	25.9	124	○ ◇			
<b>BUSINESS SOPHISTICATION</b> .....				<b>18.6</b>	<b>105</b>		
<b>5.1</b>	<b>Knowledge workers</b> .....	<b>22.4</b>	<b>92</b>				
5.1.1	Knowledge-intensive employment, %.....	18.8	80				
5.1.2	Firms offering formal training, %.....	41.4	25	●			
5.1.3	GERD performed by business, % GDP.....	0.0	78				
5.1.4	GERD financed by business, %.....	6.4	83				
5.1.5	Females employed w/advanced degrees, %.....	10.8	62				
<b>5.2</b>	<b>Innovation linkages</b> .....	<b>10.7</b>	<b>126</b>	○ ◇			
5.2.1	University/industry research collaboration*.....	28.9	115				
5.2.2	State of cluster development*.....	29.1	124	○ ◇			
5.2.3	GERD financed by abroad, % GDP.....	0.0	87				
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	92				
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	101	○ ◇			
<b>5.3</b>	<b>Knowledge absorption</b> .....	<b>22.7</b>	<b>90</b>				
5.3.1	Intellectual property payments, % total trade.....	0.2	92				
5.3.2	High-tech imports, % total trade.....	8.6	52				
5.3.3	ICT services imports, % total trade.....	0.6	98				
5.3.4	FDI net inflows, % GDP.....	3.2	47				
5.3.5	Research talent, % in business enterprise.....	n/a	n/a				
<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b> .....				<b>15.6</b>	<b>81</b>		
<b>6.1</b>	<b>Knowledge creation</b> .....	<b>16.9</b>	<b>59</b>				
6.1.1	Patents by origin/bn PPP\$ GDP.....	6.0	16	● ◆			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.1	68				
6.1.3	Utility models by origin/bn PPP\$ GDP.....	0.9	24				
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	4.7	92				
6.1.5	Citable documents H-index.....	3.0	122	○			
<b>6.2</b>	<b>Knowledge impact</b> .....	<b>14.8</b>	<b>103</b>				
6.2.1	Growth rate of PPP\$ GDP/worker, %.....	3.4	23	●			
6.2.2	New businesses/th pop. 15-64.....	1.3	77				
6.2.3	Computer software spending, % GDP.....	0.0	90				
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	0.4	121	◇			
6.2.5	High- and medium-high-tech manufacturing, %.....	2.7	105	○ ◇			
<b>6.3</b>	<b>Knowledge diffusion</b> .....	<b>15.2</b>	<b>93</b>				
6.3.1	Intellectual property receipts, % total trade.....	0.0	68				
6.3.2	High-tech net exports, % total trade.....	1.0	69				
6.3.3	ICT services exports, % total trade.....	0.7	91				
6.3.4	FDI net outflows, % GDP.....	0.1	104				
<b>CREATIVE OUTPUTS</b> .....				<b>9.2</b>	<b>117</b>		
<b>7.1</b>	<b>Intangible assets</b> .....	<b>12.9</b>	<b>121</b>				
7.1.1	Trademarks by origin/bn PPP\$ GDP.....	22.5	88				
7.1.2	Global brand value, top 5,000, % GDP.....	0.0	80	○ ◇			
7.1.3	Industrial designs by origin/bn PPP\$ GDP.....	0.5	84				
7.1.4	ICTs & organizational model creation*.....	34.8	121	○ ◇			
<b>7.2</b>	<b>Creative goods and services</b> .....	<b>4.3</b>	<b>106</b>				
7.2.1	Cultural & creative services exports, % total trade.....	0.4	55				
7.2.2	National feature films/mn pop. 15-69.....	0.2	105	○			
7.2.3	Entertainment & Media market/th pop. 15-69.....	n/a	n/a				
7.2.4	Printing and other media, % manufacturing.....	0.6	83				
7.2.5	Creative goods exports, % total trade.....	0.1	104				
<b>7.3</b>	<b>Online creativity</b> .....	<b>6.5</b>	<b>102</b>				
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	0.2	118				
7.3.2	Country-code TLDs/th pop. 15-69.....	0.8	91				
7.3.3	Wikipedia edits/mn pop. 15-69.....	28.7	97				
7.3.4	Mobile app creation/bn PPP\$ GDP.....	0.1	87				

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.