

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
<b>83</b>	<b>107</b>	<b>Upper middle</b>	<b>CSA</b>	<b>21.3</b>	<b>304.8</b>	<b>12,132.7</b>	<b>89</b>
				Score/Value	Rank		
<b>INSTITUTIONS.....</b>				<b>46.8</b>	<b>119</b>	<b>○ ◇</b>	
<b>1.1</b>	<b>Political environment.....</b>		<b>52.5</b>	<b>85</b>			
1.1.1	Political and operational stability*.....		67.9	73			
1.1.2	Government effectiveness*.....		44.9	84			
<b>1.2</b>	<b>Regulatory environment.....</b>		<b>21.3</b>	<b>129</b>	<b>○ ◇</b>		
1.2.1	Regulatory quality*.....		37.8	83			
1.2.2	Rule of law*.....		47.4	61			
1.2.3	Cost of redundancy dismissal, salary weeks.....		58.5	129	<b>○ ◇</b>		
<b>1.3</b>	<b>Business environment.....</b>		<b>66.6</b>	<b>79</b>			
1.3.1	Ease of starting a business*.....		88.2	68			
1.3.2	Ease of resolving insolvency*.....		45.0	85			
<b>HUMAN CAPITAL &amp; RESEARCH.....</b>				<b>12.2</b>	<b>119</b>	<b>○ ◇</b>	
<b>2.1</b>	<b>Education.....</b>		<b>25.2</b>	<b>116</b>	<b>◇</b>		
2.1.1	Expenditure on education, % GDP.....		2.1	114	<b>○ ◇</b>		
2.1.2	Government funding/pupil, secondary, % GDP/cap.....		6.7	101	<b>○ ◇</b>		
2.1.3	School life expectancy, years.....		14.1	71			
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		17.5	86			
<b>2.2</b>	<b>Tertiary education.....</b>		<b>9.8</b>	<b>115</b>	<b>◇</b>		
2.2.1	Tertiary enrolment, % gross.....		19.6	94	<b>◇</b>		
2.2.2	Graduates in science & engineering, %.....		n/a	n/a			
2.2.3	Tertiary inbound mobility, %.....		0.4	100	<b>◇</b>		
<b>2.3</b>	<b>Research &amp; development (R&amp;D).....</b>		<b>1.5</b>	<b>102</b>			
2.3.1	Researchers, FTE/mn pop.....		106.0	86	<b>◇</b>		
2.3.2	Gross expenditure on R&D, % GDP.....		0.1	103	<b>○ ◇</b>		
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....		0.0	42	<b>○ ◇</b>		
2.3.4	QS university ranking, average score top 3*.....		3.2	75			
<b>INFRASTRUCTURE.....</b>				<b>37.9</b>	<b>78</b>		
<b>3.1</b>	<b>Information &amp; communication technologies (ICTs).....</b>		<b>53.9</b>	<b>90</b>			
3.1.1	ICT access*.....		48.8	90	<b>◇</b>		
3.1.2	ICT use*.....		37.1	101	<b>◇</b>		
3.1.3	Government's online service*.....		66.7	76			
3.1.4	E-participation*.....		62.9	83			
<b>3.2</b>	<b>General infrastructure.....</b>		<b>21.7</b>	<b>90</b>			
3.2.1	Electricity output, kWh/mn pop.....		737.1	102	<b>◇</b>		
3.2.2	Logistics performance*.....		24.8	90			
3.2.3	Gross capital formation, % GDP.....		28.4	31	<b>●</b>		
<b>3.3</b>	<b>Ecological sustainability.....</b>		<b>38.2</b>	<b>39</b>	<b>●</b>		
3.3.1	GDP/unit of energy use.....		20.4	4	<b>● ◆</b>		
3.3.2	Environmental performance*.....		39.0	90	<b>◇</b>		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....		0.9	67			
<b>MARKET SOPHISTICATION.....</b>				<b>34.9</b>	<b>118</b>	<b>○ ◇</b>	
<b>4.1</b>	<b>Credit.....</b>		<b>25.0</b>	<b>116</b>	<b>◇</b>		
4.1.1	Ease of getting credit*.....		40.0	113	<b>○ ◇</b>		
4.1.2	Domestic credit to private sector, % GDP.....		45.4	74			
4.1.3	Microfinance gross loans, % GDP.....		0.5	35	<b>●</b>		
<b>4.2</b>	<b>Investment.....</b>		<b>27.1</b>	<b>108</b>			
4.2.1	Ease of protecting minority investors*.....		72.0	27	<b>●</b>		
4.2.2	Market capitalization, % GDP.....		20.6	57			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.0	80	<b>○</b>		
<b>4.3</b>	<b>Trade, competition, and market scale.....</b>		<b>52.6</b>	<b>106</b>	<b>◇</b>		
4.3.1	Applied tariff rate, weighted avg., %.....		12.1	124	<b>○ ◇</b>		
4.3.2	Intensity of local competition*.....		65.3	80			
4.3.3	Domestic market scale, bn PPP\$.....		304.8	58			
<b>BUSINESS SOPHISTICATION.....</b>				<b>24.4</b>	<b>70</b>		
<b>5.1</b>	<b>Knowledge workers.....</b>		<b>21.3</b>	<b>97</b>			
5.1.1	Knowledge-intensive employment, %.....		20.4	76			
5.1.2	Firms offering formal training, %.....		18.4	78	<b>◇</b>		
5.1.3	GERD performed by business, % GDP.....		0.0	76			
5.1.4	GERD financed by business, %.....		34.4	51			
5.1.5	Females employed w/advanced degrees, %.....		2.9	98	<b>◇</b>		
<b>5.2</b>	<b>Innovation linkages.....</b>		<b>19.5</b>	<b>73</b>			
5.2.1	University/industry research collaboration*.....		40.2	73			
5.2.2	State of cluster development*.....		48.7	56			
5.2.3	GERD financed by abroad, % GDP.....		0.0	93	<b>○</b>		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.1	31	<b>● ◆</b>		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	80			
<b>5.3</b>	<b>Knowledge absorption.....</b>		<b>32.5</b>	<b>53</b>	<b>●</b>		
5.3.1	Intellectual property payments, % total trade.....		n/a	n/a			
5.3.2	High-tech imports, % total trade.....		7.7	62			
5.3.3	ICT services imports, % total trade.....		2.1	27	<b>● ◆</b>		
5.3.4	FDI net inflows, % GDP.....		1.5	99			
5.3.5	Research talent, % in business enterprise.....		22.5	54			
<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS.....</b>				<b>18.9</b>	<b>68</b>		
<b>6.1</b>	<b>Knowledge creation.....</b>		<b>7.1</b>	<b>89</b>			
6.1.1	Patents by origin/bn PPP\$ GDP.....		1.2	62			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.1	76			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		2.4	111			
6.1.5	Citable documents H-index.....		10.1	75			
<b>6.2</b>	<b>Knowledge impact.....</b>		<b>21.3</b>	<b>77</b>			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		2.7	34	<b>●</b>		
6.2.2	New businesses/th pop. 15-64.....		0.7	88			
6.2.3	Computer software spending, % GDP.....		0.0	30	<b>● ◆</b>		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		2.9	76			
6.2.5	High- and medium-high-tech manufacturing, %.....		7.2	92			
<b>6.3</b>	<b>Knowledge diffusion.....</b>		<b>28.3</b>	<b>49</b>	<b>●</b>		
6.3.1	Intellectual property receipts, % total trade.....		n/a	n/a			
6.3.2	High-tech net exports, % total trade.....		0.4	87			
6.3.3	ICT services exports, % total trade.....		4.2	19	<b>● ◆</b>		
6.3.4	FDI net outflows, % GDP.....		0.1	99			
<b>CREATIVE OUTPUTS.....</b>				<b>13.8</b>	<b>100</b>	<b>◇</b>	
<b>7.1</b>	<b>Intangible assets.....</b>		<b>18.4</b>	<b>100</b>			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		25.2	84			
7.1.2	Global brand value, top 5,000, % GDP.....		12.8	55			
7.1.3	Industrial designs by origin/bn PPP\$ GDP.....		0.8	77			
7.1.4	ICTs & organizational model creation*.....		47.5	91			
<b>7.2</b>	<b>Creative goods and services.....</b>		<b>11.2</b>	<b>74</b>			
7.2.1	Cultural & creative services exports, % total trade.....		0.0	114	<b>○</b>		
7.2.2	National feature films/mn pop. 15-69.....		1.0	87			
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing and other media, % manufacturing.....		2.3	11	<b>● ◆</b>		
7.2.5	Creative goods exports, % total trade.....		0.4	67			
<b>7.3</b>	<b>Online creativity.....</b>		<b>7.0</b>	<b>98</b>	<b>◇</b>		
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.7	101			
7.3.2	Country-code TLDs/th pop. 15-69.....		0.8	92			
7.3.3	Wikipedia edits/mn pop. 15-69.....		29.6	95	<b>◇</b>		
7.3.4	Mobile app creation/bn PPP\$ GDP.....		0.7	70			

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.