

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
<b>74</b>	<b>106</b>	<b>Lower middle</b>	<b>NAWA</b>	<b>99.4</b>	<b>1,297.0</b>	<b>13,366.5</b>	<b>95</b>
				Score/Value	Rank		
<b>INSTITUTIONS.....</b>				<b>47.9</b>	<b>118</b>		
<b>1.1</b>	<b>Political environment.....</b>		<b>39.7</b>	<b>106</b>			
1.1.1	Political and operational stability*.....		56.1	105			
1.1.2	Government effectiveness*.....		31.5	104			
<b>1.2</b>	<b>Regulatory environment.....</b>		<b>40.8</b>	<b>120</b>			
1.2.1	Regulatory quality*.....		18.8	120	○ ◇		
1.2.2	Rule of law*.....		32.2	95			
1.2.3	Cost of redundancy dismissal, salary weeks.....		36.8	121	○		
<b>1.3</b>	<b>Business environment.....</b>		<b>63.2</b>	<b>90</b>			
1.3.1	Ease of starting a business*.....		84.1	84			
1.3.2	Ease of resolving insolvency*.....		42.3	89			
<b>HUMAN CAPITAL &amp; RESEARCH.....</b>				<b>19.7</b>	<b>96</b>		
<b>2.1</b>	<b>Education.....</b>		<b>37.0</b>	<b>94</b>			
2.1.1	Expenditure on education, % GDP.....		3.8	89			
2.1.2	Government funding/pupil, secondary, % GDP/cap... ..		14.0	86			
2.1.3	School life expectancy, years.....		13.1	80			
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		15.2	68			
<b>2.2</b>	<b>Tertiary education.....</b>		<b>11.4</b>	<b>108</b>			
2.2.1	Tertiary enrolment, % gross.....		34.4	77			
2.2.2	Graduates in science & engineering, %.....		11.2	99	○ ◇		
2.2.3	Tertiary inbound mobility, %.....		1.8	77			
<b>2.3</b>	<b>Research &amp; development (R&amp;D).....</b>		<b>10.7</b>	<b>55</b>			
2.3.1	Researchers, FTE/mn pop.....		669.4	61			
2.3.2	Gross expenditure on R&D, % GDP.....		0.6	51	◆		
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*.....		21.9	48	◆ ◆		
<b>INFRASTRUCTURE.....</b>				<b>36.8</b>	<b>94</b>		
<b>3.1</b>	<b>Information &amp; communication technologies (ICTs).....</b>		<b>49.4</b>	<b>96</b>			
3.1.1	ICT access*.....		55.6	78			
3.1.2	ICT use*.....		34.7	95			
3.1.3	Government's online service*.....		53.5	101			
3.1.4	E-participation*.....		53.9	100			
<b>3.2</b>	<b>General infrastructure.....</b>		<b>21.1</b>	<b>116</b>	○		
3.2.1	Electricity output, kWh/mn pop.....		2,030.8	76	◆		
3.2.2	Logistics performance*.....		35.6	66			
3.2.3	Gross capital formation, % GDP.....		15.5	118	○ ◇		
<b>3.3</b>	<b>Ecological sustainability.....</b>		<b>39.9</b>	<b>55</b>	◆		
3.3.1	GDP/unit of energy use.....		11.2	39	●		
3.3.2	Environmental performance*.....		61.2	59	◆		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.6	81			
<b>MARKET SOPHISTICATION.....</b>				<b>41.0</b>	<b>97</b>		
<b>4.1</b>	<b>Credit.....</b>		<b>25.8</b>	<b>103</b>			
4.1.1	Ease of getting credit*.....		65.0	54			
4.1.2	Domestic credit to private sector, % GDP.....		28.5	99			
4.1.3	Microfinance gross loans, % GDP.....		0.1	58			
<b>4.2</b>	<b>Investment.....</b>		<b>30.8</b>	<b>119</b>	○		
4.2.1	Ease of protecting minority investors*.....		58.3	68			
4.2.2	Market capitalization, % GDP.....		15.5	63			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.0	63			
<b>4.3</b>	<b>Trade, competition, &amp; market scale.....</b>		<b>66.4</b>	<b>48</b>	●		
4.3.1	Applied tariff rate, weighted avg., %.....		7.4	101			
4.3.2	Intensity of local competition*.....		65.7	77			
4.3.3	Domestic market scale, bn PPP\$.....		1,297.0	21	◆ ◆		
<b>BUSINESS SOPHISTICATION.....</b>				<b>21.2</b>	<b>116</b>	○ ◇	
<b>5.1</b>	<b>Knowledge workers.....</b>		<b>21.1</b>	<b>106</b>			
5.1.1	Knowledge-intensive employment, %.....		30.3	43	◆ ◆		
5.1.2	Firms offering formal training, % firms.....		10.0	89	○ ◇		
5.1.3	GERD performed by business, % GDP.....		0.0	76			
5.1.4	GERD financed by business, %.....		5.4	79			
5.1.5	Females employed w/advanced degrees, %.....		5.5	89			
<b>5.2</b>	<b>Innovation linkages.....</b>		<b>17.5</b>	<b>110</b>			
5.2.1	University/industry research collaboration*.....		30.0	106			
5.2.2	State of cluster development*.....		53.9	38	◆ ◆		
5.2.3	GERD financed by abroad, %.....		0.0	101	○		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	98	○		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	88			
<b>5.3</b>	<b>Knowledge absorption.....</b>		<b>24.9</b>	<b>103</b>			
5.3.1	Intellectual property payments, % total trade.....		0.4	71			
5.3.2	High-tech imports, % total trade.....		6.8	73			
5.3.3	ICT services imports, % total trade.....		1.1	68			
5.3.4	FDI net inflows, % GDP.....		2.6	69			
5.3.5	Research talent, % in business enterprise.....		6.5	69			
<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS.....</b>				<b>22.1</b>	<b>64</b>		
<b>6.1</b>	<b>Knowledge creation.....</b>		<b>11.1</b>	<b>66</b>			
6.1.1	Patents by origin/bn PPP\$ GDP.....		0.8	68			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.0	81			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		7.1	61			
6.1.5	Citable documents H-index.....		15.5	48	●		
<b>6.2</b>	<b>Knowledge impact.....</b>		<b>43.7</b>	<b>32</b>	●		
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		2.5	32	●		
6.2.2	New businesses/th pop. 15-64.....		n/a	n/a			
6.2.3	Computer software spending, % GDP.....		0.4	21	◆ ◆		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		1.8	89			
6.2.5	High- & medium-high-tech manufactures, %.....		0.2	52			
<b>6.3</b>	<b>Knowledge diffusion.....</b>		<b>11.6</b>	<b>94</b>			
6.3.1	Intellectual property receipts, % total trade.....		n/a	n/a			
6.3.2	High-tech net exports, % total trade.....		0.1	113			
6.3.3	ICT services exports, % total trade.....		1.2	73			
6.3.4	FDI net outflows, % GDP.....		0.1	102			
<b>CREATIVE OUTPUTS.....</b>				<b>21.1</b>	<b>89</b>		
<b>7.1</b>	<b>Intangible assets.....</b>		<b>35.8</b>	<b>95</b>			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		11.2	104			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		1.7	56			
7.1.3	ICTs & business model creation*.....		61.0	59			
7.1.4	ICTs & organizational model creation*.....		56.0	57			
<b>7.2</b>	<b>Creative goods &amp; services.....</b>		<b>12.1</b>	<b>77</b>			
7.2.1	Cultural & creative services exports, % total trade.....		0.1	80			
7.2.2	National feature films/mn pop. 15-69.....		0.6	93			
7.2.3	Entertainment & Media market/th pop. 15-69.....		0.5	61	○		
7.2.4	Printing & other media, % manufacturing.....		1.4	35	●		
7.2.5	Creative goods exports, % total trade.....		1.1	41	●		
<b>7.3</b>	<b>Online creativity.....</b>		<b>0.7</b>	<b>103</b>			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		1.2	91			
7.3.2	Country-code TLDs/th pop. 15-69.....		0.0	123	○		
7.3.3	Wikipedia edits/mn pop. 15-69.....		2.5	97			
7.3.4	Mobile app creation/bn PPP\$ GDP.....		0.1	82			

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.