

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
<b>86</b>	<b>48</b>	<b>Upper middle</b>	<b>LCN</b>	<b>32.6</b>	<b>458.4</b>	<b>14,224.3</b>	<b>71</b>
				Score/Value	Rank		
<b>INSTITUTIONS</b>				<b>61.2</b>	<b>70</b>		
<b>1.1</b>	<b>Political environment</b>		<b>50.6</b>	<b>80</b>			
1.1.1	Political and operational stability*		64.9	79			
1.1.2	Government effectiveness*		43.4	79			
<b>1.2</b>	<b>Regulatory environment</b>		<b>69.0</b>	<b>57</b>			
1.2.1	Regulatory quality*		53.2	52			
1.2.2	Rule of law*		33.1	94			
1.2.3	Cost of redundancy dismissal, salary weeks		11.4	36 ●			
<b>1.3</b>	<b>Business environment</b>		<b>64.1</b>	<b>84</b>			
1.3.1	Ease of starting a business*		82.4	96			
1.3.2	Ease of resolving insolvency*		45.7	79			
<b>HUMAN CAPITAL &amp; RESEARCH</b>				<b>30.4</b>	<b>66</b>		
<b>2.1</b>	<b>Education</b>		<b>39.7</b>	<b>86</b>			
2.1.1	Expenditure on education, % GDP		3.9	81			
2.1.2	Government funding/pupil, secondary, % GDP/cap		15.3	82			
2.1.3	School life expectancy, years		14.6	60			
2.1.4	PISA scales in reading, maths, & science		393.6	65 ○			
2.1.5	Pupil-teacher ratio, secondary		14.2	63			
<b>2.2</b>	<b>Tertiary education</b>		<b>45.8</b>	<b>21 ● ◆</b>			
2.2.1	Tertiary enrolment, % gross		69.6	28 ● ◆			
2.2.2	Graduates in science & engineering, %		23.8	36			
2.2.3	Tertiary inbound mobility, %		n/a	n/a			
<b>2.3</b>	<b>Research &amp; development (R&amp;D)</b>		<b>5.7</b>	<b>73</b>			
2.3.1	Researchers, FTE/mn pop		n/a	n/a			
2.3.2	Gross expenditure on R&D, % GDP		0.1	101 ○			
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*		14.8	56			
<b>INFRASTRUCTURE</b>				<b>46.7</b>	<b>65</b>		
<b>3.1</b>	<b>Information &amp; communication technologies (ICTs)</b>		<b>65.2</b>	<b>70</b>			
3.1.1	ICT access*		50.8	87 ◇			
3.1.2	ICT use*		41.6	86			
3.1.3	Government's online service*		81.9	41			
3.1.4	E-participation*		86.5	36 ●			
<b>3.2</b>	<b>General infrastructure</b>		<b>26.7</b>	<b>92</b>			
3.2.1	Electricity output, kWh/mn pop		1,634.3	86			
3.2.2	Logistics performance*		29.5	81			
3.2.3	Gross capital formation, % GDP		22.3	72			
<b>3.3</b>	<b>Ecological sustainability</b>		<b>48.1</b>	<b>39 ● ◆</b>			
3.3.1	GDP/unit of energy use		15.6	10 ● ◆			
3.3.2	Environmental performance*		61.9	57			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP		1.2	63			
<b>MARKET SOPHISTICATION</b>				<b>57.6</b>	<b>26 ● ◆</b>		
<b>4.1</b>	<b>Credit</b>		<b>64.5</b>	<b>17 ● ◆</b>			
4.1.1	Ease of getting credit*		75.0	29 ●			
4.1.2	Domestic credit to private sector, % GDP		42.3	79			
4.1.3	Microfinance gross loans, % GDP		5.8	1 ● ◆			
<b>4.2</b>	<b>Investment</b>		<b>36.2</b>	<b>97</b>			
4.2.1	Ease of protecting minority investors*		63.3	48			
4.2.2	Market capitalization, % GDP		39.7	37			
4.2.3	Venture capital deals/bn PPP\$ GDP		0.0	54			
<b>4.3</b>	<b>Trade, competition, &amp; market scale</b>		<b>72.1</b>	<b>30 ●</b>			
4.3.1	Applied tariff rate, weighted avg., %		0.8	6 ●			
4.3.2	Intensity of local competition*		72.5	42			
4.3.3	Domestic market scale, bn PPP\$		458.4	44			
<b>BUSINESS SOPHISTICATION</b>				<b>36.6</b>	<b>43</b>		
<b>5.1</b>	<b>Knowledge workers</b>		<b>56.8</b>	<b>[27]</b>			
5.1.1	Knowledge-intensive employment, %		24.4	59			
5.1.2	Firms offering formal training, % firms		60.1	8 ● ◆			
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, %		16.3	38 ●			
<b>5.2</b>	<b>Innovation linkages</b>		<b>18.8</b>	<b>94</b>			
5.2.1	University/industry research collaboration†		31.9	100 ○			
5.2.2	State of cluster development†		39.5	94			
5.2.3	GERD financed by abroad, %		n/a	n/a			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP		0.0	104 ○ ◇			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP		0.0	72			
<b>5.3</b>	<b>Knowledge absorption</b>		<b>34.2</b>	<b>62</b>			
5.3.1	Intellectual property payments, % total trade		0.7	57			
5.3.2	High-tech imports, % total trade		8.4	52			
5.3.3	ICT services imports, % total trade		1.2	59			
5.3.4	FDI net inflows, % GDP		3.7	45			
5.3.5	Research talent, % in business enterprise		n/a	n/a			
<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b>				<b>15.3</b>	<b>97</b>		
<b>6.1</b>	<b>Knowledge creation</b>		<b>7.1</b>	<b>82</b>			
6.1.1	Patents by origin/bn PPP\$ GDP		0.2	93			
6.1.2	PCT patents by origin/bn PPP\$ GDP		0.1	68			
6.1.3	Utility models by origin/bn PPP\$ GDP		0.6	33			
6.1.4	Scientific & technical articles/bn PPP\$ GDP		1.6	117 ○			
6.1.5	Citable documents H-index		12.6	56			
<b>6.2</b>	<b>Knowledge impact</b>		<b>31.6</b>	<b>88</b>			
6.2.1	Growth rate of PPP\$ GDP/worker, %		1.3	55			
6.2.2	New businesses/th pop. 15-64		3.6	35			
6.2.3	Computer software spending, % GDP		0.2	67			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP		3.2	75			
6.2.5	High- & medium-high-tech manufactures, %		0.1	75			
<b>6.3</b>	<b>Knowledge diffusion</b>		<b>7.3</b>	<b>119 ○ ◇</b>			
6.3.1	Intellectual property receipts, % total trade		0.0	74			
6.3.2	High-tech net exports, % total trade		0.4	83			
6.3.3	ICT services exports, % total trade		0.3	112 ○			
6.3.4	FDI net outflows, % GDP		0.1	98 ○			
<b>CREATIVE OUTPUTS</b>				<b>23.4</b>	<b>79</b>		
<b>7.1</b>	<b>Intangible assets</b>		<b>36.7</b>	<b>87</b>			
7.1.1	Trademarks by origin/bn PPP\$ GDP		50.0	48			
7.1.2	Industrial designs by origin/bn PPP\$ GDP		0.2	100 ○			
7.1.3	ICTs & business model creation†		59.3	69			
7.1.4	ICTs & organizational model creation†		48.6	85			
<b>7.2</b>	<b>Creative goods &amp; services</b>		<b>17.5</b>	<b>61</b>			
7.2.1	Cultural & creative services exports, % total trade		0.1	84			
7.2.2	National feature films/mn pop. 15-69		1.1	80			
7.2.3	Entertainment & Media market/th pop. 15-69		7.4	41			
7.2.4	Printing & other media, % manufacturing		2.5	10 ● ◆			
7.2.5	Creative goods exports, % total trade		0.3	70			
<b>7.3</b>	<b>Online creativity</b>		<b>2.6</b>	<b>80</b>			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69		5.2	53			
7.3.2	Country-code TLDs/th pop. 15-69		1.3	73			
7.3.3	Wikipedia edits/mn pop. 15-69		5.8	76			
7.3.4	Mobile app creation/bn PPP\$ GDP		0.1	84 ○			

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.