

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
61	66	High	LCN	3.5	81.6	23,274.1	62
				Score/Value	Rank		
<b>INSTITUTIONS</b> .....				69.3	44		
<b>1.1</b>	<b>Political environment</b> .....			65.8	44		
1.1.1	Political and operational stability*.....			84.2	25	●	
1.1.2	Government effectiveness*.....			56.6	48	◇	
<b>1.2</b>	<b>Regulatory environment</b> .....			70.6	50		
1.2.1	Regulatory quality*.....			59.6	41		
1.2.2	Rule of law*.....			61.9	38		
1.2.3	Cost of redundancy dismissal, salary weeks.....			20.8	87		
<b>1.3</b>	<b>Business environment</b> .....			71.4	61		
1.3.1	Ease of starting a business*.....			89.8	55		
1.3.2	Ease of resolving insolvency*.....			53.0	64		
<b>HUMAN CAPITAL &amp; RESEARCH</b> .....				28.7	71	◇	
<b>2.1</b>	<b>Education</b> .....			54.8	44		
2.1.1	Expenditure on education, % GDP.Ⓞ.....			4.4	66		
2.1.2	Government funding/pupil, secondary, % GDP/cap... n/a n/a.....			n/a	n/a		
2.1.3	School life expectancy, years.....			16.3	25	●	
2.1.4	PISA scales in reading, maths, & science.....			430.0	48		
2.1.5	Pupil-teacher ratio, secondary.Ⓞ.....			12.7	54		
<b>2.2</b>	<b>Tertiary education</b> .....			24.1	83	◇	
2.2.1	Tertiary enrolment, % gross.Ⓞ.....			62.4	43		
2.2.2	Graduates in science & engineering, %.....			13.2	95	◇	
2.2.3	Tertiary inbound mobility, %.....			n/a	n/a		
<b>2.3</b>	<b>Research &amp; development (R&amp;D)</b> .....			7.1	69	◇	
2.3.1	Researchers, FTE/mn pop.....			667.7	62	◇	
2.3.2	Gross expenditure on R&D, % GDP.Ⓞ.....			0.4	69	◇	
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*.....			12.0	61		
<b>INFRASTRUCTURE</b> .....				51.0	49	◇	
<b>3.1</b>	<b>Information &amp; communication technologies (ICTs)</b> .....			81.7	27	●	
3.1.1	ICT access*.....			75.1	42		
3.1.2	ICT use*.....			71.4	31		
3.1.3	Government's online service*.....			88.9	27	●	
3.1.4	E-participation*.....			91.6	26	●	
<b>3.2</b>	<b>General infrastructure</b> .....			23.6	107	◇	
3.2.1	Electricity output, kWh/mn pop.....			3,848.3	53		
3.2.2	Logistics performance*.....			29.1	83	◇	
3.2.3	Gross capital formation, % GDP.....			17.8	104	◇	
<b>3.3</b>	<b>Ecological sustainability</b> .....			47.7	40		
3.3.1	GDP/unit of energy use.....			13.0	24	●	
3.3.2	Environmental performance*.....			64.7	43		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..			3.0	32		
<b>MARKET SOPHISTICATION</b> .....				39.9	101	◇	
<b>4.1</b>	<b>Credit</b> .....			23.5	111	◇	
4.1.1	Ease of getting credit*.....			60.0	66		
4.1.2	Domestic credit to private sector, % GDP.....			26.3	105	◇	
4.1.3	Microfinance gross loans, % GDP.Ⓞ.....			0.0	67	◇	
<b>4.2</b>	<b>Investment</b> .....			43.3	[61]		
4.2.1	Ease of protecting minority investors*.....			43.3	105	◇	
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, &amp; market scale</b> .....			52.8	97	◇	
4.3.1	Applied tariff rate, weighted avg., %.....			6.3	97	◇	
4.3.2	Intensity of local competition*.....			61.5	101	◇	
4.3.3	Domestic market scale, bn PPP\$.....			81.6	86		
<b>BUSINESS SOPHISTICATION</b> .....				27.7	81	◇	
<b>5.1</b>	<b>Knowledge workers</b> .....			33.3	78	◇	
5.1.1	Knowledge-intensive employment, %.....			22.2	67	◇	
5.1.2	Firms offering formal training, % firms.Ⓞ.....			48.6	23		
5.1.3	GERD performed by business, % GDP.Ⓞ.....			0.0	80	◇	
5.1.4	GERD financed by business, %.....			4.6	81	◇	
5.1.5	Females employed w/advanced degrees, %.....			10.1	65	◇	
<b>5.2</b>	<b>Innovation linkages</b> .....			18.3	101	◇	
5.2.1	University/industry research collaboration*.....			34.9	93	◇	
5.2.2	State of cluster development*.....			37.0	101	◇	
5.2.3	GERD financed by abroad, %.....			7.4	52		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....			0.0	79		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....			0.2	49		
<b>5.3</b>	<b>Knowledge absorption</b> .....			31.4	77		
5.3.1	Intellectual property payments, % total trade.....			0.8	48		
5.3.2	High-tech imports, % total trade.....			7.1	71		
5.3.3	ICT services imports, % total trade.....			2.5	15	●	
5.3.4	FDI net inflows, % GDP.....			0.8	112	◇	
5.3.5	Research talent, % in business enterprise.....			0.7	80	◇	
<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b> .....				21.5	67		
<b>6.1</b>	<b>Knowledge creation</b> .....			9.4	72	◇	
6.1.1	Patents by origin/bn PPP\$ GDP.....			0.3	87		
6.1.2	PCT patents by origin/bn PPP\$ GDP.....			n/a	n/a		
6.1.3	Utility models by origin/bn PPP\$ GDP.....			0.3	38		
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....			9.2	52		
6.1.5	Citable documents H-index.....			9.9	68		
<b>6.2</b>	<b>Knowledge impact</b> .....			36.3	66		
6.2.1	Growth rate of PPP\$ GDP/worker, %.....			2.0	44		
6.2.2	New businesses/th pop. 15-64.....			2.1	50		
6.2.3	Computer software spending, % GDP.....			0.2	68		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....			14.6	23	●	
6.2.5	High- & medium-high-tech manufactures, %.....			0.1	72	◇	
<b>6.3</b>	<b>Knowledge diffusion</b> .....			18.7	54		
6.3.1	Intellectual property receipts, % total trade.....			0.2	32		
6.3.2	High-tech net exports, % total trade.....			0.9	70		
6.3.3	ICT services exports, % total trade.....			3.0	30	●	
6.3.4	FDI net outflows, % GDP.....			1.4	43		
<b>CREATIVE OUTPUTS</b> .....				29.2	57		
<b>7.1</b>	<b>Intangible assets</b> .....			41.7	60		
7.1.1	Trademarks by origin/bn PPP\$ GDP.....			47.4	51		
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....			0.7	81		
7.1.3	ICTs & business model creation*.....			66.8	43		
7.1.4	ICTs & organizational model creation*.....			58.4	50		
<b>7.2</b>	<b>Creative goods &amp; services</b> .....			16.6	64		
7.2.1	Cultural & creative services exports, % total trade.....			1.6	12	●	
7.2.2	National feature films/mn pop. 15-69.Ⓞ.....			4.7	45		
7.2.3	Entertainment & Media market/th pop. 15-69.....			n/a	n/a		
7.2.4	Printing & other media, % manufacturing.Ⓞ.....			1.1	56		
7.2.5	Creative goods exports, % total trade.....			0.1	106	◇	
<b>7.3</b>	<b>Online creativity</b> .....			16.7	39		
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....			6.4	50		
7.3.2	Country-code TLDs/th pop. 15-69.....			9.8	39		
7.3.3	Wikipedia edits/mn pop. 15-69.Ⓞ.....			68.1	14	●	
7.3.4	Mobile app creation/bn PPP\$ GDP.....			4.6	50		

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.