

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
100	120	Low	SSF	19.1	44.3	2,384.0	112
				Score/Value	Rank		
<b>INSTITUTIONS</b> .....				51.4	103		
1.1	<b>Political environment</b> .....		31.7	124	○		
1.1.1	Political and operational stability*.....		47.4	123	○		
1.1.2	Government effectiveness*.....		23.8	121			
1.2	<b>Regulatory environment</b> .....		58.8	85			
1.2.1	Regulatory quality*.....		26.6	105			
1.2.2	Rule of law*.....		25.8	110			
1.2.3	Cost of redundancy dismissal, salary weeks.....		13.7	52	●		
1.3	<b>Business environment</b> .....		63.8	85			
1.3.1	Ease of starting a business*.....		84.1	85			
1.3.2	Ease of resolving insolvency*.....		43.5	86			
<b>HUMAN CAPITAL &amp; RESEARCH</b> .....				10.7	123 ○		
2.1	<b>Education</b> .....		27.1	111			
2.1.1	Expenditure on education, % GDP.....		3.1	101			
2.1.2	Government funding/pupil, secondary, % GDP/cap... ..		20.3	48	●		
2.1.3	School life expectancy, years.....		7.3	117	○ ◇		
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		17.4	77			
2.2	<b>Tertiary education</b> .....		3.4	122	○ ◇		
2.2.1	Tertiary enrolment, % gross.....		5.5	117	○		
2.2.2	Graduates in science & engineering, %.....		n/a	n/a			
2.2.3	Tertiary inbound mobility, %.....		0.9	90			
2.3	<b>Research &amp; development (R&amp;D)</b> .....		1.6	96			
2.3.1	Researchers, FTE/mn pop.....		32.8	98			
2.3.2	Gross expenditure on R&D, % GDP.....		0.3	80			
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*.....		0.0	78	○ ◇		
<b>INFRASTRUCTURE</b> .....				27.5	119		
3.1	<b>Information &amp; communication technologies (ICTs)</b> .....		25.2	124	○		
3.1.1	ICT access*.....		35.7	110			
3.1.2	ICT use*.....		14.6	117			
3.1.3	Government's online service*.....		26.4	121			
3.1.4	E-participation*.....		24.2	121	◇		
3.2	<b>General infrastructure</b> .....		27.8	90			
3.2.1	Electricity output, kWh/mn pop.....		n/a	n/a			
3.2.2	Logistics performance*.....		24.6	91			
3.2.3	Gross capital formation, % GDP.....		19.4	98			
3.3	<b>Ecological sustainability</b> .....		29.6	98			
3.3.1	GDP/unit of energy use.....		n/a	n/a			
3.3.2	Environmental performance*.....		43.7	112			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.2	116			
<b>MARKET SOPHISTICATION</b> .....				33.9	123 ○		
4.1	<b>Credit</b> .....		18.3	120			
4.1.1	Ease of getting credit*.....		30.0	115			
4.1.2	Domestic credit to private sector, % GDP.....		27.1	101			
4.1.3	Microfinance gross loans, % GDP.....		0.8	22	●		
4.2	<b>Investment</b> .....		40.0	[72]			
4.2.1	Ease of protecting minority investors*.....		40.0	114			
4.2.2	Market capitalization, % GDP.....		n/a	n/a			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		n/a	n/a			
4.3	<b>Trade, competition, &amp; market scale</b> .....		43.3	123	○		
4.3.1	Applied tariff rate, weighted avg., %.....		10.0	112			
4.3.2	Intensity of local competition*.....		58.3	112			
4.3.3	Domestic market scale, bn PPP\$.....		44.3	98			
<b>BUSINESS SOPHISTICATION</b> .....				30.1	68		◇
5.1	<b>Knowledge workers</b> .....		8.1	125	○		
5.1.1	Knowledge-intensive employment, %.....		3.7	111			
5.1.2	Firms offering formal training, % firms.....		17.7	80			
5.1.3	GERD performed by business, % GDP.....		n/a	n/a			
5.1.4	GERD financed by business, %.....		0.8	91			
5.1.5	Females employed w/advanced degrees, %.....		0.3	114	○		
5.2	<b>Innovation linkages</b> .....		41.3	27	● ◆		
5.2.1	University/industry research collaboration*.....		39.8	70			
5.2.2	State of cluster development*.....		46.5	66	◆		
5.2.3	GERD financed by abroad, %.....		50.2	2	● ◆		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	77			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	93	○ ◇		
5.3	<b>Knowledge absorption</b> .....		41.1	39	● ◆		
5.3.1	Intellectual property payments, % total trade.....		0.1	107			
5.3.2	High-tech imports, % total trade.....		6.6	81			
5.3.3	ICT services imports, % total trade.....		3.1	7	● ◆		
5.3.4	FDI net inflows, % GDP.....		2.1	80			
5.3.5	Research talent, % in business enterprise.....		31.4	40	● ◆		
<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b> ...20.5 [71]							
6.1	<b>Knowledge creation</b> .....		3.8	[111]			
6.1.1	Patents by origin/bn PPP\$ GDP.....		0.2	96			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		2.3	108	◇		
6.1.5	Citable documents H-index.....		4.0	102			
6.2	<b>Knowledge impact</b> .....		38.9	[53]			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		2.8	29	●		
6.2.2	New businesses/th pop. 15-64.....		n/a	n/a			
6.2.3	Computer software spending, % GDP.....		0.0	113			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		0.2	127	○		
6.2.5	High- & medium-high-tech manufactures, %.....		n/a	n/a			
6.3	<b>Knowledge diffusion</b> .....		18.8	53	● ◆		
6.3.1	Intellectual property receipts, % total trade.....		0.0	95			
6.3.2	High-tech net exports, % total trade.....		0.1	116			
6.3.3	ICT services exports, % total trade.....		5.0	9	● ◆		
6.3.4	FDI net outflows, % GDP.....		0.6	64	●		
<b>CREATIVE OUTPUTS</b> .....				14.2	119		
7.1	<b>Intangible assets</b> .....		27.2	116			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		5.3	115			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		0.2	99			
7.1.3	ICTs & business model creation*.....		48.6	111			
7.1.4	ICTs & organizational model creation*.....		45.0	95			
7.2	<b>Creative goods &amp; services</b> .....		0.2	[127]			
7.2.1	Cultural & creative services exports, % total trade.....		0.0	103			
7.2.2	National feature films/mn pop. 15-69.....		0.1	107	○ ◇		
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing & other media, % manufacturing.....		n/a	n/a			
7.2.5	Creative goods exports, % total trade.....		0.0	118			
7.3	<b>Online creativity</b> .....		2.3	81	◆		
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.1	121			
7.3.2	Country-code TLDs/th pop. 15-69.....		6.7	45	● ◆		
7.3.3	Wikipedia edits/mn pop. 15-69.....		0.1	121	○		
7.3.4	Mobile app creation/bn PPP\$ GDP.....		n/a	n/a			

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.