

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
96	67	Upper middle	SSF	1.3	30.1	23,699.5	75
				Score/Value	Rank		
INSTITUTIONS.....				63.6	62		
1.1	Political environment.....		76.0	29	◆		
1.1.1	Political and operational stability*.....		91.2	12	◆		
1.1.2	Government effectiveness*.....		68.3	35	◆		
1.2	Regulatory environment.....		33.3	126	○ ◇		
1.2.1	Regulatory quality*.....		68.7	33	◆		
1.2.2	Rule of law*.....		64.4	36	◆		
1.2.3	Cost of redundancy dismissal, salary weeks.....		73.6	127	○ ◇		
1.3	Business environment.....		81.7	30	◆		
1.3.1	Ease of starting a business*.....		94.3	18	◆		
1.3.2	Ease of resolving insolvency*.....		69.1	32	◆		
HUMAN CAPITAL & RESEARCH.....				27.1	77		
2.1	Education.....		56.5	41			
2.1.1	Expenditure on education, % GDP.....		5.0	47			
2.1.2	Government funding/pupil, secondary, % GDP/cap... ..		32.0	10	◆		
2.1.3	School life expectancy, years.....		15.0	53			
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		12.7	53			
2.2	Tertiary education.....		23.5	84			
2.2.1	Tertiary enrolment, % gross.....		38.8	71			
2.2.2	Graduates in science & engineering, %.....		n/a	n/a			
2.2.3	Tertiary inbound mobility, %.....		4.5	45			
2.3	Research & development (R&D).....		1.4	100			
2.3.1	Researchers, FTE/mn pop.Ⓞ.....		181.8	79			
2.3.2	Gross expenditure on R&D, % GDP.Ⓞ.....		0.2	91			
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	○ ◇		
INFRASTRUCTURE.....				44.2	76		
3.1	Information & communication technologies (ICTs).....		66.3	66			
3.1.1	ICT access*.....		74.3	49	◆		
3.1.2	ICT use*.....		49.0	73			
3.1.3	Government's online service*.....		72.9	63			
3.1.4	E-participation*.....		69.1	70			
3.2	General infrastructure.....		20.8	118	○ ◇		
3.2.1	Electricity output, kWh/mn pop.....		2,414.3	72			
3.2.2	Logistics performance*.....		31.3	77			
3.2.3	Gross capital formation, % GDP.....		15.8	117	○ ◇		
3.3	Ecological sustainability.....		45.4	44			
3.3.1	GDP/unit of energy use.....		15.6	10	◆		
3.3.2	Environmental performance*.....		56.6	78			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.8	72			
MARKET SOPHISTICATION.....				53.4	43		
4.1	Credit.....		56.9	22	◆		
4.1.1	Ease of getting credit*.....		65.0	54			
4.1.2	Domestic credit to private sector, % GDP.....		102.3	25	◆		
4.1.3	Microfinance gross loans, % GDP.....		n/a	n/a			
4.2	Investment.....		46.4	50			
4.2.1	Ease of protecting minority investors*.....		75.0	14	◆		
4.2.2	Market capitalization, % GDP.....		65.7	24			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.0	36			
4.3	Trade, competition, & market scale.....		56.8	82			
4.3.1	Applied tariff rate, weighted avg., %.....		0.9	8	●		
4.3.2	Intensity of local competition*.....		70.5	54			
4.3.3	Domestic market scale, bn PPP\$.....		30.1	116	○ ◇		
BUSINESS SOPHISTICATION.....				27.9	79		
5.1	Knowledge workers.....		27.9	87			
5.1.1	Knowledge-intensive employment, %.....		24.0	60			
5.1.2	Firms offering formal training, % firms.Ⓞ.....		25.6	62			
5.1.3	GERD performed by business, % GDP.....		n/a	n/a			
5.1.4	GERD financed by business, %.....Ⓞ.....		0.3	95	○ ◇		
5.1.5	Females employed w/advanced degrees, %.....		8.4	78			
5.2	Innovation linkages.....		24.2	69			
5.2.1	University/industry research collaboration*.....		35.7	90			
5.2.2	State of cluster development*.....		51.2	45			
5.2.3	GERD financed by abroad, %.....Ⓞ.....		6.4	56			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.0	29	◆		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.2	45			
5.3	Knowledge absorption.....		31.6	74			
5.3.1	Intellectual property payments, % total trade.....		0.3	78			
5.3.2	High-tech imports, % total trade.....		5.5	97			
5.3.3	ICT services imports, % total trade.....		1.6	36			
5.3.4	FDI net inflows, % GDP.....		2.3	76			
5.3.5	Research talent, % in business enterprise.....		n/a	n/a			
KNOWLEDGE & TECHNOLOGY OUTPUTS....				11.0	116	○ ◇	
6.1	Knowledge creation.....		4.0	[106]			
6.1.1	Patents by origin/bn PPP\$ GDP.....		0.0	123	○		
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.....		4.1	92			
6.1.5	Citable documents H-index.....		2.4	116	○		
6.2	Knowledge impact.....		17.8	113	◇		
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		n/a	n/a			
6.2.2	New businesses/th pop. 15-64.....		9.8	14	◆		
6.2.3	Computer software spending, % GDP.....		0.2	72			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		7.2	45			
6.2.5	High- & medium-high-tech manufactures, %.....		0.0	98	○ ◇		
6.3	Knowledge diffusion.....		11.2	97			
6.3.1	Intellectual property receipts, % total trade.....		0.0	78			
6.3.2	High-tech net exports, % total trade.Ⓞ.....		0.0	127	○		
6.3.3	ICT services exports, % total trade.....		2.0	54			
6.3.4	FDI net outflows, % GDP.....		0.3	78			
CREATIVE OUTPUTS.....				24.9	73		
7.1	Intangible assets.....		36.0	92			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		36.6	69			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.Ⓞ.....		0.4	89			
7.1.3	ICTs & business model creation*.....		57.4	79			
7.1.4	ICTs & organizational model creation*.....		53.2	65			
7.2	Creative goods & services.....		21.3	53			
7.2.1	Cultural & creative services exports, % total trade.....		0.1	78			
7.2.2	National feature films/mn pop. 15-69.....		9.3	20	◆		
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing & other media, % manufacturing.....		1.8	22	●		
7.2.5	Creative goods exports, % total trade.....		0.9	47			
7.3	Online creativity.....		6.5	60			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		13.2	33	◆		
7.3.2	Country-code TLDs/th pop. 15-69.....		2.2	66			
7.3.3	Wikipedia edits/mn pop. 15-69.Ⓞ.....		5.9	75			
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.