

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
128	121	Low	SSF	8.0	13.9	1,745.6	n/a
				Score/Value	Rank		
INSTITUTIONS				53.4	97		
1.1	Political environment		34.5	121			
1.1.1	Political and operational stability*		64.9	79			
1.1.2	Government effectiveness*		19.3	125	○		
1.2	Regulatory environment		58.1	87			
1.2.1	Regulatory quality*		20.8	115			
1.2.2	Rule of law*		27.5	108			
1.2.3	Cost of redundancy dismissal, salary weeks		13.1	49	●		
1.3	Business environment		67.7	71			
1.3.1	Ease of starting a business*		88.7	60	●		
1.3.2	Ease of resolving insolvency*		46.7	78	◆		
HUMAN CAPITAL & RESEARCH				16.0	108		
2.1	Education		36.9	95			
2.1.1	Expenditure on education, % GDP		5.1	46	●		
2.1.2	Government funding/pupil, secondary, % GDP/cap		15.9	78			
2.1.3	School life expectancy, years		12.6	86	◆		
2.1.4	PISA scales in reading, maths, & science		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary		26.2	99			
2.2	Tertiary education		9.6	[111]			
2.2.1	Tertiary enrolment, % gross		12.9	102			
2.2.2	Graduates in science & engineering, %		n/a	n/a			
2.2.3	Tertiary inbound mobility, %		n/a	n/a			
2.3	Research & development (R&D)		1.5	99			
2.3.1	Researchers, FTE/mn pop		38.3	97			
2.3.2	Gross expenditure on R&D, % GDP		0.3	82			
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				29.8	114		
3.1	Information & communication technologies (ICTs)		41.3	102			
3.1.1	ICT access*		33.5	113			
3.1.2	ICT use*		21.6	104	◆		
3.1.3	Government's online service*		55.6	98			
3.1.4	E-participation*		54.5	98			
3.2	General infrastructure		28.9	87			
3.2.1	Electricity output, kWh/mn pop		30.5	120	○		
3.2.2	Logistics performance*		18.0	108			
3.2.3	Gross capital formation, % GDP		28.2	28	●		
3.3	Ecological sustainability		19.2	127	○		
3.3.1	GDP/unit of energy use		2.9	117	○		
3.3.2	Environmental performance*		41.8	118			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP		0.9	66	◆		
MARKET SOPHISTICATION				30.6	126	○	
4.1	Credit		31.2	88			
4.1.1	Ease of getting credit*		30.0	115			
4.1.2	Domestic credit to private sector, % GDP		39.7	83	◆		
4.1.3	Microfinance gross loans, % GDP		2.7	10	●	◆	
4.2	Investment		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	Trade, competition, & market scale		20.7	129	○	◇	
4.3.1	Applied tariff rate, weighted avg., %		13.4	126	○	◇	
4.3.2	Intensity of local competition*		n/a	n/a			
4.3.3	Domestic market scale, bn PPP\$		13.9	127	○	◇	
BUSINESS SOPHISTICATION				19.0	[124]		
5.1	Knowledge workers		22.2	[103]			
5.1.1	Knowledge-intensive employment, %		7.7	104			
5.1.2	Firms offering formal training, % firms		33.7	43			
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, %		2.5	98			
5.2	Innovation linkages		11.3	[127]			
5.2.1	University/industry research collaboration*		n/a	n/a			
5.2.2	State of cluster development*		n/a	n/a			
5.2.3	GERD financed by abroad, %		5.5	62			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP		0.0	51	●		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP		n/a	n/a			
5.3	Knowledge absorption		23.7	109			
5.3.1	Intellectual property payments, % total trade		0.0	108			
5.3.2	High-tech imports, % total trade		4.3	115			
5.3.3	ICT services imports, % total trade		0.8	87			
5.3.4	FDI net inflows, % GDP		2.7	60	●		
5.3.5	Research talent, % in business enterprise		n/a	n/a			
KNOWLEDGE & TECHNOLOGY OUTPUTS				10.1	119		
6.1	Knowledge creation		2.5	119			
6.1.1	Patents by origin/bn PPP\$ GDP		0.2	104			
6.1.2	PCT patents by origin/bn PPP\$ GDP		0.0	99	○	◇	
6.1.3	Utility models by origin/bn PPP\$ GDP		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP		3.8	94			
6.1.5	Citable documents H-index		0.7	126	○	◇	
6.2	Knowledge impact		3.5	[127]			
6.2.1	Growth rate of PPP\$ GDP/worker, %		n/a	n/a			
6.2.2	New businesses/th pop. 15-64		0.3	93			
6.2.3	Computer software spending, % GDP		0.1	94			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP		1.3	102			
6.2.5	High- & medium-high-tech manufactures, %		n/a	n/a			
6.3	Knowledge diffusion		24.4	41	●	◆	
6.3.1	Intellectual property receipts, % total trade		0.0	104			
6.3.2	High-tech net exports, % total trade		0.0	123	○	◇	
6.3.3	ICT services exports, % total trade		2.0	55	●		
6.3.4	FDI net outflows, % GDP		6.9	9	●	◆	
CREATIVE OUTPUTS				4.5	[128]		
7.1	Intangible assets		3.8	[128]			
7.1.1	Trademarks by origin/bn PPP\$ GDP		11.4	102			
7.1.2	Industrial designs by origin/bn PPP\$ GDP		0.8	78			
7.1.3	ICTs & business model creation*		n/a	n/a			
7.1.4	ICTs & organizational model creation*		n/a	n/a			
7.2	Creative goods & services		9.9	[86]			
7.2.1	Cultural & creative services exports, % total trade		1.5	16	●	◆	
7.2.2	National feature films/mn pop. 15-69		0.7	92			
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	112			
7.3	Online creativity		0.3	118			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69		0.6	104	◆		
7.3.2	Country-code TLDs/th pop. 15-69		0.1	120			
7.3.3	Wikipedia edits/mn pop. 15-69		0.2	118			
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.