

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
22	9	High	NAC	37.0	1,852.5	49,651.2	18
				Score/Value	Rank		
INSTITUTIONS				92.3	4 ●		
1.1	Political environment		92.0	6 ●	5.1	Knowledge workers 56.4 28 ◇	
1.1.1	Political and operational stability*.....		93.0	7	5.1.1	Knowledge-intensive employment, %..... 43.7 19	
1.1.2	Government effectiveness*.....		91.5	6 ●	5.1.2	Firms offering formal training, % firms..... n/a n/a	
1.2	Regulatory environment		95.1	8	5.1.3	GERD performed by business, % GDP..... 0.8 24	
1.2.1	Regulatory quality*.....		92.6	6 ●	5.1.4	GERD financed by business, %..... 40.9 43 ◇	
1.2.2	Rule of law*.....		94.0	10	5.1.5	Females employed w/advanced degrees, %..... 17.6 31	
1.2.3	Cost of redundancy dismissal, salary weeks.....		10.0	29	5.2	Innovation linkages 48.4 15	
1.3	Business environment		89.8	4 ●	5.2.1	University/industry research collaboration*..... 63.0 20	
1.3.1	Ease of starting a business*.....		98.2	3 ● ◆	5.2.2	State of cluster development*..... 62.0 22	
1.3.2	Ease of resolving insolvency*.....		81.5	12	5.2.3	GERD financed by abroad, %..... 10.9 36	
				Score/Value	Rank		
HUMAN CAPITAL & RESEARCH				50.9	19		
2.1	Education		51.9	51 ◇	5.3	Knowledge absorption 44.9 28	
2.1.1	Expenditure on education, % GDP.....		5.3	33	5.3.1	Intellectual property payments, % total trade..... 2.2 11	
2.1.2	Government funding/pupil, secondary, % GDP/cap.....		18.3	58 ○ ◇	5.3.2	High-tech imports, % total trade..... 10.0 30	
2.1.3	School life expectancy, years.....		16.1	33	5.3.3	ICT services imports, % total trade..... 0.9 77 ○ ◇	
2.1.4	PISA scales in reading, maths, & science.....		523.3	5	5.3.4	FDI net inflows, % GDP..... 2.6 64	
2.1.5	Pupil-teacher ratio, secondary.....		n/a	n/a	5.3.5	Research talent, % in business enterprise..... 56.7 18	
2.2	Tertiary education		41.2	32			
2.2.1	Tertiary enrolment, % gross.....		67.0	33			
2.2.2	Graduates in science & engineering, %.....		21.3	55 ○			
2.2.3	Tertiary inbound mobility, %.....		11.9	14			
2.3	Research & development (R&D)		59.5	15			
2.3.1	Researchers, FTE/mn pop.....		4,274.7	22			
2.3.2	Gross expenditure on R&D, % GDP.....		1.7	21			
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....		69.6	19			
2.3.4	QS university ranking, average score top 3*.....		80.2	6 ●			
				Score/Value	Rank		
INFRASTRUCTURE				58.5	27 ◇		
3.1	Information & communication technologies (ICTs)		85.0	21			
3.1.1	ICT access*.....		80.0	29			
3.1.2	ICT use*.....		76.1	25			
3.1.3	Government's online service*.....		93.1	17			
3.1.4	E-participation*.....		91.0	27			
3.2	General infrastructure		55.4	8			
3.2.1	Electricity output, kWh/mn pop.....		18,368.9	4 ● ◆			
3.2.2	Logistics performance*.....		77.8	20			
3.2.3	Gross capital formation, % GDP.....		23.8	56			
3.3	Ecological sustainability		35.1	79 ○ ◇			
3.3.1	GDP/unit of energy use.....		5.5	103 ○ ◇			
3.3.2	Environmental performance*.....		72.2	24			
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....		0.7	76 ○ ◇			
				Score/Value	Rank		
MARKET SOPHISTICATION				80.4	2 ● ◆		
4.1	Credit		85.0	[4]			
4.1.1	Ease of getting credit*.....		85.0	11 ◆			
4.1.2	Domestic credit to private sector, % GDP.....		n/a	n/a			
4.1.3	Microfinance gross loans, % GDP.....		n/a	n/a			
4.2	Investment		77.7	4 ● ◆			
4.2.1	Ease of protecting minority investors*.....		78.3	10 ◆			
4.2.2	Market capitalization, % GDP.....		125.1	7			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.5	1 ● ◆			
4.3	Trade, competition, & market scale		78.6	13			
4.3.1	Applied tariff rate, weighted avg., %.....		1.5	16			
4.3.2	Intensity of local competition*.....		74.5	31			
4.3.3	Domestic market scale, bn PPP\$.....		1,852.5	17			
				Score/Value	Rank		
BUSINESS SOPHISTICATION				49.9	22		
				Score/Value	Rank		
KNOWLEDGE & TECHNOLOGY OUTPUTS				41.3	19		
				Score/Value	Rank		
6.1	Knowledge creation		50.5	13			
6.1.1	Patents by origin/bn PPP\$ GDP.....		2.3	38 ◇			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		1.3	27 ◇			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		20.6	22			
6.1.5	Citable documents H-index.....		80.0	4 ● ◆			
6.2	Knowledge impact		41.5	43			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		0.7	68 ○			
6.2.2	New businesses/th pop. 15-64.....		0.1	104 ○ ◇			
6.2.3	Computer software spending, % GDP.....		0.7	5 ●			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		3.4	73 ○ ◇			
6.2.5	High- & medium-high-tech manufactures, %.....		0.4	24			
6.3	Knowledge diffusion		32.0	27			
6.3.1	Intellectual property receipts, % total trade.....		0.8	21			
6.3.2	High-tech net exports, % total trade.....		4.9	31			
6.3.3	ICT services exports, % total trade.....		1.5	68 ○			
6.3.4	FDI net outflows, % GDP.....		5.0	12			
				Score/Value	Rank		
CREATIVE OUTPUTS				41.4	27		
				Score/Value	Rank		
7.1	Intangible assets		50.7	31			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		58.5	37			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		0.5	86 ○ ◇			
7.1.3	ICTs & business model creation*.....		75.7	16			
7.1.4	ICTs & organizational model creation*.....		77.0	11			
7.2	Creative goods & services		24.7	45			
7.2.1	Cultural & creative services exports, % total trade.....		0.8	34			
7.2.2	National feature films/mn pop. 15-69.....		3.5	53			
7.2.3	Entertainment & Media market/th pop. 15-69.....		59.4	10			
7.2.4	Printing & other media, % manufacturing.....		1.5	34			
7.2.5	Creative goods exports, % total trade.....		1.0	43			
7.3	Online creativity		39.4	17			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		76.5	6 ● ◆			
7.3.2	Country-code TLDs/th pop. 15-69.....		29.4	19			
7.3.3	Wikipedia edits/mn pop. 15-69.....		49.0	25			
7.3.4	Mobile app creation/bn PPP\$ GDP.....		18.8	24			

NOTES: ● indicates a strength; ○ a weakness; ◆ a strength relative to the other top 25-ranked GII economies; ◇ a weakness relative to the other top 25-ranked GII economies; * 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.