

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GI 2018 rank
42	76	Lower middle	SEAO	106.5	956.0	8,935.9	73
				Score/Value	Rank		
INSTITUTIONS				56.0	89		
1.1	Political environment	49.9	84				
1.1.1	Political and operational stability*.....	59.6	98				
1.1.2	Government effectiveness*.....	45.0	73				
1.2	Regulatory environment	54.6	99				
1.2.1	Regulatory quality*.....	42.5	69				
1.2.2	Rule of law*.....	35.4	90				
1.2.3	Cost of redundancy dismissal, salary weeks.....	27.4	111 ○				
1.3	Business environment	63.6	89				
1.3.1	Ease of starting a business*.....	72.0	119 ○ ◇				
1.3.2	Ease of resolving insolvency*.....	55.2	58 ◆				
HUMAN CAPITAL & RESEARCH				24.6	83		
2.1	Education	33.3	[102]				
2.1.1	Expenditure on education, % GDP.....	2.7	112 ○				
2.1.2	Government funding/pupil, secondary, % GDP/cap... n/a	n/a	n/a				
2.1.3	School life expectancy, years.....	12.7	83				
2.1.4	PISA scales in reading, maths, & science.....	n/a	n/a				
2.1.5	Pupil-teacher ratio, secondary.....	23.5	96				
2.2	Tertiary education	34.5	55				
2.2.1	Tertiary enrolment, % gross.....	35.3	75				
2.2.2	Graduates in science & engineering, %.....	28.7	18 ●				
2.2.3	Tertiary inbound mobility, %.....	0.1	108 ○				
2.3	Research & development (R&D)	6.2	72				
2.3.1	Researchers, FTE/mn pop.....	187.7	78				
2.3.2	Gross expenditure on R&D, % GDP.....	0.1	98				
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*.....	19.9	51 ◆				
INFRASTRUCTURE				48.5	58		
3.1	Information & communication technologies (ICTs)	68.5	60 ◆				
3.1.1	ICT access*.....	47.5	94				
3.1.2	ICT use*.....	44.7	78 ◆				
3.1.3	Government's online service*.....	88.2	30 ◆				
3.1.4	E-participation*.....	93.8	19 ● ◆				
3.2	General infrastructure	34.2	67				
3.2.1	Electricity output, kWh/mn pop.....	878.8	97				
3.2.2	Logistics performance*.....	39.3	59				
3.2.3	Gross capital formation, % GDP.....	27.5	31				
3.3	Ecological sustainability	42.8	48 ◆				
3.3.1	GDP/unit of energy use.....	13.3	19 ◆				
3.3.2	Environmental performance*.....	57.7	71				
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..	1.2	61 ◆				
MARKET SOPHISTICATION				38.3	110		
4.1	Credit	8.8	126 ○ ◇				
4.1.1	Ease of getting credit*.....	5.0	128 ○ ◇				
4.1.2	Domestic credit to private sector, % GDP.....	47.8	72				
4.1.3	Microfinance gross loans, % GDP.....	0.0	76 ○				
4.2	Investment	30.9	118 ○				
4.2.1	Ease of protecting minority investors*.....	43.3	105 ◇				
4.2.2	Market capitalization, % GDP.....	84.3	18 ◆				
4.2.3	Venture capital deals/bn PPP\$ GDP.....	0.0	68 ○				
4.3	Trade, competition, & market scale	75.2	20 ● ◆				
4.3.1	Applied tariff rate, weighted avg., %.....	1.7	18 ● ◆				
4.3.2	Intensity of local competition*.....	75.0	27 ◆				
4.3.3	Domestic market scale, bn PPP\$.....	956.0	27				
BUSINESS SOPHISTICATION				40.9	32		
5.1	Knowledge workers	46.1	44 ◆				
5.1.1	Knowledge-intensive employment, %.....	25.2	55				
5.1.2	Firms offering formal training, % firms.....	59.8	9 ● ◆				
5.1.3	GERD performed by business, % GDP.....	0.0	72				
5.1.4	GERD financed by business, %.....	36.9	50				
5.1.5	Females employed w/advanced degrees, %.....	12.4	57				
5.2	Innovation linkages	22.6	71				
5.2.1	University/industry research collaboration*.....	57.5	25 ◆				
5.2.2	State of cluster development*.....	50.0	48				
5.2.3	GERD financed by abroad, %.....	1.8	80				
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	43				
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.0	76				
5.3	Knowledge absorption	54.1	14 ● ◆				
5.3.1	Intellectual property payments, % total trade.....	0.7	55				
5.3.2	High-tech imports, % total trade.....	23.2	5 ● ◆				
5.3.3	ICT services imports, % total trade.....	0.8	83				
5.3.4	FDI net inflows, % GDP.....	2.6	65				
5.3.5	Research talent, % in business enterprise.....	63.2	6 ● ◆				
KNOWLEDGE & TECHNOLOGY OUTPUTS				33.7	31		
6.1	Knowledge creation	11.5	64				
6.1.1	Patents by origin/bn PPP\$ GDP.....	0.4	82				
6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.0	90				
6.1.3	Utility models by origin/bn PPP\$ GDP.....	1.6	15				
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	0.9	123 ○				
6.1.5	Citable documents H-index.....	13.4	54				
6.2	Knowledge impact	43.2	38				
6.2.1	Growth rate of PPP\$ GDP/worker, %.....	4.9	10 ● ◆				
6.2.2	New businesses/th pop. 15-64.....	0.3	91 ○				
6.2.3	Computer software spending, % GDP.....	0.3	55				
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	4.4	61				
6.2.5	High- & medium-high-tech manufactures, %.....	0.4	25 ◆				
6.3	Knowledge diffusion	46.5	14 ● ◆				
6.3.1	Intellectual property receipts, % total trade.....	0.0	87				
6.3.2	High-tech net exports, % total trade.....	32.7	1 ● ◆				
6.3.3	ICT services exports, % total trade.....	5.5	8 ● ◆				
6.3.4	FDI net outflows, % GDP.....	1.3	48 ◆				
CREATIVE OUTPUTS				27.7	63		
7.1	Intangible assets	41.3	63				
7.1.1	Trademarks by origin/bn PPP\$ GDP.....	30.7	75				
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	0.9	71				
7.1.3	ICTs & business model creation*.....	68.9	32 ◆				
7.1.4	ICTs & organizational model creation*.....	61.7	39 ◆				
7.2	Creative goods & services	26.6	40 ◆				
7.2.1	Cultural & creative services exports, % total trade.....	0.1	92				
7.2.2	National feature films/mn pop. 15-69.....	0.8	86				
7.2.3	Entertainment & Media market/th pop. 15-69.....	2.6	50 ◆				
7.2.4	Printing & other media, % manufacturing.....	0.6	87				
7.2.5	Creative goods exports, % total trade.....	7.0	8 ● ◆				
7.3	Online creativity	1.4	99				
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	1.1	92				
7.3.2	Country-code TLDs/th pop. 15-69.....	0.3	101				
7.3.3	Wikipedia edits/mn pop. 15-69.....	3.8	89				
7.3.4	Mobile app creation/bn PPP\$ GDP.....	1.4	63				

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.