

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
39	34	Upper middle	SEAO	32.0	999.8	30,859.9	35
INSTITUTIONS 71.6 40 ◆				BUSINESS SOPHISTICATION 39.3 36 ◆			
1.1	Political environment	72.6	35	◆	5.1	Knowledge workers	38.1 58
1.1.1	Political and operational stability*	84.2	25	◆	5.1.1	Knowledge-intensive employment, %	27.3 50
1.1.2	Government effectiveness*	66.9	37	◆	5.1.2	Firms offering formal training, % firms	18.5 77 ○ ◆
1.2	Regulatory environment	67.3	64		5.1.3	GERD performed by business, % GDP	0.8 25 ◆
1.2.1	Regulatory quality*	60.3	40	◆	5.1.4	GERD financed by business, %	56.9 16 ◆
1.2.2	Rule of law*	57.3	46	◆	5.1.5	Females employed w/advanced degrees, %	12.5 56
1.2.3	Cost of redundancy dismissal, salary weeks	23.9	100	○	5.2	Innovation linkages	30.2 47 ◆
1.3	Business environment	75.0	46		5.2.1	University/industry research collaboration†	72.0 8 ● ◆
1.3.1	Ease of starting a business*	82.8	94	○	5.2.2	State of cluster development†	71.1 8 ● ◆
1.3.2	Ease of resolving insolvency*	67.2	38		5.2.3	GERD financed by abroad, %	0.9 91 ○
					5.2.4	JV-strategic alliance deals/bn PPP\$ GDP	0.0 34 ◆
					5.2.5	Patent families 2+ offices/bn PPP\$ GDP	0.2 50
					5.3	Knowledge absorption	49.5 19 ◆
2.1	Education	46.1	70		5.3.1	Intellectual property payments, % total trade	0.7 53
2.1.1	Expenditure on education, % GDP	4.7	56		5.3.2	High-tech imports, % total trade	26.4 3 ● ◆
2.1.2	Government funding/pupil, secondary, % GDP/cap	23.0	35		5.3.3	ICT services imports, % total trade	1.4 48
2.1.3	School life expectancy, years	13.5	76	○	5.3.4	FDI net inflows, % GDP	3.6 46
2.1.4	PISA scales in reading, maths, & science	412.7	58	○	5.3.5	Research talent, % in business enterprise	21.9 53
2.1.5	Pupil-teacher ratio, secondary	12.3	51		5.4	Knowledge & Technology Outputs	32.1 34 ◆
2.2	Tertiary education	47.8	18	◆	6.1	Knowledge creation	9.9 71
2.2.1	Tertiary enrolment, % gross	41.9	68		6.1.1	Patents by origin/bn PPP\$ GDP	1.2 57
2.2.2	Graduates in science & engineering, %	32.1	8	● ◆	6.1.2	PCT patents by origin/bn PPP\$ GDP	0.1 58
2.2.3	Tertiary inbound mobility, %	8.1	27	◆	6.1.3	Utility models by origin/bn PPP\$ GDP	0.1 48 ○
2.3	Research & development (R&D)	38.6	27	◆	6.1.4	Scientific & technical articles/bn PPP\$ GDP	8.0 59
2.3.1	Researchers, FTE/mn pop	2,357.9	36	◆	6.1.5	Citable documents H-index	17.0 43
2.3.2	Gross expenditure on R&D, % GDP	1.4	23	◆	6.2	Knowledge impact	46.3 24 ◆
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$	44.3	37	◆	6.2.1	Growth rate of PPP\$ GDP/worker, %	3.3 21
2.3.4	QS university ranking, average score top 3*	50.6	17	● ◆	6.2.2	New businesses/th pop. 15-64	2.3 46
					6.2.3	Computer software spending, % GDP	0.4 29 ◆
					6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	11.1 27
					6.2.5	High- & medium-high-tech manufactures, %	0.4 17 ◆
3.1	Information & communication technologies (ICTs)	79.4	33	◆	6.3	Knowledge diffusion	40.0 20 ◆
3.1.1	ICT access*	75.0	43	◆	6.3.1	Intellectual property receipts, % total trade	0.1 62
3.1.2	ICT use*	64.8	47	◆	6.3.2	High-tech net exports, % total trade	34.1 1 ● ◆
3.1.3	Government's online service*	88.9	27	◆	6.3.3	ICT services exports, % total trade	1.3 72
3.1.4	E-participation*	88.8	32		6.3.4	FDI net outflows, % GDP	2.9 23 ◆
3.2	General infrastructure	38.1	50		7.1	Intangible assets	44.4 51
3.2.1	Electricity output, kWh/mn pop	5,022.8	45		7.1.1	Trademarks by origin/bn PPP\$ GDP	20.9 87 ○
3.2.2	Logistics performance*	54.1	40	◆	7.1.2	Industrial designs by origin/bn PPP\$ GDP	0.6 83 ○
3.2.3	Gross capital formation, % GDP	24.3	51		7.1.3	ICTs & business model creation†	74.4 21 ◆
3.3	Ecological sustainability	37.9	66		7.1.4	ICTs & organizational model creation†	71.9 17 ● ◆
3.3.1	GDP/unit of energy use	8.8	65		7.2	Creative goods & services	37.1 11 ● ◆
3.3.2	Environmental performance*	59.2	66		7.2.1	Cultural & creative services exports, % total trade	0.3 67
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	2.4	42		7.2.2	National feature films/mn pop. 15-69	3.8 48
					7.2.3	Entertainment & Media market/th pop. 15-69	9.7 36 ◆
					7.2.4	Printing & other media, % manufacturing	0.9 72 ○
					7.2.5	Creative goods exports, % total trade	9.8 1 ● ◆
4.1	Credit	44.8	45	◆	7.3	Online creativity	5.2 64
4.1.1	Ease of getting credit*	75.0	29		7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	6.2 51
4.1.2	Domestic credit to private sector, % GDP	118.8	18	◆	7.3.2	Country-code TLDs/th pop. 15-69	4.0 56
4.1.3	Microfinance gross loans, % GDP	0.1	52		7.3.3	Wikipedia edits/mn pop. 15-69	9.4 65
4.2	Investment	55.9	29		7.3.4	Mobile app creation/bn PPP\$ GDP	4.2 54
4.2.1	Ease of protecting minority investors*	81.7	2	● ◆			
4.2.2	Market capitalization, % GDP	131.7	6	● ◆			
4.2.3	Venture capital deals/bn PPP\$ GDP	0.0	48				
4.3	Trade, competition, & market scale	72.6	27				
4.3.1	Applied tariff rate, weighted avg., %	4.0	74				
4.3.2	Intensity of local competition†	76.7	17	● ◆			
4.3.3	Domestic market scale, bn PPP\$	999.8	25				

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.