

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank	
43	47	Upper middle	SEAO	69.2	1,323.2	19,476.5	44	
INSTITUTIONS 65.8 57				BUSINESS SOPHISTICATION 32.3 60				
1.1	Political environment	60.6	50	5.1	Knowledge workers	32.2	80	
1.1.1	Political and operational stability*	70.2	61	5.1.1	Knowledge-intensive employment, %	14.3	90	
1.1.2	Government effectiveness*	55.9	49	5.1.2	Firms offering formal training, % firms	18.0	79	
1.2	Regulatory environment	52.0	105 ○	5.1.3	GERD performed by business, % GDP	0.6	35	
1.2.1	Regulatory quality*	45.7	65	5.1.4	GERD financed by business, %	75.2	4	
1.2.2	Rule of law*	47.5	61	5.1.5	Females employed w/advanced degrees, %	9.5	69	
1.2.3	Cost of redundancy dismissal, salary weeks	36.0	120	○ ◇	5.2	Innovation linkages	21.0 81	
1.3	Business environment	84.7	20 ● ◆	5.2.1	University/industry research collaboration†	52.2	36	
1.3.1	Ease of starting a business*	92.7	36	5.2.2	State of cluster development†	48.8	53	
1.3.2	Ease of resolving insolvency*	76.6	22	◆	5.2.3	GERD financed by abroad, %	0.9	92
HUMAN CAPITAL & RESEARCH 34.7 52				KNOWLEDGE & TECHNOLOGY OUTPUTS 31.3 38 ◆				
2.1	Education	40.6	81	5.3	Knowledge absorption	43.8	30 ◆	
2.1.1	Expenditure on education, % GDP	4.1	74	5.3.1	Intellectual property payments, % total trade	1.6	20	
2.1.2	Government funding/pupil, secondary, % GDP/cap	18.0	62	5.3.2	High-tech imports, % total trade	15.3	12	
2.1.3	School life expectancy, years	15.4	40	5.3.3	ICT services imports, % total trade	0.2	123	
2.1.4	PISA scales in reading, maths, & science	415.3	56	○ ◇	5.3.4	FDI net inflows, % GDP	1.6	95
2.1.5	Pupil-teacher ratio, secondary	24.2	97	○ ◇	5.3.5	Research talent, % in business enterprise	56.8	17
2.2	Tertiary education	37.1	45	6.1	Knowledge creation	16.7	54	
2.2.1	Tertiary enrolment, % gross	49.3	57	6.1.1	Patents by origin/bn PPP\$ GDP	0.8	69	
2.2.2	Graduates in science & engineering, %	27.9	20	6.1.2	PCT patents by origin/bn PPP\$ GDP	0.1	69	
2.2.3	Tertiary inbound mobility, %	1.3	83	6.1.3	Utility models by origin/bn PPP\$ GDP	1.9	13	
2.3	Research & development (R&D)	26.4	41 ◆	6.1.4	Scientific & technical articles/bn PPP\$ GDP	4.5	86	
2.3.1	Researchers, FTE/mn pop	1,210.4	48	6.1.5	Citable documents H-index	20.2	38	
2.3.2	Gross expenditure on R&D, % GDP	0.8	46	6.2	Knowledge impact	43.6	34	
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$	46.0	35	◆	6.2.1	Growth rate of PPP\$ GDP/worker, %	3.9	14
2.3.4	QS university ranking, average score top 3*	28.0	39	◆	6.2.2	New businesses/th pop. 15-64	1.0	71
INFRASTRUCTURE 43.6 77				CREATIVE OUTPUTS 30.0 54				
3.1	Information & communication technologies (ICTs)	60.8	77	6.3	Knowledge diffusion	33.8	25 ◆	
3.1.1	ICT access*	56.8	77	6.3.1	Intellectual property receipts, % total trade	0.0	72	
3.1.2	ICT use*	57.2	61	6.3.2	High-tech net exports, % total trade	15.0	8	
3.1.3	Government's online service*	63.9	85	◆	6.3.3	ICT services exports, % total trade	0.2	119
3.1.4	E-participation*	65.2	80	○ ◇	6.3.4	FDI net outflows, % GDP	2.9	25
3.2	General infrastructure	37.3	54	7.1	Intangible assets	41.5	61	
3.2.1	Electricity output, kWh/mn pop	2,778.4	65	7.1.1	Trademarks by origin/bn PPP\$ GDP	25.2	80	
3.2.2	Logistics performance*	63.0	31	◆	7.1.2	Industrial designs by origin/bn PPP\$ GDP	3.0	42
3.2.3	Gross capital formation, % GDP	23.4	61	7.1.3	ICTs & business model creation†	67.3	39	
3.3	Ecological sustainability	32.7	85	7.1.4	ICTs & organizational model creation†	60.3	43	
3.3.1	GDP/unit of energy use	7.6	81	7.2	Creative goods & services	33.5	18 ● ◆	
3.3.2	Environmental performance*	49.9	98	○ ◇	7.2.1	Cultural & creative services exports, % total trade	0.0	117
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	2.8	36	○ ◇	7.2.2	National feature films/mn pop. 15-69	1.0	83
MARKET SOPHISTICATION 56.5 32 ◆				7.3 Online creativity 3.5 74				
4.1	Credit	46.6	42 ◆	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	5.4	52	
4.1.1	Ease of getting credit*	70.0	40	7.3.2	Country-code TLDs/th pop. 15-69	0.4	99	
4.1.2	Domestic credit to private sector, % GDP	143.8	12	◆	7.3.3	Wikipedia edits/mn pop. 15-69	5.6	80
4.1.3	Microfinance gross loans, % GDP	0.0	80	○	7.3.4	Mobile app creation/bn PPP\$ GDP	4.4	51
4.2	Investment	48.9	41	4.3	Trade, competition, & market scale	74.0	22 ◆	
4.2.1	Ease of protecting minority investors*	75.0	14	◆	4.3.1	Applied tariff rate, weighted avg., %	3.5	68
4.2.2	Market capitalization, % GDP	104.2	10	◆	4.3.2	Intensity of local competition†	74.2	34
4.2.3	Venture capital deals/bn PPP\$ GDP	0.0	71	○	4.3.3	Domestic market scale, bn PPP\$	1,323.2	19

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.