

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank		
5	26	Upper middle	SEAO	1,415.0	25,313.3	18,109.8	17		
<b>INSTITUTIONS</b> ..... 64.1 60				<b>BUSINESS SOPHISTICATION</b> ..... 55.4 14					
1.1	<b>Political environment</b> .....		63.0	47	◆	5.1	<b>Knowledge workers</b> .....	84.9	[1]
1.1.1	Political and operational stability*		75.4	46		5.1.1	Knowledge-intensive employment, %	n/a	n/a
1.1.2	Government effectiveness*		56.8	47	◆	5.1.2	Firms offering formal training, % firms	79.2	1 ● ◆
1.2	<b>Regulatory environment</b> .....		54.6	100	○	5.1.3	GERD performed by business, % GDP	1.7	12 ◆
1.2.1	Regulatory quality*		38.0	81		5.1.4	GERD financed by business, %	76.5	2 ● ◆
1.2.2	Rule of law*		39.4	77		5.1.5	Females employed w/advanced degrees, %	n/a	n/a
1.2.3	Cost of redundancy dismissal, salary weeks		27.4	107	○	5.2	<b>Innovation linkages</b> .....	27.2	58
1.3	<b>Business environment</b> .....		74.7	48		5.2.1	University/industry research collaboration†	56.5	27 ◆
1.3.1	Ease of starting a business*		93.5	25		5.2.2	State of cluster development†	59.6	28 ◆
1.3.2	Ease of resolving insolvency*		55.8	56		5.2.3	GERD financed by abroad, %	0.6	93 ○
<b>HUMAN CAPITAL &amp; RESEARCH</b> ..... 47.6 25				<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b> ... 57.2 5					
2.1	<b>Education</b> .....		63.4	[13]		5.3	<b>Knowledge absorption</b> .....	54.1	13
2.1.1	Expenditure on education, % GDP		n/a	n/a		5.3.1	Intellectual property payments, % total trade	1.1	30
2.1.2	Government funding/pupil, secondary, % GDP/cap		n/a	n/a		5.3.2	High-tech imports, % total trade	23.3	4 ● ◆
2.1.3	School life expectancy, years		13.5	74		5.3.3	ICT services imports, % total trade	0.8	85
2.1.4	PISA scales in reading, maths, & science		514.3	8	◆	5.3.4	FDI net inflows, % GDP	1.7	88 ○
2.1.5	Pupil-teacher ratio, secondary		13.3	59		5.3.5	Research talent, % in business enterprise	60.7	12 ◆
2.2	<b>Tertiary education</b> .....		20.6	94	○	6.1	<b>Knowledge creation</b> .....	68.1	4 ● ◆
2.2.1	Tertiary enrolment, % gross		51.0	55		6.1.1	Patents by origin/bn PPP\$ GDP	53.7	1 ● ◆
2.2.2	Graduates in science & engineering, %		n/a	n/a		6.1.2	PCT patents by origin/bn PPP\$ GDP	2.1	17 ◆
2.2.3	Tertiary inbound mobility, %		0.4	101	○	6.1.3	Utility models by origin/bn PPP\$ GDP	72.4	1 ● ◆
2.3	<b>Research &amp; development (R&amp;D)</b> .....		58.8	17	◆	6.1.4	Scientific & technical articles/bn PPP\$ GDP	11.9	42
2.3.1	Researchers, FTE/mn pop		1,234.8	46		6.1.5	Citable documents H-index	54.2	13 ◆
2.3.2	Gross expenditure on R&D, % GDP		2.1	15	◆	6.2	<b>Knowledge impact</b> .....	66.6	1 ● ◆
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$		91.7	6	◆	6.2.1	Growth rate of PPP\$ GDP/worker, %	7.1	1 ● ◆
2.3.4	QS university ranking, average score top 3*		82.5	3	● ◆	6.2.2	New businesses/th pop. 15-64	n/a	n/a
<b>INFRASTRUCTURE</b> ..... 58.7 26				<b>CREATIVE OUTPUTS</b> ..... 48.3 12					
3.1	<b>Information &amp; communication technologies (ICTs)</b>		74.5	46		6.2.3	Computer software spending, % GDP	0.4	24 ◆
3.1.1	ICT access*		60.0	75		6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	16.9	20
3.1.2	ICT use*		61.5	55		6.2.5	High- & medium-high-tech manufactures, %	0.5	12 ◆
3.1.3	Government's online service*		86.1	34		6.3	<b>Knowledge diffusion</b> .....	37.0	22
3.1.4	E-participation*		90.5	29	◆	6.3.1	Intellectual property receipts, % total trade	0.1	56
3.2	<b>General infrastructure</b> .....		63.8	2	● ◆	6.3.2	High-tech net exports, % total trade	27.9	1 ● ◆
3.2.1	Electricity output, kWh/mn pop		4,487.7	48		6.3.3	ICT services exports, % total trade	1.2	75
3.2.2	Logistics performance*		72.1	26	◆	6.3.4	FDI net outflows, % GDP	1.4	42
3.2.3	Gross capital formation, % GDP		44.2	4	● ◆	7.1	<b>Intangible assets</b> .....	77.6	1 ● ◆
3.3	<b>Ecological sustainability</b> .....		37.9	67		7.1.1	Trademarks by origin/bn PPP\$ GDP	238.7	1 ● ◆
3.3.1	GDP/unit of energy use		6.6	94	○	7.1.2	Industrial designs by origin/bn PPP\$ GDP	26.3	1 ● ◆
3.3.2	Environmental performance*		50.7	97	○ ◆	7.1.3	ICTs & business model creation†	61.7	56
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP		7.1	14	◆	7.1.4	ICTs & organizational model creation†	59.7	46 ◆
<b>MARKET SOPHISTICATION</b> ..... 58.6 21				<b>CREATIVE GOODS &amp; SERVICES</b> ..... 35.2 15					
4.1	<b>Credit</b> .....		45.3	43	◆	7.2	<b>Creative goods &amp; services</b> .....	35.2	15
4.1.1	Ease of getting credit*		60.0	66		7.2.1	Cultural & creative services exports, % total trade	0.5	49
4.1.2	Domestic credit to private sector, % GDP		155.8	7	◆	7.2.2	National feature films/mn pop. 15-69	0.8	87 ○
4.1.3	Microfinance gross loans, % GDP		0.0	69	○	7.2.3	Entertainment & Media market/th pop. 15-69	6.9	42
4.2	<b>Investment</b> .....		42.2	64		7.2.4	Printing & other media, % manufacturing	0.8	79 ○
4.2.1	Ease of protecting minority investors*		60.0	61		7.2.5	Creative goods exports, % total trade	11.9	1 ● ◆
4.2.2	Market capitalization, % GDP		70.2	22		7.3	<b>Online creativity</b> .....	2.7	79
4.2.3	Venture capital deals/bn PPP\$ GDP		0.1	22	◆	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	2.4	75
4.3	<b>Trade, competition, &amp; market scale</b> .....		88.2	2	● ◆	7.3.2	Country-code TLDs/th pop. 15-69	5.4	46
4.3.1	Applied tariff rate, weighted avg., %		3.8	73		7.3.3	Wikipedia edits/mn pop. 15-69	0.3	111 ○
4.3.2	Intensity of local competition†		74.4	32		7.3.4	Mobile app creation/bn PPP\$ GDP	n/a	n/a
4.3.3	Domestic market scale, bn PPP\$		25,313.3	1	● ◆				

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.