




Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
33	49	Upper middle	NAWA	85.0	2,873.8	33,963

	Score/Value	Rank		Score/Value	Rank
 Institutions	46.8	101 ○	 Business sophistication	32.5	47
1.1 Political environment	55.3	81	5.1 Knowledge workers	38.1	52
1.1.1 Political and operational stability*	61.8	87 ○	5.1.1 Knowledge-intensive employment, %	24.0	63
1.1.2 Government effectiveness*	48.8	73	5.1.2 Firms offering formal training, %	30.7	54
1.2 Regulatory environment	48.8	109 ○ ◇	5.1.3 GERD performed by business, % GDP	0.7	33 ◆
1.2.1 Regulatory quality*	44.7	74	5.1.4 GERD financed by business, %	57.2	17 ◆
1.2.2 Rule of law*	36.8	83	5.1.5 Females employed w/advanced degrees, %	11.0	68
1.2.3 Cost of redundancy dismissal	29.8	119 ○ ◇	5.2 Innovation linkages	21.5	75
1.3 Business environment	36.4	92	5.2.1 University-industry R&D collaboration†	43.1	68
1.3.1 Policies for doing business†	38.4	99 ○	5.2.2 State of cluster development and depth†	48.9	58
1.3.2 Entrepreneurship policies and culture*	34.3	47	5.2.3 GERD financed by abroad, % GDP	0.0	60
			5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP	0.0	116 ○
			5.2.5 Patent families/bn PPP\$ GDP	0.3	38 ◆
 Human capital and research	38.9	41 ◆	5.3 Knowledge absorption	37.9	44
2.1 Education	52.5	66	5.3.1 Intellectual property payments, % total trade	0.9	44
2.1.1 Expenditure on education, % GDP	4.3	65	5.3.2 High-tech imports, % total trade	9.2	51
2.1.2 Government funding/pupil, secondary, % GDP/cap	13.2	87 ○	5.3.3 ICT services imports, % total trade	0.8	92
2.1.3 School life expectancy, years	18.3	11 ◆	5.3.4 FDI net inflows, % GDP	1.3	91
2.1.4 PISA scales in reading, maths and science	462.5	41	5.3.5 Research talent, % in businesses	64.9	7 ◆
2.1.5 Pupil-teacher ratio, secondary	15.5	77			
2.2 Tertiary education	33.8	56	 Knowledge and technology outputs	27.4	47
2.2.1 Tertiary enrolment, % gross	115.0	2 ◆	6.1 Knowledge creation	24.6	37
2.2.2 Graduates in science and engineering, %	15.2	97 ○	6.1.1 Patents by origin/bn PPP\$ GDP	3.3	24
2.2.3 Tertiary inbound mobility, %	2.0	78	6.1.2 PCT patents by origin/bn PPP\$ GDP	0.6	31
2.3 Research and development (R&D)	30.3	36 ◆	6.1.3 Utility models by origin/bn PPP\$ GDP	1.4	17
2.3.1 Researchers, FTE/mn pop.	1,775.3	42 ◆	6.1.4 Scientific and technical articles/bn PPP\$ GDP	16.8	60
2.3.2 Gross expenditure on R&D, % GDP	1.1	39 ◆	6.1.5 Citable documents H-index	29.3	35 ◆
2.3.3 Global corporate R&D investors, top 3, mn US\$	48.5	29 ◆	6.2 Knowledge impact	34.9	39
2.3.4 QS university ranking, top 3*	22.4	46	6.2.1 Labor productivity growth, %	3.5	10 ◆
			6.2.2 New businesses/th pop. 15-64	1.8	63
			6.2.3 Software spending, % GDP	0.5	20 ◆
			6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	3.4	70
			6.2.5 High-tech manufacturing, %	31.5	40
 Infrastructure	49.2	48	6.3 Knowledge diffusion	22.8	67
3.1 Information and communication technologies (ICTs)	82.2	38	6.3.1 Intellectual property receipts, % total trade	0.1	66
3.1.1 ICT access*	87.5	64	6.3.2 Production and export complexity	56.0	40
3.1.2 ICT use*	66.3	60	6.3.3 High-tech exports, % total trade	1.9	63
3.1.3 Government's online service*	85.9	22 ◆	6.3.4 ICT services exports, % total trade	0.7	93
3.1.4 E-participation*	89.3	23 ◆			
3.2 General infrastructure	39.0	41 ◆	 Creative outputs	41.5	15 ◆
3.2.1 Electricity output, GWh/mn pop.	3,662.7	57	7.1 Intangible assets	72.2	4 ◆
3.2.2 Logistics performance*	51.2	44	7.1.1 Intangible asset intensity, top 15, %	72.8	15
3.2.3 Gross capital formation, % GDP	32.1	16 ◆	7.1.2 Trademarks by origin/bn PPP\$ GDP	130.2	6 ◆
3.3 Ecological sustainability	26.5	61	7.1.3 Global brand value, top 5,000, % GDP	14.8	51
3.3.1 GDP/unit of energy use	16.1	17 ◆	7.1.4 Industrial designs by origin/bn PPP\$ GDP	16.5	1 ◆
3.3.2 Environmental performance*	26.3	125 ○ ◇	7.2 Creative goods and services	13.2	72
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP	1.2	66	7.2.1 Cultural and creative services exports, % total trade	0.2	77
			7.2.2 National feature films/mn pop. 15-69	2.4	44
			7.2.3 Entertainment and media market/th pop. 15-69	4.3	48 ○
			7.2.4 Printing and other media, % manufacturing	0.7	70
			7.2.5 Creative goods exports, % total trade	2.6	19
 Market sophistication	41.6	37	7.3 Online creativity	8.6	48
4.1 Credit	34.9	39	7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	11.3	37
4.1.1 Finance for startups and scaleups*	42.4	35	7.3.2 Country-code TLDs/th pop. 15-69	2.2	67
4.1.2 Domestic credit to private sector, % GDP	75.1	44	7.3.3 GitHub commits/mn pop. 15-69	3.6	68
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	7.3.4 Mobile app creation/bn PPP\$ GDP	17.2	17 ◆
4.2 Investment	7.9	61			
4.2.1 Market capitalization, % GDP	25.5	53			
4.2.2 Venture capital investors, deals/bn PPP\$ GDP	0.0	76 ○			
4.2.3 Venture capital recipients, deals/bn PPP\$ GDP	0.0	76 ○			
4.2.4 Venture capital received, value, % GDP	0.0	33			
4.3 Trade, diversification, and market scale	81.9	11 ◆			
4.3.1 Applied tariff rate, weighted avg., %	2.8	71			
4.3.2 Domestic industry diversification	99.7	3 ◆			
4.3.3 Domestic market scale, bn PPP\$	2,873.8	11 ◆			

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 appendices for details, including the year of the data, at https://www.wipo.int/global_innovation_index/en/2022. Square brackets [] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.