

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$	GII 2020 rank
60	39	High	EUR	10.4	310.7	29,045	43

	Score/Value	Rank		Score/Value	Rank
Institutions	69.2	51	Business sophistication	25.9	60
1.1 Political environment	63.6	50	5.1 Knowledge workers	35.7	55
1.1.1 Political and operational stability*	71.4	54	5.1.1 Knowledge-intensive employment, %	30.1	47
1.1.2 Government effectiveness*	59.7	50	5.1.2 Firms offering formal training, %	21.6	73
1.2 Regulatory environment	69.5	51	5.1.3 GERD performed by business, % GDP	0.6	36
1.2.1 Regulatory quality*	57.3	47	5.1.4 GERD financed by business, %	41.6	40
1.2.2 Rule of law*	52.0	54	5.1.5 Females employed w/advanced degrees, %	18.3	36
1.2.3 Cost of redundancy dismissal	15.9	64	5.2 Innovation linkages	20.1	69
1.3 Business environment	74.6	53	5.2.1 University-industry R&D collaboration*	31.0	110
1.3.1 Ease of starting a business*	96.0	11	5.2.2 State of cluster development and depth†	32.8	118
1.3.2 Ease of resolving insolvency*	53.1	66	5.2.3 GERD financed by abroad, % GDP	0.2	22
Human capital and research	54.3	16	5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP	0.0	51
2.1 Education	66.2	13	5.2.5 Patent families/bn PPP\$ GDP	0.3	38
2.1.1 Expenditure on education, % GDP	n/a	n/a	5.3 Knowledge absorption	21.8	80
2.1.2 Government funding/pupil, secondary, % GDP/cap	21.5	37	5.3.1 Intellectual property payments, % total trade	0.4	72
2.1.3 School life expectancy, years	19.5	5	5.3.2 High-tech imports, % total trade	5.1	110
2.1.4 PISA scales in reading, maths and science	453.5	43	5.3.3 ICT services imports, % total trade	1.0	74
2.1.5 Pupil-teacher ratio, secondary	8.5	15	5.3.4 FDI net inflows, % GDP	2.0	79
2.2 Tertiary education	63.4	1	5.3.5 Research talent, % in businesses	25.6	49
2.2.1 Tertiary enrolment, % gross	142.9	1	Knowledge and technology outputs	25.2	52
2.2.2 Graduates in science and engineering, %	28.3	21	6.1 Knowledge creation	23.7	41
2.2.3 Tertiary inbound mobility, %	3.4	63	6.1.1 Patents by origin/bn PPP\$ GDP	1.5	50
2.3 Research and development (R&D)	33.4	34	6.1.2 PCT patents by origin/bn PPP\$ GDP	0.3	39
2.3.1 Researchers, FTE/mn pop.	3,827.2	27	6.1.3 Utility models by origin/bn PPP\$ GDP	0.0	61
2.3.2 Gross expenditure on R&D, % GDP	1.3	30	6.1.4 Scientific and technical articles/bn PPP\$ GDP	38.0	21
2.3.3 Global corporate R&D investors, top 3, mn US\$	41.4	37	6.1.5 Citable documents H-index	33.2	29
2.3.4 QS university ranking, top 3*	21.2	49	6.2 Knowledge impact	36.3	37
Infrastructure	48.5	45	6.2.1 Labor productivity growth, %	-2.1	104
3.1 Information and communication technologies (ICTs)	77.4	43	6.2.2 New businesses/th pop. 15-64	1.4	71
3.1.1 ICT access*	84.2	21	6.2.3 Software spending, % GDP	0.5	10
3.1.2 ICT use*	76.3	35	6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	19.4	14
3.1.3 Government's online service*	70.6	65	6.2.5 High-tech manufacturing, %	14.1	78
3.1.4 E-participation*	78.6	50	6.3 Knowledge diffusion	15.5	69
3.2 General infrastructure	22.5	94	6.3.1 Intellectual property receipts, % total trade	0.1	57
3.2.1 Electricity output, GWh/mn pop.	4,961.0	44	6.3.2 Production and export complexity	46.4	55
3.2.2 Logistics performance*	53.7	41	6.3.3 High-tech exports, % total trade	2.2	55
3.2.3 Gross capital formation, % GDP	11.9	121	6.3.4 ICT services exports, % total trade	1.5	69
3.3 Ecological sustainability	45.4	23	Creative outputs	22.9	69
3.3.1 GDP/unit of energy use	13.8	35	7.1 Intangible assets	21.1	96
3.3.2 Environmental performance*	69.1	25	7.1.1 Trademarks by origin/bn PPP\$ GDP	n/a	n/a
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP	4.7	21	7.1.2 Global brand value, top 5,000, % GDP	4.9	68
Market sophistication	45.2	70	7.1.3 Industrial designs by origin/bn PPP\$ GDP	2.8	38
4.1 Credit	38.5	76	7.1.4 ICTs and organizational model creation†	44.6	97
4.1.1 Ease of getting credit*	45.0	101	7.2 Creative goods and services	21.8	45
4.1.2 Domestic credit to private sector, % GDP	79.2	38	7.2.1 Cultural and creative services exports, % total trade	0.7	38
4.1.3 Microfinance gross loans, % GDP	n/a	n/a	7.2.2 National feature films/mn pop. 15-69	11.5	14
4.2 Investment	21.7	104	7.2.3 Entertainment and media market/th pop. 15-69	24.2	27
4.2.1 Ease of protecting minority investors*	70.0	36	7.2.4 Printing and other media, % manufacturing	1.1	50
4.2.2 Market capitalization, % GDP	22.7	56	7.2.5 Creative goods exports, % total trade	1.3	41
4.2.3 Venture capital investors, deals/bn PPP\$ GDP	0.0	48	7.3 Online creativity	27.5	40
4.2.4 Venture capital recipients, deals/bn PPP\$ GDP	0.0	81	7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	13.2	34
4.3 Trade, diversification, and market scale	75.4	42	7.3.2 Country-code TLDs/th pop. 15-69	19.8	30
4.3.1 Applied tariff rate, weighted avg., %	1.8	25	7.3.3 Wikipedia edits/mn pop. 15-69	70.5	34
4.3.2 Domestic industry diversification	87.0	63	7.3.4 Mobile app creation/bn PPP\$ GDP	3.8	62
4.3.3 Domestic market scale, bn PPP\$	310.7	53			

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 <http://globalinnovationindex.org>. Square brackets [] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.