

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
10	20	High	EUR	4.8	378.5	78,784.8	10
INSTITUTIONS 85.5 18				BUSINESS SOPHISTICATION 55.8 13			
1.1	Political environment	81.7	18	5.1	Knowledge workers	62.1	22
1.1.1	Political and operational stability*	89.5	15	5.1.1	Knowledge-intensive employment, %	42.5	21
1.1.2	Government effectiveness*	77.8	23	5.1.2	Firms offering formal training, % firms	n/a	n/a
1.2	Regulatory environment	87.3	19	5.1.3	GERD performed by business, % GDP	0.7	27
1.2.1	Regulatory quality*	84.5	17	5.1.4	GERD financed by business, %	49.0	30
1.2.2	Rule of law*	84.2	20	5.1.5	Females employed w/advanced degrees, %	25.6	9
1.2.3	Cost of redundancy dismissal, salary weeks	14.3	56	5.2	Innovation linkages	46.2	17
1.3	Business environment	87.5	12	5.2.1	University/industry research collaboration†	69.9	11
1.3.1	Ease of starting a business*	95.9	10	5.2.2	State of cluster development†	60.8	23
1.3.2	Ease of resolving insolvency*	79.1	17	5.2.3	GERD financed by abroad, %	23.6	16
2.1	Education	49.7	61	5.2.4	JV-strategic alliance deals/bn PPP\$ GDP	0.1	18
2.1.1	Expenditure on education, % GDP	3.8	88	5.2.5	Patent families 2+ offices/bn PPP\$ GDP	1.8	22
2.1.2	Government funding/pupil, secondary, % GDP/cap	16.5	75	5.3	Knowledge absorption	59.1	5
2.1.3	School life expectancy, years	18.8	9	5.3.1	Intellectual property payments, % total trade	22.2	1
2.1.4	PISA scales in reading, maths, & science	509.0	10	5.3.2	High-tech imports, % total trade	8.1	56
2.1.5	Pupil-teacher ratio, secondary	n/a	n/a	5.3.3	ICT services imports, % total trade	1.5	46
2.2	Tertiary education	45.4	23	5.3.4	FDI net inflows, % GDP	35.3	4
2.2.1	Tertiary enrolment, % gross	77.6	21	5.3.5	Research talent, % in business enterprise	53.3	22
2.2.2	Graduates in science & engineering, %	25.2	29	6.1	Knowledge creation	28.7	31
2.2.3	Tertiary inbound mobility, %	8.2	26	6.1.1	Patents by origin/bn PPP\$ GDP	2.2	39
2.3	Research & development (R&D)	50.0	20	6.1.2	PCT patents by origin/bn PPP\$ GDP	1.6	22
2.3.1	Researchers, FTE/mn pop	4,288.6	21	6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	n/a
2.3.2	Gross expenditure on R&D, % GDP	1.0	34	6.1.4	Scientific & technical articles/bn PPP\$ GDP	13.2	39
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$	78.4	12	6.1.5	Citable documents H-index	33.2	28
2.3.4	QS university ranking, average score top 3*	47.0	22	6.2	Knowledge impact	58.6	3
3.1	Information & communication technologies (ICTs)	83.8	23	6.2.1	Growth rate of PPP\$ GDP/worker, %	2.8	28
3.1.1	ICT access*	81.3	22	6.2.2	New businesses/th pop. 15-64	6.7	21
3.1.2	ICT use*	77.9	20	6.2.3	Computer software spending, % GDP	0.8	2
3.1.3	Government's online service*	82.6	39	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	7.3	44
3.1.4	E-participation*	93.3	22	6.2.5	High- & medium-high-tech manufactures, %	0.7	2
3.2	General infrastructure	45.7	32	6.3	Knowledge diffusion	83.4	1
3.2.1	Electricity output, kWh/mn pop	6,394.0	32	6.3.1	Intellectual property receipts, % total trade	2.8	7
3.2.2	Logistics performance*	67.7	28	6.3.2	High-tech net exports, % total trade	9.9	16
3.2.3	Gross capital formation, % GDP	27.1	34	6.3.3	ICT services exports, % total trade	22.7	1
3.3	Ecological sustainability	69.6	4	6.3.4	FDI net outflows, % GDP	28.7	1
3.3.1	GDP/unit of energy use	23.3	3	7.1	Intangible assets	60.5	8
3.3.2	Environmental performance*	78.8	9	7.1.1	Trademarks by origin/bn PPP\$ GDP	n/a	n/a
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	2.8	34	7.1.2	Industrial designs by origin/bn PPP\$ GDP	1.4	59
4.1	Credit	44.8	44	7.1.3	ICTs & business model creation†	76.5	14
4.1.1	Ease of getting credit*	70.0	40	7.1.4	ICTs & organizational model creation†	70.8	20
4.1.2	Domestic credit to private sector, % GDP	44.4	76	7.2	Creative goods & services	18.4	59
4.1.3	Microfinance gross loans, % GDP	n/a	n/a	7.2.1	Cultural & creative services exports, % total trade	0.2	72
4.2	Investment	50.1	38	7.2.2	National feature films/mn pop. 15-69	8.9	21
4.2.1	Ease of protecting minority investors*	75.0	14	7.2.3	Entertainment & Media market/th pop. 15-69	49.6	18
4.2.2	Market capitalization, % GDP	42.4	34	7.2.4	Printing & other media, % manufacturing	0.5	94
4.2.3	Venture capital deals/bn PPP\$ GDP	0.1	14	7.2.5	Creative goods exports, % total trade	1.3	40
4.3	Trade, competition, & market scale	69.0	37	7.3	Online creativity	33.7	24
4.3.1	Applied tariff rate, weighted avg., %	1.8	23	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	61.0	11
4.3.2	Intensity of local competition†	69.4	64	7.3.2	Country-code TLDs/th pop. 15-69	22.1	26
4.3.3	Domestic market scale, bn PPP\$	378.5	48	7.3.3	Wikipedia edits/mn pop. 15-69	49.5	24
				7.3.4	Mobile app creation/bn PPP\$ GDP	18.3	25

NOTES: ● indicates a strength; ○ a weakness; ◆ a strength relative to the other top 25-ranked GII economies; ◇ a weakness relative to the other top 25-ranked GII economies; * 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.