

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
9	12	High	EUR	82.3	4,379.1	52,558.7	9

		Score/Value	Rank
INSTITUTIONS		86.4	16
1.1	Political environment	88.1	13
1.1.1	Political and operational stability*	87.7	18
1.1.2	Government effectiveness*	88.2	11
1.2	Regulatory environment	84.4	23
1.2.1	Regulatory quality*	89.8	11
1.2.2	Rule of law*	88.9	16
1.2.3	Cost of redundancy dismissal, salary weeks	21.6	89 ○ ◇
1.3	Business environment	86.9	15
1.3.1	Ease of starting a business*	83.6	88 ○ ◇
1.3.2	Ease of resolving insolvency*	90.1	4 ● ◆
HUMAN CAPITAL & RESEARCH		63.2	3 ● ◆
2.1	Education	57.8	33
2.1.1	Expenditure on education, % GDP	4.8	55 ○
2.1.2	Government funding/pupil, secondary, % GDP/cap	23.0	34
2.1.3	School life expectancy, years	17.1	17
2.1.4	PISA scales in reading, maths, & science	508.1	11
2.1.5	Pupil-teacher ratio, secondary	12.0	48
2.2	Tertiary education	58.6	5 ● ◆
2.2.1	Tertiary enrolment, % gross	68.3	31
2.2.2	Graduates in science & engineering, %	36.0	4 ● ◆
2.2.3	Tertiary inbound mobility, %	8.0	28
2.3	Research & development (R&D)	73.4	7
2.3.1	Researchers, FTE/mn pop	5,036.2	12
2.3.2	Gross expenditure on R&D, % GDP	3.0	8
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$	97.2	2 ● ◆
2.3.4	QS university ranking, average score top 3*	69.1	11
INFRASTRUCTURE		62.0	13
3.1	Information & communication technologies (ICTs)	88.2	15
3.1.1	ICT access*	90.3	6 ●
3.1.2	ICT use*	77.2	22
3.1.3	Government's online service*	93.1	17
3.1.4	E-participation*	92.1	23
3.2	General infrastructure	47.8	26
3.2.1	Electricity output, kWh/mn pop	7,849.4	22
3.2.2	Logistics performance*	100.0	1 ● ◆
3.2.3	Gross capital formation, % GDP	20.4	91 ○
3.3	Ecological sustainability	50.1	29
3.3.1	GDP/unit of energy use	11.6	34
3.3.2	Environmental performance*	78.4	13
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	2.4	41
MARKET SOPHISTICATION		58.6	20
4.1	Credit	53.2	28
4.1.1	Ease of getting credit*	70.0	40
4.1.2	Domestic credit to private sector, % GDP	77.7	39 ○ ◇
4.1.3	Microfinance gross loans, % GDP	n/a	n/a
4.2	Investment	39.7	79 ○ ◇
4.2.1	Ease of protecting minority investors*	58.3	68 ○
4.2.2	Market capitalization, % GDP	53.9	31
4.2.3	Venture capital deals/bn PPP\$ GDP	0.1	20
4.3	Trade, competition, & market scale	82.9	4 ●
4.3.1	Applied tariff rate, weighted avg., %	1.8	23
4.3.2	Intensity of local competition*	76.3	18
4.3.3	Domestic market scale, bn PPP\$	4,379.1	5 ● ◆

		Score/Value	Rank
BUSINESS SOPHISTICATION		56.1	12
5.1	Knowledge workers	67.1	13
5.1.1	Knowledge-intensive employment, %	44.7	17
5.1.2	Firms offering formal training, % firms	n/a	n/a
5.1.3	GERD performed by business, % GDP	2.1	7
5.1.4	GERD financed by business, %	65.2	7
5.1.5	Females employed w/advanced degrees, %	13.2	51 ◇
5.2	Innovation linkages	53.9	10
5.2.1	University/industry research collaboration*	72.8	6
5.2.2	State of cluster development*	75.4	2 ● ◆
5.2.3	GERD financed by abroad, %	5.9	60 ○
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP	0.0	32 ◇
5.2.5	Patent families 2+ offices/bn PPP\$ GDP	5.9	9
5.3	Knowledge absorption	47.5	22
5.3.1	Intellectual property payments, % total trade	0.8	51
5.3.2	High-tech imports, % total trade	9.6	37
5.3.3	ICT services imports, % total trade	2.1	25
5.3.4	FDI net inflows, % GDP	1.8	86 ○
5.3.5	Research talent, % in business enterprise	59.7	15
KNOWLEDGE & TECHNOLOGY OUTPUTS		52.7	10
6.1	Knowledge creation	66.6	6 ● ◆
6.1.1	Patents by origin/bn PPP\$ GDP	17.5	1 ● ◆
6.1.2	PCT patents by origin/bn PPP\$ GDP	4.5	9
6.1.3	Utility models by origin/bn PPP\$ GDP	2.3	9
6.1.4	Scientific & technical articles/bn PPP\$ GDP	15.7	35
6.1.5	Citable documents H-index	87.9	3 ● ◆
6.2	Knowledge impact	48.7	17
6.2.1	Growth rate of PPP\$ GDP/worker, %	0.6	73 ○
6.2.2	New businesses/th pop. 15-64	1.3	64 ○
6.2.3	Computer software spending, % GDP	0.6	18
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	15.4	22
6.2.5	High- & medium-high-tech manufactures, %	0.6	6
6.3	Knowledge diffusion	42.7	17
6.3.1	Intellectual property receipts, % total trade	1.2	17
6.3.2	High-tech net exports, % total trade	11.5	14
6.3.3	ICT services exports, % total trade	2.3	46
6.3.4	FDI net outflows, % GDP	3.3	22
CREATIVE OUTPUTS		49.6	10
7.1	Intangible assets	63.8	5 ● ◆
7.1.1	Trademarks by origin/bn PPP\$ GDP	65.2	30
7.1.2	Industrial designs by origin/bn PPP\$ GDP	14.5	6 ◆
7.1.3	ICTs & business model creation*	78.4	12
7.1.4	ICTs & organizational model creation*	78.0	8
7.2	Creative goods & services	26.3	41
7.2.1	Cultural & creative services exports, % total trade	0.9	33
7.2.2	National feature films/mn pop. 15-69	4.1	47
7.2.3	Entertainment & Media market/th pop. 15-69	58.7	12
7.2.4	Printing & other media, % manufacturing	1.0	63 ○
7.2.5	Creative goods exports, % total trade	2.2	26
7.3	Online creativity	44.4	14
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	52.9	14
7.3.2	Country-code TLDs/th pop. 15-69	77.6	6 ● ◆
7.3.3	Wikipedia edits/mn pop. 15-69	52.1	22
7.3.4	Mobile app creation/bn PPP\$ GDP	11.9	40

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.