

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
40	38	High	EUR	2.9	96.9	34,825.8	40
				Score/Value	Rank		
INSTITUTIONS				76.0	33		
1.1	Political environment	75.5	32				
1.1.1	Political and operational stability*.....	86.0	21 ●				
1.1.2	Government effectiveness*.....	70.3	32				
1.2	Regulatory environment	82.6	25				
1.2.1	Regulatory quality*.....	73.0	27				
1.2.2	Rule of law*.....	72.6	31				
1.2.3	Cost of redundancy dismissal, salary weeks.....	13.0	42				
1.3	Business environment	70.0	66				
1.3.1	Ease of starting a business*.....	93.2	28				
1.3.2	Ease of resolving insolvency*.....	46.9	77 ◇				
HUMAN CAPITAL & RESEARCH				36.3	47		
2.1	Education	51.7	53				
2.1.1	Expenditure on education, % GDP.....	4.2	72				
2.1.2	Government funding/pupil, secondary, % GDP/cap... ..	17.1	70 ○				
2.1.3	School life expectancy, years.....	16.5	22 ●				
2.1.4	PISA scales in reading, maths, & science.....	475.4	35				
2.1.5	Pupil-teacher ratio, secondary.....	7.7	7 ● ◆				
2.2	Tertiary education	38.4	41				
2.2.1	Tertiary enrolment, % gross.....	71.1	27				
2.2.2	Graduates in science & engineering, %.....	23.8	35				
2.2.3	Tertiary inbound mobility, %.....	4.1	53				
2.3	Research & development (R&D)	18.9	46				
2.3.1	Researchers, FTE/mn pop.....	3,013.2	29				
2.3.2	Gross expenditure on R&D, % GDP.....	0.9	39				
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....	0.0	43 ○ ◇				
2.3.4	QS university ranking, average score top 3*.....	19.8	52				
INFRASTRUCTURE				51.7	44		
3.1	Information & communication technologies (ICTs)	75.4	43				
3.1.1	ICT access*.....	73.7	54 ◇				
3.1.2	ICT use*.....	67.8	39				
3.1.3	Government's online service*.....	79.9	45				
3.1.4	E-participation*.....	80.3	51				
3.2	General infrastructure	25.8	97 ○ ◇				
3.2.1	Electricity output, kWh/mn pop.....	1,280.8	90 ○ ◇				
3.2.2	Logistics performance*.....	44.6	53 ◇				
3.2.3	Gross capital formation, % GDP.....	18.3	101 ○ ◇				
3.3	Ecological sustainability	53.7	14 ●				
3.3.1	GDP/unit of energy use.....	10.5	45				
3.3.2	Environmental performance*.....	69.3	28				
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..	8.5	10 ● ◆				
MARKET SOPHISTICATION				50.9	51		
4.1	Credit	44.0	47				
4.1.1	Ease of getting credit*.....	70.0	40				
4.1.2	Domestic credit to private sector, % GDP.....	41.4	80 ◇				
4.1.3	Microfinance gross loans, % GDP.....	n/a	n/a				
4.2	Investment	45.3	55				
4.2.1	Ease of protecting minority investors*.....	66.7	35				
4.2.2	Market capitalization, % GDP.....	n/a	n/a				
4.2.3	Venture capital deals/bn PPP\$ GDP.....	0.0	55 ○				
4.3	Trade, competition, & market scale	63.4	57				
4.3.1	Applied tariff rate, weighted avg., %.....	1.8	23				
4.3.2	Intensity of local competition*.....	75.1	26				
4.3.3	Domestic market scale, bn PPP\$.....	96.9	77				
BUSINESS SOPHISTICATION				38.0	39		
5.1	Knowledge workers	56.2	29				
5.1.1	Knowledge-intensive employment, %.....	41.8	24				
5.1.2	Firms offering formal training, % firms.....	42.0	31				
5.1.3	GERD performed by business, % GDP.....	0.3	47				
5.1.4	GERD financed by business, %.....	39.0	47				
5.1.5	Females employed w/advanced degrees, %.....	27.9	4 ● ◆				
5.2	Innovation linkages	29.2	51				
5.2.1	University/industry research collaboration*.....	51.4	37				
5.2.2	State of cluster development*.....	41.3	90 ○ ◇				
5.2.3	GERD financed by abroad, %.....	19.2	19 ●				
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.0	39				
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.3	37				
5.3	Knowledge absorption	28.6	89 ○ ◇				
5.3.1	Intellectual property payments, % total trade.....	0.2	90 ○ ◇				
5.3.2	High-tech imports, % total trade.....	6.5	85 ○				
5.3.3	ICT services imports, % total trade.....	0.8	84 ○				
5.3.4	FDI net inflows, % GDP.....	2.4	73				
5.3.5	Research talent, % in business enterprise.....	29.0	43				
KNOWLEDGE & TECHNOLOGY OUTPUTS				24.4	55		
6.1	Knowledge creation	16.7	53				
6.1.1	Patents by origin/bn PPP\$ GDP.....	1.1	59				
6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.4	39				
6.1.3	Utility models by origin/bn PPP\$ GDP.....	n/a	n/a				
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	17.2	29				
6.1.5	Citable documents H-index.....	11.3	58				
6.2	Knowledge impact	36.9	61				
6.2.1	Growth rate of PPP\$ GDP/worker, %.....	2.5	34 ●				
6.2.2	New businesses/th pop. 15-64.....	3.3	38				
6.2.3	Computer software spending, % GDP.....	0.1	97 ○ ◇				
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	14.1	25				
6.2.5	High- & medium-high-tech manufactures, %.....	0.2	59				
6.3	Knowledge diffusion	19.6	50				
6.3.1	Intellectual property receipts, % total trade.....	0.1	60				
6.3.2	High-tech net exports, % total trade.....	5.9	26				
6.3.3	ICT services exports, % total trade.....	1.0	81				
6.3.4	FDI net outflows, % GDP.....	1.2	50				
CREATIVE OUTPUTS				40.3	30		
7.1	Intangible assets	48.4	42				
7.1.1	Trademarks by origin/bn PPP\$ GDP.....	53.7	44				
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	3.5	36				
7.1.3	ICTs & business model creation*.....	69.8	31				
7.1.4	ICTs & organizational model creation*.....	68.4	21 ●				
7.2	Creative goods & services	20.8	56				
7.2.1	Cultural & creative services exports, % total trade.....	0.6	43				
7.2.2	National feature films/mn pop. 15-69.....	5.5	40				
7.2.3	Entertainment & Media market/th pop. 15-69.....	n/a	n/a				
7.2.4	Printing & other media, % manufacturing.....	1.2	49				
7.2.5	Creative goods exports, % total trade.....	2.0	29				
7.3	Online creativity	43.5	15 ●				
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	13.1	34				
7.3.2	Country-code TLDs/th pop. 15-69.....	26.3	22 ●				
7.3.3	Wikipedia edits/mn pop. 15-69.....	54.3	19 ●				
7.3.4	Mobile app creation/bn PPP\$ GDP.....	98.0	4 ● ◆				

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.