

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
12	5	High	EUR	5.8	300.3	52,120.5	8
				Score/Value	Rank		
<b>INSTITUTIONS</b> .....				91.7	6 ●		
<b>1.1</b>	<b>Political environment</b> .....	91.1	10				
1.1.1	Political and operational stability*.....	93.0	7				
1.1.2	Government effectiveness*.....	90.1	9				
<b>1.2</b>	<b>Regulatory environment</b> .....	95.3	7				
1.2.1	Regulatory quality*.....	85.5	16				
1.2.2	Rule of law*.....	95.7	6 ●				
1.2.3	Cost of redundancy dismissal, salary weeks.....	8.0	1 ●				
<b>1.3</b>	<b>Business environment</b> .....	88.8	8				
1.3.1	Ease of starting a business*.....	92.5	38				
1.3.2	Ease of resolving insolvency*.....	85.1	6 ●				
<b>HUMAN CAPITAL &amp; RESEARCH</b> .....				63.1	4 ● ◆		
<b>2.1</b>	<b>Education</b> .....	73.5	2 ● ◆				
2.1.1	Expenditure on education, % GDP.....	7.6	3 ● ◆				
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	31.1	11 ◆				
2.1.3	School life expectancy, years.....	19.1	5 ●				
2.1.4	PISA scales in reading, maths, & science.....	504.3	16				
2.1.5	Pupil-teacher ratio, secondary.....	11.3	41				
<b>2.2</b>	<b>Tertiary education</b> .....	42.6	29				
2.2.1	Tertiary enrolment, % gross.....	81.1	18				
2.2.2	Graduates in science & engineering, %.....	21.0	58 ○				
2.2.3	Tertiary inbound mobility, %.....	10.8	17				
<b>2.3</b>	<b>Research &amp; development (R&amp;D)</b> .....	73.3	8				
2.3.1	Researchers, FTE/mn pop.....	7,923.2	2 ● ◆				
2.3.2	Gross expenditure on R&D, % GDP.....	3.1	7				
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....	72.8	16				
2.3.4	QS university ranking, average score top 3*.....	57.1	15				
<b>INFRASTRUCTURE</b> .....				65.8	6 ●		
<b>3.1</b>	<b>Information &amp; communication technologies (ICTs)</b> .....	93.1	2 ● ◆				
3.1.1	ICT access*.....	82.5	18				
3.1.2	ICT use*.....	90.0	1 ● ◆				
3.1.3	Government's online service*.....	100.0	1 ● ◆				
3.1.4	E-participation*.....	100.0	1 ●				
<b>3.2</b>	<b>General infrastructure</b> .....	44.1	33				
3.2.1	Electricity output, kWh/mn pop.....	5,273.1	40				
3.2.2	Logistics performance*.....	90.2	8				
3.2.3	Gross capital formation, % GDP.....	21.4	83 ○				
<b>3.3</b>	<b>Ecological sustainability</b> .....	60.1	7				
3.3.1	GDP/unit of energy use.....	15.6	13				
3.3.2	Environmental performance*.....	81.6	3 ●				
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....	3.9	28				
<b>MARKET SOPHISTICATION</b> .....				66.9	9		
<b>4.1</b>	<b>Credit</b> .....	75.3	7				
4.1.1	Ease of getting credit*.....	70.0	40				
4.1.2	Domestic credit to private sector, % GDP.....	165.4	6 ●				
4.1.3	Microfinance gross loans, % GDP.....	n/a	n/a				
<b>4.2</b>	<b>Investment</b> .....	57.1	26				
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.....	0.1	12				
<b>4.3</b>	<b>Trade, competition, &amp; market scale</b> .....	68.2	41				
4.3.1	Applied tariff rate, weighted avg., %.....	1.8	23				
4.3.2	Intensity of local competition*.....	70.9	50				
4.3.3	Domestic market scale, bn PPP\$.....	300.3	56 ○				
<b>BUSINESS SOPHISTICATION</b> .....				59.1	9		
<b>5.1</b>	<b>Knowledge workers</b> .....	71.6	8				
5.1.1	Knowledge-intensive employment, %.....	46.3	13				
5.1.2	Firms offering formal training, % firms.....	n/a	n/a				
5.1.3	GERD performed by business, % GDP.....	2.0	9				
5.1.4	GERD financed by business, %.....	58.5	13				
5.1.5	Females employed w/advanced degrees, %.....	22.2	18				
<b>5.2</b>	<b>Innovation linkages</b> .....	56.4	7				
5.2.1	University/industry research collaboration*.....	64.0	19				
5.2.2	State of cluster development*.....	63.9	19				
5.2.3	GERD financed by abroad, %.....	8.9	46 ○				
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....	0.1	14				
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	5.8	10				
<b>5.3</b>	<b>Knowledge absorption</b> .....	49.3	20				
5.3.1	Intellectual property payments, % total trade.....	1.0	39				
5.3.2	High-tech imports, % total trade.....	5.7	94 ○				
5.3.3	ICT services imports, % total trade.....	3.0	9				
5.3.4	FDI net inflows, % GDP.....	1.3	102 ○				
5.3.5	Research talent, % in business enterprise.....	60.5	13				
<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b> .....				46.4	14		
<b>6.1</b>	<b>Knowledge creation</b> .....	52.0	12				
6.1.1	Patents by origin/bn PPP\$ GDP.....	12.5	8				
6.1.2	PCT patents by origin/bn PPP\$ GDP.....	4.8	8				
6.1.3	Utility models by origin/bn PPP\$ GDP.....	0.3	37 ○				
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	35.6	1 ● ◆				
6.1.5	Citable documents H-index.....	50.2	15				
<b>6.2</b>	<b>Knowledge impact</b> .....	48.9	16				
6.2.1	Growth rate of PPP\$ GDP/worker, %.....	0.3	81 ○				
6.2.2	New businesses/th pop. 15-64.....	9.9	13				
6.2.3	Computer software spending, % GDP.....	0.6	12				
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	9.2	34				
6.2.5	High- & medium-high-tech manufactures, %.....	0.4	16				
<b>6.3</b>	<b>Knowledge diffusion</b> .....	38.4	21				
6.3.1	Intellectual property receipts, % total trade.....	1.7	13				
6.3.2	High-tech net exports, % total trade.....	5.2	30				
6.3.3	ICT services exports, % total trade.....	2.7	38				
6.3.4	FDI net outflows, % GDP.....	3.5	18				
<b>CREATIVE OUTPUTS</b> .....				48.6	11		
<b>7.1</b>	<b>Intangible assets</b> .....	54.3	23				
7.1.1	Trademarks by origin/bn PPP\$ GDP.....	44.7	57 ○				
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	6.8	20				
7.1.3	ICTs & business model creation*.....	74.4	20				
7.1.4	ICTs & organizational model creation*.....	78.9	7				
<b>7.2</b>	<b>Creative goods &amp; services</b> .....	30.7	28				
7.2.1	Cultural & creative services exports, % total trade.....	0.6	44				
7.2.2	National feature films/mn pop. 15-69.....	13.5	9				
7.2.3	Entertainment & Media market/th pop. 15-69.....	78.0	4				
7.2.4	Printing & other media, % manufacturing.....	1.0	69 ○				
7.2.5	Creative goods exports, % total trade.....	1.6	33				
<b>7.3</b>	<b>Online creativity</b> .....	55.3	8				
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....	48.7	16				
7.3.2	Country-code TLDs/th pop. 15-69.....	91.9	4 ● ◆				
7.3.3	Wikipedia edits/mn pop. 15-69.....	48.0	26				
7.3.4	Mobile app creation/bn PPP\$ GDP.....	48.5	11				

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.