

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
19	27	High	EUR	1.3	44.2	34,095.8	24
				Score/Value	Rank		
INSTITUTIONS				81.7	23		
1.1	Political environment		78.3	25	◇		
1.1.1	Political and operational stability*.....		87.7	18			
1.1.2	Government effectiveness*.....		73.6	27	◇		
1.2	Regulatory environment		87.8	18			
1.2.1	Regulatory quality*.....		86.0	14			
1.2.2	Rule of law*.....		80.3	22			
1.2.3	Cost of redundancy dismissal, salary weeks.....		12.9	39			
1.3	Business environment		78.9	36	◇		
1.3.1	Ease of starting a business*.....		95.3	13			
1.3.2	Ease of resolving insolvency*.....		62.5	44	◇		
HUMAN CAPITAL & RESEARCH				42.1	36	◇	
2.1	Education		56.9	40			
2.1.1	Expenditure on education, % GDP.....		5.2	41			
2.1.2	Government funding/pupil, secondary, % GDP/cap... ..		18.1	60	◇		
2.1.3	School life expectancy, years.....		16.1	34			
2.1.4	PISA scales in reading, maths, & science.....		524.3	4	●		
2.1.5	Pupil-teacher ratio, secondary.....		8.8	16	◆		
2.2	Tertiary education		46.0	20			
2.2.1	Tertiary enrolment, % gross.....		71.4	25			
2.2.2	Graduates in science & engineering, %.....		27.5	21			
2.2.3	Tertiary inbound mobility, %.....		6.8	33			
2.3	Research & development (R&D)		23.4	44	◇		
2.3.1	Researchers, FTE/mn pop.....		3,568.9	26	◇		
2.3.2	Gross expenditure on R&D, % GDP.....		1.3	27	◇		
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*.....		21.6	49	◇		
INFRASTRUCTURE				61.5	16		
3.1	Information & communication technologies (ICTs)		85.7	20			
3.1.1	ICT access*.....		81.6	20			
3.1.2	ICT use*.....		79.9	16			
3.1.3	Government's online service*.....		90.3	26			
3.1.4	E-participation*.....		91.0	27			
3.2	General infrastructure		45.8	30			
3.2.1	Electricity output, kWh/mn pop.....		9,962.1	15			
3.2.2	Logistics performance*.....		58.4	35	◇		
3.2.3	Gross capital formation, % GDP.....		26.4	38			
3.3	Ecological sustainability		53.1	18			
3.3.1	GDP/unit of energy use.....		6.8	90	○		
3.3.2	Environmental performance*.....		64.3	44	◇		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		13.5	1	●◆		
MARKET SOPHISTICATION				52.6	45	◇	
4.1	Credit		50.3	31			
4.1.1	Ease of getting credit*.....		70.0	40			
4.1.2	Domestic credit to private sector, % GDP.....		66.4	45	◇		
4.1.3	Microfinance gross loans, % GDP.....		n/a	n/a			
4.2	Investment		47.3	44			
4.2.1	Ease of protecting minority investors*.....		56.7	79	○	◇	
4.2.2	Market capitalization, % GDP.....		n/a	n/a			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.1	16			
4.3	Trade, competition, & market scale		60.2	67	◇		
4.3.1	Applied tariff rate, weighted avg., %.....		1.8	23			
4.3.2	Intensity of local competition*.....		79.7	10			
4.3.3	Domestic market scale, bn PPP\$.....		44.2	100	○	◇	
BUSINESS SOPHISTICATION				42.6	28	◇	
5.1	Knowledge workers		57.4	26	◇		
5.1.1	Knowledge-intensive employment, %.....		45.5	15			
5.1.2	Firms offering formal training, % firms.....		35.2	40			
5.1.3	GERD performed by business, % GDP.....		0.6	34	◇		
5.1.4	GERD financed by business, %.....		48.2	31			
5.1.5	Females employed w/advanced degrees, %.....		25.9	8	●◆		
5.2	Innovation linkages		30.3	46	◇		
5.2.1	University/industry research collaboration*.....		46.4	48	◇		
5.2.2	State of cluster development*.....		45.6	73	○	◇	
5.2.3	GERD financed by abroad, %.....		13.6	31			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.1	24			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.8	29	◇		
5.3	Knowledge absorption		40.0	40	◇		
5.3.1	Intellectual property payments, % total trade.....		0.3	81	○	◇	
5.3.2	High-tech imports, % total trade.....		9.6	36			
5.3.3	ICT services imports, % total trade.....		2.2	23			
5.3.4	FDI net inflows, % GDP.....		2.3	75	○		
5.3.5	Research talent, % in business enterprise.....		33.9	39	◇		
KNOWLEDGE & TECHNOLOGY OUTPUTS				36.0	26	◇	
6.1	Knowledge creation		26.0	33	◇		
6.1.1	Patents by origin/bn PPP\$ GDP.....		2.2	40	◇		
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		1.1	29	◇		
6.1.3	Utility models by origin/bn PPP\$ GDP.....		1.3	21			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		28.7	9	●		
6.1.5	Citable documents H-index.....		15.8	47	◇		
6.2	Knowledge impact		53.7	12			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		2.6	30			
6.2.2	New businesses/th pop. 15-64.....		20.8	2	●◆		
6.2.3	Computer software spending, % GDP.....		0.1	79	○	◇	
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		25.2	10	●◆		
6.2.5	High- & medium-high-tech manufactures, %.....		0.2	55	◇		
6.3	Knowledge diffusion		28.3	34			
6.3.1	Intellectual property receipts, % total trade.....		0.1	64	○	◇	
6.3.2	High-tech net exports, % total trade.....		8.6	19			
6.3.3	ICT services exports, % total trade.....		3.6	22			
6.3.4	FDI net outflows, % GDP.....		0.4	72	○		
CREATIVE OUTPUTS				51.7	8	●	
7.1	Intangible assets		58.7	11			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		81.1	25			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		6.4	22			
7.1.3	ICTs & business model creation*.....		75.2	17			
7.1.4	ICTs & organizational model creation*.....		79.3	5	●		
7.2	Creative goods & services		38.6	10	●		
7.2.1	Cultural & creative services exports, % total trade.....		1.6	11			
7.2.2	National feature films/mn pop. 15-69.....		19.8	4	●◆		
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing & other media, % manufacturing.....		2.1	16			
7.2.5	Creative goods exports, % total trade.....		1.4	38			
7.3	Online creativity		50.6	12			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		9.8	40	◇		
7.3.2	Country-code TLDs/th pop. 15-69.....		36.6	17			
7.3.3	Wikipedia edits/mn pop. 15-69.....		133.5	2	●◆		
7.3.4	Mobile app creation/bn PPP\$ GDP.....		66.0	7	●◆		

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.