

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
1	2	High	EUR	8.5	551.4	64,649.1	1
				Score/Value	Rank		
INSTITUTIONS				89.1	12		
1.1	Political environment		95.8	2	◆		
1.1.1	Political and operational stability*.....		94.7	4			
1.1.2	Government effectiveness*.....		96.4	2	◆		
1.2	Regulatory environment		95.9	6			
1.2.1	Regulatory quality*.....		92.5	7			
1.2.2	Rule of law*.....		97.4	4			
1.2.3	Cost of redundancy dismissal, salary weeks.....		10.1	31			
1.3	Business environment		75.5	44	◇		
1.3.1	Ease of starting a business*.....		88.4	62	◇		
1.3.2	Ease of resolving insolvency*.....		62.7	43	◇		
HUMAN CAPITAL & RESEARCH				61.9	7	◆	
2.1	Education		58.8	30			
2.1.1	Expenditure on education, % GDP.....		5.1	44	○		
2.1.2	Government funding/pupil, secondary, % GDP/cap... ..		24.5	27			
2.1.3	School life expectancy, years.....		16.2	31			
2.1.4	PISA scales in reading, maths, & science.....		506.3	13			
2.1.5	Pupil-teacher ratio, secondary.....		9.8	27			
2.2	Tertiary education		49.2	17			
2.2.1	Tertiary enrolment, % gross.....		57.9	49	○		
2.2.2	Graduates in science & engineering, %.....		24.5	32			
2.2.3	Tertiary inbound mobility, %.....		17.6	7			
2.3	Research & development (R&D)		77.9	4	◆		
2.3.1	Researchers, FTE/mn pop.....		5,257.4	11			
2.3.2	Gross expenditure on R&D, % GDP.....		3.4	4			
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....		92.6	3	●		
2.3.4	QS university ranking, average score top 3*.....		81.6	4			
INFRASTRUCTURE				68.2	3	◆	
3.1	Information & communication technologies (ICTs)		86.5	19			
3.1.1	ICT access*.....		87.1	10			
3.1.2	ICT use*.....		89.7	2	◆		
3.1.3	Government's online service*.....		84.7	35			
3.1.4	E-participation*.....		84.3	41	◇		
3.2	General infrastructure		47.6	28			
3.2.1	Electricity output, kWh/mn pop.....		7,096.9	30			
3.2.2	Logistics performance*.....		86.0	13			
3.2.3	Gross capital formation, % GDP.....		24.0	55	○		
3.3	Ecological sustainability		70.5	3	◆		
3.3.1	GDP/unit of energy use.....		19.2	6	◆		
3.3.2	Environmental performance*.....		87.4	1	◆		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		5.5	21			
MARKET SOPHISTICATION				68.4	7		
4.1	Credit		72.8	9			
4.1.1	Ease of getting credit*.....		60.0	66	○		
4.1.2	Domestic credit to private sector, % GDP.....		175.3	4	◆		
4.1.3	Microfinance gross loans, % GDP.....		n/a	n/a			
4.2	Investment		59.9	21			
4.2.1	Ease of protecting minority investors*.....		50.0	93	○	◇	
4.2.2	Market capitalization, % GDP.....		227.3	1	◆		
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.2	10			
4.3	Trade, competition, & market scale		72.6	26			
4.3.1	Applied tariff rate, weighted avg., %.....		1.7	20			
4.3.2	Intensity of local competition*.....		75.5	23			
4.3.3	Domestic market scale, bn PPP\$.....		551.4	36			
BUSINESS SOPHISTICATION				67.5	2	◆	
5.1	Knowledge workers		77.4	3	◆		
5.1.1	Knowledge-intensive employment, %.....		52.9	3	◆		
5.1.2	Firms offering formal training, % firms.....		n/a	n/a			
5.1.3	GERD performed by business, % GDP.....		2.4	5			
5.1.4	GERD financed by business, %.....		63.5	10			
5.1.5	Females employed w/advanced degrees, %.....		18.5	28			
5.2	Innovation linkages		63.0	3	◆		
5.2.1	University/industry research collaboration*.....		79.1	3	◆		
5.2.2	State of cluster development*.....		74.8	3	◆		
5.2.3	GERD financed by abroad, %.....		10.2	41	○		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.1	13			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		9.6	4	◆		
5.3	Knowledge absorption		62.2	3	◆		
5.3.1	Intellectual property payments, % total trade.....		3.1	6	◆		
5.3.2	High-tech imports, % total trade.....		6.1	90	○		
5.3.3	ICT services imports, % total trade.....		4.2	1	◆		
5.3.4	FDI net inflows, % GDP.....		10.6	13			
5.3.5	Research talent, % in business enterprise.....		50.1	25			
KNOWLEDGE & TECHNOLOGY OUTPUTS				70.3	1	◆	
6.1	Knowledge creation		84.7	1	◆		
6.1.1	Patents by origin/bn PPP\$ GDP.....		16.5	5	◆		
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		8.3	1	◆		
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		34.1	3	◆		
6.1.5	Citable documents H-index.....		66.6	9			
6.2	Knowledge impact		57.7	4	◆		
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		0.8	66	○		
6.2.2	New businesses/th pop. 15-64.....		4.3	30			
6.2.3	Computer software spending, % GDP.....		0.8	3	◆		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		19.7	17	◆		
6.2.5	High- & medium-high-tech manufactures, %.....		0.6	3	◆		
6.3	Knowledge diffusion		68.6	3	◆		
6.3.1	Intellectual property receipts, % total trade.....		5.2	1	◆		
6.3.2	High-tech net exports, % total trade.....		7.2	24			
6.3.3	ICT services exports, % total trade.....		3.3	27			
6.3.4	FDI net outflows, % GDP.....		9.6	1	◆		
CREATIVE OUTPUTS				56.6	1	◆	
7.1	Intangible assets		62.2	7			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		80.3	26			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		8.2	14			
7.1.3	ICTs & business model creation*.....		84.7	1	◆		
7.1.4	ICTs & organizational model creation*.....		77.4	9			
7.2	Creative goods & services		45.5	4	◆		
7.2.1	Cultural & creative services exports, % total trade.....		0.8	37			
7.2.2	National feature films/mn pop. 15-69.....		19.4	5	◆		
7.2.3	Entertainment & Media market/th pop. 15-69.....		94.1	2	◆		
7.2.4	Printing & other media, % manufacturing.....		1.2	50	○		
7.2.5	Creative goods exports, % total trade.....		3.8	15			
7.3	Online creativity		56.4	7			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		59.2	13			
7.3.2	Country-code TLDs/th pop. 15-69.....		100.0	1	◆		
7.3.3	Wikipedia edits/mn pop. 15-69.....		47.4	27			
7.3.4	Mobile app creation/bn PPP\$ GDP.....		34.4	15			

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.