

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
24	21	High	EUR	11.5	549.7	48,244.7	25
Score/Value				Score/Value			
Rank				Rank			
INSTITUTIONS.....				82.0	21		
1.1	Political environment.....			77.0	28	◇	
1.1.1	Political and operational stability*.....			80.7	35	◇	
1.1.2	Government effectiveness*.....			75.2	24	◇	
1.2	Regulatory environment.....			80.4	30		
1.2.1	Regulatory quality*.....			75.3	24		
1.2.2	Rule of law*.....			81.9	21		
1.2.3	Cost of redundancy dismissal, salary weeks.....			19.7	81	○	
1.3	Business environment.....			88.5	9	●	
1.3.1	Ease of starting a business*.....			93.0	30		
1.3.2	Ease of resolving insolvency*.....			83.9	8	●	
HUMAN CAPITAL & RESEARCH.....				55.0	13	●	
2.1	Education.....			68.6	5	● ◆	
2.1.1	Expenditure on education, % GDP.....			6.6	14		
2.1.2	Government funding/pupil, secondary, % GDP/cap.Ⓢ			24.5	26		
2.1.3	School life expectancy, years.....			19.7	2	● ◆	
2.1.4	PISA scales in reading, maths, & science.....			502.5	18		
2.1.5	Pupil-teacher ratio, secondary.....			9.1	18	◆	
2.2	Tertiary education.....			37.2	44		
2.2.1	Tertiary enrolment, % gross.Ⓢ			75.9	22		
2.2.2	Graduates in science & engineering, %.....			17.1	78	○ ◇	
2.2.3	Tertiary inbound mobility, %.....			12.0	13		
2.3	Research & development (R&D).....			59.2	16		
2.3.1	Researchers, FTE/mn pop.....			4,905.5	14		
2.3.2	Gross expenditure on R&D, % GDP.....			2.6	11	●	
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....			66.8	21		
2.3.4	QS university ranking, average score top 3*.....			54.2	16		
INFRASTRUCTURE.....				57.2	29	◇	
3.1	Information & communication technologies (ICTs).....			77.1	38	◇	
3.1.1	ICT access*.....			81.5	21		
3.1.2	ICT use*.....			75.6	27		
3.1.3	Government's online service*.....			75.7	55	◇	
3.1.4	E-participation*.....			75.8	59	○ ◇	
3.2	General infrastructure.....			50.5	16		
3.2.1	Electricity output, kWh/mn pop.....			7,496.2	29		
3.2.2	Logistics performance*.....			92.4	3	●	
3.2.3	Gross capital formation, % GDP.....			24.9	47		
3.3	Ecological sustainability.....			44.1	46		
3.3.1	GDP/unit of energy use.....			8.5	68	○	
3.3.2	Environmental performance*.....			77.4	15		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..			2.0	47		
MARKET SOPHISTICATION.....				55.3	37		
4.1	Credit.....			47.8	36		
4.1.1	Ease of getting credit*.....			65.0	54	○	
4.1.2	Domestic credit to private sector, % GDP.....			66.3	46	◇	
4.1.3	Microfinance gross loans, % GDP.....			n/a	n/a		
4.2	Investment.....			45.0	56		
4.2.1	Ease of protecting minority investors*.....			61.7	54		
4.2.2	Market capitalization, % GDP.....			86.9	17		
4.2.3	Venture capital deals/bn PPP\$ GDP.....			0.1	21		
4.3	Trade, competition, & market scale.....			73.2	25		
4.3.1	Applied tariff rate, weighted avg., %.....			1.8	23		
4.3.2	Intensity of local competition†.....			78.6	14		
4.3.3	Domestic market scale, bn PPP\$.....			549.7	37		
BUSINESS SOPHISTICATION.....				54.1	17		
5.1	Knowledge workers.....			73.1	7	●	
5.1.1	Knowledge-intensive employment, %.....			47.6	9	●	
5.1.2	Firms offering formal training, % firms.....			n/a	n/a		
5.1.3	GERD performed by business, % GDP.....			1.8	11		
5.1.4	GERD financed by business, %.....			58.6	12		
5.1.5	Females employed w/advanced degrees, %.....			25.0	11	●	
5.2	Innovation linkages.....			46.0	19		
5.2.1	University/industry research collaboration†.....			68.7	12	●	
5.2.2	State of cluster development†.....			64.9	16		
5.2.3	GERD financed by abroad, %.....			16.5	22		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....			0.1	26		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....			2.8	16		
5.3	Knowledge absorption.....			43.2	31		
5.3.1	Intellectual property payments, % total trade.....			0.8	46		
5.3.2	High-tech imports, % total trade.....			7.4	67	○	
5.3.3	ICT services imports, % total trade.....			2.3	20		
5.3.4	FDI net inflows, % GDP.....			-1.3	126	○	
5.3.5	Research talent, % in business enterprise.....			54.1	21		
KNOWLEDGE & TECHNOLOGY OUTPUTS....				40.8	21		
6.1	Knowledge creation.....			49.1	14	●	
6.1.1	Patents by origin/bn PPP\$ GDP.....			6.0	19		
6.1.2	PCT patents by origin/bn PPP\$ GDP.....			2.4	15		
6.1.3	Utility models by origin/bn PPP\$ GDP.....			n/a	n/a		
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....			23.1	18		
6.1.5	Citable documents H-index.....			53.4	14	●	
6.2	Knowledge impact.....			43.1	39		
6.2.1	Growth rate of PPP\$ GDP/worker, %.....			0.2	83	○	
6.2.2	New businesses/th pop. 15-64.....			3.7	34		
6.2.3	Computer software spending, % GDP.....			0.7	7	●	
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....			5.9	53		
6.2.5	High- & medium-high-tech manufactures, %.....			0.4	29		
6.3	Knowledge diffusion.....			30.2	31		
6.3.1	Intellectual property receipts, % total trade.....			0.9	20		
6.3.2	High-tech net exports, % total trade.....			8.1	20		
6.3.3	ICT services exports, % total trade.....			3.0	34		
6.3.4	FDI net outflows, % GDP.....			-0.1	119	○ ◇	
CREATIVE OUTPUTS.....				38.5	33	◇	
7.1	Intangible assets.....			49.1	38		
7.1.1	Trademarks by origin/bn PPP\$ GDP.....			45.8	55		
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....			2.4	47		
7.1.3	ICTs & business model creation†.....			74.9	18		
7.1.4	ICTs & organizational model creation†.....			72.2	16		
7.2	Creative goods & services.....			30.9	27		
7.2.1	Cultural & creative services exports, % total trade.....			1.4	18		
7.2.2	National feature films/mn pop. 15-69.....			10.9	14		
7.2.3	Entertainment & Media market/th pop. 15-69.....			53.9	19		
7.2.4	Printing & other media, % manufacturing.....			1.3	38		
7.2.5	Creative goods exports, % total trade.....			1.6	34		
7.3	Online creativity.....			24.9	29	◇	
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....			21.2	27		
7.3.2	Country-code TLDs/th pop. 15-69.....			56.0	13	●	
7.3.3	Wikipedia edits/mn pop. 15-69.....			30.7	39		
7.3.4	Mobile app creation/bn PPP\$ GDP.....			1.8	62	○ ◇	

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.