







Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
1	2	High	EUR	8.6	565.6	57,791.1	1
Score/Value Rank				Score/Value Rank			
 INSTITUTIONS 88.0 13				 BUSINESS SOPHISTICATION 64.1 2 ● ◆			
1.1 Political environment	94.2	2 ● ◆		5.1 Knowledge workers	74.0	4 ◆	
1.1.1 Political and operational stability*.....	91.1	5		5.1.1 Knowledge-intensive employment, %.....	53.8	3	● ◆
1.1.2 Government effectiveness*.....	95.7	2	● ◆	5.1.2 Firms offering formal training, %.....	n/a	n/a	
1.2 Regulatory environment	94.4	7		5.1.3 GERD performed by business, % GDP.....	2.3	5	
1.2.1 Regulatory quality*.....	88.8	8		5.1.4 GERD financed by business, %.....	68.6	6	◆
1.2.2 Rule of law*.....	97.0	3	●	5.1.5 Females employed w/advanced degrees, %.....	19.5	30	
1.2.3 Cost of redundancy dismissal, salary weeks.....	10.1	31		5.2 Innovation linkages	66.2	5	
1.3 Business environment	75.5	47 ○ ◆		5.2.1 University/industry research collaboration†.....	77.5	2	● ◆
1.3.1 Ease of starting a business*.....	88.4	66	○ ◆	5.2.2 State of cluster development†.....	71.9	5	◆
1.3.2 Ease of resolving insolvency*.....	62.6	44	◆	5.2.3 GERD financed by abroad, % GDP.....	0.2	22	
 HUMAN CAPITAL & RESEARCH 60.7 6				5.2.4 JV-strategic alliance deals/bn PPP\$ GDP.....	0.2	13	
2.1 Education	56.1	31		5.2.5 Patent families 2+ offices/bn PPP\$ GDP.....	8.0	1	● ◆
2.1.1 Expenditure on education, % GDP.....	5.1	40		5.3 Knowledge absorption	52.0	12	
2.1.2 Government funding/pupil, secondary, % GDP/cap.....	24.5	22		5.3.1 Intellectual property payments, % total trade.....	3.0	5	
2.1.3 School life expectancy, years.....	16.3	26		5.3.2 High-tech imports, % total trade.....	6.4	87	○
2.1.4 PISA scales in reading, maths, & science.....	498.2	21		5.3.3 ICT services imports, % total trade.....	3.8	3	● ◆
2.1.5 Pupil-teacher ratio, secondary.....	9.8	31		5.3.4 FDI net inflows, % GDP.....	3.7	40	
2.2 Tertiary education	49.4	18		5.3.5 Research talent, % in business enterprise.....	49.7	24	
2.2.1 Tertiary enrolment, % gross.....	59.6	48	○	 KNOWLEDGE & TECHNOLOGY OUTPUTS 65.5 1 ● ◆			
2.2.2 Graduates in science & engineering, %.....	24.9	38	○	6.1 Knowledge creation	87.9	1 ● ◆	
2.2.3 Tertiary inbound mobility, %.....	17.8	9	◆	6.1.1 Patents by origin/bn PPP\$ GDP.....	16.7	1	● ◆
2.3 Research & development (R&D)	76.6	4 ◆		6.1.2 PCT patents by origin/bn PPP\$ GDP.....	8.2	3	● ◆
2.3.1 Researchers, FTE/mn pop.....	5,450.5	12		6.1.3 Utility models by origin/bn PPP\$ GDP.....	n/a	n/a	
2.3.2 Gross expenditure on R&D, % GDP.....	3.3	4		6.1.4 Scientific & technical articles/bn PPP\$ GDP.....	35.8	3	● ◆
2.3.3 Global R&D companies, avg. exp. top 3, mn \$US.....	91.3	5		6.1.5 Citable documents H-index.....	66.3	9	
2.3.4 QS university ranking, average score top 3*.....	83.0	4		6.2 Knowledge impact	50.8	5 ◆	
 INFRASTRUCTURE 62.0 3 ● ◆				6.2.1 Growth rate of PPP\$ GDP/worker, %.....	0.8	67	○
3.1 Information & communication technologies (ICTs)	85.8	21		6.2.2 New businesses/th pop. 15-64.....	4.5	33	
3.1.1 ICT access*.....	85.2	14		6.2.3 Computer software spending, % GDP.....	0.0	3	● ◆
3.1.2 ICT use*.....	88.8	3	● ◆	6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP.....	15.1	19	◆
3.1.3 Government's online service*.....	84.7	35		6.2.5 High- and medium-high-tech manufacturing, %.....	60.0	3	● ◆
3.1.4 E-participation*.....	84.3	41		6.3 Knowledge diffusion	57.9	6	
3.2 General infrastructure	39.6	25		6.3.1 Intellectual property receipts, % total trade.....	5.6	1	● ◆
3.2.1 Electricity output, kWh/mn pop.....	7,783.9	25		6.3.2 High-tech net exports, % total trade.....	7.2	22	
3.2.2 Logistics performance*.....	85.9	13		6.3.3 ICT services exports, % total trade.....	3.0	33	
3.2.3 Gross capital formation, % GDP.....	23.3	67	○	6.3.4 FDI net outflows, % GDP.....	10.9	6	
3.3 Ecological sustainability	60.7	2 ● ◆		 CREATIVE OUTPUTS 60.0 2 ● ◆			
3.3.1 GDP/unit of energy use.....	20.0	5	◆	7.1 Intangible assets	60.3	3 ● ◆	
3.3.2 Environmental performance*.....	81.5	3	●	7.1.1 Trademark by origin/bn PPP\$ GDP.....	75.2	27	
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP.....	4.2	23		7.1.2 Global brand value, top 5,000, % GDP.....	234.5	2	● ◆
 MARKET SOPHISTICATION 72.3 6				7.1.3 Industrial designs by origin/bn PPP\$ GDP.....	6.2	22	
4.1 Credit	72.1	6		7.1.4 ICTs & organizational model creation†.....	77.4	9	
4.1.1 Ease of getting credit*.....	65.0	61	○	7.2 Creative goods and services	51.1	3 ● ◆	
4.1.2 Domestic credit to private sector, % GDP.....	174.9	3	● ◆	7.2.1 Cultural & creative services exports, % total trade.....	0.8	37	
4.1.3 Microfinance gross loans, % GDP.....	n/a	n/a		7.2.2 National feature films/mn pop. 15-69.....	19.4	6	◆
4.2 Investment	71.9	7 ◆		7.2.3 Entertainment & Media market/th pop. 15-69.....	100.0	1	● ◆
4.2.1 Ease of protecting minority investors*.....	50.0	92	○ ◆	7.2.4 Printing and other media, % manufacturing.....	1.2	36	○
4.2.2 Market capitalization, % GDP.....	220.5	1	● ◆	7.2.5 Creative goods exports, % total trade.....	3.9	15	
4.2.3 Venture capital deals/bn PPP\$ GDP.....	0.4	7		7.3 Online creativity	68.3	5	
4.3 Trade, competition, and market scale	72.8	27		7.3.1 Generic top-level domains (TLDs)/th pop. 15-69.....	58.4	13	
4.3.1 Applied tariff rate, weighted avg., %.....	1.7	50	○	7.3.2 Country-code TLDs/th pop. 15-69.....	100.0	1	● ◆
4.3.2 Intensity of local competition†.....	75.5	23		7.3.3 Wikipedia edits/mn pop. 15-69.....	84.0	16	
4.3.3 Domestic market scale, bn PPP\$.....	565.6	37		7.3.4 Mobile app creation/bn PPP\$ GDP.....	31.8	17	

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.