

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2019 rank
3	6	High	EUR	67.5	3,131.2	40,881.3	5
Score/Value				Rank			
INSTITUTIONS.....				86.1			16
1.1	Political environment.....		77.8	25			◇
1.1.1	Political and operational stability*.....		73.2	49			○ ◇
1.1.2	Government effectiveness*.....		80.1	21			
1.2	Regulatory environment.....		93.1	8			
1.2.1	Regulatory quality*.....		88.3	9			
1.2.2	Rule of law*.....		89.4	15			
1.2.3	Cost of redundancy dismissal, salary weeks.....		9.3	25			
1.3	Business environment.....		87.4	12			
1.3.1	Ease of starting a business*.....		94.6	17			
1.3.2	Ease of resolving insolvency*.....		80.3	13			
HUMAN CAPITAL & RESEARCH.....				58.0			10
2.1	Education.....		55.2	35			
2.1.1	Expenditure on education, % GDP.....		5.5	22			
2.1.2	Government funding/pupil, secondary, % GDP/cap.....		21.2	44			○
2.1.3	School life expectancy, years.....		17.5	16			
2.1.4	PISA scales in reading, maths, & science.....		503.5	12			
2.1.5	Pupil-teacher ratio, secondary.....		16.6	79			○ ◇
2.2	Tertiary education.....		51.3	15			
2.2.1	Tertiary enrolment, % gross.....		60.0	46			○
2.2.2	Graduates in science & engineering, %.....		26.3	31			
2.2.3	Tertiary inbound mobility, %.....		17.9	8			◆
2.3	Research & development (R&D).....		67.6	9			
2.3.1	Researchers, FTE/mn pop.....		4,603.3	20			
2.3.2	Gross expenditure on R&D, % GDP.....		1.7	21			
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....		84.8	8			
2.3.4	QS university ranking, average score top 3*.....		95.7	2			● ◆
INFRASTRUCTURE.....				60.3			6 ●
3.1	Information & communication technologies (ICTs)....		93.6	1			● ◆
3.1.1	ICT access*.....		91.5	4			● ◆
3.1.2	ICT use*.....		86.6	6			●
3.1.3	Government's online service*.....		97.9	4			●
3.1.4	E-participation*.....		98.3	5			
3.2	General infrastructure.....		33.1	38			◇
3.2.1	Electricity output, kWh/mn pop.....		4,986.0	42			○
3.2.2	Logistics performance*.....		89.9	9			
3.2.3	Gross capital formation, % GDP.....		16.4	117			○ ◇
3.3	Ecological sustainability.....		54.2	14			◆
3.3.1	GDP/unit of energy use.....		14.9	13			
3.3.2	Environmental performance*.....		81.3	4			●
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....		4.2	22			
MARKET SOPHISTICATION.....				74.4			5 ● ◆
4.1	Credit.....		68.1	8			
4.1.1	Ease of getting credit*.....		75.0	34			
4.1.2	Domestic credit to private sector, % GDP.....		136.2	14			
4.1.3	Microfinance gross loans, % GDP.....		n/a	n/a			
4.2	Investment.....		73.9	5			● ◆
4.2.1	Ease of protecting minority investors*.....		84.0	7			◆
4.2.2	Market capitalization, % GDP.....		n/a	n/a			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.4	9			
4.3	Trade, competition, and market scale.....		81.3	4			●
4.3.1	Applied tariff rate, weighted avg., %.....		1.7	22			○
4.3.2	Intensity of local competition*.....		79.9	9			
4.3.3	Domestic market scale, bn PPP\$.....		3,131.2	9			
BUSINESS SOPHISTICATION.....				51.0			19
5.1	Knowledge workers.....		59.6	16			
5.1.1	Knowledge-intensive employment, %.....		49.2	7			
5.1.2	Firms offering formal training, %.....		n/a	n/a			
5.1.3	GERD performed by business, % GDP.....		1.2	18			
5.1.4	GERD financed by business, %.....		51.8	25			
5.1.5	Females employed w/advanced degrees, %.....		23.4	16			
5.2	Innovation linkages.....		51.0	14			
5.2.1	University/industry research collaboration*.....		69.0	11			
5.2.2	State of cluster development*.....		65.9	14			
5.2.3	GERD financed by abroad, % GDP.....		0.3	12			
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.2	16			
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		2.3	17			
5.3	Knowledge absorption.....		42.5	27			
5.3.1	Intellectual property payments, % total trade.....		1.5	21			
5.3.2	High-tech imports, % total trade.....		11.5	21			
5.3.3	ICT services imports, % total trade.....		1.9	31			
5.3.4	FDI net inflows, % GDP.....		5.9	20			
5.3.5	Research talent, % in business enterprise.....		40.6	33			○ ◇
KNOWLEDGE & TECHNOLOGY OUTPUTS....				54.4			9
6.1	Knowledge creation.....		66.2	6			●
6.1.1	Patents by origin/bn PPP\$ GDP.....		6.1	15			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		1.8	18			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		25.2	15			
6.1.5	Citable documents H-index.....		100.0	1			◆
6.2	Knowledge impact.....		45.3	10			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		0.4	79			○
6.2.2	New businesses/th pop. 15-64.....		15.6	8			◆
6.2.3	Computer software spending, % GDP.....		0.0	4			●
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		9.7	28			
6.2.5	High- and medium-high-tech manufacturing, %.....		42.8	18			
6.3	Knowledge diffusion.....		51.8	11			
6.3.1	Intellectual property receipts, % total trade.....		2.5	8			
6.3.2	High-tech net exports, % total trade.....		8.8	20			
6.3.3	ICT services exports, % total trade.....		3.3	27			
6.3.4	FDI net outflows, % GDP.....		2.8	23			
CREATIVE OUTPUTS.....				52.7			5 ●
7.1	Intangible assets.....		53.9	9			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....		56.9	41			
7.1.2	Global brand value, top 5,000, % GDP.....		167.2	6			●
7.1.3	Industrial designs by origin/bn PPP\$ GDP.....		9.5	13			
7.1.4	ICTs & organizational model creation*.....		79.1	6			●
7.2	Creative goods and services.....		41.6	10			
7.2.1	Cultural & creative services exports, % total trade.....		2.1	6			● ◆
7.2.2	National feature films/mn pop. 15-69.....		6.2	36			○
7.2.3	Entertainment & Media market/th pop. 15-69.....		63.4	8			
7.2.4	Printing and other media, % manufacturing.....		1.9	17			
7.2.5	Creative goods exports, % total trade.....		2.9	20			
7.3	Online creativity.....		61.6	10			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		60.3	11			
7.3.2	Country-code TLDs/th pop. 15-69.....		77.6	7			
7.3.3	Wikipedia edits/mn pop. 15-69.....		84.9	15			
7.3.4	Mobile app creation/bn PPP\$ GDP.....		24.3	22			

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