

| Output rank | Input rank | Income | Region | Population (mn) | GDP, PPP\$ | GDP per capita, PPP\$ | GII 2018 rank |
|---|--|--------|--------|-----------------|------------|-----------------------|---------------|
| 18 | 22 | High | EUR | 0.3 | 19.3 | 55,917.3 | 23 |
| | | | | Score/Value | Rank | | |
| INSTITUTIONS | | | | 86.8 | 15 | | |
| 1.1 | Political environment | | | 85.5 | 15 | | |
| 1.1.1 | Political and operational stability*..... | | | 93.0 | 7 | | |
| 1.1.2 | Government effectiveness*..... | | | 81.7 | 17 | | |
| 1.2 | Regulatory environment | | | 88.5 | 16 | | |
| 1.2.1 | Regulatory quality*..... | | | 80.4 | 19 | | |
| 1.2.2 | Rule of law*..... | | | 88.9 | 17 | | |
| 1.2.3 | Cost of redundancy dismissal, salary weeks..... | | | 13.0 | 42 | | |
| 1.3 | Business environment | | | 86.3 | 16 | | |
| 1.3.1 | Ease of starting a business*..... | | | 90.7 | 50 | | |
| 1.3.2 | Ease of resolving insolvency*..... | | | 81.9 | 11 | | |
| HUMAN CAPITAL & RESEARCH | | | | 45.4 | 30 | | |
| 2.1 | Education | | | 64.4 | 9 | | |
| 2.1.1 | Expenditure on education, % GDP..... | | | 7.7 | 2 | ◆ | |
| 2.1.2 | Government funding/pupil, secondary, % GDP/cap... .. | | | 20.8 | 46 | | |
| 2.1.3 | School life expectancy, years..... | | | 19.2 | 4 | ● | |
| 2.1.4 | PISA scales in reading, maths, & science..... | | | 480.9 | 33 | ◇ | |
| 2.1.5 | Pupil-teacher ratio, secondary..... | | | n/a | n/a | | |
| 2.2 | Tertiary education | | | 30.0 | 68 | ◇ | |
| 2.2.1 | Tertiary enrolment, % gross..... | | | 73.6 | 24 | | |
| 2.2.2 | Graduates in science & engineering, %..... | | | 15.7 | 84 | ◇ | |
| 2.2.3 | Tertiary inbound mobility, %..... | | | 6.8 | 34 | | |
| 2.3 | Research & development (R&D) | | | 41.7 | 24 | ◇ | |
| 2.3.1 | Researchers, FTE/mn pop..... | | | 6,118.9 | 8 | | |
| 2.3.2 | Gross expenditure on R&D, % GDP..... | | | 2.2 | 14 | | |
| 2.3.3 | Global R&D companies, avg. exp. top 3, mn US\$..... | | | 45.8 | 36 | | |
| 2.3.4 | QS university ranking, average score top 3*..... | | | 0.0 | 78 | ◇ | |
| INFRASTRUCTURE | | | | 59.2 | 24 | | |
| 3.1 | Information & communication technologies (ICTs) | | | 80.7 | 30 | ◇ | |
| 3.1.1 | ICT access*..... | | | 92.9 | 2 | ◆ | |
| 3.1.2 | ICT use*..... | | | 88.2 | 3 | ◆ | |
| 3.1.3 | Government's online service*..... | | | 72.9 | 63 | ◇ | |
| 3.1.4 | E-participation*..... | | | 68.5 | 73 | ◇ | |
| 3.2 | General infrastructure | | | 57.3 | 6 | | |
| 3.2.1 | Electricity output, kWh/mn pop..... | | | 56,585.3 | 1 | ◆ | |
| 3.2.2 | Logistics performance*..... | | | 54.3 | 39 | ◇ | |
| 3.2.3 | Gross capital formation, % GDP..... | | | 23.1 | 64 | | |
| 3.3 | Ecological sustainability | | | 39.5 | 58 | ◇ | |
| 3.3.1 | GDP/unit of energy use..... | | | 2.7 | 118 | ◇ | |
| 3.3.2 | Environmental performance*..... | | | 78.6 | 11 | | |
| 3.3.3 | ISO 14001 environmental certificates/bn PPP\$ GDP.. | | | 5.0 | 23 | | |
| MARKET SOPHISTICATION | | | | 56.0 | 35 | | |
| 4.1 | Credit | | | 51.2 | 29 | | |
| 4.1.1 | Ease of getting credit*..... | | | 60.0 | 66 | | |
| 4.1.2 | Domestic credit to private sector, % GDP..... | | | 89.8 | 30 | | |
| 4.1.3 | Microfinance gross loans, % GDP..... | | | n/a | n/a | | |
| 4.2 | Investment | | | 64.2 | 16 | | |
| 4.2.1 | Ease of protecting minority investors*..... | | | 70.0 | 27 | | |
| 4.2.2 | Market capitalization, % GDP..... | | | n/a | n/a | | |
| 4.2.3 | Venture capital deals/bn PPP\$ GDP..... | | | 0.2 | 6 | | |
| 4.3 | Trade, competition, & market scale | | | 52.6 | 98 | ◇ | |
| 4.3.1 | Applied tariff rate, weighted avg., %..... | | | 1.6 | 17 | | |
| 4.3.2 | Intensity of local competition*..... | | | 70.0 | 61 | ◇ | |
| 4.3.3 | Domestic market scale, bn PPP\$..... | | | 19.3 | 126 | ◇ | |
| BUSINESS SOPHISTICATION | | | | 48.0 | 23 | ◇ | |
| 5.1 | Knowledge workers | | | 66.8 | 14 | | |
| 5.1.1 | Knowledge-intensive employment, %..... | | | 50.0 | 6 | | |
| 5.1.2 | Firms offering formal training, % firms..... | | | n/a | n/a | | |
| 5.1.3 | GERD performed by business, % GDP..... | | | 1.4 | 14 | | |
| 5.1.4 | GERD financed by business, %..... | | | 36.4 | 51 | ◇ | |
| 5.1.5 | Females employed w/advanced degrees, %..... | | | 24.4 | 15 | | |
| 5.2 | Innovation linkages | | | 47.7 | 16 | | |
| 5.2.1 | University/industry research collaboration*..... | | | 59.7 | 24 | | |
| 5.2.2 | State of cluster development*..... | | | 52.6 | 43 | ◇ | |
| 5.2.3 | GERD financed by abroad, %..... | | | 24.5 | 14 | ◆ | |
| 5.2.4 | JV-strategic alliance deals/bn PPP\$ GDP..... | | | 0.0 | 41 | ◇ | |
| 5.2.5 | Patent families 2+ offices/bn PPP\$ GDP..... | | | 3.9 | 13 | | |
| 5.3 | Knowledge absorption | | | 29.5 | 84 | ◇ | |
| 5.3.1 | Intellectual property payments, % total trade..... | | | 1.1 | 33 | | |
| 5.3.2 | High-tech imports, % total trade..... | | | 5.1 | 105 | ◇ | |
| 5.3.3 | ICT services imports, % total trade..... | | | 2.3 | 19 | | |
| 5.3.4 | FDI net inflows, % GDP..... | | | -9.3 | 129 | ◇ | |
| 5.3.5 | Research talent, % in business enterprise..... | | | 42.7 | 30 | | |
| KNOWLEDGE & TECHNOLOGY OUTPUTS | | | | 37.6 | 23 | | |
| 6.1 | Knowledge creation | | | 40.0 | 19 | | |
| 6.1.1 | Patents by origin/bn PPP\$ GDP..... | | | 5.1 | 24 | | |
| 6.1.2 | PCT patents by origin/bn PPP\$ GDP..... | | | 2.5 | 14 | | |
| 6.1.3 | Utility models by origin/bn PPP\$ GDP..... | | | n/a | n/a | | |
| 6.1.4 | Scientific & technical articles/bn PPP\$ GDP..... | | | 32.6 | 5 | ◆ | |
| 6.1.5 | Citable documents H-index..... | | | 18.6 | 40 | ◇ | |
| 6.2 | Knowledge impact | | | 39.6 | 51 | ◇ | |
| 6.2.1 | Growth rate of PPP\$ GDP/worker, %..... | | | 1.3 | 56 | | |
| 6.2.2 | New businesses/th pop. 15-64..... | | | 12.1 | 10 | | |
| 6.2.3 | Computer software spending, % GDP..... | | | 0.3 | 44 | | |
| 6.2.4 | ISO 9001 quality certificates/bn PPP\$ GDP..... | | | 7.3 | 43 | | |
| 6.2.5 | High- & medium-high-tech manufactures, %..... | | | 0.1 | 73 | ◇ | |
| 6.3 | Knowledge diffusion | | | 33.2 | 26 | | |
| 6.3.1 | Intellectual property receipts, % total trade..... | | | 2.4 | 10 | | |
| 6.3.2 | High-tech net exports, % total trade..... | | | 1.5 | 60 | ◇ | |
| 6.3.3 | ICT services exports, % total trade..... | | | 2.7 | 37 | | |
| 6.3.4 | FDI net outflows, % GDP..... | | | n/a | n/a | | |
| CREATIVE OUTPUTS | | | | 50.4 | 9 | | |
| 7.1 | Intangible assets | | | 54.0 | 24 | | |
| 7.1.1 | Trademarks by origin/bn PPP\$ GDP..... | | | 93.8 | 20 | | |
| 7.1.2 | Industrial designs by origin/bn PPP\$ GDP..... | | | 0.8 | 74 | ◇ | |
| 7.1.3 | ICTs & business model creation*..... | | | 72.8 | 26 | | |
| 7.1.4 | ICTs & organizational model creation*..... | | | 75.5 | 13 | | |
| 7.2 | Creative goods & services | | | 30.9 | 25 | | |
| 7.2.1 | Cultural & creative services exports, % total trade..... | | | 0.6 | 40 | | |
| 7.2.2 | National feature films/mn pop. 15-69..... | | | 98.5 | 1 | ◆ | |
| 7.2.3 | Entertainment & Media market/th pop. 15-69..... | | | n/a | n/a | | |
| 7.2.4 | Printing & other media, % manufacturing..... | | | 1.7 | 24 | | |
| 7.2.5 | Creative goods exports, % total trade..... | | | 0.1 | 105 | ◇ | |
| 7.3 | Online creativity | | | 62.5 | 4 | ◆ | |
| 7.3.1 | Generic top-level domains (TLDs)/th pop. 15-69..... | | | 100.0 | 1 | ◆ | |
| 7.3.2 | Country-code TLDs/th pop. 15-69..... | | | 78.2 | 5 | ◆ | |
| 7.3.3 | Wikipedia edits/mn pop. 15-69..... | | | 104.8 | 4 | ◆ | |
| 7.3.4 | Mobile app creation/bn PPP\$ GDP..... | | | 1.2 | 64 | ◇ | |

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.