

| Output rank | Input rank | Income | Region | Efficiency ratio | Population (mn) | GDP, PPP\$ | GDP per capita, PPP\$ | GII 2017 rank |
|-------------|------------|--------|--------|------------------|-----------------|------------|-----------------------|---------------|
| 19 | 22 | High | EUR | 23 | .3 | 17.7 | 51,841.5 | 13 |

| | Score/Value | Rank |
|---|-------------|-------------|
| Institutions | 86.0 | 15 |
| 1.1 Political environment..... | 85.3 | 15 |
| 1.1.1 Political stability & safety*..... | 95.5 | 4 ● |
| 1.1.2 Government effectiveness*..... | 80.1 | 19 |
| 1.2 Regulatory environment..... | 86.7 | 19 |
| 1.2.1 Regulatory quality*..... | 76.8 | 23 |
| 1.2.2 Rule of law*..... | 85.4 | 18 |
| 1.2.3 Cost of redundancy dismissal, salary weeks..... | 13.0 | 43 |
| 1.3 Business environment..... | 86.1 | 16 |
| 1.3.1 Ease of starting a business*..... | 90.7 | 46 |
| 1.3.2 Ease of resolving insolvency*..... | 81.4 | 12 |
| Human capital & research | 46.0 | 30 ◇ |
| 2.1 Education..... | 61.1 | 19 |
| 2.1.1 Expenditure on education, % GDP [Ⓞ] | 7.8 | 3 ●◆ |
| 2.1.2 Government funding/pupil, secondary, % GDP/cap [Ⓞ] | 18.4 | 56 ◇ |
| 2.1.3 School life expectancy, years [Ⓞ] | 19.3 | 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..... | 33.3 | 60 |
| 2.2.1 Tertiary enrolment, % gross [Ⓞ] | 75.8 | 19 |
| 2.2.2 Graduates in science & engineering, % [Ⓞ] | 15.7 | 77 ○◇ |
| 2.2.3 Tertiary inbound mobility, % [Ⓞ] | 7.4 | 30 |
| 2.3 Research & development (R&D)..... | 43.7 | 24 ◇ |
| 2.3.1 Researchers, FTE/mn pop..... | 6,635.1 | 6 |
| 2.3.2 Gross expenditure on R&D, % GDP..... | 2.1 | 15 |
| 2.3.3 Global R&D companies, top 3, mn US\$..... | 44.9 | 32 |
| 2.3.4 QS university ranking, average score top 3*..... | 0.0 | 78 ○◇ |
| Infrastructure | 58.5 | 26 ◇ |
| 3.1 Information & communication technologies (ICTs)..... | 77.3 | 26 |
| 3.1.1 ICT access*..... | 93.8 | 2 ●◆ |
| 3.1.2 ICT use*..... | 87.0 | 5 ●◆ |
| 3.1.3 Government's online service*..... | 62.3 | 60 ◇ |
| 3.1.4 E-participation*..... | 66.1 | 49 ◇ |
| 3.2 General infrastructure..... | 61.3 | 7 |
| 3.2.1 Electricity output, kWh/cap..... | 54,550.0 | 1 ●◆ |
| 3.2.2 Logistics performance*..... | 59.3 | 38 ◇ |
| 3.2.3 Gross capital formation, % GDP..... | 21.9 | 71 |
| 3.3 Ecological sustainability..... | 37.0 | 67 ◇ |
| 3.3.1 GDP/unit of energy use..... | 2.3 | 116 ○◇ |
| 3.3.2 Environmental performance*..... | 78.6 | 11 |
| 3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP..... | 3.6 | 28 |
| Market sophistication | 50.4 | 46 ◇ |
| 4.1 Credit..... | 48.4 | 32 |
| 4.1.1 Ease of getting credit*..... | 60.0 | 61 |
| 4.1.2 Domestic credit to private sector, % GDP..... | 87.3 | 32 |
| 4.1.3 Microfinance gross loans, % GDP..... | n/a | n/a |
| 4.2 Investment..... | 52.1 | 28 |
| 4.2.1 Ease of protecting minority investors*..... | 68.3 | 28 |
| 4.2.2 Market capitalization, % GDP..... | n/a | n/a |
| 4.2.3 Venture capital deals/bn PPP\$ GDP..... | 0.1 | 21 |
| 4.3 Trade, competition, & market scale..... | 50.7 | 99 ○◇ |
| 4.3.1 Applied tariff rate, weighted mean, %..... | 0.7 | 7 |
| 4.3.2 Intensity of local competition [†] | 66.3 | 71 ◇ |
| 4.3.3 Domestic market scale, bn PPP\$..... | 17.7 | 124 ○◇ |

| | Score/Value | Rank |
|---|-------------|-------------|
| Business sophistication | 50.1 | 21 |
| 5.1 Knowledge workers..... | 65.7 | 15 |
| 5.1.1 Knowledge-intensive employment, %..... | 50.5 | 6 |
| 5.1.2 Firms offering formal training, % firms..... | n/a | n/a |
| 5.1.3 GERD performed by business, % GDP..... | 1.3 | 16 |
| 5.1.4 GERD financed by business, %..... | 35.0 | 50 ◇ |
| 5.1.5 Females employed w/advanced degrees, %..... | 23.8 | 14 |
| 5.2 Innovation linkages..... | 50.2 | 12 |
| 5.2.1 University/industry research collaboration [†] | 62.4 | 21 |
| 5.2.2 State of cluster development [†] | 51.6 | 42 ◇ |
| 5.2.3 GERD financed by abroad, %..... | 22.4 | 18 ◆ |
| 5.2.4 JV-strategic alliance deals/bn PPP\$ GDP..... | 0.1 | 11 |
| 5.2.5 Patent families 2+ offices/bn PPP\$ GDP..... | 3.1 | 14 |
| 5.3 Knowledge absorption..... | 34.6 | 42 ◇ |
| 5.3.1 Intellectual property payments, % total trade..... | 1.0 | 36 |
| 5.3.2 High-tech net imports, % total trade..... | 7.3 | 76 ○ |
| 5.3.3 ICT services imports, % total trade..... | 2.1 | 21 |
| 5.3.4 FDI net inflows, % GDP..... | 1.8 | 85 ○ |
| 5.3.5 Research talent, % in business enterprise..... | 36.9 | 36 ◇ |
| Knowledge & technology outputs | 35.2 | 30 ◇ |
| 6.1 Knowledge creation..... | 42.1 | 18 |
| 6.1.1 Patents by origin/bn PPP\$ GDP..... | 4.4 | 27 |
| 6.1.2 PCT patents by origin/bn PPP\$ GDP..... | 2.1 | 17 |
| 6.1.3 Utility models by origin/bn PPP\$ GDP..... | n/a | n/a |
| 6.1.4 Scientific & technical articles/bn PPP\$ GDP..... | 36.0 | 4 ●◆ |
| 6.1.5 Citable documents H index..... | 18.4 | 39 ◇ |
| 6.2 Knowledge impact..... | 42.8 | 39 |
| 6.2.1 Growth rate of PPP\$ GDP/worker, %..... | 3.3 | 16 ◆ |
| 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..... | 6.3 | 52 |
| 6.2.5 High- & medium-high-tech manufactures, %..... | 0.1 | 64 ○◇ |
| 6.3 Knowledge diffusion..... | 20.8 | 57 ◇ |
| 6.3.1 Intellectual property receipts, % total trade..... | 2.1 | 8 |
| 6.3.2 High-tech net exports, % total trade..... | 1.5 | 60 ◇ |
| 6.3.3 ICT services exports, % total trade..... | 3.0 | 34 |
| 6.3.4 FDI net outflows, % GDP..... | (2.2) | 122 ○◇ |
| Creative outputs | 53.3 | 8 |
| 7.1 Intangible assets..... | 58.3 | 15 |
| 7.1.1 Trademarks by origin/bn PPP\$ GDP..... | 92.1 | 19 |
| 7.1.2 Industrial designs by origin/bn PPP\$ GDP..... | 3.0 | 42 |
| 7.1.3 ICTs & business model creation [†] | 75.8 | 22 |
| 7.1.4 ICTs & organizational model creation [†] | 76.7 | 10 |
| 7.2 Creative goods & services..... | 32.6 | 33 |
| 7.2.1 Cultural & creative services exports, % total trade..... | 0.6 | 21 |
| 7.2.2 National feature films/mn pop. 15-69..... | 55.9 | 1 ●◆ |
| 7.2.3 Entertainment & Media market/th pop. 15-69..... | n/a | n/a |
| 7.2.4 Printing & other media, % manufacturing..... | n/a | n/a |
| 7.2.5 Creative goods exports, % total trade..... | 0.1 | 105 ○◇ |
| 7.3 Online creativity..... | 64.0 | 2 ●◆ |
| 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 | 7 |
| 7.3.3 Wikipedia edits/mn pop. 15-69 [Ⓞ] | 104.8 | 4 ●◆ |
| 7.3.4 Mobile app creation/bn PPP\$ GDP..... | 7.0 | 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; * an index; † a survey question. Ⓞ indicates that the country'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; see page 215 of this appendix for details.