Output rank | Input rank | Income | Region | Population (mn) | GDP, PPP$ | GDP per capita, PPP$ | Gill 2018 rank
---|---|---|---|---|---|---|---
57 | 62 | Upper middle | EUR | 8.8 | 112.5 | 17,555.2 | 55

**Institutions**

1.1 Political environment
1.1.1 Political and operational stability
1.1.2 Government effectiveness
1.2 Regulatory environment
1.2.1 Regulatory quality
1.2.2 Rule of law
1.2.3 Cost of redundancy dismissal, salary week
1.3 Business environment
1.3.1 Ease of starting a business
1.3.2 Ease of resolving insolvency

**Human Capital & Research**

2.1 Education
2.1.1 Expenditure on education, % GDP
2.1.2 Government funding/pupil, secondary, % GDP/cap
2.1.3 School life expectancy, years
2.2 Tertiary education
2.2.1 Tertiary enrolment, % gross
2.2.2 Graduates in science & engineering, %
2.2.3 Tertiary inmobility, %
2.3 Research & development (R&D)
2.3.1 Researchers, FTE/mn pop
2.3.2 Gross expenditure on R&D, % GDP
2.3.3 Global R&D companies, avg. exp. top 3, mn US$
2.3.4 QS university ranking, average score top 3

**Infrastructure**

3.1 Information & communication technologies (ICTs)
3.1.1 ICT access
3.1.2 ICT use
3.1.3 Government’s online service
3.1.4 E-participation
3.2 General infrastructure
3.2.1 Electricity output, kWh/mn pop
3.2.2 Logistics performance
3.2.3 Gross capital formation, % GDP
3.3 Ecological sustainability
3.3.1 GDP/unit of energy use
3.3.2 Environmental performance
3.3.3 ISO 14001 environmental certificates/bn PPP$ GDP

**Market Sophistication**

4.1 Credit
4.1.1 Ease of getting credit
4.1.2 Domestic credit to private sector, % GDP
4.1.3 Microfinance gross loans, % GDP
4.2 Investment
4.2.1 Ease of protecting minority investors
4.2.2 Market capitalization, % GDP
4.2.3 Venture capital deal/bn PPP$ GDP
4.3 Trade, competition, & market scale
4.3.1 Applied tariff rate, weighted avg.
4.3.2 Intensity of local competition
4.3.3 Domestic market scale, bn PPP$ GDP

**Business Sophistication**

5.1 Knowledge workers
5.1.1 Knowledge-intensive employment
5.1.2 Firms offering formal training, % firms
5.1.3 GERD performed by business, % GDP
5.1.4 GERD financed by business, %
5.1.5 Females employed w/advanced degrees, %
5.2 Innovation linkages
5.2.1 University-industry research collaboration
5.2.2 State of cluster development
5.2.3 GERD financed by abroad, %
5.2.4 JV-strategic alliance deal/bn PPP$ GDP
5.2.5 Patent families 2+ offices/bn PPP$ GDP
5.3 Knowledge absorption
5.3.1 Intellectual property payments, % total trade
5.3.2 High-tech imports, % total trade
5.3.3 ICT services imports, % total trade
5.3.4 FDI net inflows, % GDP
5.3.5 Research talent, % in business enterprise

**Knowledge & Technology Outputs**

6.1 Knowledge creation
6.1.1 Patents by origin/bn PPP$ GDP
6.1.2 PCT patents by origin/bn PPP$ GDP
6.1.3 Utility models by origin/bn PPP$ GDP
6.1.4 Scientific & technical articles/bn PPP$ GDP
6.1.5 Citable documents H-index
6.1.6 Firms offering formal training, % firms
6.2 Knowledge impact
6.2.1 Growth rate of PPP$ GDP/worker, %
6.2.2 New businesses/th pop. 15
6.2.3 Computer software spending, % GDP
6.2.4 ISO 9001 quality certificates/bn PPP$ GDP
6.2.5 High- & medium-high-tech manufactures, %

**Creative Outputs**

7.1 Intangible assets
7.1.1 Trademarks by origin/bn PPP$ GDP
7.1.2 Industrial designs by origin/bn PPP$ GDP
7.1.3 ICTs & business model creation
7.1.4 ICTs & organizational model creation
7.2 Creative goods & services
7.2.1 Cultural & creative services exports, % total trade
7.2.2 National feature films/mn pop
7.2.3 Entertainment & Media market/th pop
7.2.4 Printing & other media, % manufacturing
7.2.5 Creative goods exports, % total trade

**Online Creativity**

7.3 Generic top-level domains (TLDs)/th pop
7.3.1 Country-code TLDs/th pop
7.3.2 Wikipedia edits/mn pop
7.3.3 Mobile app creation/bn PPP$ GDP

**Notes:** ● indicates a strength; ○ a weak point; ◆ an income group strength; ○ an income group weakness; * 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.