### Output rank | Input rank | Income | Region | Population (mn) | GDP, PPP$ | GDP per capita, PPP$ | Gil 2018 rank
--- | --- | --- | --- | --- | --- | --- | ---
53 | 54 | Upper middle | EUR | 19.6 | 514.2 | 26,446.7 | 49

#### INSTITUTIONS

| Score/Value Rank | Value
|------------------|---|
| 67.1 52 | 1.1 Political environment | 51.6 75
| 1.11 Political and operational stability | 70.2 61
| 1.12 Government effectiveness* | 42.3 84
| 1.2 Regulatory environment | 77.9 35
| 1.21 Regulatory quality* | 55.0 46
| 1.22 Rule of law* | 56.6 47
| 1.23 Cost of redundancy dismissal, salary weeks | 8.0 1
| 1.3 Business environment | 71.9 57
| 1.31 Ease of starting a business* | 83.9 86
| 1.32 Ease of resolving insolvency | 59.9 47

#### HUMAN CAPITAL & RESEARCH

| Score/Value Rank | Value
|------------------|---|
| 29.1 69 | 2.1 Education | 40.5 82
| 2.11 Expenditure on education, % GDP | 3.1 99
| 2.12 Government funding/pupil, secondary, % GDP/cap. | 16.2 76
| 2.13 School life expectancy, years | 14.3 67
| 2.14 PISA scales in reading, maths, & science | 437.5 47
| 2.15 Pupil-teacher ratio, secondary | 12.1 49
| 2.2 Tertiary education | 41.4 31
| 2.21 Tertiary enrolment, % gross | 48.0 60
| 2.22 Graduates in science & engineering, % | 28.8 17
| 2.23 Tertiary inbound mobility | 4.8 43
| 2.3 Research & development (R&D) | 5.3 77
| 2.31 Researchers, FTE/mn pop | 890.2 52
| 2.32 Gross expenditure on R&D, % GDP | 0.5 64
| 2.33 Global R&D companies, avg. exp. top 3, mn US$ | 0.0 43
| 2.34 QS university ranking, average score top 3 | 0.0 78

#### INFRASTRUCTURE

| Score/Value Rank | Value
|------------------|---|
| 54.5 35 | 3.1 Information & communication technologies(ICTs) | 67.6 63
| 3.11 ICT access* | 71.4 61
| 3.12 ICT use* | 62.4 51
| 3.13 Government’s online service* | 66.0 79
| 3.14 E-participation* | 49.3 67
| 3.2 General infrastructure | 35.4 64
| 3.21 Electricity output, kWh/mn pop | 5,773.6 60
| 3.22 Logistics performance* | 49.3 47
| 3.23 Gross capital formation, % GDP | 24.3 49
| 3.3 Ecological sustainability | 60.6 6
| 3.31 GDP/unit of energy use | 13.0 25
| 3.32 Environmental performance* | 64.8 41
| 3.33 ISO 14001 environmental certificates/bn PPP$ GDP | 11.7 4

#### MARKET SOPHISTICATION

| Score/Value Rank | Value
|------------------|---|
| 43.2 92 | 4.1 Credit | 30.2 92
| 4.11 Ease of getting credit* | 80.0 20
| 4.12 Domestic credit to private sector, % GDP | 26.4 103
| 4.13 Microfinance gross loans, % GDP | 0.0 72
| 4.2 Investment | 30.4 120
| 4.21 Ease of protecting minority investors* | 60.0 61
| 4.22 Market capitalization, % GDP | 7.9 72
| 4.23 Venture capital deals/bn PPP$ GDP | 0.0 76
| 4.3 Trade, competition, & market scale | 68.9 38
| 4.31 Applied tariff rate, weighted avg. | 1.8 23
| 4.32 Intensity of local competition* | 62.2 93
| 4.33 Domestic market scale, bn PPP$ | 534.2 39

#### BUSINESS SOPHISTICATION

| Score/Value Rank | Value
|------------------|---|
| 33.6 51 | 5.1 Knowledge workers | 40.4 50
| 5.11 Knowledge-intensive employment, % | 23.3 63
| 5.12 Firms offering formal training, % firms | 40.7 33
| 5.13 GERD performed by business, % GDP | 0.3 48
| 5.14 GERD financed by business, % | 49.4 27
| 5.15 Females employed w/advanced degrees, % | 1.0 60
| 5.2 Innovation linkages | 19.2 92
| 5.21 University/Industry research collaboration | 38.7 74
| 5.22 State of cluster development* | 34.5 109
| 5.23 GERD financed by abroad, % | 9.9 43
| 5.24 JV-strategic alliance deals/bn PPP$ GDP | 0.0 70
| 5.25 Patent families 2+ offices/bn PPP$ GDP | 0.1 64

#### KNOWLEDGE & TECHNOLOGY OUTPUTS

| Score/Value Rank | Value
|------------------|---|
| 30.3 41 | 6.1 Knowledge creation | 10.5 69
| 6.11 Patents by origin/bn PPP$ GDP | 2.4 37
| 6.12 PCT patents by origin/bn PPP$ GDP | 0.1 73
| 6.13 Utility models by origin/bn PPP$ GDP | 0.1 55
| 6.14 Scientific & technical articles/bn PPP$ GDP | 10.6 43
| 6.15 Citable documents H-index | 13.9 53
| 6.2 Knowledge impact | 55.2 8
| 6.21 Growth rate of PPPS GDP/teacher, % | 1.1 66
| 6.22 New businesses/1kth pop | 15.6 44
| 6.23 Computer software spending, % GDP | 0.3 45
| 6.24 ISO 9001 quality certificates/bn PPP$ GDP | 25.2 9
| 6.25 High- & medium-high-tech manufact., % | 0.4 22
| 6.3 Knowledge diffusion | 25.1 38
| 6.31 Intellectual property receipts, % total trade | 0.1 57
| 6.32 High-tech net exports, % total trade | 4.2 38
| 6.33 ICT services exports, % total trade | 4.9 30
| 6.34 FDI net outflows, % GDP | 0.5 66

#### CREATIVE OUTPUTS

| Score/Value Rank | Value
|------------------|---|
| 25.8 71 | 7.1 Intangible assets | 38.6 78
| 7.11 Trademarks by origin/bn PPP$ GDP | 43.1 60
| 7.12 Industrial designs by origin/bn PPPS GDP | 2.6 45
| 7.13 ICTs & business model creation* | 60.8 61
| 7.14 ICTs & organizational model creation* | 50.0 81
| 7.2 Creative goods & services | 14.7 68
| 7.21 Cultural & creative services exports, % total trade | 1.5 15
| 7.22 National feature films/mn pop | 15.6 20
| 7.23 Entertainment & Media market/1kth pop | 15.6 40
| 7.24 Printing & other media, % manufacturing | 1.0 65
| 7.25 Creative goods exports, % total trade | 0.7 52
| 7.3 Online creativity | 11.2 50
| 7.31 Generic top-level domains (TLDs)/th pop | 4.6 56
| 7.32 Country-code TLDs/th pop | 15.8 32
| 7.33 Wikipedia edits/th pop | 15.6 25
| 7.34 Mobile app creation/bn PPP$ GDP | 16.1 29

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; * 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 (EMG) requirements were not met at the sub-pillar or pillar level.