The GII indicators are grouped into innovation inputs and outputs. The following table reflects Mexico’s rankings over time¹.

<table>
<thead>
<tr>
<th>Mexico’s ranking over time</th>
</tr>
</thead>
<tbody>
<tr>
<td>GII</td>
</tr>
<tr>
<td>2018</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2016</td>
</tr>
</tbody>
</table>

- Over the last three years, Mexico shows a gradual improvement in the ranking of both innovation inputs and outputs.
- Mexico ranks 54th in innovation inputs for the second consecutive year, up from the 60th position in 2016.
- Innovation outputs positions 61st, down 1 position from last year and up 1 from 2016.
- Relative to its overall GII position (56th), Mexico’s Innovation Efficiency Ratio (72nd) ranks slightly low, showing that the economy could improve further in its capacity to translate innovation inputs into outputs.

¹ Note that year-on-year comparisons of the GII ranks are imperfect and influenced by changes in the GII model and data availability.
Benchmarking Mexico to other upper-middle-income countries and the Latin America and the Caribbean region

Mexico’s scores by area

Upper-middle-income countries

Mexico has high scores in 6 out of the 7 GII areas — Institutions, Human Capital & Research, Infrastructure, Market Sophistication, Knowledge & Technology Outputs, and Creative Outputs, in which it scores above the average of the upper-middle-income group.

Top scores in the areas Business environment, Education, Information & Communication Technologies (ICTs), Trade, competition & market scale, Knowledge impact, and Intangible assets are behind these high rankings.

Latin America and the Caribbean region

Compared to other countries in the Latin America and the Caribbean region, Mexico performs above-average in all the 7 GII areas.

Mexico’s innovation profile

Strengths

- Most of Mexico’s GII strengths are accrued among innovation inputs.
- In Market Sophistication (58th), it has strong performance in the area Trade, competition & market scale (20th) and indicators Ease of getting credit (6th) and Domestic market scale (11th).
- Mexico also performs strongly in two indicators within Business Sophistication (69th): Firms offering formal training (19th) and High-tech imports, where it ranks 6th globally.
- In Infrastructure (56th), indicators Government’s online service (19th) and E-participation (14th) are marked as GII strengths.
- Finally, on the input side, Mexico also demonstrates strong performance in the indicator Graduates in science & engineering (19th) in Human Capital & Research (54th).
- On the innovation output side, two of its three GII strengths are found in Knowledge & Technology Outputs (60th) in indicators High- & medium-high-tech manufactures (10th) and High-tech exports, ranking 7th globally.
The other strength is found in **Creative Outputs** (62nd) in indicator *Creative goods exports*, in which it positions 2nd globally.

**Weaknesses**

- Mexico’s relative weaknesses are concentrated within the **Business Sophistication** (69th) area, and in particular in four indicators: *R&D financed by abroad* (95th), *Joint venture–strategic alliance deals* (96th), *Intellectual property payments* (91st), and *ICT services imports* (124th).

- The other weaknesses are scattered across the other areas of the GII, except for the areas **Institutions** (63rd) and **Infrastructure** (56th) that do not present any relative weakness.

- In **Market Sophistication** (58th), the area *Investment* (102nd) and indicator *Venture capital deals* (75th) are signaled as relative weaknesses.

- In **Human Capital & Research** (54th), the country performs relatively weakly in only one indicator – *Tertiary inbound mobility* (98th).

- On the innovation output side, Mexico exhibits GII weaknesses in a total of four indicators: *New business density* (83rd) and *ICT services exports* (125th) in **Knowledge & Technology Outputs** (60th) and *Cultural & creative services exports* (70th) and *Printing & other media* (86th) in **Creative Outputs** (62nd).

The following figure presents a summary of Mexico’s ranks in the 7 GII areas, as well as the overall rank in the GII 2018.

![Mexico's rank in the GII 2018 and the 7 GII areas](image)
**Expected vs. Observed Innovation Performance**

The GII bubble chart shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The depicted trendline gives an indication of the expected innovation performance at different levels of income. Countries located above the trendline are performing better than what would be expected based on their income level. Countries below the line are Innovation Under-performers relative to GDP.

Relative to GDP, Mexico performs at its expected level of development.
Missing and Outdated Data

More and better data improves the ability of a country to understand its strengths and weaknesses and give policymakers greater capacity to plan and adapt public policies accordingly. The GII 2018 covers 126 countries that complied with the minimum indicator coverage of 35 indicators in the Innovation Input Sub-Index (66%) and 18 indicators in the Innovation Output Sub-Index (66%).

The following tables show data for Mexico that is not available or that is outdated.

**Missing Data**

There is no data missing for Mexico.

**Outdated Data**

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator</th>
<th>Country Year</th>
<th>Model Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.2</td>
<td>Graduates in science &amp; engineering, %</td>
<td>2015</td>
<td>2016</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Researchers, FTE/mn pop.</td>
<td>2013</td>
<td>2016</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Firms offering formal training, % firms</td>
<td>2010</td>
<td>2013</td>
<td>World Bank, Enterprise Surveys</td>
</tr>
<tr>
<td>5.3.5</td>
<td>Research talent, % in business enterprise</td>
<td>2013</td>
<td>2016</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>7.2.1</td>
<td>Cultural &amp; creative services exports, % total trade</td>
<td>2015</td>
<td>2016</td>
<td>WTO, Trade in Commercial Services</td>
</tr>
</tbody>
</table>
### MEXICO

**Output rank** 61  
**Input rank** 54  
**Income** Upper-middle  
**Region** LCN  
**Population (m) 129.2**  
**GDP, PPP$ 2,406.1**  
**GDP per capita, PPP$ 19,902.8**  
**GII 2017 rank 58**  
**GII 2018 rank 56**  

#### Score/Value Rank

**Institutions** | 62.3 | 63
---|---|---
1  | Political environment | 48.2 | 74
1.1  | Political stability & safety* | 46.9 | 99
1.2  | Government effectiveness* | 48.8 | 61
1.3  | Regulatory environment | 59.7 | 80
1.3.1  | Regulatory quality* | 51.5 | 56
1.3.2  | Rule of law* | 301.9 | 93
1.3.3  | Cost of redundancy dismissal, salary weeks | 220.0 | 89
1.3  | Business environment | 79.1 | 36
1.3.1  | Ease of starting a business* | 85.8 | 72
1.3.2  | Ease of resolving insolvency* | 72.3 | 29

**Human capital & research** | 33.8 | 54
---|---|---
2  | Education | 43.0 | 79
2.1  | Expenditure on education, % GDP | 5.3 | 36
2.2  | Government funding/pupil, secondary, % GDP/cap | 6.3 | 69
2.3  | School life expectancy, years | 141.4 | 64
2.4  | PISA scales in reading, maths & science | 415.7 | 55
2.5  | Pupil-teacher ratio, secondary | 6.3 | 73
2.6  | Tertiary education | 33.7 | 59
2.6.1  | Tertiary enrolment, % | 36.9 | 70
2.6.2  | Graduates in science & engineering, % | 27.9 | 19
2.6.3  | Tertiary inbound mobility, % | 0.3 | 98
3  | Research & development (R&D) | 48.0 | 56
3.1  | Researchers, FTE/million pop | 24.2 | 72
3.2  | Gross expenditure on R&D, % GDP | 0.5 | 61
3.3  | Global R&D companies, top 3, mn US$ | 42.3 | 35
3.4  | QS university ranking, average score top 3 | 42.6 | 32

**Infrastructure** | 48.0 | 56
---|---|---
3.1  | Information & communication technologies (ICTs) | 58.1 | 41
3.1.1  | ICT access* | 52.8 | 80
3.1.2  | ICT use* | 46.5 | 68
3.1.3  | Government’s online service* | 84.8 | 19
3.1.4  | E-participation* | 881.1 | 14
3.2  | General infrastructure | 37.0 | 67
3.2.1  | Electricity output, kWh/cap | 2,597.7 | 69
3.2.2  | Logistics performance* | 48.6 | 53
3.2.3  | Gross capital formation, % GDP | 22.9 | 61
3.3  | Ecological sustainability | 38.9 | 59
3.3.1  | GDP/unit of energy use | 11.1 | 37
3.3.2  | Environmental performance* | 59.7 | 64
3.3.3  | ISO 14001 environmental certificates/bn PPP$ GDP | 0.7 | 78

**Market sophistication** | 48.0 | 58
---|---|---
4  | Credit | 36.6 | 66
4.1  | Ease of getting credit* | 90.0 | 6
4.1.1  | Domestic credit to private sector, % GDP | 35.0 | 87
4.1.2  | Microfinance gross loans, % GDP | 0.4 | 40
4.2  | Investment & Venture capital deal/bn PPP$ GDP | 33.3 | 102
4.2.1  | Ease of protecting minority investors* | 58.3 | 61
4.2.2  | Market capitalization, % GDP | 35.1 | 40
4.2.3  | Venture capital deal/bn PPP$ GDP | 0.0 | 75
4.3  | Trade, competition, & market scale | 74.1 | 20
4.3.1  | Applied tariff rate, weighted mean | 4.4 | 82
4.3.2  | Intensity of local competition* | 701.0 | 60
4.3.3  | Domestic market scale, bn PPP$ | 2,406.1 | 11

**Business sophistication** | 32.9 | 69
---|---|---
5  | Gross Domestic Product | 19,902.8 | 58
5.1  | Knowledge workers | 34.2 | 68
5.1.1  | Knowledge-intensive employment, % | 19.4 | 75
5.1.2  | Firms offering formal training, % firms | 50.8 | 19
5.1.3  | GERD performed by business, % GDP | 0.2 | 55
5.1.4  | GERD financed by business, % | 20.7 | 63
5.1.5  | Females employed in advanced degrees, % | 8.2 | 71
5.2  | Innovation linkages | 22.3 | 89
5.2.1  | Universityindustry research collaboration* | 43.6 | 47
5.2.2  | State of cluster development* | 53.4 | 37
5.2.3  | GERD financed by abroad, % | 0.6 | 95
5.2.4  | JV-strategic alliance deals/bn PPP$ GDP | 0.0 | 96
5.2.5  | Patent families & offices/bn PPP$ GDP | 0.1 | 66
5.3  | Knowledge absorption | 31.9 | 56
5.3.1  | Intellectual property payments, % total trade | 0.2 | 91
5.3.2  | High-tech net exports, % total trade | 18.9 | 6
5.3.3  | ICT services imports, % total trade | 124.0 | 66
5.3.4  | FDI net inflows, % GDP | 2.9 | 55
5.3.5  | Research talent, % in business enterprise* | 24.5 | 48

**Knowledge & technology outputs** | 23.5 | 60
---|---|---
6  | Total factor productivity | 31.1 | 65
6.1  | GDP per capita, PPP$ | 41.3 | 68
6.1.1  | Intellectual property receipts, % total trade | 0.0 | 69
6.1.2  | Growth rate of PPP$ GDP/worker | 0.4 | 71
6.1.4  | Scientific & technical articles/bn PPP$ GDP | 4.5 | 86
6.1.5  | Citable documents H index* | 270.0 | 34
6.2  | Higher education | 36.6 | 67
6.2.1  | University/pupil ratio | 2.5 | 67
6.2.2  | Tertiary education | 33.8 | 54
6.2.3  | Share of tertiary education | 33.1 | 54
6.2.4  | University funding per student | 128.2 | 22
6.2.5  | Higher education, % GDP | 148.4 | 28
6.3  | Creative goods & services | 30.9 | 54
6.3.1  | Retail sales of creative goods & services, % GDP | 29.3 | 54
6.3.2  | High-tech net imports, % total trade | 15.6 | 7
6.3.3  | ICT services exports, % total trade | 0.0 | 68
6.3.4  | FDI net flows, % GDP | 0.8 | 58

**Creative outputs** | 29.2 | 62
---|---|---
7  | Creative & cultural outputs | 31.6 | 65
7.1  | Trademarks by origin/bn PPP$ GDP | 42.6 | 62
7.2  | National feature films/million pop | 1.6 | 67
7.3  | Creative & cultural services exports, % total trade | 0.0 | 70
7.4  | National feature films/million pop | 1.6 | 67
7.5  | Entertainment & Media market/BN GDP | 7.3 | 40
7.6  | Print media, % manufacturing | 0.4 | 86
7.7  | Creative & cultural services exports, % total trade | 10.1 | 2
7.8  | National feature films/million pop | 1.6 | 67
7.9  | National feature films/million pop | 1.6 | 67
7.10  | Creative & cultural outputs, % total trade | 0.1 | 67
7.11  | Creative & cultural services exports, % total trade | 0.0 | 70

**Notes:**  
- *indicates a strength;  
- O a weakness;  
- an income group strength;  
- an income group weakness;  
- 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 75 of this appendix for details.

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