The Global Innovation Index (GII) is a ranking of world economies based on innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.

The following table shows the rankings of Mexico over the past three years, noting that data availability and the GII model influence year-on-year comparisons of the GII ranks. The confidence interval for Mexico’s ranking in the GII 2019 is between 51 and 56.

<table>
<thead>
<tr>
<th>Year</th>
<th>GII</th>
<th>Innovation Inputs</th>
<th>Innovation Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>56</td>
<td>59</td>
<td>55</td>
</tr>
<tr>
<td>2018</td>
<td>56</td>
<td>54</td>
<td>61</td>
</tr>
<tr>
<td>2017</td>
<td>58</td>
<td>54</td>
<td>60</td>
</tr>
</tbody>
</table>

- Mexico performs better in Innovation Outputs than Inputs.
- This year Mexico ranks 59th in Innovation Inputs, worse than last year and compared to 2017.
- As for Innovation Outputs, Mexico ranks 55th. This position is better than last year and compared to 2017.

Mexico ranks 10th among the 34 upper middle-income economies.

Mexico ranks 3rd among the 19 economies in Latin America and the Caribbean.
EXPECTED VS. OBSERVED INNOVATION PERFORMANCE

The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are considered Innovation under-performers relative to GDP.

Relative to GDP, Mexico performs at its expected level of development.

GII scores and GDP per capita in PPP US$ (bubbles sized by population)
EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

The chart below shows the relationship between innovation inputs and innovation outputs, indicating which economies best translate innovation inputs into innovation outputs. Economies appearing above the line are effectively translating their costly innovation investments into more and higher-quality outputs. In contrast, those below the line are not effectively translating innovation inputs into outputs.

Mexico produces more innovation outputs relative to its level of innovation investments.

Innovation input/output performance by income group, 2019
BENCHMARKING MEXICO TO OTHER UPPER MIDDLE-INCOME ECONOMIES AND THE LATIN AMERICA AND THE CARIBBEAN REGION

Mexico’s scores in the seven GII pillars

Upper middle-income economies

Mexico has high scores in 6 out of the 7 GII pillars: Institutions, Human capital & research, Infrastructure, Market sophistication, Knowledge & technology outputs, and Creative outputs which are above the average of the upper middle-income group.

Latin America and the Caribbean Region

Compared to other economies in the Latin America and the Caribbean region, Mexico performs above average in all of the 7 GII pillars.

Top ranks are found in areas such as Business environment, Research and development (R&D), Trade, competition, & market scale, Knowledge diffusion, and Creative goods & services, where Mexico ranks in the top 50 worldwide.
OVERVIEW OF MEXICO’S RANKINGS IN THE 7 GII AREAS

Mexico performs the best in Knowledge & technology outputs and its weakest performance is in Business sophistication.

MEXICO’S INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of Mexico’s strengths and weaknesses in the GII 2019.

### Strengths

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.3</td>
<td>Government’s online service*</td>
<td>22</td>
</tr>
<tr>
<td>3.1.4</td>
<td>E-participation*</td>
<td>17</td>
</tr>
<tr>
<td>4.1.1</td>
<td>Ease of getting credit*</td>
<td>7</td>
</tr>
<tr>
<td>4.3</td>
<td>Trade, competition, &amp; market scale</td>
<td>8</td>
</tr>
<tr>
<td>4.3.1</td>
<td>Applied tariff rate, weighted mean, %</td>
<td>12</td>
</tr>
<tr>
<td>4.3.3</td>
<td>Domestic market scale, bn PPP$</td>
<td>11</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Firms offering formal training, % firms</td>
<td>20</td>
</tr>
<tr>
<td>5.2.2</td>
<td>High-tech imports, % total trade</td>
<td>10</td>
</tr>
<tr>
<td>6.2.5</td>
<td>High- &amp; medium-high-tech manufactures, %</td>
<td>11</td>
</tr>
<tr>
<td>6.3.2</td>
<td>High-tech net exports, % total trade</td>
<td>9</td>
</tr>
<tr>
<td>7.2</td>
<td>Creative goods &amp; services</td>
<td>22</td>
</tr>
<tr>
<td>7.2.5</td>
<td>Creative goods exports, % total trade</td>
<td>1</td>
</tr>
</tbody>
</table>

### Weaknesses

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.3</td>
<td>Tertiary inbound mobility, %</td>
<td>102</td>
</tr>
<tr>
<td>4.2</td>
<td>Investment</td>
<td>110</td>
</tr>
<tr>
<td>4.2.3</td>
<td>Venture capital deals/bn PPP$ GDP</td>
<td>69</td>
</tr>
<tr>
<td>5.2.3</td>
<td>GERD financed by abroad, %</td>
<td>95</td>
</tr>
<tr>
<td>5.3.1</td>
<td>Intellectual property payments, % total trade</td>
<td>104</td>
</tr>
<tr>
<td>5.3.3</td>
<td>ICT services imports, % total trade</td>
<td>125</td>
</tr>
<tr>
<td>6.2.2</td>
<td>New businesses/th pop, 15–64</td>
<td>83</td>
</tr>
<tr>
<td>6.3.1</td>
<td>Intellectual property receipts, % total trade</td>
<td>102</td>
</tr>
<tr>
<td>6.3.3</td>
<td>ICT services exports, % total trade</td>
<td>126</td>
</tr>
<tr>
<td>7.2.1</td>
<td>Cultural &amp; creative services exports, % total trade</td>
<td>118</td>
</tr>
<tr>
<td>7.2.4</td>
<td>Printing &amp; other media, % manufacturing</td>
<td>96</td>
</tr>
</tbody>
</table>
STRENGTHS

- GII strengths for Mexico are found in five of the seven GII pillars.
- Market sophistication (57) is the GII pillar with the highest number of strengths. Here, Mexico’s strengths are sub-pillar Trade, competition, & market scale (8) and two of its three indicators - Applied tariff rate (12) and Domestic market scale (11). In this pillar, indicator Ease of getting credit (7) is also a GII strength of Mexico.
- In Infrastructure (59), Mexico’s strengths are indicators Government’s online service (22) and E-participation (17).
- In Business sophistication (73), Mexico shows strengths in indicators Firms offering formal training (20) and High-tech imports (10).
- In Knowledge & technology outputs (50), GII strengths are found in two indicators: High- & medium-high-tech manufactures (11) and High-tech exports (9).
- In Creative outputs (55), strengths are sub-pillar Creative goods & services (22) and indicator Creative goods exports, where Mexico ranks 1st in the world.

WEAKNESSES

- Mexico’s weaknesses in the GII are found in five of the seven GII pillars.
- Three of these weaknesses are found in Business sophistication (73), where indicators: R&D financed by abroad (95), Intellectual property payments (104), and ICT services imports (125) are relative weaknesses for Mexico.
- Other three of them are in Knowledge & technology outputs (50), and in particular in indicators New businesses (83), Intellectual property receipts (102), and ICT services exports (126).
- In Market sophistication (57), sub-pillar Investment (110) and one of its indicators - Venture capital deals (69) – are relative weaknesses of Mexico.
- In Creative outputs (55), Mexico’s weaknesses are indicators Cultural & creative services exports (118) and Printing & other media (96).
- In Human capital & research (54), Mexico has only one relative weakness in indicator Tertiary inbound mobility (102).
MEXICO

Out

Business Sophistication.................................. 29.4  73

5.1 Knowledge workers.................................. 35.7  68

5.1.1 Knowledge-intensive employment, % GDP.................................................................. 19.9  74

5.1.2 Firms offering formal training, % firms Î….................................................................. 50.8  20

5.1.3 GERD performed by business, % GDP........................................................................ 0.1  55

5.1.4 GERD financed by business, % GDP........................................................................... 20.7  66

5.1.5 Females employed at advanced degrees, %..................................................................... 8.8  74

5.2 Innovation linkages...................................... 20.0  87

5.2.1 University/industry research collaboration*................................................................. 43.7  56

5.2.2 State of cluster development*........................................................................................ 53.8  39

5.2.3 GERD financed by abroad, %........................................................................................ 0.6  95

5.2.4 JV-strategic alliance deals /bn PPP$ GDP.......................................................... 0.0  81

5.2.5 Patent families / offices /bn PPP$ GDP........................................................... 0.1  63

5.3 Knowledge absorption.............................. 32.6  67

5.3.1 Intellectual property payments, % total trade................................................................ 0.1  104

5.3.2 High-tech imports, % total trade.................................................................................. 17.0  10

5.3.3 ICT services imports, % total trade................................................................................ 0.0  125

5.3.4 FDI net inflows, % GDP............................................................................................... 3.1  54

5.3.5 Research talent, % in business enterprise.................................................................... 24.5  50

Knowledge and Technology Outputs........... 25.5  50

6.1 Knowledge creation..................................... 37.6  65

6.1.1 Patents by origin /bn PPP$ GDP................................................................. 0.5  76

6.1.2 PCT patents by origin /bn PPP$ GDP................................................................. 0.1  65

6.1.3 Utility models by origin /bn PPP$ GDP................................................................. 0.2  42

6.1.4 Scientific & technical articles /bn PPP$ GDP.............................................................. 4.3  88

6.1.5 Citable documents H-index.......................................................................................... 27.4  34

6.2 Knowledge impact....................................... 36.7  65

6.2.1 Growth rate of PPP$ GDP /worker, %................................................................. 0.3  82

6.2.2 New businesses /th pop. 15-64.................................................................................. 0.5  83

6.2.3 Computer software spending, % GDP........................................................................ 0.2  66

6.2.4 ISO 9001 quality certificates /bn PPP$ GDP................................................................. 2.9  77

6.2.5 High- & medium-high-tech manufactures, %........................................................... 0.5  11

6.3 Knowledge diffusion.................................... 28.7  33

6.3.1 Intellectual property receipts, % total trade................................................................ 0.0  102

6.3.2 High-tech net exports, % total trade........................................................................... 15.0  11

6.3.3 ICT services exports, % total trade............................................................................. 0.0  126

6.3.4 FDI net outflows, % GDP.......................................................................................... 0.7  61

Creative Outputs............................................. 29.2  55

7.1 Intangible assets.......................................... 41.4  62

7.1.1 Trademarks by origin /bn PPP$ GDP................................................................. 44.1  59

7.1.2 Industrial designs by origin /bn PPP$ GDP.............................................................. 0.7  82

7.1.3 ICTs & business model creation*................................................................................ 67.6  37

7.1.4 ICTs & organizational model creation*........................................................................ 57.9  53

7.2 Creative goods & services......................... 32.1  22

7.2.1 Cultural & creative services exports, % total trade...................................................... 0.0  118

7.2.2 National feature films /mn pop. 15-69........................................................................ 2.0  66

7.2.3 Entertainment & Media market /th pop. 15-69.............................................................. 7.5  40

7.2.4 Printing & other media, % manufacturing............................................................... 0.4  96

7.2.5 Creative goods exports, % total trade......................................................................... 0.9  18

7.3 Online creativity......................................... 2.2  82

7.3.1 Generic top-level domains (TLDs) /th pop. 15-69....................................................... 2.5  72

7.3.2 Country-code TLDs /th pop. 15-69............................................................................ 3.3  58

7.3.3 Wikipedia edits /mn pop. 15-69................................................................................ 3.4  93

7.3.4 Mobile app creation /bn PPP$ GDP................................................................. 0.7  66

Notes: ● indicates a strength; ◆ a weakness; ● an income group strength; ◆ an income group weakness; * an index; † a survey question. Indicates that the country has a unique economy. Square brackets [ ] indicate the data minimum coverage (DMC) requirements were met at the sub-pillar or pillar level.
DATA AVAILABILITY

Mexico has complete data coverage in the GII 2019.

The following table lists data that are outdated for Mexico.

Outdated data

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Country year</th>
<th>Model year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.1</td>
<td>Researchers, FTE/mn pop.</td>
<td>2013</td>
<td>2017</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators</td>
</tr>
<tr>
<td>2.3.2</td>
<td>Gross expenditure on R&amp;D, % GDP</td>
<td>2016</td>
<td>2017</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators</td>
</tr>
<tr>
<td>4.1.3</td>
<td>Microfinance gross loans, % GDP</td>
<td>2016</td>
<td>2017</td>
<td>Microfinance Information Exchange</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Firms offering formal training, % firms</td>
<td>2010</td>
<td>2013</td>
<td>World Bank</td>
</tr>
<tr>
<td>5.1.3</td>
<td>GERD performed by business, % GDP</td>
<td>2016</td>
<td>2017</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators</td>
</tr>
<tr>
<td>5.3.5</td>
<td>Research talent, % in business enterprise</td>
<td>2013</td>
<td>2017</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators</td>
</tr>
</tbody>
</table>
The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2019, the GII presents its 12th edition devoted to the theme **Creating Healthy Lives—The Future of Medical Innovation**.

Recognizing that innovation is a key driver of economic development, the GII aims to provide a rich innovation ranking and analysis referencing around 130 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a “tool for action” for countries that incorporate the GII into their innovation agendas.

The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that includes institutions, human capital and research, infrastructure, credit, investment, linkages; the creation, absorption and diffusion of knowledge; and creative outputs.

The GII has two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index, and seven pillars, each containing three sub-pillars.