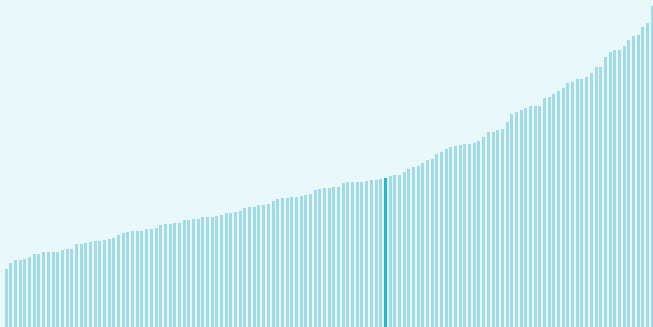




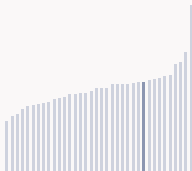
## Mexico ranking in the Global Innovation Index 2025

Mexico ranks **58th** among the 139 economies featured in the GII 2025.

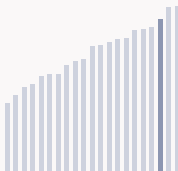
The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.



Mexico ranks 10th among the 36 Upper middle-income group economies.



Mexico ranks 3rd among the 21 economies in Latin America and the Caribbean.



### > Mexico GII Ranking (2020-2025)

The table shows the rankings of Mexico over the past six years. Data availability and changes to the GII model framework influence year-on-year comparisons of the GII rankings. The statistical confidence interval for the ranking of Mexico in the GII 2025 is between ranks 53 and 62.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	55th	61st	57th
2021	55th	62nd	51st
2022	58th	70th	55th
2023	58th	77th	51st
2024	56th	73rd	52nd
2025	58th	81st	52nd

Mexico performs better in innovation outputs than innovation inputs in 2025.

This year Mexico ranks 81st in innovation inputs. This position is lower than last year.

Mexico ranks 52nd in innovation outputs. This position is the same as last year.

Mexico has 1 cluster in the world's top innovation clusters of the Global Innovation Index.

# Global Innovation Index 2025



## > Global Innovation Tracker

The Global Innovation Tracker 2025 shows what is the current state of innovation in Mexico, how rapidly is technology being embraced and what are the resulting societal impacts.



For Mexico, 9 indicators have improved in the short-term and 3 indicators have worsened.

### Science and innovation investment

	Scientific publications	R&D investments	Venture capital deal numbers	International patent filings
Short term	▲ 0.2 % 2023 - 2024	▲ 7.4 % 2022 - 2023	▼ -18.5 % 2023 - 2024	▲ 9.4 % 2023 - 2024
Long term (annual growth)	▲ 3.8 % 2014 - 2024	▼ -2.7 % 2013 - 2023	▼ -4.4 % 2020 - 2024	▼ -5.4 % 2014 - 2024

### Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	▲ 0.1% 2023 - 2024	▼ -0.1% 2022 - 2023	▲ 96.8% 2022 - 2023	▲ 7.5% 2022 - 2023	▲ 65.9% 2023 - 2024
Long term (annual growth)	▲ 3.8% 2014 - 2024	▲ 7.4% 2013 - 2023	n/a	▲ 23.5% 2013 - 2023	▲ 84.3% 2014 - 2024
Penetration	62.7 per 100 inhabitants in 2024	20.1 per 100 inhabitants in 2023	37.1 per 100 inhabitants in 2023	n/a	0.3 per 100 cars in 2024

### Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▲ 1.1 % 2023 - 2024	▲ 1.5 % 2022 - 2023	+ 1.9 °C 2024
Long term (annual growth)	▼ -0.6 % 2014 - 2024	▲ 0.1 % 2013 - 2023	+ 0.9 °C 2014
Level	57,961.9 USD in 2024	75.1 years in 2023	n/a

Notes: Not all indicators of the Global Innovation Tracker are used to calculate the Global Innovation Index. Long-term annual growth refers to the compound annual growth rate (CAGR) over the indicated period. For each variable, a one-year growth rate is set for the short run, and ten-year CAGR is set for the long run; time windows might differ when gaps exist in data availability. The end period corresponds to the most recent available observation, which may differ among countries. Temperature change is an exception: it indicates the change in degrees Celsius with respect to the average temperature in the countries. from 1951–1980. Figures are rounded.

# Global Innovation Index 2025



## 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 performing below expectations.



Relative to GDP Mexico performs at expectations for its level of development.

### > Innovation overperformers relative to their economic development



# Global Innovation Index 2025



## Effectively translating innovation investments into innovation outputs

The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.



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

### > Relationship between innovation inputs and outputs

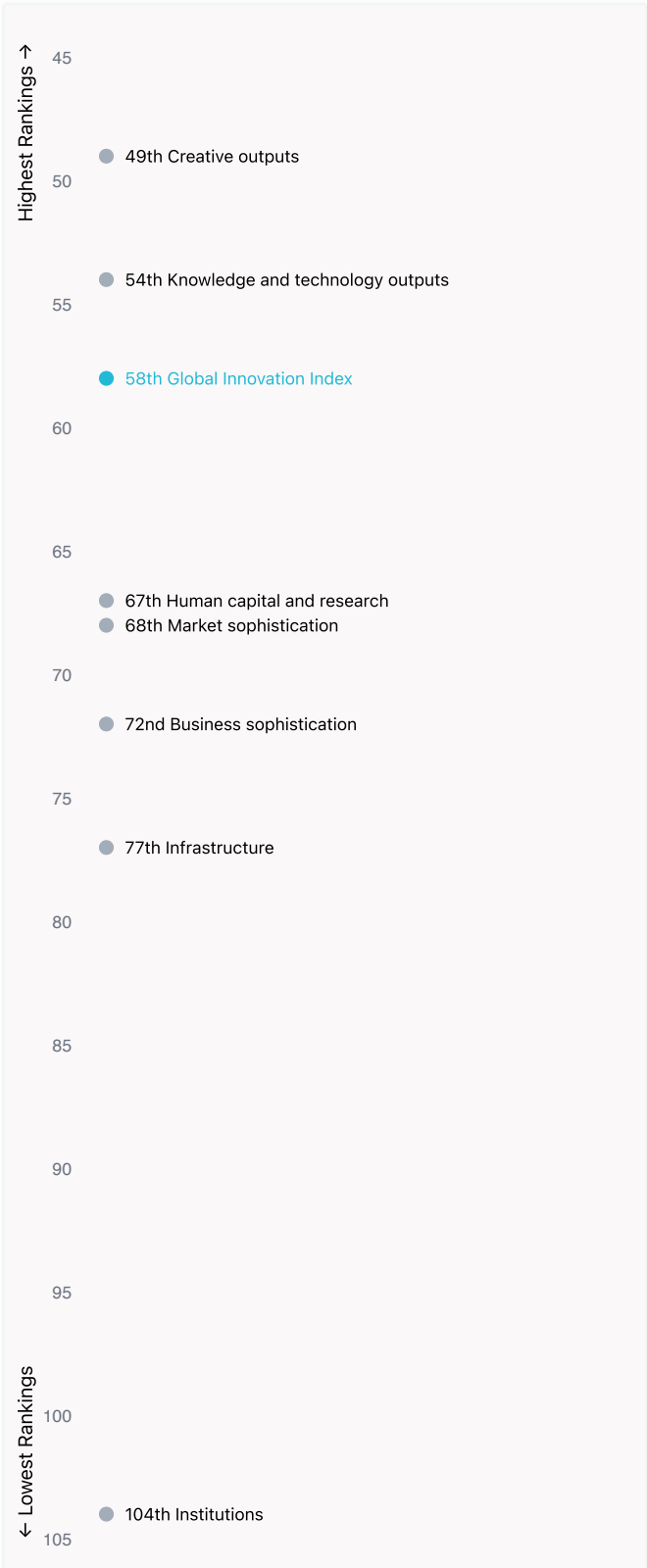


# Global Innovation Index 2025



## Overview of Mexico's rankings in the seven areas of the GII in 2025

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Mexico are those that rank above the GII (shown in blue) and the weakest are those that rank below.



### Highest Rankings

Mexico ranks highest in Creative outputs (49th) and Knowledge and technology outputs (54th).



### Lowest Rankings

Mexico ranks lowest in Institutions (104th), Infrastructure (77th) and Business sophistication (72nd).



The full WIPO Intellectual Property Statistics profile for Mexico can be found on <https://www.wipo.int/edocs/statistics-country-profile/en/mx.pdf>

# Global Innovation Index 2025



## Benchmark of Mexico against other economy groupings for each of the seven areas of the GII Index

The charts show the relative position of Mexico (blue bar) against other economy groupings (grey bars)



### Upper middle-income economies

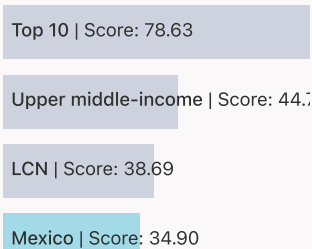
Mexico performs above the Upper middle-income group average in Human capital and research, Market sophistication, Business sophistication, Knowledge and technology outputs, Creative outputs.



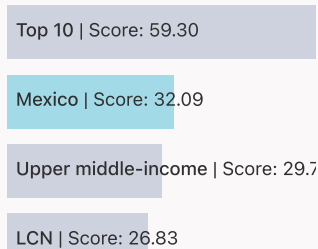
### Latin America and the Caribbean

Mexico performs above the regional average in Human capital and research, Infrastructure, Market sophistication, Business sophistication, Knowledge and technology outputs, Creative outputs.

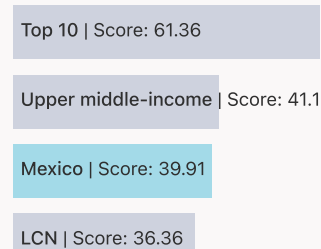
#### Institutions



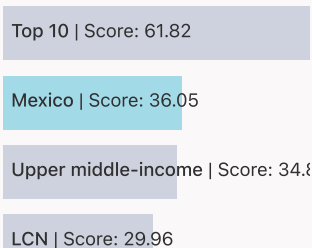
#### Human capital and research



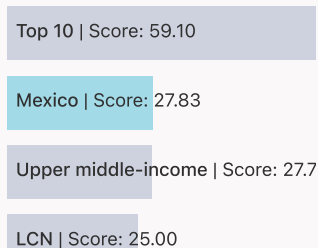
#### Infrastructure



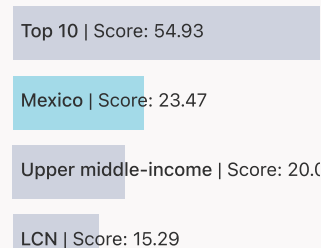
#### Market sophistication



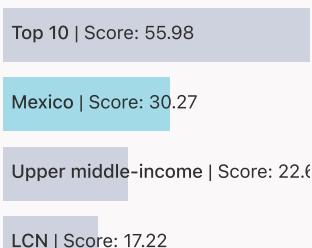
#### Business sophistication



#### Knowledge and technology outputs



#### Creative outputs



# Global Innovation Index 2025



## Innovation strengths and weaknesses in Mexico

The table below gives an overview of the indicator strengths and weaknesses of Mexico in the GII 2025.



Mexico's best-ranked innovation strengths are **Creative goods exports, % total trade** (rank 6), **Domestic market scale, bn PPP\$** (rank 13) and **High-tech manufacturing** (rank 13).

### Strengths

Rank	Code	Indicator name
6	7.2.4	Creative goods exports, % total trade
13	4.3.3	Domestic market scale, bn PPP\$
13	6.2.4	High-tech manufacturing
13	6.3.3	High-tech exports, % total trade
16	5.3.2	High-tech imports, % total trade
20	6.3.2	Production and export complexity
26	2.3.3	Global corporate R&D investors, top 3, mn USD
30	2.3.4	QS university ranking, top 3*
32	7.1.2	Trademarks by origin/bn PPP\$ GDP
34	6.1.5	Citable documents H-index

### Weaknesses

Rank	Code	Indicator name
130	6.3.4	ICT services exports, % total trade
119	5.2.1	Public research–industry co-publications, %
114	6.2.1	Labor productivity growth, %
111	1.2.2	Rule of law*
106	1.3.1	Policy stability for doing business <sup>†</sup>
106	6.1.4	Scientific and technical articles/bn PPP\$ GDP
96	7.2.1	Cultural and creative services exports, % total trade
89	2.2.3	Tertiary inbound mobility, %
75	1.3.2	Entrepreneurship policies and culture <sup>†</sup>
67	5.1.4	GERD performed by business, % GDP



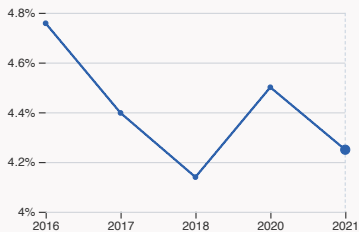
# Global Innovation Index 2025



## Mexico's innovation system

As far as practicable, the plots below present unscaled indicator data.

### › Innovation inputs in Mexico



#### 2.1.1 Expenditure on education

was equal to 4.25 % GDP in 2021, down by 0.25 percentage points from the year prior – and equivalent to an indicator rank of 65.



#### 2.2.2 Graduates in science and engineering

was equal to 23.75 % of total graduates in 2022, down by 0.59 percentage points from the year prior – and equivalent to an indicator rank of 53.



#### 2.3.1 Researchers

was equal to 272.32 FTE per million population in 2023, down by 0.49% from the year prior – and equivalent to an indicator rank of 79.



#### 2.3.2 Gross expenditure on R&D

was equal to 0.27 % GDP in 2023, up by 0.01 percentage points from the year prior – and equivalent to an indicator rank of 81.



#### 2.3.4 QS university ranking

was equal to an average score of 42.53 for the top three universities in 2024, up by 0.47% from the year prior – and equivalent to an indicator rank of 30.



#### 4.3.2 Domestic industry diversification

was equal to an index score of 0.13 in 2022, down by 1.01% from the year prior – and equivalent to an indicator rank of 46.



#### 5.1.1 Knowledge-intensive employment

was equal to 21.89 % in 2024, up by 0.59 percentage points from the year prior – and equivalent to an indicator rank of 69.



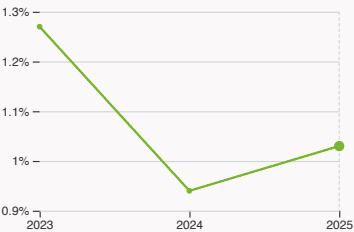
# Global Innovation Index 2025

## > Innovation outputs in Mexico



### 6.1.1 Patents by origin

was equal to 978 patents in 2023, down by 0.51% from the year prior – and equivalent to an indicator rank of 88.



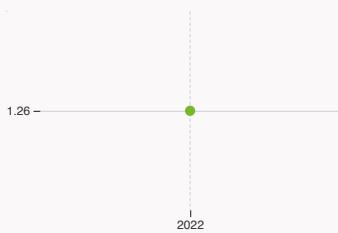
### 6.2.2 Unicorn valuation

was equal to 1.03 % GDP in 2025, up by 0.09 percentage points from the year prior – and equivalent to an indicator rank of 35.



### 6.2.4 High-tech manufacturing

was equal to 278.27 high-tech manufacturing output in billion USD in 2022, up by 15.41% from the year prior – and equivalent to an indicator rank of 13.



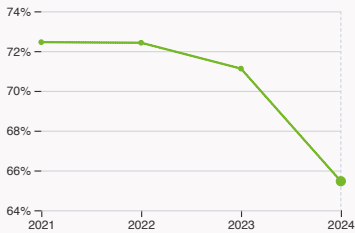
### 6.3.2 Production and export complexity

was equal to a score of 1.26 in 2022 – and equivalent to an indicator rank of 20.



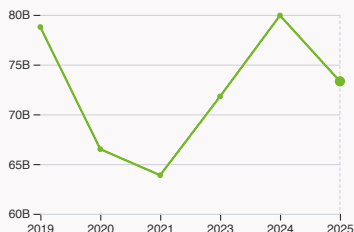
### 6.3.3 High-tech exports

was equal to 80.51 billion USD in 2023, down by 8.4% from the year prior – and equivalent to an indicator rank of 13.



### 7.1.1 Intangible asset intensity, top 15

was equal to 65.46 % for the top 15 companies in 2024, down by 5.66 percentage points from the year prior – and equivalent to an indicator rank of 23.



### 7.1.3 Global brand value, top 5,000

was equal to 73.32 billion USD for the brands in the top 5,000 in 2025, down by 8.28% from the year prior – and equivalent to an indicator rank of 36.



### 7.2.2 National feature films

was equal to 234 films in 2023, down by 9.3% from the year prior – and equivalent to an indicator rank of 51.



### 7.3.3 Mobile app creation

was equal to 277.01 million global downloads of mobile apps in 2024, down by 10.03% from the year prior – and equivalent to an indicator rank of 78.

# Global Innovation Index 2025



## Mexico's innovation top performers

Disclaimer: This section contains only the top performers per country. For the complete list, please visit the [GII Innovation Ecosystems and Data Explorer website](#).

### 2.3.3 Global corporate R&D investors from Mexico

Rank	Firm	Industry	R&D [mn EUR]	R&D Growth [%]	R&D Intensity [%]
1	PETROLEOS MEXICANOS	Oil & Gas Producers	657	67	n/a
2	INDUSTRIAS PENOLES	Mining	211	3	n/a

Source: WIPO, based on European Commission's Joint Research Centre (<https://iri.jrc.ec.europa.eu/scoreboard/2024-eu-industrial-rd-investment-scoreboard>) and Orbis database (<https://www.moodys.com/web/en/us/capabilities/company-reference-data/orbis.html>).  
Note: Data is based on the 2024 EU Industrial R&D Investment Scoreboard from the European Commission's Joint Research Centre, which ranks the top 2,000 firms by R&D investment annually. For countries not represented in the Scoreboard, companies from Orbis with R&D expenditure above USD 50 million were identified and used to complement the dataset.

### 2.3.4 QS university ranking of Mexico's top universities

Rank	University	Score
94	UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO (UNAM)	61.40
185	TECNOLOGICO DE MONTERREY (ITESM)	48.10
691-700	UNIVERSIDAD PANAMERICANA (UP)	n/a

Source: QS Quacquarelli Symonds Ltd (<https://www.topuniversities.com/university-rankings/world-university-rankings/2024>).  
Note: QS Quacquarelli Symonds Ltd annually assesses over 1,200 universities across the globe and scores them between [0,100]. Ranks can represent a single value 'x', a tie 'x=' or a range 'x-y'.

### 5.2.3 University industry and international engagement, top 5 universities

Rank	University	Score
1	TECNOLOGICO DE MONTERREY	64.40
2	NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO	61.40
3	UNIVERSIDAD PANAMERICANA (UP)	32.65

Source: Times Higher Education (THE), World University Rankings 2025.  
Note: Rank corresponds to within economy ranks. The score is calculated as the average of the International Outlook score (encompassing international staff, students, and co-authorship) and the industry score (reflecting industry income and patent citations). The 2025 ranking corresponds to data from the academic year that ended in 2022.

# Global Innovation Index 2025



## 6.2.2 Top Unicorn Companies in Mexico

Rank	Unicorn Company	Industry	City	Valuation, bn USD
1	KAVAK	Industrials	Lerma de Villada	9
2	BITSO	Financial Services	Mexico City	2
3	CLIP	Financial Services	Mexico City	2

Source: CBInsights, Tracker – The Complete List of Unicorn Companies: <https://www.cbinsights.com/research-unicorn-companies>.

## 7.1.1 Top 15 intangible-asset intensive companies in Mexico








Rank	Firm	Intensity, %
1	SIEFORE XXI BANORTE BASICA INICIAL, S.A. DE C.V.	98.69
2	AMERICA MOVIL, S.A.B. DE C.V.	52.93
3	GRUPO MEXICO, S.A.B. DE C.V.	58.12

Source: Brand Finance (<https://brandirectory.com/reports/gift-2024>).  
Note: Brand Finance only provides within economy ranks.

## 7.1.3 Top 5,000 companies in Mexico with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	CORONA EXTRA	Beers	13,355.2
2	MODELO ESPECIAL	Beers	7,051.7
3	BODEGA AURRERA	Retail	4,627.4

Source: Brand Finance (<https://brandirectory.com>).  
Note: Rank corresponds to within economy ranks.

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
52	81	Upper middle	Latin America and the Caribbean	130.9	3,303.1	24,971.3
Score / Value Rank				Score / Value Rank		
 <b>Institutions</b>				34.9	104	
<b>1.1 Institutional environment</b>				42.8	92	
1.1.1 Operational stability for businesses*				47.3	102	
1.1.2 Government effectiveness*				38.2	83	
<b>1.2 Regulatory environment</b>				37.7	101	
1.2.1 Regulatory quality*				42.8	83	
1.2.2 Rule of law*				32.7	111	○
<b>1.3 Business environment</b>				24.2	112	
1.3.1 Policy stability for doing business†				28.7	106	○
1.3.2 Entrepreneurship policies and culture†				19.8	75	○
 <b>Human capital and research</b>				32.1	67	
<b>2.1 Education</b>				44.4	88	
2.1.1 Expenditure on education, % GDP				🕒 4.2	65	
2.1.2 Government funding/pupil, secondary, % GDP/cap				13.9	69	
2.1.3 School life expectancy, years				🕒 14.5	61	
2.1.4 PISA scales in reading, maths and science				406.8	55	
2.1.5 Pupil–teacher ratio, secondary				🕒 15.2	81	
<b>2.2 Tertiary education</b>				24.8	83	
2.2.1 Tertiary enrolment, % gross				🕒 46.4	74	
2.2.2 Graduates in science and engineering, %				23.7	53	
2.2.3 Tertiary inbound mobility, %				🕒 1.2	89	○
<b>2.3 Research and development (R&amp;D)</b>				27	37	
2.3.1 Researchers, FTE/mn pop.				272.3	79	
2.3.2 Gross expenditure on R&D, % GDP				0.3	81	
2.3.3 Global corporate R&D investors, top 3, mn USD				57.9	26	●
2.3.4 QS university ranking, top 3*				43.6	30	●
 <b>Infrastructure</b>				39.9	77	
<b>3.1 Information and communication technologies (ICTs)</b>				75.1	73	
3.1.1 ICT access*				76.3	89	
3.1.2 ICT use*				77.5	71	
3.1.3 Government's online service*				71.6	60	
<b>3.2 General infrastructure</b>				28.4	86	
3.2.1 Electricity output, GWh/mn pop.				2,756.1	72	
3.2.2 Logistics performance*				36.4	65	
3.2.3 Gross capital formation, % GDP				24	65	
<b>3.3 Ecological sustainability</b>				16.2	92	
3.3.1 GDP/unit of energy use				13.9	40	
3.3.2 Low-carbon energy use, %				9.8	93	
3.3.3 ISO 14001 environment/bn PPP\$ GDP				0.8	74	
 <b>Market sophistication</b>				36.1	68	
<b>4.1 Credit</b>				19.4	94	
4.1.1 Finance for startups and scaleups†				37.3	64	
4.1.2 Domestic credit to private sector, % GDP				33.3	88	
4.1.3 Loans from microfinance institutions, % GDP				1	34	
<b>4.2 Investment</b>				4.8	73	
4.2.1 Market capitalization, % GDP				33.9	45	
4.2.2 Venture capital (VC) received, deal count/bn PPP\$ GDP				0.06	74	
4.2.3 Late-stage VC deal count, % global VC				0.1	29	
4.2.4 VC investors, deal count/bn PPP\$ GDP				0.07	79	
4.2.5 VC investor co-participation/bn PPP\$ GDP				0.03	79	
<b>4.3 Trade, diversification and market scale</b>				83.9	14	
4.3.1 Applied tariff rate, weighted avg., %				1.7	59	
4.3.2 Domestic industry diversification				87.6	46	
4.3.3 Domestic market scale, bn PPP\$				3,303.1	13	●
 <b>Business sophistication</b>				27.8	72	
<b>5.1 Knowledge workers</b>				26.9	108	
5.1.1 Knowledge-intensive employment, %				21.9	69	
5.1.2 Females employed w/advanced degrees, %				11.2	69	
5.1.3 Youth demographic dividend, %				41	58	
5.1.4 GERD performed by business, % GDP				🕒 0.05	67	○
5.1.5 GERD financed by business, %				16.1	69	
<b>5.2 Innovation linkages</b>				24.4	70	
5.2.1 Public research–industry co-publications, %				0.6	119	○
5.2.2 University–industry R&D collaboration†				36	64	
5.2.3 University industry & international engagement, top 5*				24.1	64	
5.2.4 State of cluster development†				57	47	
5.2.5 Patent families/bn PPP\$ GDP				0.03	73	
<b>5.3 Knowledge absorption</b>				32.3	45	
5.3.1 Intellectual property payments, % total trade				🕒 0.8	47	
5.3.2 High-tech imports, % total trade				15.1	16	●
5.3.3 ICT services imports, % total trade				🕒 0.8	99	
5.3.4 FDI net inflows, % GDP				2.4	77	
5.3.5 Research talent, % in businesses				🕒 32.3	42	
 <b>Knowledge and technology outputs</b>				23.5	54	
<b>6.1 Knowledge creation</b>				10.5	79	
6.1.1 Patents by origin/bn PPP\$ GDP				0.3	88	
6.1.2 PCT patents by inventor origin/bn PPP\$ GDP				0.06	68	
6.1.3 Utility models by origin/bn PPP\$ GDP				0.2	44	
6.1.4 Scientific and technical articles/bn PPP\$ GDP				5.2	106	○
6.1.5 Citable documents H-index				29.5	34	●
<b>6.2 Knowledge impact</b>				31.8	47	
6.2.1 Labor productivity growth, %				-0.6	114	○◇
6.2.2 Unicorn valuation, % GDP				1	35	
6.2.3 Software spending, % GDP				0.2	71	
6.2.4 High-tech manufacturing				46.1	13	●
<b>6.3 Knowledge diffusion</b>				28	48	
6.3.1 Intellectual property receipts, % total trade				🕒 0.2	45	
6.3.2 Production and export complexity				77	20	●
6.3.3 High-tech exports, % total trade				12.2	13	●
6.3.4 ICT services exports, % total trade				🕒 0.2	130	○
6.3.5 ISO 9001 quality/bn PPP\$ GDP				3.2	70	
 <b>Creative outputs</b>				30.3	49	
<b>7.1 Intangible assets</b>				33.7	50	
7.1.1 Intangible asset intensity, top 15, %				65.5	23	
7.1.2 Trademarks by origin/bn PPP\$ GDP				48.1	32	●
7.1.3 Global brand value, top 5,000, % GDP				4	36	
7.1.4 Industrial designs by origin/bn PPP\$ GDP				0.3	92	
<b>7.2 Creative goods and services</b>				30.3	32	
7.2.1 Cultural and creative services exports, % total trade				0.1	96	○
7.2.2 National feature films/mn pop. 15–69				2.6	51	
7.2.3 Entertainment and media market/th pop. 15–69				8.6	39	
7.2.4 Creative goods exports, % total trade				7.4	6	●
<b>7.3 Online creativity</b>				23.4	81	
7.3.1 Top-level domains (TLDs)/th pop. 15–69				3.9	69	
7.3.2 GitHub commits/mn pop. 15–69				4.3	87	
7.3.3 Mobile app creation/bn PPP\$ GDP				62	78	

NOTES: ● indicates a strength ○ a weakness ◆ an income group strength ◇ an income group weakness \* an index † a survey question 🕒 that the economy's data is outdated. Square brackets [ ] indicate the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level, n/a represents missing values, a dash - indicates an indicator which is not relevant to this economy and thus not considered for DMC thresholds.

# Global Innovation Index 2025



## Data Availability

The following tables list indicators that are either missing or outdated for Mexico.



Mexico has missing data for zero indicators and outdated data for eleven indicators.

## Outdated data for Mexico

Code	Indicator name	Economy year	Model year	Source
2.1.1	Expenditure on education, % GDP	2021	2023	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2022	2023	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2022	2023	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2022	2023	UNESCO Institute for Statistics
2.2.3	Tertiary inbound mobility, %	2022	2023	UNESCO Institute for Statistics
5.1.4	GERD performed by business, % GDP	2022	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.1	Intellectual property payments, % total trade	2022	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development
5.3.3	ICT services imports, % total trade	2022	2023	World Trade Organization and United Nations Conference on Trade and Development
5.3.5	Research talent, % in businesses	2022	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.3.1	Intellectual property receipts, % total trade	2022	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development
6.3.4	ICT services exports, % total trade	2022	2023	World Trade Organization and United Nations Conference on Trade and Development

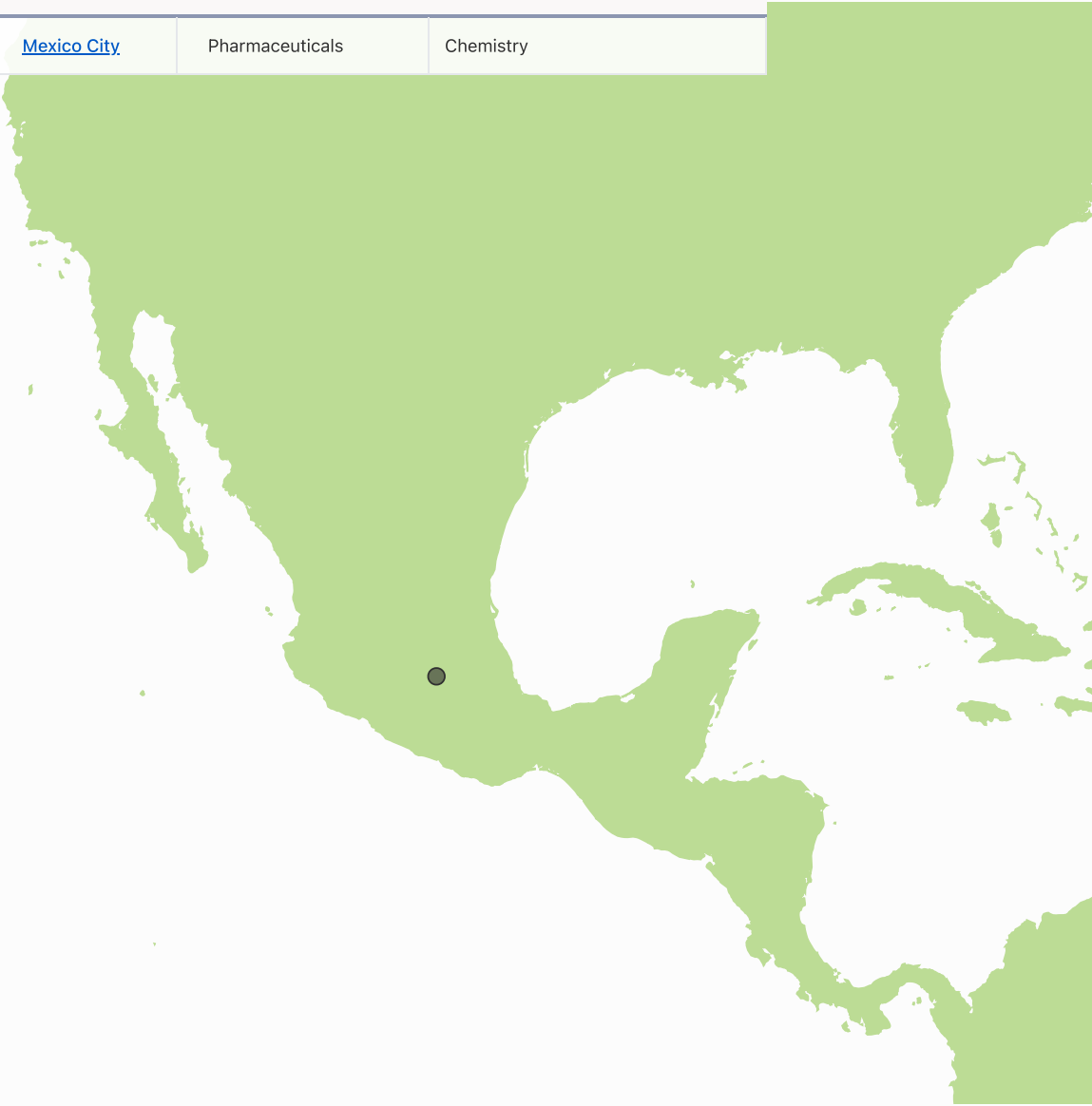


## Top innovation clusters in Mexico

Mexico has 1 cluster in the world's top innovation clusters of the Global Innovation Index

The table and map below give an overview of the top innovation clusters in Mexico.

Rank	Cluster name	Top patent field	Top academic subject
79	<a href="#">Mexico City</a>	Pharmaceuticals	Chemistry

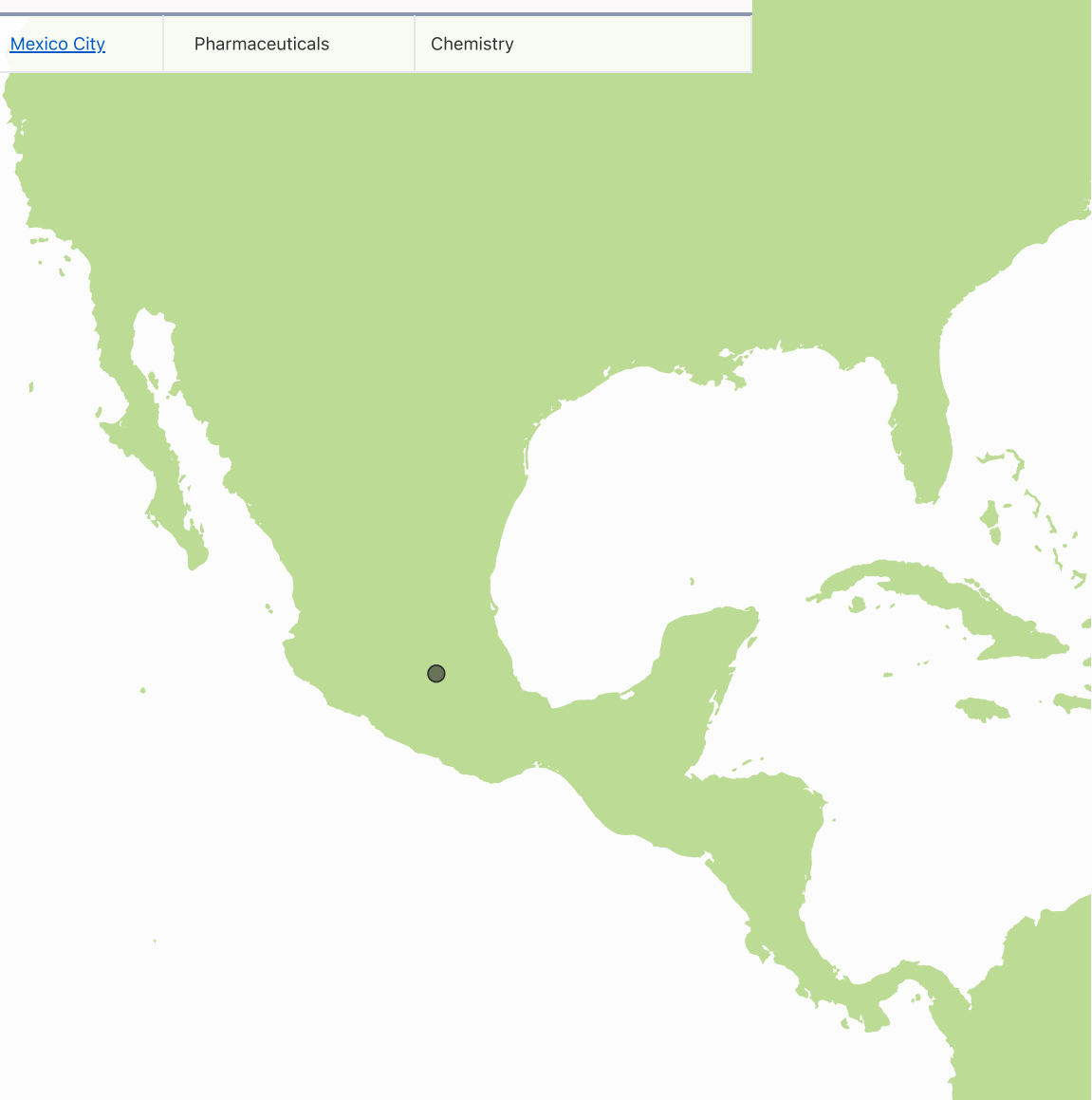


# Global Innovation Index 2025



The table and map below give an overview by intensity of the top innovation clusters in Mexico.

Rank	Cluster name	Top patent field	Top academic subject
99	<a href="#">Mexico City</a>	Pharmaceuticals	Chemistry



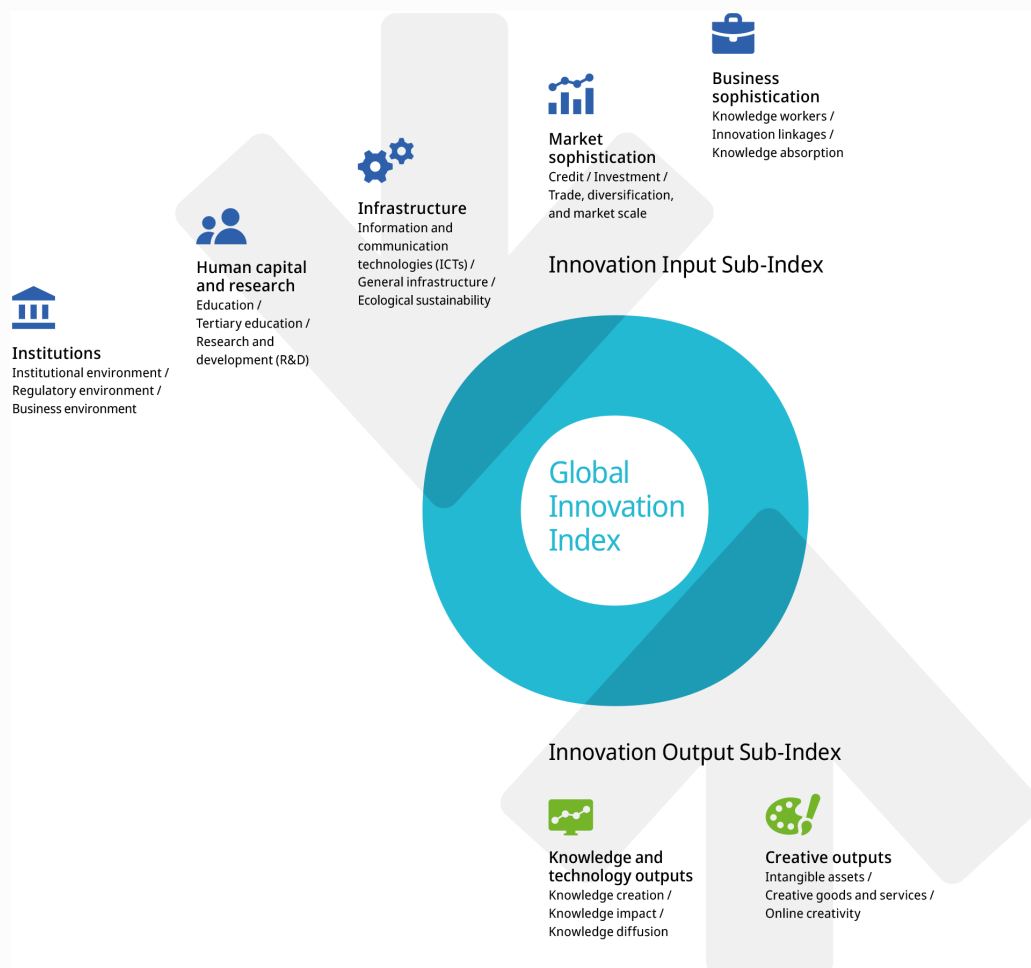


# Global Innovation Index 2025



## About the Global Innovation Index

- The Global Innovation Index (GII) is published by the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations.
- Recognizing that innovation is a key driver of economic development, the GII aims to provide an innovation ranking and rich analysis referencing around 140 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a "tool for action" for economies 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 include 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 consisting of three sub-pillars.