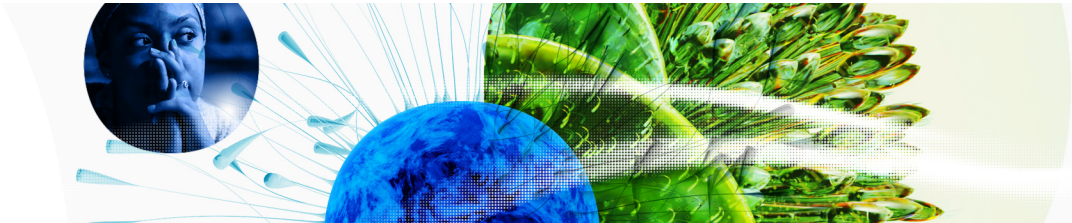


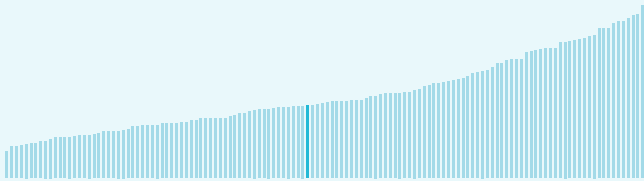
Global Innovation Index 2023



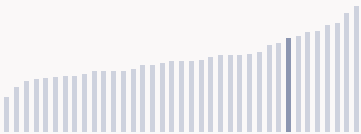
The Global Innovation Index (GII) **ranks world economies according to their innovation capabilities**. Consisting of **roughly 80 indicators**, grouped into innovation inputs and outputs, the GII **aims to capture the multi-dimensional facets of innovation**.

Morocco ranking in the Global Innovation Index 2023

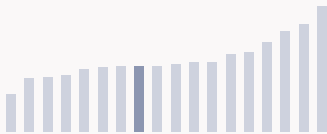
> Morocco ranks **70th** among the 132 economies featured in the GII 2023.



> Morocco ranks **8th** among the 37 lower-middle-income group economies.



> Morocco ranks **11th** among the 18 economies in Northern Africa and Western Asia.



> Morocco GII Ranking (2020-2023)

The table shows the rankings of Morocco over the past four 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 Morocco in the GII 2023 is between ranks 64 and 76.

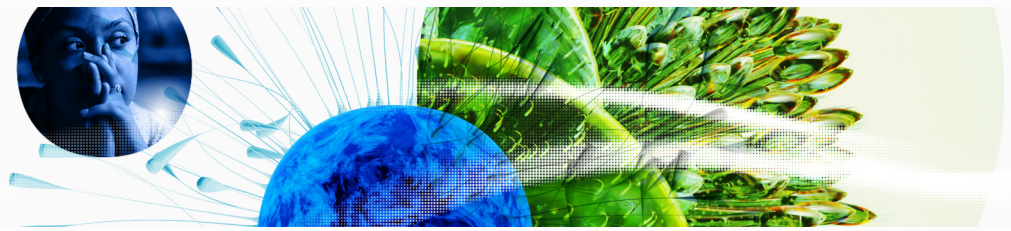
	GII Position	Innovation Inputs	Innovation Outputs
2020	75th	85th	69th
2021	77th	84th	67th
2022	67th	87th	56th
2023	70th	90th	55th

Morocco performs better in innovation outputs than innovation inputs in 2023.

This year Morocco ranks 90th in innovation inputs. This position is lower than last year.

Morocco ranks 55th in innovation outputs. This position is higher than last year.

Global Innovation Index 2023



→ Expected vs. observed innovation performance

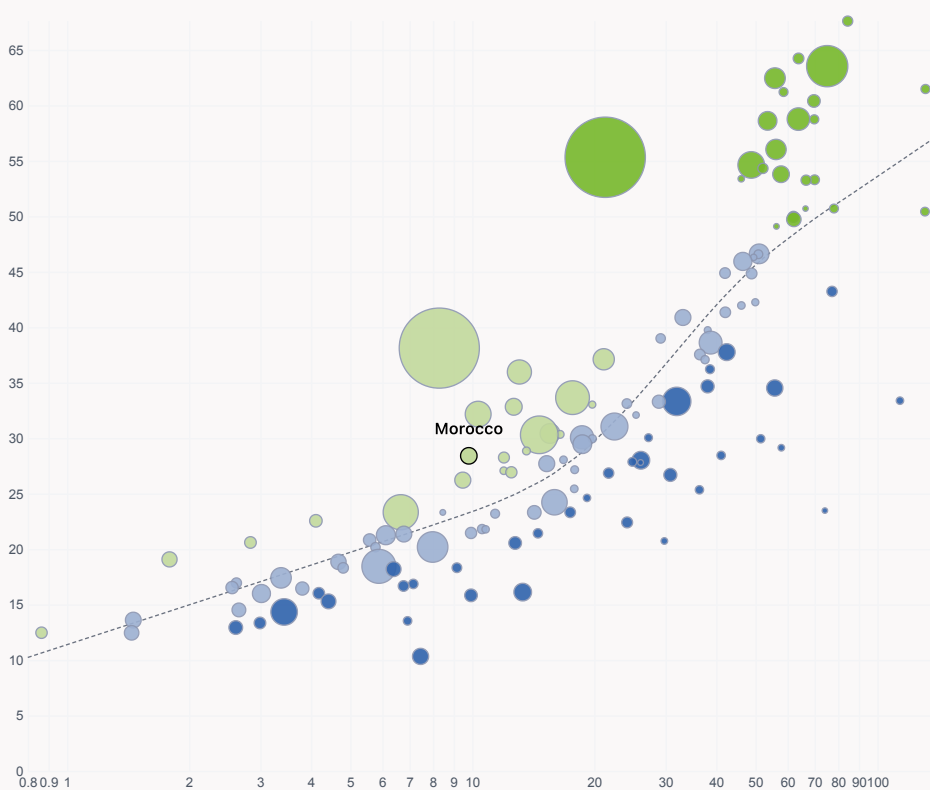
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected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



> Relative to GDP, Morocco is performing above expectations for its level of development.

> Innovation overperformers relative to their economic development

↑ **GII Score**



- Innovation leader
- Performing above expectations for level of development
- Performing at expectations for level of development
- Performing below expectations for level of development

Size legend (Population)



→ GDP per capita, PPP logarithmic scale (thousands of \$)

Global Innovation Index 2023



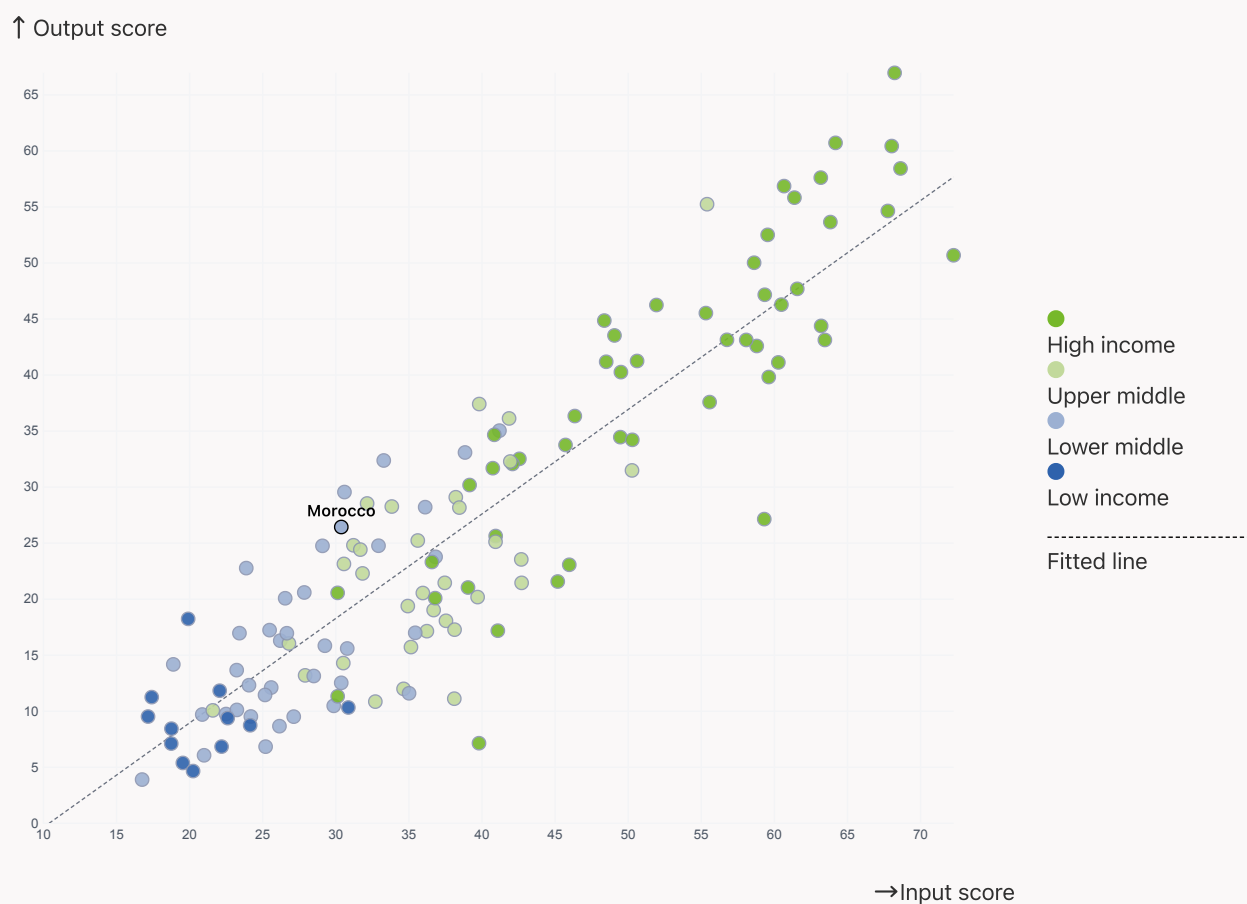
→ Effectively translating innovation investments into innovation outputs

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.



> Morocco produces more innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs



Global Innovation Index 2023



→ Overview of Morocco's rankings in the seven areas of the GII in 2023

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

Highest rankings →

- 55th Creative outputs
- 65th Knowledge and technology outputs
- 70th Global Innovation Index
- 80th Market sophistication
- 83rd Institutions
- 86th Human capital and research
- 94th Infrastructure

← Lowest rankings

- 107th Business sophistication

> Highest rankings



Morocco ranks highest in Creative outputs (55th) and Knowledge and technology outputs (65th).

> Lowest rankings



Morocco ranks lowest in Business sophistication (107th), Infrastructure (94th) and Human capital and research (86th).



The full WIPO Intellectual Property Statistics profile for Morocco can be found on [this link](#).

Global Innovation Index 2023



→ Benchmark of Morocco against other country groupings for each of the seven areas of the GII Index

The charts show the relative position of Morocco (blue bar) against other country groupings (grey bars), for each of the seven areas of the GII Index.

> Lower-Middle-Income economies

Morocco performs above the lower-middle-income group average in Knowledge and technology outputs, Creative outputs, Market sophistication, Human capital and research, Infrastructure, Institutions.



> Northern Africa And Western Asia

Morocco performs below the regional average in Knowledge and technology outputs, Business sophistication, Market sophistication, Human capital and research, Infrastructure, Institutions.



Knowledge and technology outputs

Top 10 | Score: 58.96

NAWA | Score: 24.01

Morocco | Score: 23.00

Lower middle income | Score: 17.21

Creative outputs

Top 10 | 56.09

Morocco | 29.77

NAWA | 24.51

Lower middle income | 16.35

Business sophistication

Top 10 | 64.39

NAWA | 29.44

Lower middle income | 22.71

Morocco | 20.40

Market sophistication

Top 10 | 61.93

NAWA | 36.12

Morocco | 30.72

Lower middle income | 28.01

Human capital and research

Top 10 | 60.28

NAWA | 32.72

Morocco | 25.59

Lower middle income | 21.73

Infrastructure

Top 10 | 62.83

NAWA | 41.60

Morocco | 30.05

Lower middle income | 27.83

Institutions

Top 10 | 79.85

NAWA | 53.39

Morocco | 45.33

Lower middle income | 39.43

Global Innovation Index 2023



→ Innovation strengths and weaknesses in Morocco

The table below gives an overview of the indicator strengths and weaknesses of Morocco in the GII 2023.



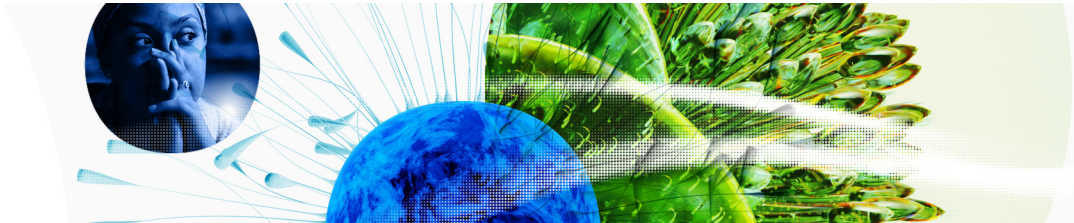
> Morocco's main innovation strengths are **Industrial designs by origin/bn PPP\$ GDP** (rank 10), **High-tech manufacturing, %** (rank 23) and **Graduates in science and engineering, %** (rank 24).

Strengths

Rank	Code	Indicator name
10	7.1.4	Industrial designs by origin/bn PPP\$ GDP
23	6.2.4	High-tech manufacturing, %
24	2.2.2	Graduates in science and engineering, %
26	3.2.3	Gross capital formation, % GDP
30	6.3.4	ICT services exports, % total trade
33	4.3.2	Domestic industry diversification
34	4.1.2	Domestic credit to private sector, % GDP
34	1.3.1	Policies for doing business
38	7.1.2	Trademarks by origin/bn PPP\$ GDP
42	3.1.1	ICT access

Weaknesses

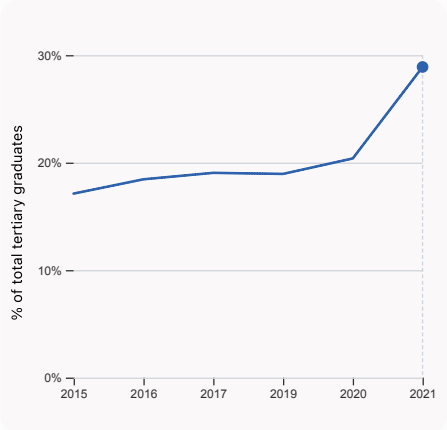
Rank	Code	Indicator name
118	3.3.2	Environmental performance
111	3.1.4	E-participation
111	5.1.1	Knowledge-intensive employment, %
86	4.2.4	VC received, value, % GDP
76	7.2.2	National feature films/mn pop. 15-69
75	2.1.4	PISA scales in reading, maths and science
71	2.3.4	QS university ranking, top 3
59	7.2.3	Entertainment and media market/th pop. 15-69
48	6.2.2	Unicorn valuation, % GDP
40	2.3.3	Global corporate R&D investors, top 3, mn US\$



→ Morocco's innovation system

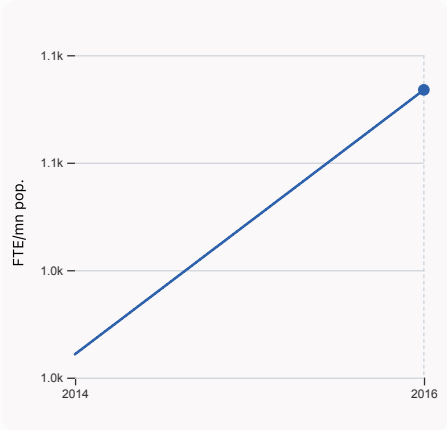
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Morocco



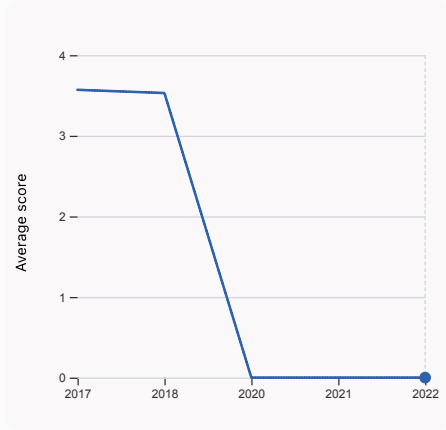
2.2.2 Graduates in science and engineering, %

was equal to 28.9% of total tertiary graduates in 2021, up by 8.51 percentage points from the year prior – and equivalent to an indicator rank of 24.



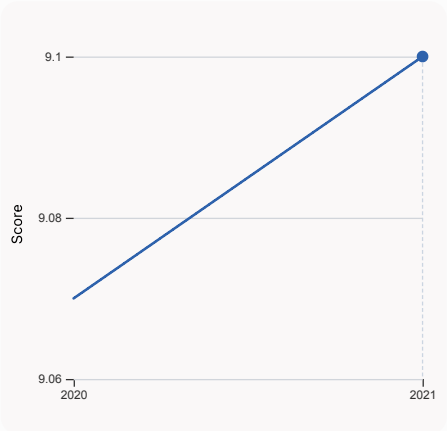
2.3.1 Researchers, FTE/mn pop.

was equal to 1,073.54 FTE/mn pop. in 2016, up by 4.8% from the year prior – and equivalent to an indicator rank of 51.



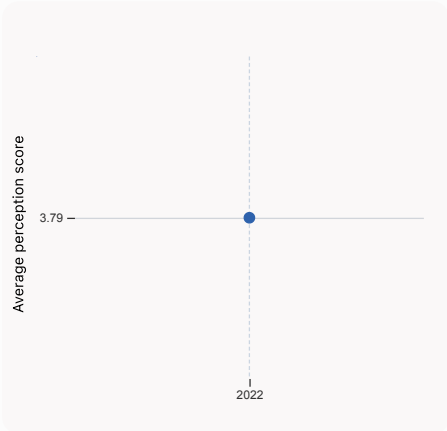
2.3.4 QS university ranking, top 3

was equal to an average score of 0 for the top 3 universities in 2022, equivalent to an indicator rank of 71.



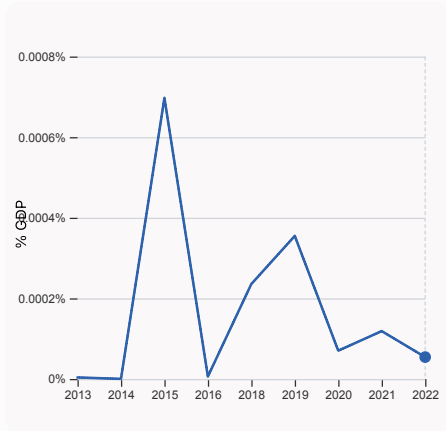
3.1.1 ICT access

was equal to a score of 9.1 in 2021, up by 0.33% from the year prior – and equivalent to an indicator rank of 42.



4.1.1 Finance for startups and scaleups

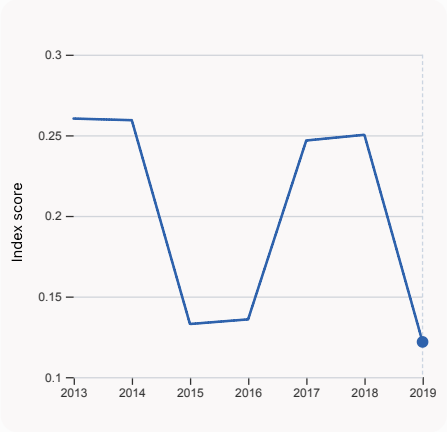
was equal to an average perception score of 3.79 in 2022, equivalent to an indicator rank of 63.



4.2.4 VC received, value, % GDP

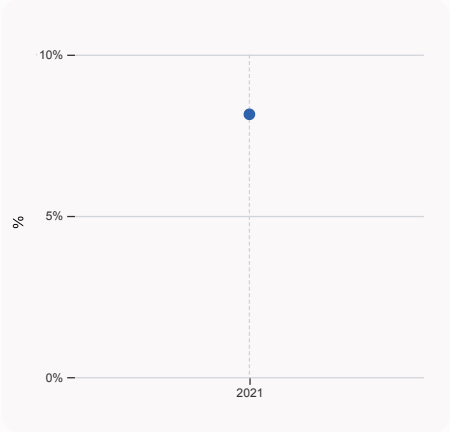
was equal to 0.00005% GDP in 2022, down by 0.000064 percentage points from the year prior – and equivalent to an indicator rank of 86.

Global Innovation Index 2023



4.3.2 Domestic industry diversification

was equal to an index score of 0.122 in 2019, down by 51.33% from the year prior – and equivalent to an indicator rank of 33.



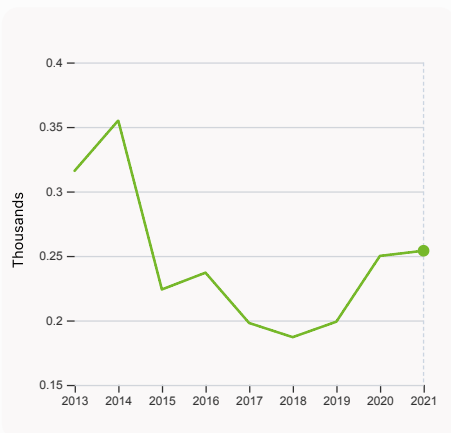
5.1.1 Knowledge-intensive employment, %

was equal to 8.15 % in 2021, equivalent to an indicator rank of 111.

Global Innovation Index 2023

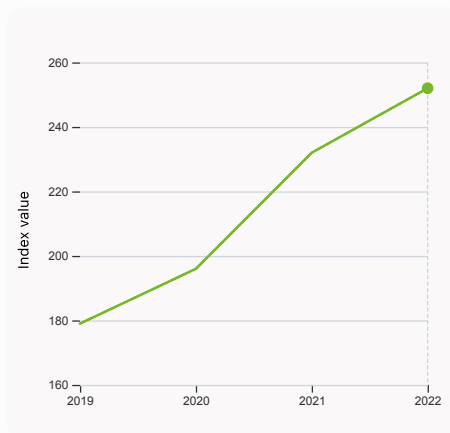


> Innovation outputs in Morocco



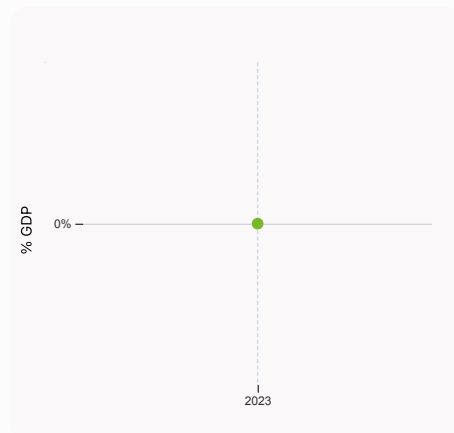
6.1.1 Patents by origin

was equal to 0.25 Thousands in 2021, up by 1.6% from the year prior – and equivalent to an indicator rank of 69.



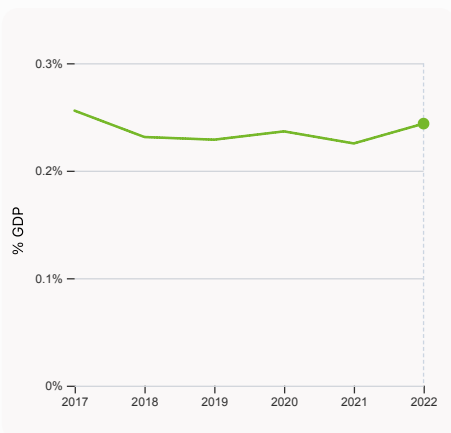
6.1.5 Citable documents H-index

was equal to an index value of 252 in 2022, up by 8.62% from the year prior – and equivalent to an indicator rank of 69.



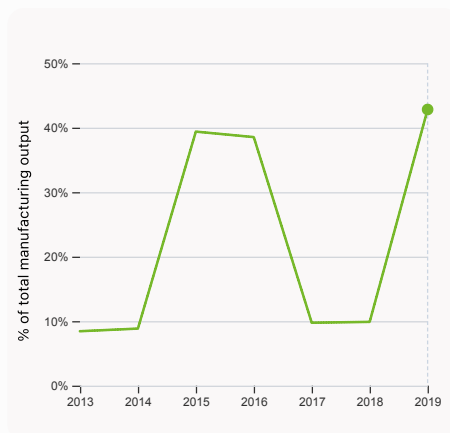
6.2.2 Unicorn valuation, % GDP

was equal to 0 % GDP in 2023 – and equivalent to an indicator rank of 48.



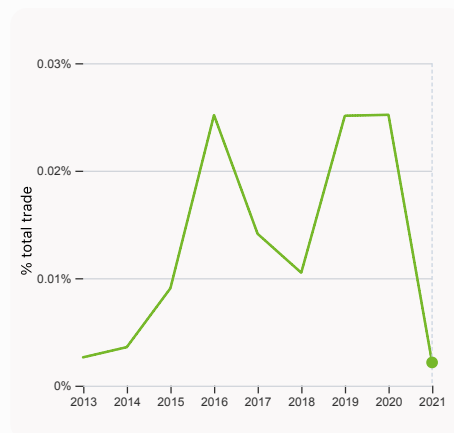
6.2.3 Software spending, % GDP

was equal to 0.244% GDP in 2022, up by 0.018 percentage points from the year prior – and equivalent to an indicator rank of 61.



6.2.4 High-tech manufacturing, %

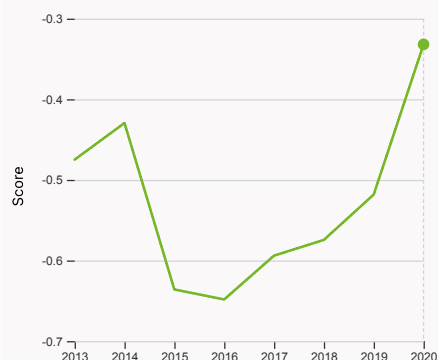
was equal to 42.82% of total manufacturing output in 2019, up by 32.93 percentage points from the year prior – and equivalent to an indicator rank of 23.



6.3.1 Intellectual property receipts, % total trade

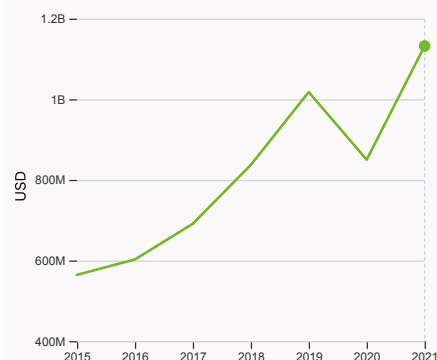
was equal to 0.002% total trade in 2021, down by 0.023 percentage points from the year prior – and equivalent to an indicator rank of 86.

Global Innovation Index 2023



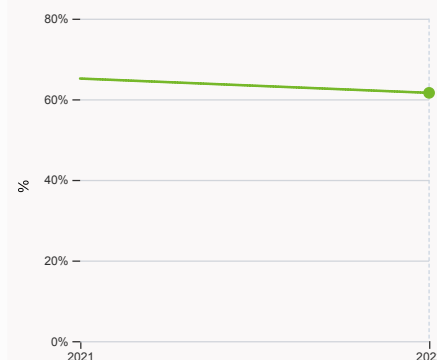
6.3.2 Production and export complexity

was equal to a score of -0.332 in 2020, up by 35.95% from the year prior – and equivalent to an indicator rank of 79.



6.3.3 High-tech exports

was equal to 1,132,107,298 USD in 2021, up by 33.19% from the year prior – and equivalent to an indicator rank of 57.



7.1.1 Intangible asset intensity, top 15, %

was equal to 61.59% in 2022, down by 3.55 percentage points from the year prior – and equivalent to an indicator rank of 35.



7.1.3 Global brand value, top 5,000

was equal to 2.001 bn USD in 2023, down by 10.67% from the year prior – and equivalent to an indicator rank of 50.



7.2.1 Cultural and creative services exports

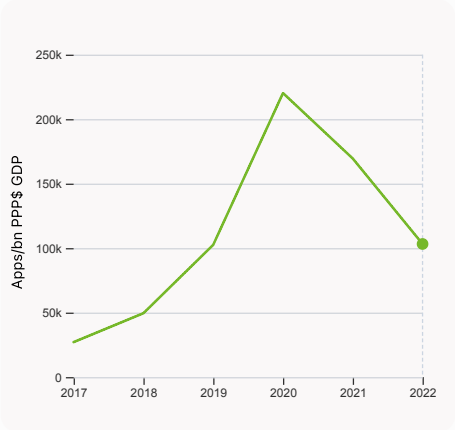
was equal to 215,103,000 USD in 2021, up by 21.45% from the year prior – and equivalent to an indicator rank of 59.



7.2.2 National feature films/mn pop. 15-69

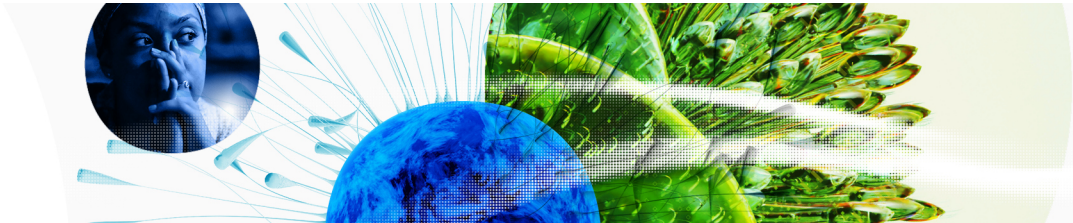
was equal to 0.313 films/mn pop. 15-69 in 2021, down by 47.28% from the year prior – and equivalent to an indicator rank of 76.

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7.3.4 Mobile app creation/bn PPP\$ GDP

was equal to 103,219.03 Apps/bn PPP\$ GDP in 2022, down by 39.087% from the year prior – and equivalent to an indicator rank of 64.



→ Morocco's innovation top performers

> 7.1.1 Top 15 intangible-asset intensive companies in Morocco

Rank	Firm	Intensity, %
1	ITISSALAT AL-MAGHRIB	86.91
2	ATTIJARIWafa BANK	33.73
3	LAFARGEHOLCIM MAROC SA	74.53

Source: Brand Finance (<https://brandirectory.com/reports/gift-2022>).
Note: Brand Finance only provides within economy ranks.

> 7.1.3 Top 5,000 companies in Morocco with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	MAROC TELECOM	Telecoms	655.4
2	ATTIJARIWafa BANK	Banking	487.9
3	BANQUE POPULAIRE DU MAROC	Banking	408.9

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

Global Innovation Index 2023



GII 2023 rank

70

Morocco

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
55	90	Lower middle	NAWA	37.5	359.7	9,808.3
Score / Value Rank						
Score / Value Rank						
Institutions						
1.1 Institutional environment						
1.1.1 Operational stability for businesses*						
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						
1.3 Business environment						
1.3.1 Policies for doing business*						
1.3.2 Entrepreneurship policies and culture*						
Human capital and 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						
2.1.4 PISA scales in reading, maths and science						
2.1.5 Pupil-teacher ratio, secondary						
2.2 Tertiary education						
2.2.1 Tertiary enrolment, % gross						
2.2.2 Graduates in science and engineering, %						
2.2.3 Tertiary inbound mobility, %						
2.3 Research and development (R&D)						
2.3.1 Researchers, FTE/mn pop.						
2.3.2 Gross expenditure on R&D, % GDP						
2.3.3 Global corporate R&D investors, top 3, mn US\$						
2.3.4 QS university ranking, top 3*						
Infrastructure						
3.1 Information and 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, GWh/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 environment/bn PPP\$ GDP						
Market sophistication						
4.1 Credit						
4.1.1 Finance for startups and scaleups*						
4.1.2 Domestic credit to private sector, % GDP						
4.1.3 Loans from microfinance institutions, % GDP						
4.2 Investment						
4.2.1 Market capitalization, % GDP						
4.2.2 Venture capital (VC) investors, deals/bn PPP\$ GDP						
4.2.3 VC recipients, deals/bn PPP\$ GDP						
4.2.4 VC received, value, % GDP						
4.3 Trade, diversification, and market scale						
4.3.1 Applied tariff rate, weighted avg., %						
4.3.2 Domestic industry diversification						
4.3.3 Domestic market scale, bn PPP\$						
Business sophistication						
5.1 Knowledge workers						
5.1.1 Knowledge-intensive employment, %						
5.1.2 Firms offering formal training, %						
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 R&D collaboration*						
5.2.2 State of cluster development*						
5.2.3 GERD financed by abroad, % GDP						
5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP						
5.2.5 Patent families/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 businesses						
Knowledge and 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 and technical articles/bn PPP\$ GDP						
6.1.5 Citable documents H-index						
6.2 Knowledge impact						
6.2.1 Labor productivity growth, %						
6.2.2 Unicorn valuation, % GDP						
6.2.3 Software spending, % GDP						
6.2.4 High-tech manufacturing, %						
6.3 Knowledge diffusion						
6.3.1 Intellectual property receipts, % total trade						
6.3.2 Production and export complexity						
6.3.3 High-tech exports, % total trade						
6.3.4 ICT services exports, % total trade						
6.3.5 ISO 9001 quality/bn PPP\$ GDP						
Creative outputs						
7.1 Intangible assets						
7.1.1 Intangible asset intensity, top 15, %						
7.1.2 Trademarks by origin/bn PPP\$ GDP						
7.1.3 Global brand value, top 5,000						
7.1.4 Industrial designs by origin/bn PPP\$ GDP						
7.2 Creative goods and services						
7.2.1 Cultural and creative services exports, % total trade						
7.2.2 National feature films/mn pop. 15-69						
7.2.3 Entertainment and media market/th pop. 15-69						
7.2.4 Creative goods exports, % total trade						
7.3 Online creativity						
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69						
7.3.2 Country-code TLDs/th pop. 15-69						
7.3.3 GitHub commits/mn pop. 15-69						
7.3.4 Mobile app creation/bn PPP\$ GDP						

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 appendices for details, including the year of the data, at <https://www.wipo.int/gii-ranking>. Square brackets [] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.



→ Data availability

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



> Morocco has missing data for eight indicators and outdated data for six indicators.

> Missing data for Morocco

Code	Indicator name	Economy Year	Model Year	Source
2.1.1	Expenditure on education, % GDP	n/a	2021	UNESCO Institute for Statistics
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2019	UNESCO Institute for Statistics
2.3.2	Gross expenditure on R&D, % GDP	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.2.2	Logistics performance	n/a	2023	World Bank, Logistics Performance Index 2023 (https://lpi.worldbank.org/); and World Bank 2023, Connecting to Compete 2023: Trade Logistics in the Global Economy ÒÇô The Logistics Performance Index and its Indicators.
5.1.3	GERD performed by business, % GDP	n/a	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.4	GERD financed by business, %	n/a	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.2.3	GERD financed by abroad, % GDP	n/a	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	2021	World Intellectual Property Organization; International Monetary Fund

> Outdated data for Morocco

Code	Indicator name	Economy Year	Model Year	Source
2.3.1	Researchers, FTE/mn pop.	2016	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
4.3.2	Domestic industry diversification	2019	2020	United Nations Industrial Development Organization
5.1.1	Knowledge-intensive employment, %	2021	2022	International Labour Organization
5.1.5	Females employed w/advanced degrees, %	2021	2022	International Labour Organization

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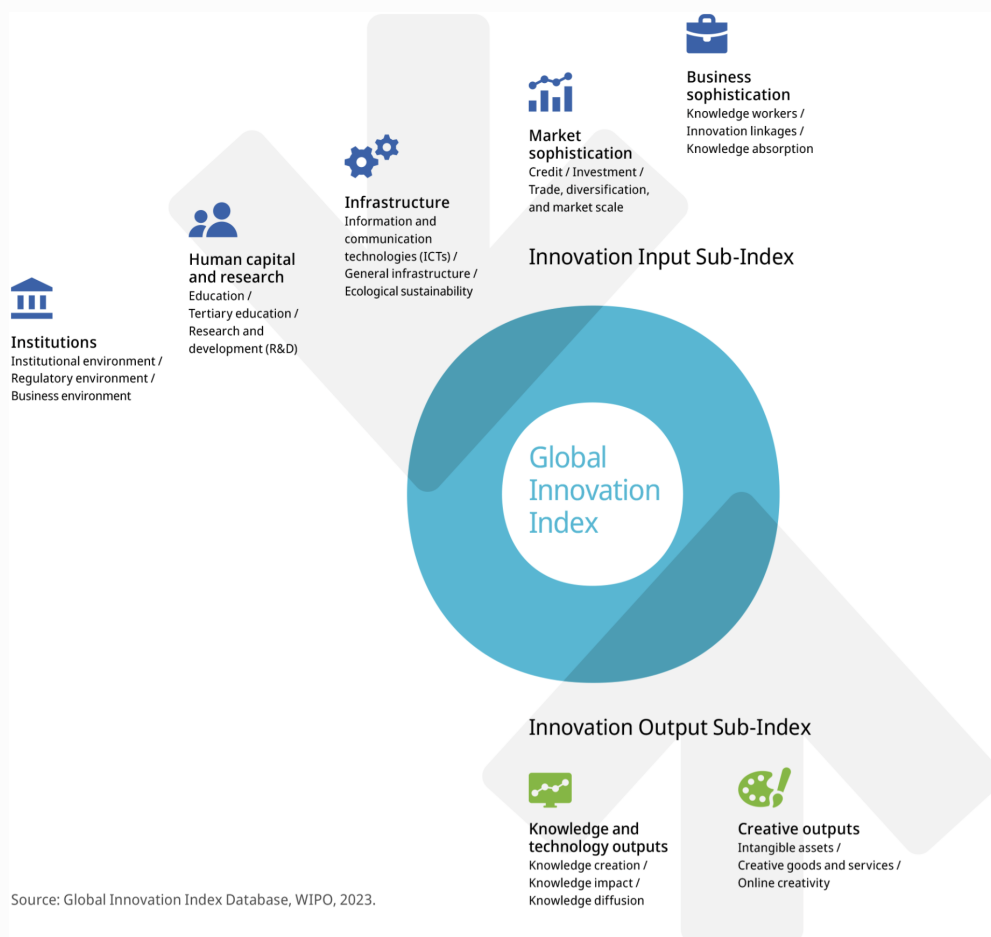
Code	Indicator name	Economy Year	Model Year	Source
5.3.5	Research talent, % in businesses	2016	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing, %	2019	2020	United Nations Industrial Development Organization

Global Innovation Index 2023



→ 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 130 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.