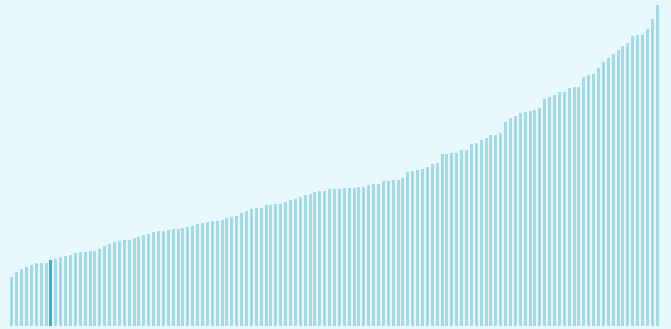


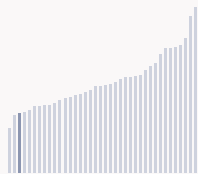
## Myanmar ranking in the Global Innovation Index 2024

Myanmar ranks **125th** among the 133 economies featured in the GII 2024.

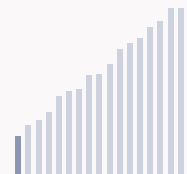
The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.



Myanmar ranks **36th** among the 38 lower-middle-income group economies.



Myanmar ranks **17th** among the 17 economies in South East Asia, East Asia, and Oceania.



### > Myanmar GII Ranking (2020-2024)

The table shows the rankings of Myanmar 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 Myanmar in the GII 2024 is between ranks 115 and 128.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	129th	129th	120th
2021	127th	128th	120th
2022	116th	122nd	104th
2023	n/a	n/a	n/a
2024	125th	128th	114th

Myanmar performs better in innovation outputs than innovation inputs in 2024.

This year Myanmar ranks **128th** in innovation inputs.

Myanmar ranks **114th** in innovation outputs.

Myanmar has no clusters in the top 100 S&T clusters of the Global Innovation Index.

# Global Innovation Index 2024



## > Global Innovation Tracker

The Global Innovation Tracker 2024 shows what is the current state of innovation in Myanmar, how rapidly is technology being embraced and what are the resulting societal impacts.



For Myanmar, 3 indicators have improved in the short-term and 4 indicators have worsened.

### Science and innovation investment

Scientific publications	R&D investments	Venture capital		International patent filings
		Deal numbers	Deal values	
▼ <b>-9%</b> 2022 - 2023	▼ <b>-71.4%</b> 2021 - 2022	<b>0%</b> 2022 - 2023	n/a	n/a
▲ <b>19.9%</b> 2013 - 2023	▲ <b>1.6%</b> 2017 - 2022	n/a	n/a	n/a

### Technology adoption

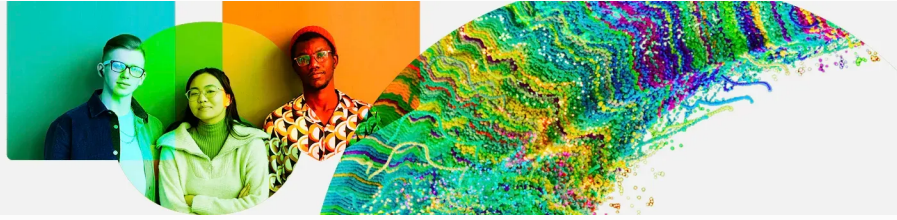
Safe sanitation	Connectivity		Robots	Electric vehicles
	Fixed broadband	5G		
▼ <b>-0.1%</b> 2021 - 2022	▲ <b>25.3%</b> 2021 - 2022	n/a	n/a	n/a
▼ <b>-0.1%</b> 2012 - 2022	▲ <b>42%</b> 2011 - 2022		n/a	n/a
<b>60.6</b> per 100 inhabitants in 2022	<b>2.1</b> per 100 inhabitants in 2022	n/a		n/a

### Socioeconomic impact

Labor productivity	Life expectancy	Temperature change
▲ <b>2.1%</b> 2022 - 2023	▲ <b>2.4%</b> 2021 - 2022	▲ <b>1.7°C</b> 2023
▲ <b>4.6%</b> 2013 - 2023	▲ <b>0.5%</b> 2012 - 2022	n/a
<b>11,720</b> USD in 2023	<b>67.3</b> years in 2022	

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 country from 1951–1980. Figures are rounded.





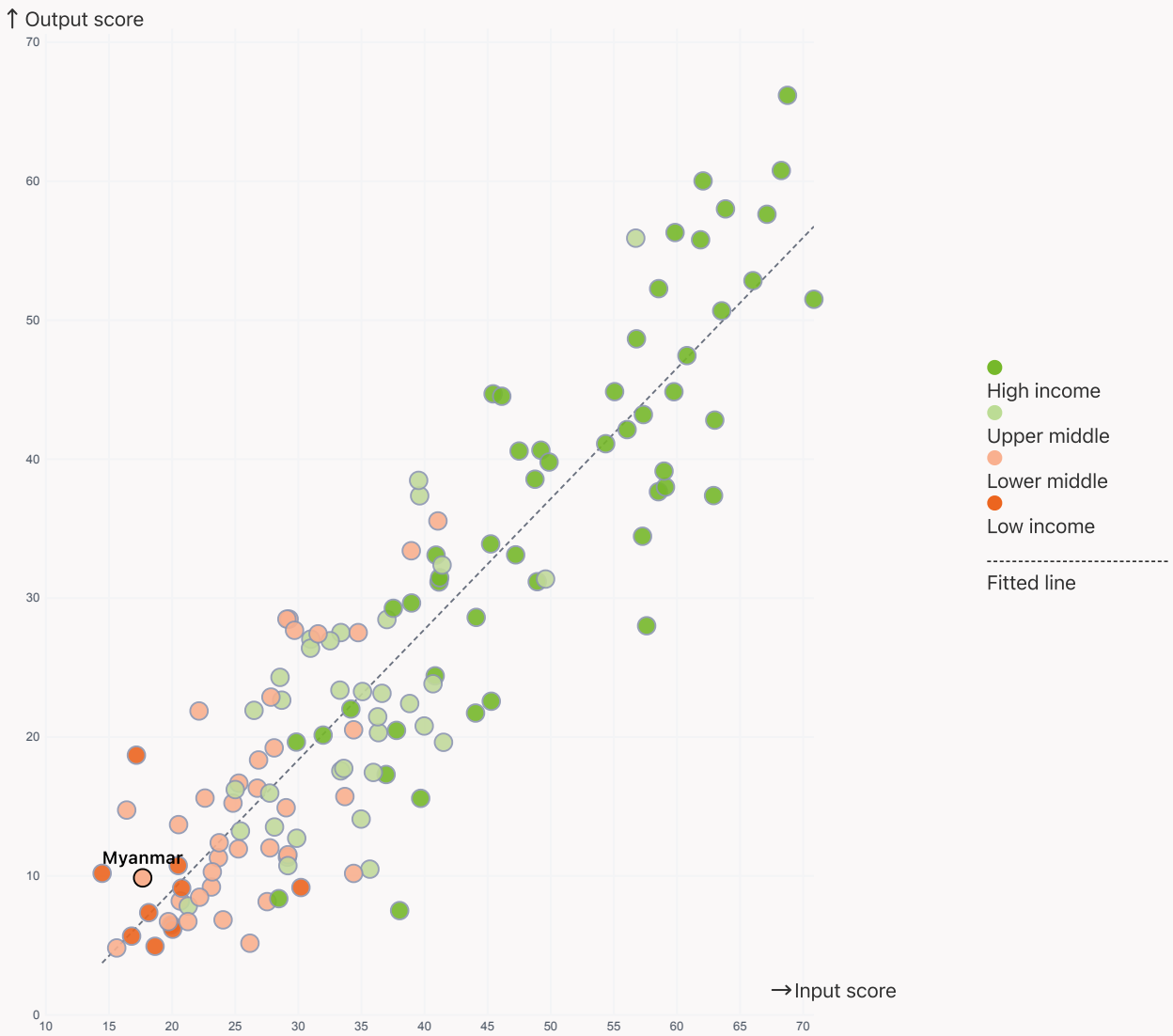
## Effectively translating innovation investments into innovation outputs

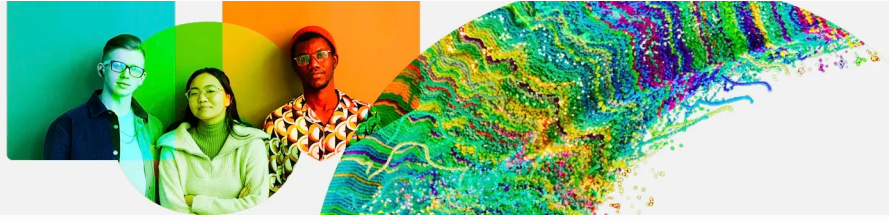
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.



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

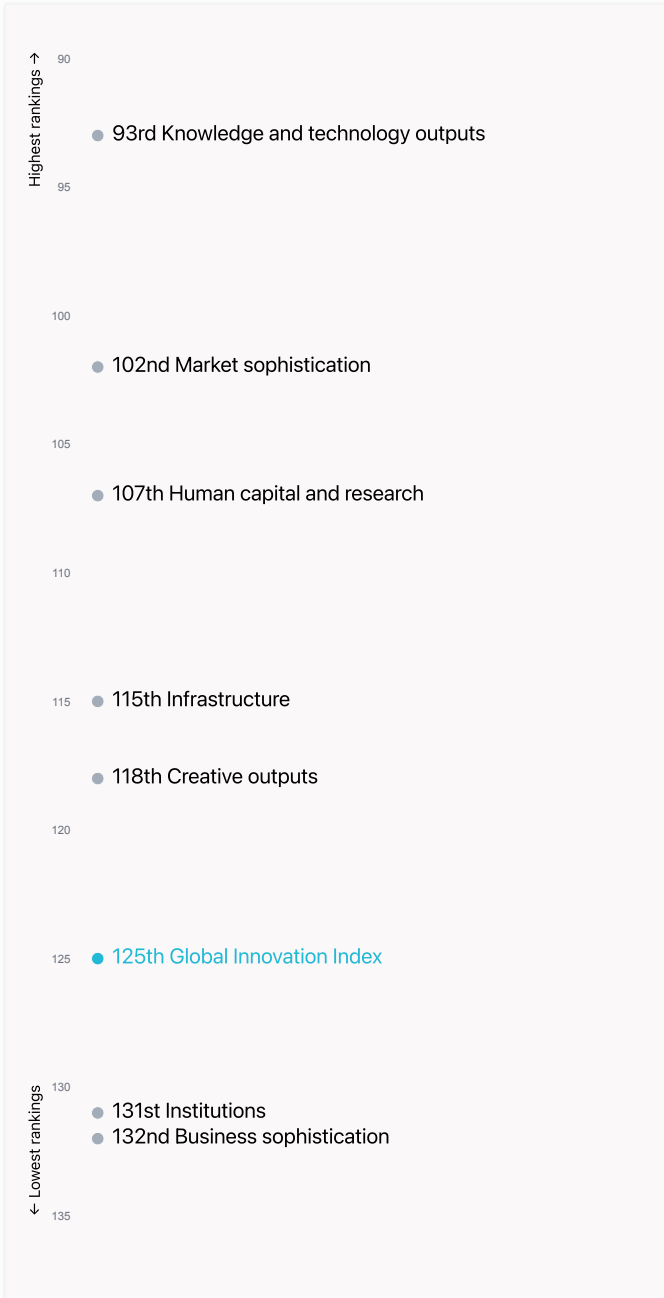
### > Relationship between innovation inputs and outputs





## Overview of Myanmar's rankings in the seven areas of the GII in 2024

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



### Highest rankings




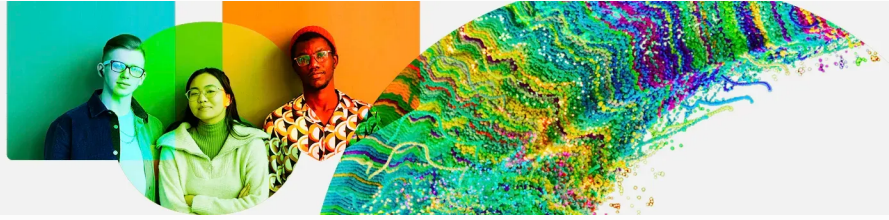
Myanmar ranks highest in Knowledge and technology outputs (93rd), Market sophistication (102nd), Human capital and research (107th) and Infrastructure (115th).

### Lowest rankings



Myanmar ranks lowest in Business sophistication (132nd), Institutions (131st) and Creative outputs (118th).

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



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

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



### Lower-Middle-Income economies

Myanmar performs below the lower-middle-income group average in all pillars.



### South East Asia, East Asia, And Oceania

Myanmar performs below the regional average in all pillars.

#### Institutions

Top 10 | Score: 80.81

SEAO | Score: 59.26

Lower middle income | Score: 34.0

Myanmar | Score: 13.47

#### Human capital and research

Top 10 | Score: 61.30

SEAO | Score: 39.09

Lower middle income | Score: 22.1

Myanmar | Score: 18.52

#### Infrastructure

Top 10 | Score: 58.57

SEAO | Score: 45.67

Lower middle income | Score: 29.8

Myanmar | Score: 24.40

#### Market sophistication

Top 10 | Score: 62.12

SEAO | Score: 45.28

Lower middle income | Score: 25.9

Myanmar | Score: 22.39

#### Business sophistication

Top 10 | Score: 63.64

SEAO | Score: 39.01

Lower middle income | Score: 20.8

Myanmar | Score: 9.89

#### Knowledge and technology outputs

Top 10 | Score: 57.29

SEAO | Score: 29.72

Lower middle income | Score: 15.6

Myanmar | Score: 13.25

#### Creative outputs

Top 10 | Score: 56.54

SEAO | Score: 33.06

Lower middle income | Score: 15.7

Myanmar | Score: 6.35



## Innovation strengths and weaknesses in Myanmar

The table below gives an overview of the indicator strengths and weaknesses of Myanmar in the GII 2024.

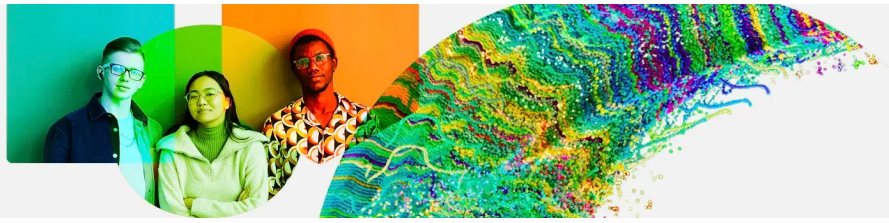


Myanmar's main innovation strengths are **Graduates in science and engineering, %** (rank 10), **Gross capital formation, % GDP** (rank 18) and **High-tech manufacturing, %** (rank 18).

### Strengths

### Weaknesses

Rank	Code	Indicator name	Rank	Code	Indicator name
10	2.2.2	Graduates in science and engineering, %	133	1.1.2	Government effectiveness*
18	3.2.3	Gross capital formation, % GDP	133	1.2.2	Rule of law*
18	6.2.4	High-tech manufacturing, %	113	2.2.3	Tertiary inbound mobility, %
24	4.1.3	Loans from microfinance institutions, % GDP	107	4.2.4	VC received, value, % GDP
44	6.2.3	Software spending, % GDP	102	5.2.5	Patent families/bn PPP\$ GDP
49	4.3.1	Applied tariff rate, weighted avg., %	102	4.2.2	Venture capital (VC) investors, deals/bn PPP\$ GDP
59	7.2.4	Creative goods exports, % total trade	98	5.1.4	GERD financed by business, %
62	4.3.3	Domestic market scale, bn PPP\$	75	2.3.4	QS university ranking, top 3*
64	3.3.1	GDP/unit of energy use	49	6.2.2	Unicorn valuation, % GDP
65	5.3.4	FDI net inflows, % GDP	41	2.3.3	Global corporate R&D investors, top 3, mn USD
67	6.3.3	High-tech exports, % total trade			



## Myanmar's innovation system

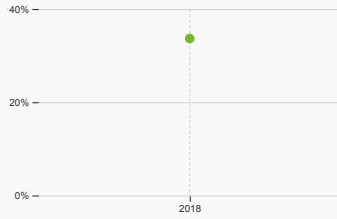
As far as practicable, the plots below present unscaled indicator data.

### > Innovation inputs in Myanmar



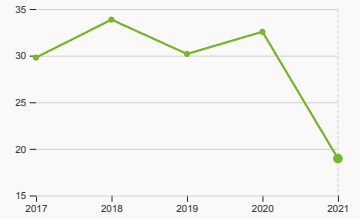
#### 2.1.1 Expenditure on education

was equal to 2.14 % GDP in 2019, down by 0.02 percentage points from the year prior – and equivalent to an indicator rank of 119.



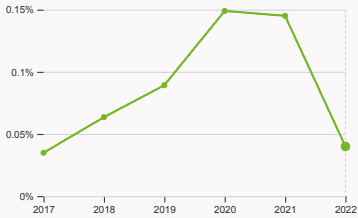
#### 2.2.2 Graduates in science and engineering

was equal to 33.67 % of total graduates in 2018 – and equivalent to an indicator rank of 10.



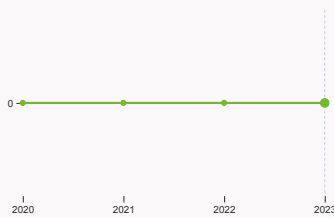
#### 2.3.1 Researchers

was equal to 18.97 FTE per million population in 2021, down by 41.74% from the year prior – and equivalent to an indicator rank of 107.



#### 2.3.2 Gross expenditure on R&D

was equal to 0.04 % GDP in 2022, down by 0.11 percentage points from the year prior – and equivalent to an indicator rank of 111.



#### 2.3.4 QS university ranking

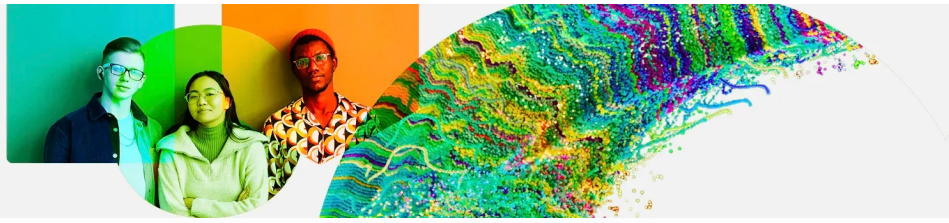
was equal to an average score of 0 for the top three universities in 2023 with no change from the year prior – and equivalent to an indicator rank of 75.



#### 4.2.4 VC received, value

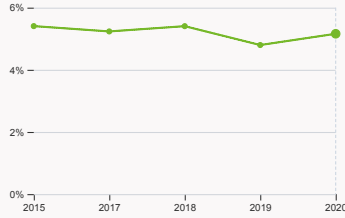
was equal to 0 USD in 2023 with no change from the year prior – and equivalent to an indicator rank of 107.

# Global Innovation Index 2024



### 4.3.2 Domestic industry diversification

was equal to an index score of 0.22 in 2021, down by 12.81% from the year prior – and equivalent to an indicator rank of 83.



### 5.1.1 Knowledge-intensive employment

was equal to 5.16 % in 2020, up by 0.36 percentage points from the year prior – and equivalent to an indicator rank of 119.

# Global Innovation Index 2024



## > Innovation outputs in Myanmar



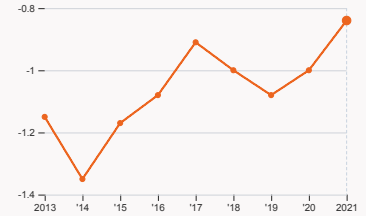
### 6.2.2 Unicorn valuation

was equal to 0 % GDP in 2024 with no change from the year prior – and equivalent to an indicator rank of 49.



### 6.2.4 High-tech manufacturing

was equal to 44.79 % of total manufacturing output in 2021, up by 8.4 percentage points from the year prior – and equivalent to an indicator rank of 18.



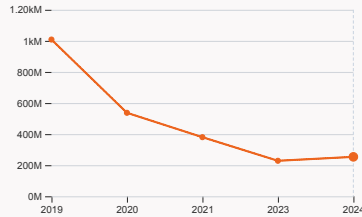
### 6.3.2 Production and export complexity

was equal to a score of -0.84 in 2021, up by 16% from the year prior – and equivalent to an indicator rank of 102.



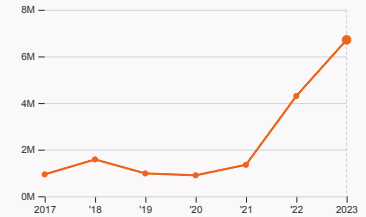
### 6.3.3 High-tech exports

was equal to 205.1 million USD in 2022, down by 33.36% from the year prior – and equivalent to an indicator rank of 67.



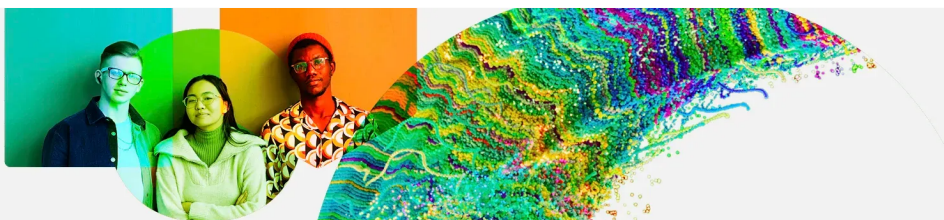
### 7.1.3 Global brand value

was equal to 253.63 million USD for the brands in the top 5,000 in 2024, up by 11.06% from the year prior – and equivalent to an indicator rank of 68.



### 7.3.3 Mobile app creation

was equal to 6.71 million global downloads of mobile apps in 2023, up by 56.05% from the year prior – and equivalent to an indicator rank of 99.



## Myanmar's innovation top performers

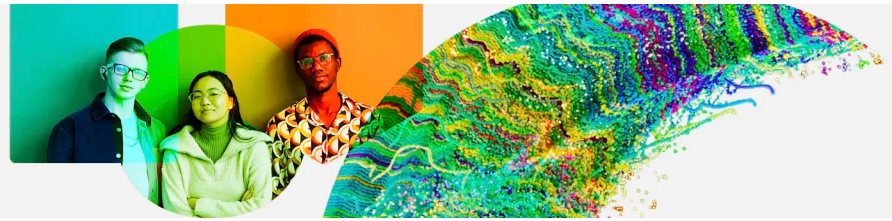
### 7.1.3 Top 5,000 companies in Myanmar with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	MPT	Telecoms	253.6

Source: Brand Finance (<https://brandirectory.com>).

Note: Rank corresponds to within economy ranks.

# Global Innovation Index 2024



## Myanmar

GII 2024 rank

125

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
114	128	Lower middle	SEAO	54.1	277.8	5,124.4
			Score / Value Rank			
<b>Institutions</b>				13.5	131	◇
<b>1.1 Institutional environment</b>				11	132	◇
1.1.1 Operational stability for businesses*				22	127	◇
1.1.2 Government effectiveness*				0	133	○
<b>1.2 Regulatory environment</b>				4.7	133	○
1.2.1 Regulatory quality*				9.4	130	◇
1.2.2 Rule of law*				0	133	○
<b>1.3 Business environment</b>				24.7	[111]	
1.3.1 Policy stability for doing business*				24.7	114	Ⓛ
1.3.2 Entrepreneurship policies and culture†				n/a	n/a	
<b>Human capital and research</b>				18.5	107	
<b>2.1 Education</b>				25.4	127	◇
2.1.1 Expenditure on education, % GDP				2.1	119	Ⓛ
2.1.2 Government funding/pupil, secondary, % GDP/cap				11	85	Ⓛ
2.1.3 School life expectancy, years				11.5	96	Ⓛ
2.1.4 PISA scales in reading, maths and science				n/a	n/a	
2.1.5 Pupil-teacher ratio, secondary				27.2	114	Ⓛ
<b>2.2 Tertiary education</b>				30	73	
2.2.1 Tertiary enrolment, % gross				20.4	101	Ⓛ
2.2.2 Graduates in science and engineering, %				33.7	10	◆
2.2.3 Tertiary inbound mobility, %				0.05	113	○
<b>2.3 Research and development (R&amp;D)</b>				0.1	117	
2.3.1 Researchers, FTE/mn pop.				19	107	Ⓛ
2.3.2 Gross expenditure on R&D, % GDP				0.04	111	
2.3.3 Global corporate R&D investors, top 3, mn USD				0	41	○
2.3.4 QS university ranking, top 3*				0	75	○
<b>Infrastructure</b>				24.4	115	
<b>3.1 Information and communication technologies (ICTs)</b>				30	122	◇
3.1.1 ICT access*				n/a	n/a	
3.1.2 ICT use*				37.6	112	◇
3.1.3 Government's online service*				23.4	128	◇
3.1.4 E-participation*				29.1	106	
<b>3.2 General infrastructure</b>				29.1	75	
3.2.1 Electricity output, GWh/mn pop.				365.1	114	Ⓛ
3.2.2 Logistics performance*				n/a	n/a	
3.2.3 Gross capital formation, % GDP				32.3	18	◆
<b>3.3 Ecological sustainability</b>				14.1	96	
3.3.1 GDP/unit of energy use				10.8	64	◆
3.3.2 Low-carbon energy use, %				16.4	69	
3.3.3 ISO 14001 environment/bn PPP\$ GDP				0.1	125	
<b>Market sophistication</b>				22.4	102	
<b>4.1 Credit</b>				12.3	105	
4.1.1 Finance for startups and scaleups†				n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP				29	99	Ⓛ
4.1.3 Loans from microfinance institutions, % GDP				1.5	24	◆
<b>4.2 Investment</b>				0.5	114	
4.2.1 Market capitalization, % GDP				n/a	n/a	
4.2.2 Venture capital (VC) investors, deals/bn PPP\$ GDP				0.004	102	○
4.2.3 VC recipients, deals/bn PPP\$ GDP				0.007	102	
4.2.4 VC received, value, % GDP				0	107	○
<b>4.3 Trade, diversification and market scale</b>				54.3	73	
4.3.1 Applied tariff rate, weighted avg., %				1.2	49	◆
4.3.2 Domestic industry diversification				67.2	83	
4.3.3 Domestic market scale, bn PPP\$				277.8	62	◆
<b>Business sophistication</b>				9.9	132	◇
<b>5.1 Knowledge workers</b>				7.5	126	◇
5.1.1 Knowledge-intensive employment, %				5.2	119	Ⓛ
5.1.2 Firms offering formal training, %				5.9	101	Ⓛ
5.1.3 GERD performed by business, % GDP				n/a	n/a	
5.1.4 GERD financed by business, %				0	98	○
5.1.5 Females employed w/advanced degrees, %				7.2	91	Ⓛ
<b>5.2 Innovation linkages</b>				2.8	131	◇
5.2.1 Public Research-Industry co-publications, %				0.6	109	
5.2.2 University-industry R&D collaboration†				0	130	Ⓛ
5.2.3 State of cluster development†				8.4	127	Ⓛ
5.2.4 Joint venture/strategic alliance deals/bn PPP\$ GDP				0.001	124	Ⓛ
5.2.5 Patent families/bn PPP\$ GDP				0	102	○
<b>5.3 Knowledge absorption</b>				19.3	96	
5.3.1 Intellectual property payments, % total trade				0.2	96	
5.3.2 High-tech imports, % total trade				6.1	95	
5.3.3 ICT services imports, % total trade				1	82	
5.3.4 FDI net inflows, % GDP				2.5	65	◆
5.3.5 Research talent, % in businesses				n/a	n/a	
<b>Knowledge and technology outputs</b>				13.3	93	
<b>6.1 Knowledge creation</b>				2.3	[125]	
6.1.1 Patents by origin/bn PPP\$ GDP				n/a	n/a	
6.1.2 PCT patents by origin/bn PPP\$ GDP				n/a	n/a	
6.1.3 Utility models by origin/bn PPP\$ GDP				-	-	
6.1.4 Scientific and technical articles/bn PPP\$ GDP				1.4	128	
6.1.5 Citable documents H-index				3	122	
<b>6.2 Knowledge impact</b>				30.2	52	◆
6.2.1 Labor productivity growth, %				-0.5	110	
6.2.2 Unicorn valuation, % GDP				0	49	○
6.2.3 Software spending, % GDP				0.3	44	◆
6.2.4 High-tech manufacturing, %				44.8	18	◆
<b>6.3 Knowledge diffusion</b>				7.3	105	
6.3.1 Intellectual property receipts, % total trade				0.06	67	
6.3.2 Production and export complexity				21.9	102	
6.3.3 High-tech exports, % total trade				1.7	67	◆
6.3.4 ICT services exports, % total trade				0.3	113	
6.3.5 ISO 9001 quality/bn PPP\$ GDP				1.6	102	
<b>Creative outputs</b>				6.3	[118]	
<b>7.1 Intangible assets</b>				1.3	[125]	
7.1.1 Intangible asset intensity, top 15, %				n/a	n/a	
7.1.2 Trademarks by origin/bn PPP\$ GDP				n/a	n/a	
7.1.3 Global brand value, top 5,000, % GDP				0.3	68	
7.1.4 Industrial designs by origin/bn PPP\$ GDP				n/a	n/a	
<b>7.2 Creative goods and services</b>				4.5	[100]	
7.2.1 Cultural and creative services exports, % total trade				0.08	96	
7.2.2 National feature films/mn pop. 15-69				n/a	n/a	
7.2.3 Entertainment and media market/th pop. 15-69				n/a	n/a	
7.2.4 Creative goods exports, % total trade				0.5	59	◆
<b>7.3 Online creativity</b>				18.3	103	
7.3.1 Top-level domains (TLDs)/th pop. 15-69				0.03	132	
7.3.2 GitHub commits/mn pop. 15-69				0.6	119	
7.3.3 Mobile app creation/bn PPP\$ GDP				54.1	99	

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.



## Data availability

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



Myanmar has missing data for sixteen indicators and outdated data for nineteen indicators.

## Missing data for Myanmar

Code	Indicator name	Economy Year	Model Year	Source
1.3.2	Entrepreneurship policies and culture <sup>†</sup>	n/a	2023	Global Entrepreneurship Monitor
2.1.4	PISA scales in reading, maths and science	n/a	2022	OECD, PISA
3.1.1	ICT access*	n/a	2022	World Intellectual Property Organization; International Telecommunication Union ITU DataHub (accessed May 1st, 2024)
3.2.2	Logistics performance*	n/a	2023	World Bank, Logistics Performance Index 2023 ( <a href="https://lpi.worldbank.org/">https://lpi.worldbank.org/</a> ); and World Bank 2023, Connecting to Compete 2023: Trade Logistics in the Global Economy The Logistics Performance Index and its Indicators.
4.1.1	Finance for startups and scaleups <sup>†</sup>	n/a	2023	Global Entrepreneurship Monitor
4.2.1	Market capitalization, % GDP	n/a	2022	World Federation of Exchanges; World Bank
5.1.3	GERD performed by business, % GDP	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.5	Research talent, % in businesses	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.1.1	Patents by origin/bn PPP\$ GDP	n/a	2022	World Intellectual Property Organization; International Monetary Fund
6.1.2	PCT patents by origin/bn PPP\$ GDP	n/a	2023	World Intellectual Property Organization; International Monetary Fund
6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	2022	World Intellectual Property Organization; International Monetary Fund
7.1.1	Intangible asset intensity, top 15, %	n/a	2023	Brand Finance
7.1.2	Trademarks by origin/bn PPP\$ GDP	n/a	2022	World Intellectual Property Organization; International Monetary Fund
7.1.4	Industrial designs by origin/bn PPP\$ GDP	n/a	2022	World Intellectual Property Organization; International Monetary Fund
7.2.2	National feature films/mn pop. 15–69	n/a	2022	OMDIA; United Nations, World Population Prospects

# Global Innovation Index 2024



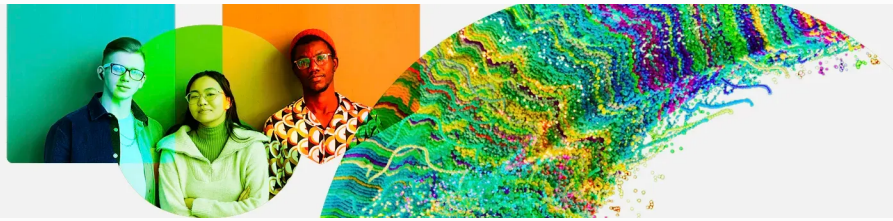
Code	Indicator name	Economy Year	Model Year	Source
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2023	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund



## Outdated data for Myanmar

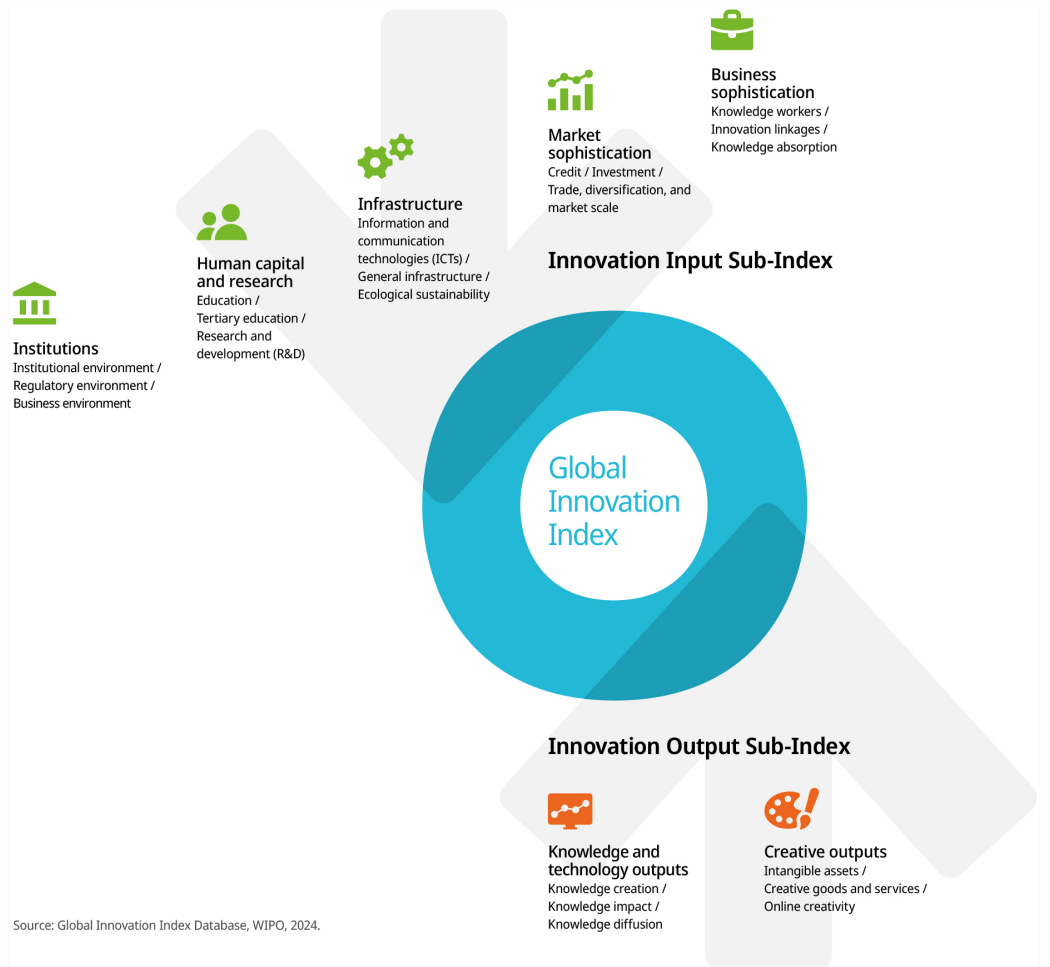
Code	Indicator name	Economy Year	Model Year	Source
1.3.1	Policy stability for doing business <sup>†</sup>	2015	2023	World Economic Forum, Executive Opinion Survey (EOS)
2.1.1	Expenditure on education, % GDP	2019	2022	UNESCO Institute for Statistics
2.1.2	Government funding/pupil, secondary, % GDP/cap	2018	2020	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2018	2022	UNESCO Institute for Statistics
2.1.5	Pupil–teacher ratio, secondary	2018	2022	UNESCO Institute for Statistics
2.2.1	Tertiary enrolment, % gross	2018	2022	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	2018	2021	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	2018	2022	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2021	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.2.1	Electricity output, GWh/mn pop.	2021	2022	International Energy Agency
4.1.2	Domestic credit to private sector, % GDP	2020	2022	International Monetary Fund; World Bank and OECD GDP estimates.
4.1.3	Loans from microfinance institutions, % GDP	2019	2022	International Monetary Fund, Financial Access Survey (FAS)
5.1.1	Knowledge-intensive employment, %	2020	2022	International Labour Organization
5.1.2	Firms offering formal training, %	2016	2023	World Bank Enterprise Surveys
5.1.4	GERD financed by business, %	2017	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	Females employed w/advanced degrees, %	2020	2023	International Labour Organization
5.2.2	University–industry R&D collaboration <sup>†</sup>	2014	2023	World Economic Forum, Executive Opinion Survey (EOS)
5.2.3	State of cluster development <sup>†</sup>	2015	2023	World Economic Forum, Executive Opinion Survey (EOS)
5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	2021	2023	LSEG Data & Analytics; International Monetary Fund

# Global Innovation Index 2024



## 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.