Global Innovation Index 2025

Indonesia ranking in the Global Innovation Index 2025

Indonesia ranks 55th 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.

Indonesia ranks 8th among the 36 Upper middle-income group economies.

Indonesia ranks 12th among the 17 economies in South East Asia, East Asia, and Oceania.

Indonesia GII Ranking (2020-2025)

The table shows the rankings of Indonesia 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 Indonesia in the GII 2025 is between ranks 54 and 60.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	85th	91st	76th
2021	87th	87th	84th
2022	75th	72nd	74th
2023	61st	64th	63rd
2024	54th	54th	67th
2025	55th	60th	59th

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

This year **Indonesia ranks 60th in innovation inputs.** This position is lower than last year.

Indonesia ranks 59th in innovation outputs. This position is higher than last year.

Indonesia has no clusters 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 Indonesia, how rapidly is technology being embraced and what are the resulting societal impacts.

For Indonesia, 7 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	▲ 6.9 % 2023 - 2024	▲ 1.3 % 2019 - 2020	▼ -24 % 2023 - 2024	▼ -24.3 % 2023 - 2024
Long term (annual growth)	▲ 16.6 % 2014 - 2024	▲ 16.9 % 2009 - 2020	▼ -9.1 % 2020 - 2024	▲ 20.4 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity		Robots	Electric vehicles
		Fixed broadband	5G		
Short term	n/a	▲ 0.7% 2022 - 2023	n/a	▲ 4.1% 2022 - 2023	▲ 167.2% 2023 - 2024
Long term (annual growth)	n/a	▲ 15.3% 2013 - 2023	n/a	▲ 10.6% 2013 - 2023	▲ 337.5% 2019 - 2024
Penetration	n/a	4.8 per 100 inhabitants in 2023	3.7 per 100 inhabitants in 2023	n/a	0.6 per 100 cars in 2024

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▲ 1.6 % 2023 - 2024	▲ 0.3 % 2022 - 2023	+ 1.5 °C 2024
Long term (annual growth)	▲ 2 % 2014 - 2024	▲ 0.3 % 2013 - 2023	+ 0.8 °C 2014
Level	31,761.8 USD in 2024	71.1 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.

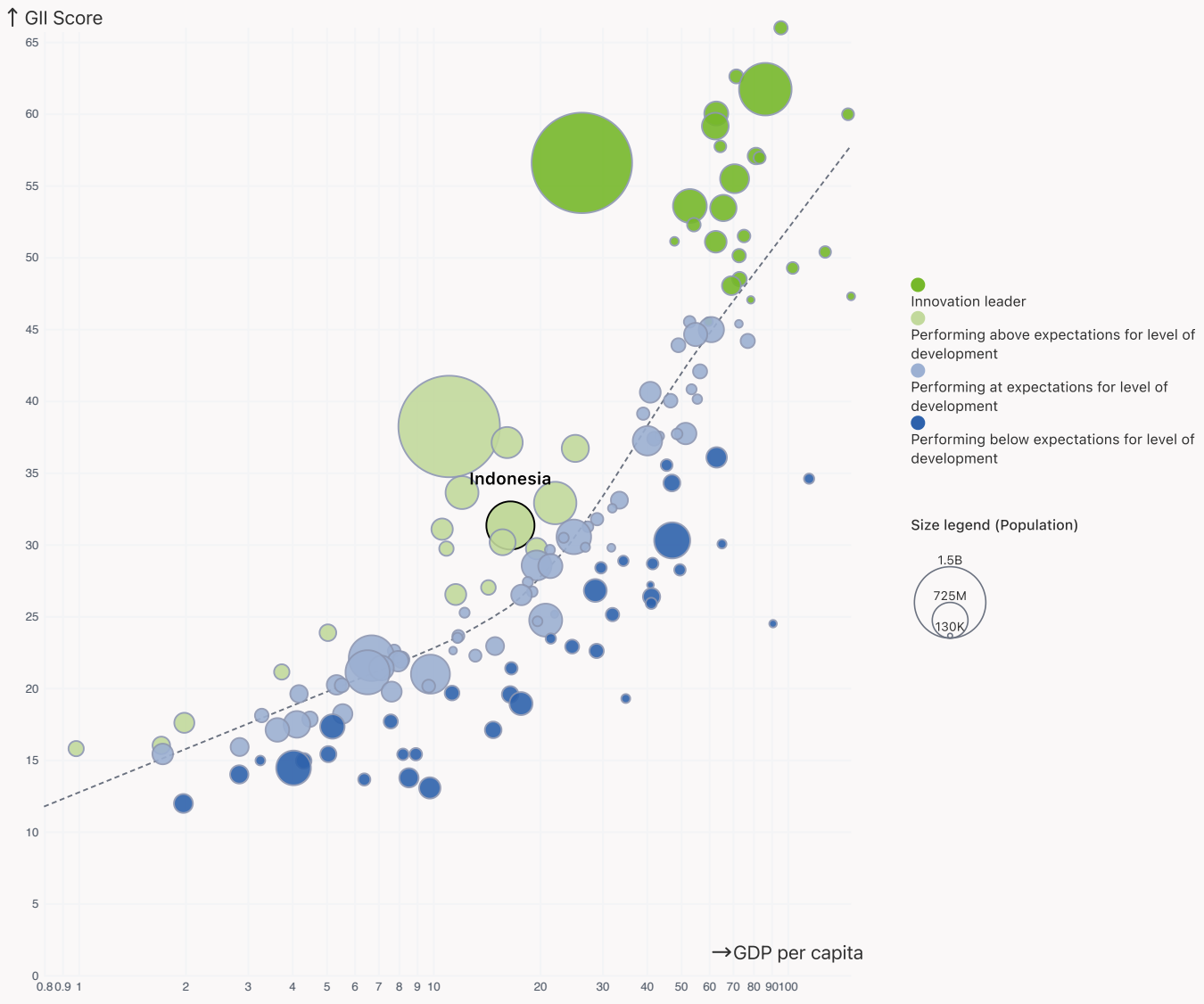
Global Innovation Index 2025

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 Indonesia performs above 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.

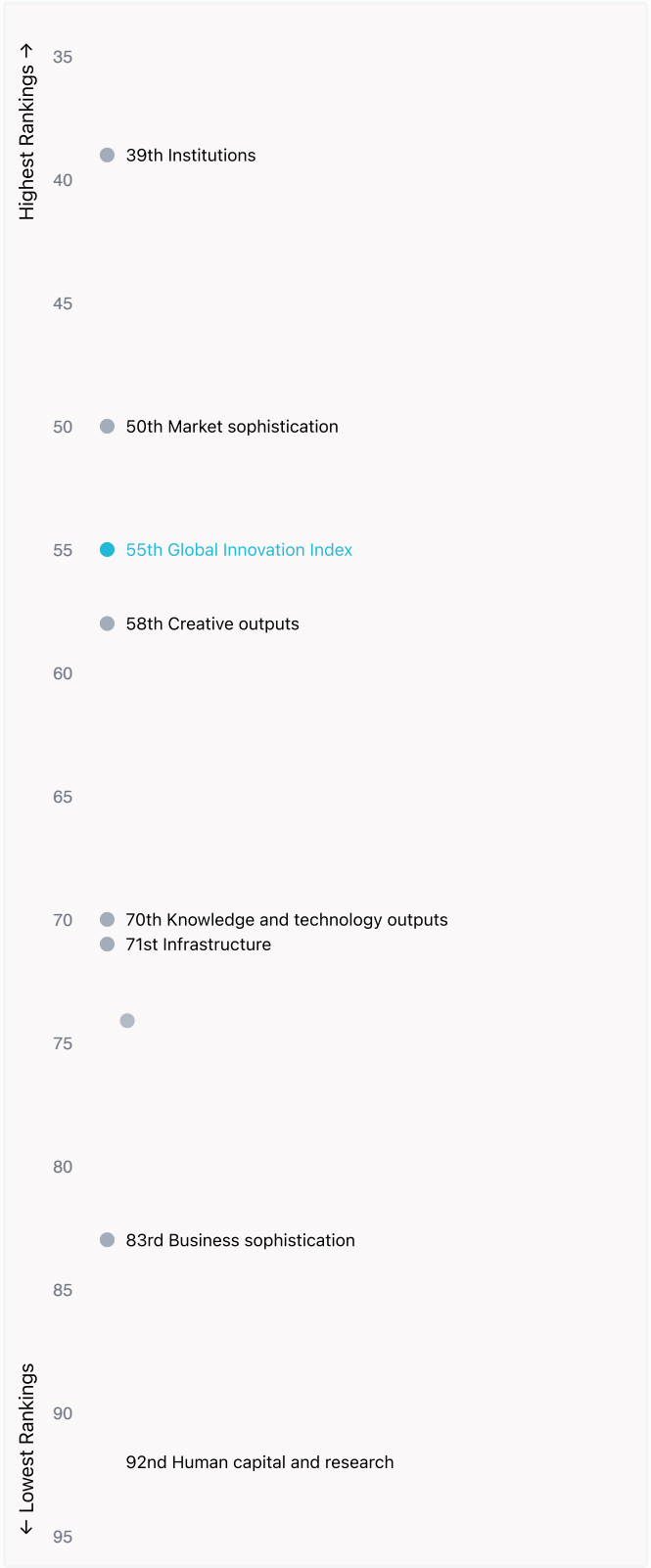
Indonesia produces less innovation outputs relative to its level of innovation investments.

> Relationship between innovation inputs and outputs

Global Innovation Index 2025

Overview of Indonesia'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 Indonesia are those that rank above the GII (shown in blue) and the weakest are those that rank below.



Highest Rankings

Indonesia ranks highest in Institutions (39th) and Market sophistication (50th).

Lowest Rankings

Indonesia ranks lowest in Human capital and research (92nd), Business sophistication (83rd) and Infrastructure (71st).

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

Global Innovation Index 2025

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

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

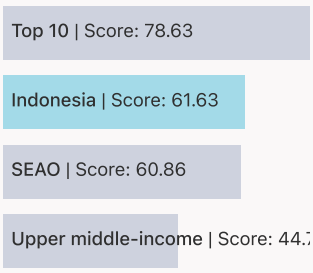
Upper middle-income economies

Indonesia performs above the Upper middle-income group average in Institutions, Infrastructure, Market sophistication, Knowledge and technology outputs, Creative outputs.

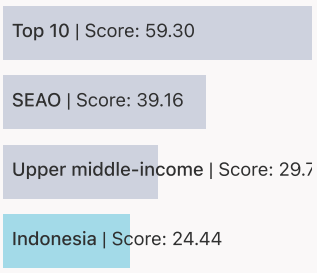
South East Asia, East Asia, and Oceania

Indonesia performs above the regional average in Institutions.

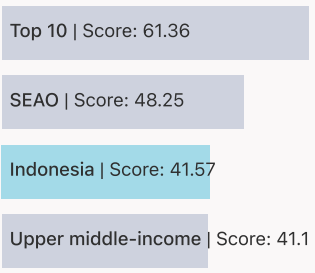
Institutions



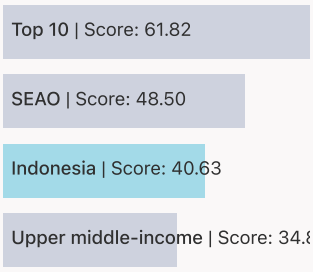
Human capital and research



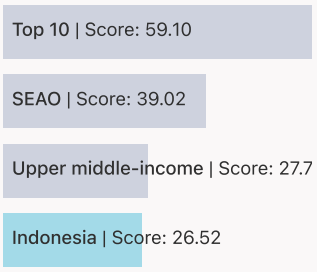
Infrastructure



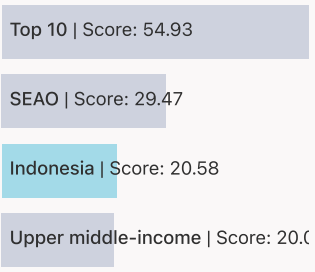
Market sophistication



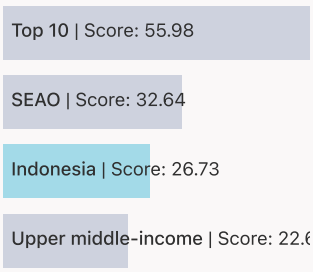
Business sophistication



Knowledge and technology outputs



Creative outputs



Global Innovation Index 2025

Innovation strengths and weaknesses in Indonesia

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

Indonesia's best-ranked innovation strengths are **Domestic market scale, bn PPP$** (rank 8), **Entrepreneurship policies and culture†** (rank 10) and **Intangible asset intensity, top 15, %** (rank 11).

Strengths

Rank	Code	Indicator name
8	4.3.3	Domestic market scale, bn PPP$
10	1.3.2	Entrepreneurship policies and culture†
11	7.1.1	Intangible asset intensity, top 15, %
11	1.3.1	Policy stability for doing business†
11	5.2.4	State of cluster development†
13	5.2.2	University–industry R&D collaboration†
14	4.1.1	Finance for startups and scaleups†
17	7.2.4	Creative goods exports, % total trade
19	6.2.3	Software spending, % GDP
22	3.2.3	Gross capital formation, % GDP

Weaknesses

Rank	Code	Indicator name
133	2.1.1	Expenditure on education, % GDP
133	6.1.4	Scientific and technical articles/bn PPP$ GDP
117	5.2.1	Public research–industry co-publications, %
114	2.2.3	Tertiary inbound mobility, %
109	7.2.1	Cultural and creative services exports, % total trade
81	7.2.2	National feature films/mn pop. 15–69
79	5.1.4	GERD performed by business, % GDP
75	2.1.4	PISA scales in reading, maths and science
63	4.1.3	Loans from microfinance institutions, % GDP

Global Innovation Index 2025

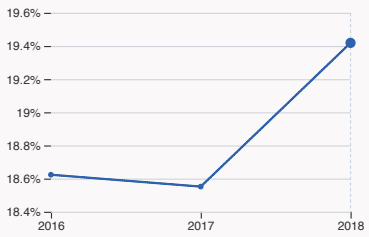
Indonesia's innovation system

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

Innovation inputs in Indonesia

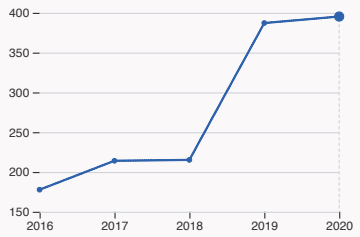
2.1.1 Expenditure on education

was equal to 1.28 % GDP in 2023, up by 0.41 percentage points from the year prior – and equivalent to an indicator rank of 133.



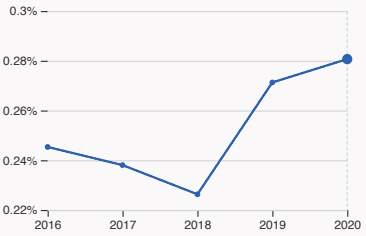
2.2.2 Graduates in science and engineering

was equal to 19.42 % of total graduates in 2018, up by 0.87 percentage points from the year prior – and equivalent to an indicator rank of 88.



2.3.1 Researchers

was equal to 395.34 FTE per million population in 2020, up by 2.11% from the year prior – and equivalent to an indicator rank of 78.

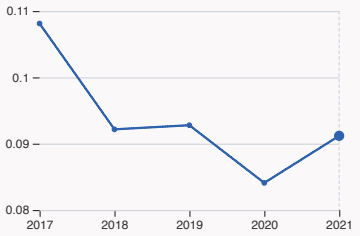


2.3.2 Gross expenditure on R&D

was equal to 0.28 % GDP in 2020, up by 0.009 percentage points from the year prior – and equivalent to an indicator rank of 78.

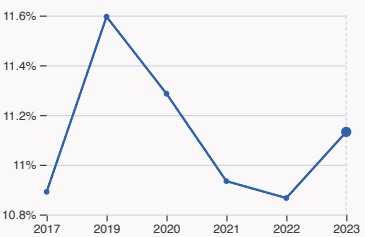
2.3.4 QS university ranking

was equal to an average score of 42.47 for the top three universities in 2024, up by 10.31% from the year prior – and equivalent to an indicator rank of 31.



4.3.2 Domestic industry diversification

was equal to an index score of 0.09 in 2021, up by 8.44% from the year prior – and equivalent to an indicator rank of 22.



5.1.1 Knowledge-intensive employment

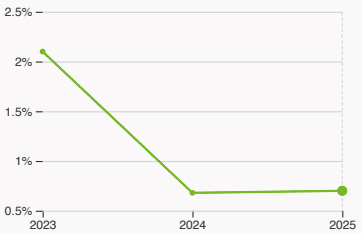
was equal to 11.13 % in 2023, up by 0.27 percentage points from the year prior – and equivalent to an indicator rank of 99.

Global Innovation Index 2025

Innovation outputs in Indonesia

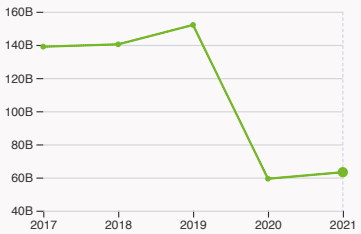
6.1.1 Patents by origin

was equal to 1.68 thousand patents in 2023, up by 8.39% from the year prior – and equivalent to an indicator rank of 80.



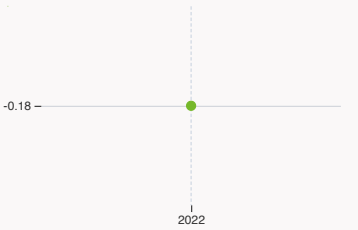
6.2.2 Unicorn valuation

was equal to 0.7 % GDP in 2025, up by 0.02 percentage points from the year prior – and equivalent to an indicator rank of 40.



6.2.4 High-tech manufacturing

was equal to 63.23 high-tech manufacturing output in billion USD in 2021, up by 6.66% from the year prior – and equivalent to an indicator rank of 43.

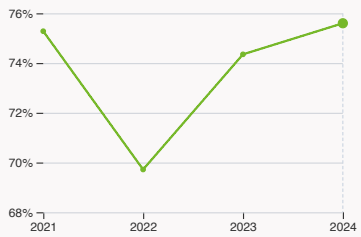


6.3.2 Production and export complexity

was equal to a score of -0.18 in 2022 – and equivalent to an indicator rank of 71.

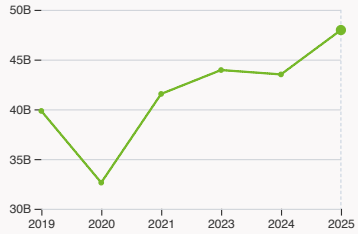
6.3.3 High-tech exports

was equal to 10.3 billion USD in 2023, down by 0.77% from the year prior – and equivalent to an indicator rank of 46.



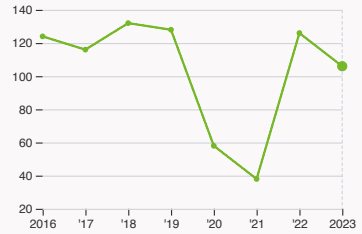
7.1.1 Intangible asset intensity, top 15

was equal to 75.6 % for the top 15 companies in 2024, up by 1.25 percentage points from the year prior – and equivalent to an indicator rank of 11.



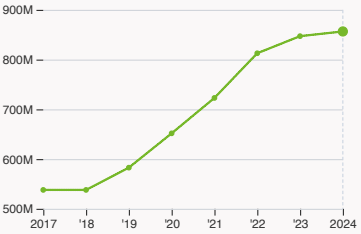
7.1.3 Global brand value, top 5,000

was equal to 47.97 billion USD for the brands in the top 5,000 in 2025, up by 10.25% from the year prior – and equivalent to an indicator rank of 38.



7.2.2 National feature films

was equal to 106 films in 2023, down by 15.87% from the year prior – and equivalent to an indicator rank of 81.



7.3.3 Mobile app creation

was equal to 856.58 million global downloads of mobile apps in 2024, up by 1.11% from the year prior – and equivalent to an indicator rank of 63.

Indonesia'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 Indonesia

Rank	Firm	Industry	R&D [mn EUR]	R&D Growth [%]	R&D Intensity [%]
1	PT GOTO GOJEK TOKOPEDIA TBK	Software & Computer Services	206	-25	n/a
2	UNILEVER INDONESIA	Personal Goods	190	5	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 Indonesia's top universities

Rank	University	Score
206	UNIVERSITAS INDONESIA	45.70
239	GADJAH MADA UNIVERSITY	41.80
256	BANDUNG INSTITUTE OF TECHNOLOGY (ITB)	39.90

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	UNIVERSITY OF INDONESIA	61.60
2	UNIVERSITAS GADJAH MADA	50.20
3	UNIVERSITAS AIRLANGGA	44.00

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.

6.2.2 Top Unicorn Companies in Indonesia

Rank	Unicorn Company	Industry	City	Valuation, bn USD
1	TRAVELOKA	Consumer & Retail	Jakarta	3
2	AKULAKU	Financial Services	Jakarta	2
3	EFISHERY	Industrials	Bandung	1

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 Indonesia

Rank	Firm	Intensity, %
1	PT CHANDRA ASRI PACIFIC TBK	94.59
2	PT AMMAN MINERAL INTERNASIONAL TBK	85.88
3	PT BAYAN RESOURCES TBK.	94.56

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 Indonesia with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	BRI	Banking	7,313.3
2	BANK MANDIRI	Banking	5,599.1
3	BCA	Banking	4,428.5

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

Indonesia

GII 2025 rank **55**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
59	60	Upper middle	South East Asia, East Asia, and Oceania	283.5	4,658.3	16,542.1

	Score / Value	Rank	
Institutions	**61.6**	**39**	
1.1 Institutional environment	**59**	**54**	
1.1.1 Operational stability for businesses*	60.7	71	
1.1.2 Government effectiveness*	57.3	46	
1.2 Regulatory environment	**51.1**	**64**	
1.2.1 Regulatory quality*	53.7	58	
1.2.2 Rule of law*	48.5	75	
1.3 Business environment	**74.8**	**10**	
1.3.1 Policy stability for doing business†	77.4	11	●
1.3.2 Entrepreneurship policies and culture†	72.2	10	●
Human capital and research	**24.4**	**92**	
2.1 Education	**28.7**	**130**	◇
2.1.1 Expenditure on education, % GDP	1.3	133	○ ◇
2.1.2 Government funding/pupil, secondary, % GDP/cap	10.6	82	
2.1.3 School life expectancy, years	13.1	83	
2.1.4 PISA scales in reading, maths and science	369	75	○
2.1.5 Pupil–teacher ratio, secondary	20.2	103	◇
2.2 Tertiary education	**19.1**	**97**	
2.2.1 Tertiary enrolment, % gross	44.9	77	
2.2.2 Graduates in science and engineering, %	19.4	88	
2.2.3 Tertiary inbound mobility, %	0.1	114	○ ◇
2.3 Research and development (R&D)	**25.5**	**42**	
2.3.1 Researchers, FTE/mn pop.	395.3	78	
2.3.2 Gross expenditure on R&D, % GDP	0.3	78	
2.3.3 Global corporate R&D investors, top 3, mn USD	50.5	33	
2.3.4 QS university ranking, top 3*	43.5	31	
Infrastructure	**41.6**	**71**	
3.1 Information and communication technologies (ICTs)	**76.6**	**65**	
3.1.1 ICT access*	74.6	90	
3.1.2 ICT use*	78.8	65	
3.1.3 Government's online service*	76.4	51	
3.2 General infrastructure	**34.4**	**64**	
3.2.1 Electricity output, GWh/mn pop.	1,379.2	93	◇
3.2.2 Logistics performance*	40.9	60	
3.2.3 Gross capital formation, % GDP	30.2	22	●
3.3 Ecological sustainability	**13.8**	**100**	
3.3.1 GDP/unit of energy use	13.2	46	
3.3.2 Low-carbon energy use, %	5.2	111	
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.8	76	
Market sophistication	**40.6**	**50**	
4.1 Credit	**29.3**	**66**	
4.1.1 Finance for startups and scaleups†	76.3	14	●
4.1.2 Domestic credit to private sector, % GDP	36	84	
4.1.3 Loans from microfinance institutions, % GDP	0.005	63	○ ◇
4.2 Investment	**5.3**	**68**	
4.2.1 Market capitalization, % GDP	47.3	40	
4.2.2 Venture capital (VC) received, deal count/bn PPP$ GDP	0.05	79	
4.2.3 Late-stage VC deal count, % global VC	0.1	25	
4.2.4 VC investors, deal count/bn PPP$ GDP	0.05	88	
4.2.5 VC investor co-participation/bn PPP$ GDP	0.02	96	
4.3 Trade, diversification and market scale	**87.2**	**8**	
4.3.1 Applied tariff rate, weighted avg., %	1.7	62	
4.3.2 Domestic industry diversification	95	22	
4.3.3 Domestic market scale, bn PPP$	4,658.3	8	●

	Score / Value	Rank	
Business sophistication	**26.5**	**83**	
5.1 Knowledge workers	**17.9**	**138**	◇
5.1.1 Knowledge-intensive employment, %	11.1	99	◇
5.1.2 Females employed w/advanced degrees, %	6.2	90	◇
5.1.3 Youth demographic dividend, %	40.2	61	
5.1.4 GERD performed by business, % GDP	0.02	79	○
5.1.5 GERD financed by business, %	8	76	
5.2 Innovation linkages	**37.3**	**37**	
5.2.1 Public research–industry co-publications, %	0.6	117	○
5.2.2 University–industry R&D collaboration†	64.8	13	●
5.2.3 University industry & international engagement, top 5*	31	55	
5.2.4 State of cluster development†	86.6	11	●
5.2.5 Patent families/bn PPP$ GDP	0.001	97	
5.3 Knowledge absorption	**24.3**	**79**	
5.3.1 Intellectual property payments, % total trade	0.8	51	
5.3.2 High-tech imports, % total trade	9.3	51	
5.3.3 ICT services imports, % total trade	2	39	
5.3.4 FDI net inflows, % GDP	1.7	95	
5.3.5 Research talent, % in businesses	7.5	64	
Knowledge and technology outputs	**20.6**	**70**	
6.1 Knowledge creation	**10.9**	**78**	
6.1.1 Patents by origin/bn PPP$ GDP	0.4	80	
6.1.2 PCT patents by inventor origin/bn PPP$ GDP	0.007	97	
6.1.3 Utility models by origin/bn PPP$ GDP	1	18	
6.1.4 Scientific and technical articles/bn PPP$ GDP	1.6	133	○ ◇
6.1.5 Citable documents H-index	14.8	58	
6.2 Knowledge impact	**35.8**	**30**	
6.2.1 Labor productivity growth, %	1.1	58	
6.2.2 Unicorn valuation, % GDP	0.7	40	
6.2.3 Software spending, % GDP	0.5	19	●
6.2.4 High-tech manufacturing	29.4	43	
6.3 Knowledge diffusion	**15**	**82**	
6.3.1 Intellectual property receipts, % total trade	0.07	75	
6.3.2 Production and export complexity	44.8	71	
6.3.3 High-tech exports, % total trade	3.7	46	
6.3.4 ICT services exports, % total trade	1	85	
6.3.5 ISO 9001 quality/bn PPP$ GDP	2.3	84	
Creative outputs	**26.7**	**58**	
7.1 Intangible assets	**35.4**	**48**	
7.1.1 Intangible asset intensity, top 15, %	75.6	11	●
7.1.2 Trademarks by origin/bn PPP$ GDP	27.2	74	
7.1.3 Global brand value, top 5,000, % GDP	3.2	38	
7.1.4 Industrial designs by origin/bn PPP$ GDP	1.1	61	
7.2 Creative goods and services	**11.9**	**68**	
7.2.1 Cultural and creative services exports, % total trade	0.03	109	○
7.2.2 National feature films/mn pop. 15–69	0.5	81	○
7.2.3 Entertainment and media market/th pop. 15–69	3.5	48	
7.2.4 Creative goods exports, % total trade	3.1	17	●
7.3 Online creativity	**24.2**	**72**	
7.3.1 Top-level domains (TLDs)/th pop. 15–69	1.7	90	
7.3.2 GitHub commits/mn pop. 15–69	4.7	84	
7.3.3 Mobile app creation/bn PPP$ GDP	66	63	

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 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.

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Data Availability

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

Indonesia has missing data for zero indicators and outdated data for thirteen indicators.

Outdated data for Indonesia

Code	Indicator name	Economy year	Model year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	2015	2021	UNESCO Institute for Statistics
2.2.2	Graduates in science and engineering, %	2018	2022	UNESCO Institute for Statistics; Eurostat; OECD
2.2.3	Tertiary inbound mobility, %	2018	2023	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2020	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	2020	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
4.1.3	Loans from microfinance institutions, % GDP	2022	2023	International Monetary Fund, Financial Access Survey (FAS)
4.3.2	Domestic industry diversification	2021	2022	United Nations Industrial Development Organization (UNIDO)
5.1.1	Knowledge-intensive employment, %	2023	2024	International Labour Organization
5.1.2	Females employed w/advanced degrees, %	2023	2024	International Labour Organization
5.1.4	GERD performed by business, % GDP	2018	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	GERD financed by business, %	2018	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.5	Research talent, % in businesses	2018	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing	2021	2022	United Nations Industrial Development Organization (UNIDO)

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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.