

## INDONESIA

### 85th

Indonesia ranks 85th among the 131 economies featured in the GII 2020.

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.

The following table shows the rankings of Indonesia over the past three years, noting that 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 2020 is between ranks 78 and 86.

Rankings of Indonesia (2018–2020)

	GII	Innovation inputs	Innovation outputs
2020	85	91	76
2019	85	87	78
2018	85	90	73

- Indonesia performs better in innovation outputs than innovation inputs in 2020.
- This year Indonesia ranks 91st in innovation inputs, lower than last year and lower compared to 2018.
- As for innovation outputs, Indonesia ranks 76th. This position is higher than last year and lower compared to 2018.

### 9th

Indonesia ranks 9th among the 29 lower middle-income group economies.

### 14th

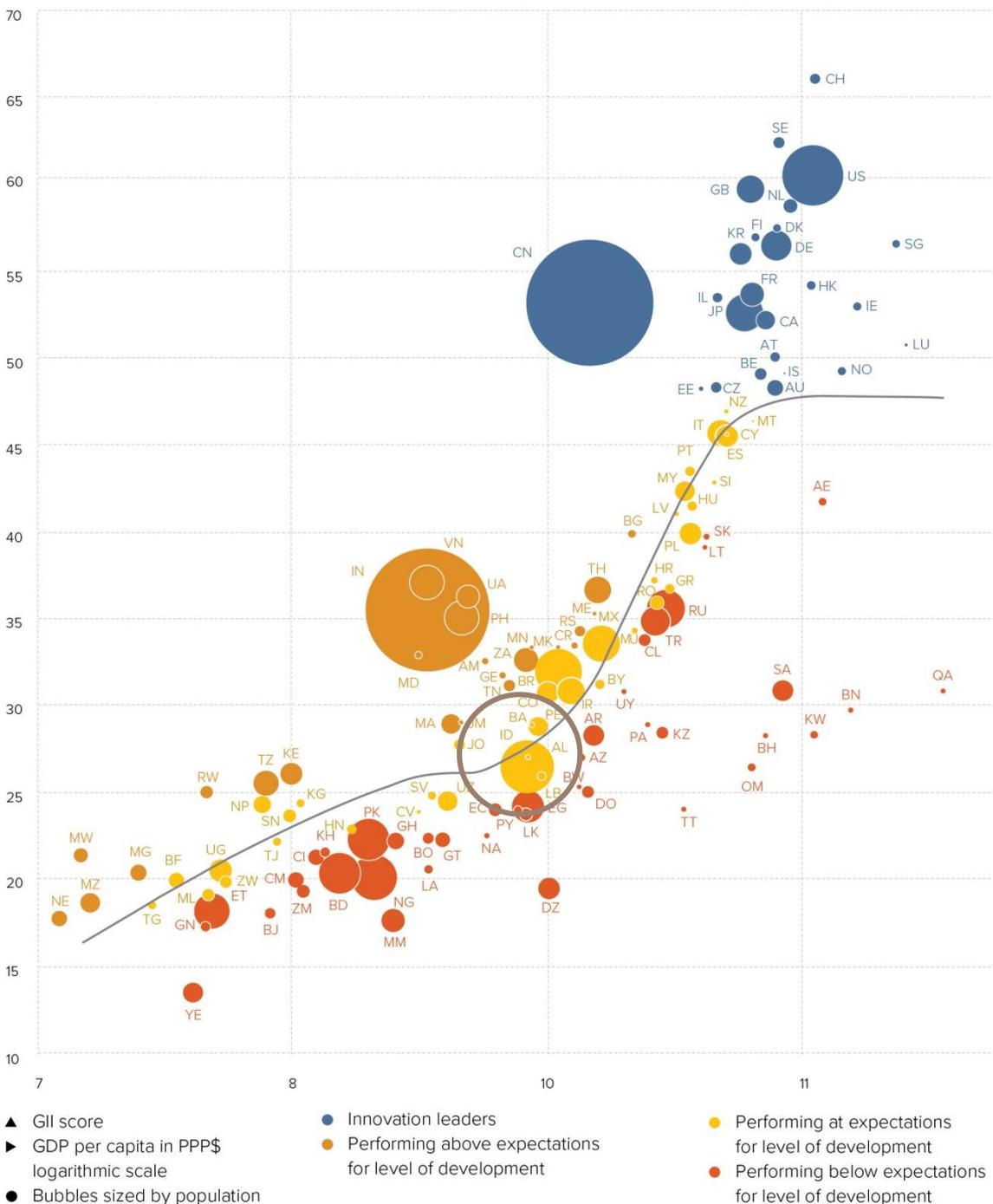
Indonesia ranks 14th among the 17 economies in South East Asia, East Asia, and Oceania.

## 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's performance matches expectations for its level of development.

### The positive relationship between innovation and development

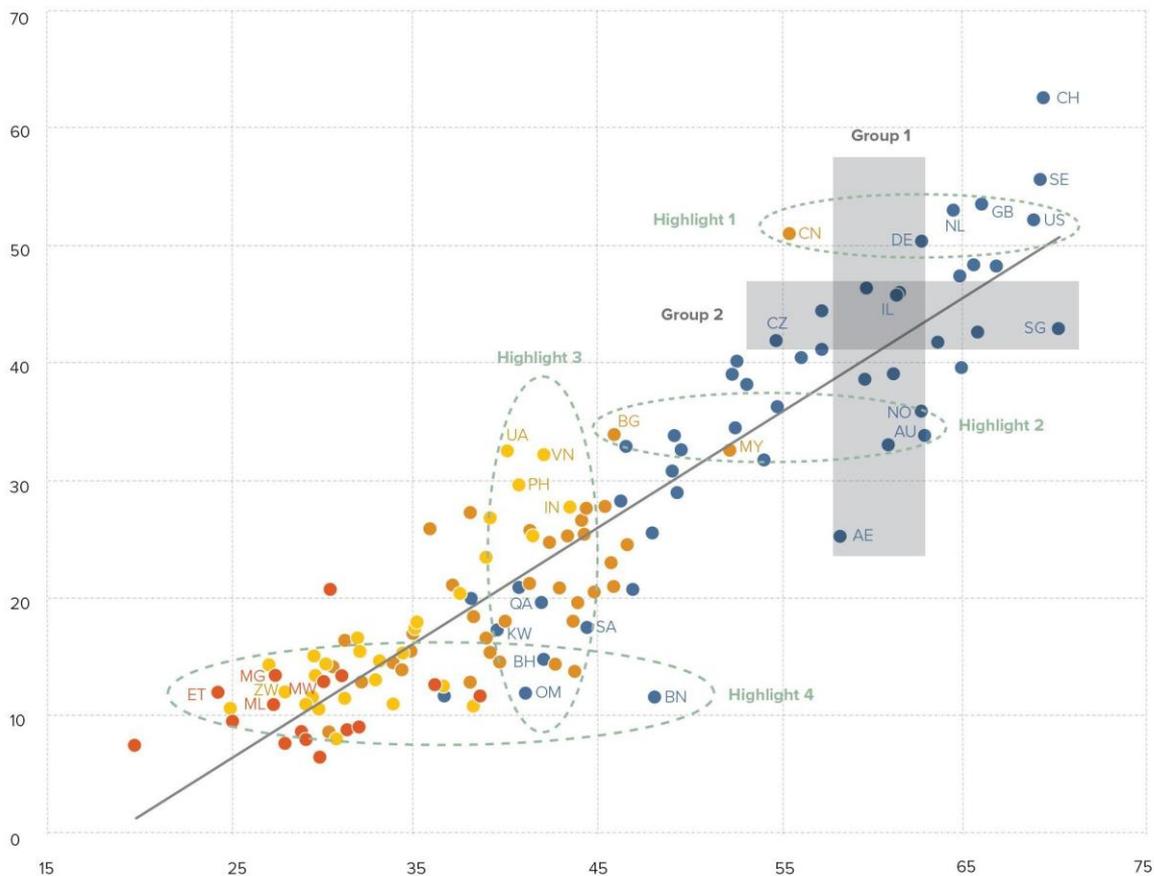


## EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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 more innovation outputs relative to its level of innovation investments.

**Innovation input to output performance, 2020**

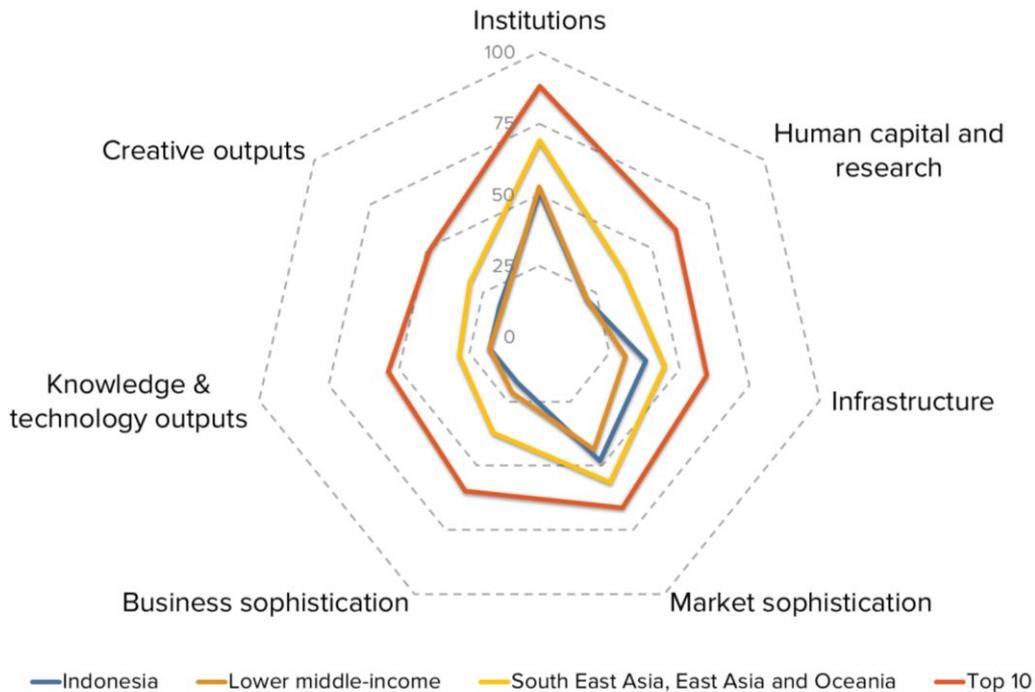


▲ Output score      ● High income group      ● Lower middle-income group      — Fitted values  
 ► Input score      ● Upper middle-income group      ● Low income group

AU Australia	IN India	NL Netherlands	CH Switzerland
BH Bahrain	IL Israel	NO Norway	UA Ukraine
BN Brunei Darussalam	KW Kuwait	OM Oman	AE United Arab Emirates
BG Bulgaria	MG Madagascar	PH Philippines	GB United Kingdom
CN China	MW Malawi	QA Qatar	US United States of America
CZ Czech Republic	ML Mali	SA Saudi Arabia	VN Viet Nam
ET Ethiopia	MY Malaysia	SG Singapore	ZW Zimbabwe
DE Germany		SE Sweden	

# BENCHMARKING INDONESIA AGAINST OTHER LOWER MIDDLE-INCOME GROUP ECONOMIES AND SOUTH EAST ASIA, EAST ASIA, AND OCEANIA

## Indonesia's scores in the seven GII pillars



### Lower middle-income group economies

Indonesia has high scores in four out of the seven GII pillars: Infrastructure, Market sophistication, Knowledge & technology outputs and Creative outputs, which are above average for the lower middle-income group.

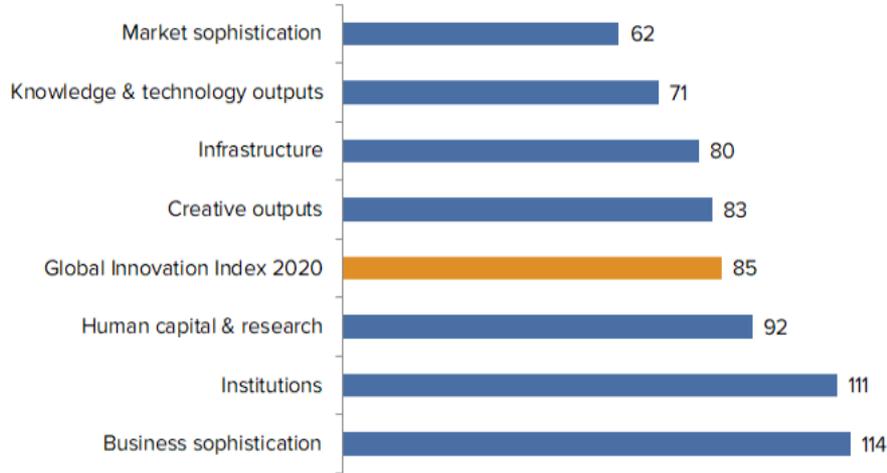
Conversely, Indonesia scores below average for its income group in three pillars: Institutions, Human capital & research and Business sophistication.

### South East Asia, East Asia, and Oceania

Compared to other economies in South East Asia, East Asia, and Oceania, Indonesia performs below average in all seven of the GII pillars.

## OVERVIEW OF INDONESIA RANKINGS IN THE SEVEN GII AREAS

Indonesia performs best in Market sophistication and its weakest performance is in Business sophistication.



\*The highest possible ranking in each pillar is 1.

## INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Indonesia in the GII 2020.

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.3.2	Ease of resolving insolvency*	35	1.2	Regulatory environment	130
2.3.4	QS university ranking, average score top 3*	34	1.2.3	Cost of redundancy dismissal, salary weeks	128
3.2.3	Gross capital formation, % GDP	17	2.1.2	Government funding/pupil, secondary, % GDP/cap	93
4.3	Trade, competition, and market scale	8	2.1.4	PISA scales in reading, maths & science	72
4.3.3	Domestic market scale, bn PPP\$	7	2.2.3	Tertiary inbound mobility, %	110
5.2.1	University/industry research collaboration†	33	2.3.3	Global R&D companies, top 3, mn US\$	42
5.2.2	State of cluster development†	26	5.1	Knowledge workers	125
6.2.1	Growth rate of PPP\$ GDP/worker, %	30	5.1.2	Firms offering formal training, %	94
6.2.3	Computer software spending, % GDP	32	5.2.3	GERD financed by abroad, % GDP	97
7.1.4	ICTs & organizational model creation†	27	6.1.4	Scientific & technical articles/bn PPP\$ GDP	126
7.2.5	Creative goods exports, % total trade	25	6.3.4	FDI net outflows, % GDP	121
			7.2.2	National feature films/mn pop. 15–69	97

## **STRENGTHS**

GII strengths for Indonesia are found in all seven of the GII pillars.

- Institutions (111): the indicator Ease of resolving insolvency (35) reveals a strength.
- Human capital & research (92): shows strength in the indicator QS university ranking (34).
- Infrastructure (80): the indicator Gross capital formation (17) demonstrates a strength.
- Market sophistication (62): has strengths in the sub-pillar Trade, competition, and market scale (8) and in the indicator Domestic market scale (7).
- Business sophistication (114): displays strengths in the indicators University/industry research collaboration (33) and State of cluster development (26).
- Knowledge & technology outputs (71): reveals strengths in the indicators Growth rate of PPP (30) and Computer software spending (32).
- Creative outputs (83): shows strengths in the indicators ICTs & organizational model creation (27) and Creative goods exports (25).

## **WEAKNESSES**

GII weaknesses for Indonesia are found in five of the seven GII pillars.

- Institutions (111): exhibits weaknesses in the sub-pillar Regulatory environment (130) and in the indicator Cost of redundancy dismissal (128).
- Human capital & research (92): shows weaknesses in the indicators Government funding/pupil (93), PISA scales in reading, maths & science (72), Tertiary inbound mobility (110) and Global R&D companies (42).
- Business sophistication (114): demonstrates weaknesses in the sub-pillar Knowledge workers (125) and in the indicators Firms offering formal training (94) and GERD financed by abroad (97).
- Knowledge & technology outputs (71): displays weaknesses in the indicators Scientific & technical articles (126) and FDI net outflows (121).
- Creative outputs (83): the indicator National feature films (97) reveals a weakness.



## DATA AVAILABILITY

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

### Missing data

Indonesia has complete data coverage in the GII 2020.

### Outdated data

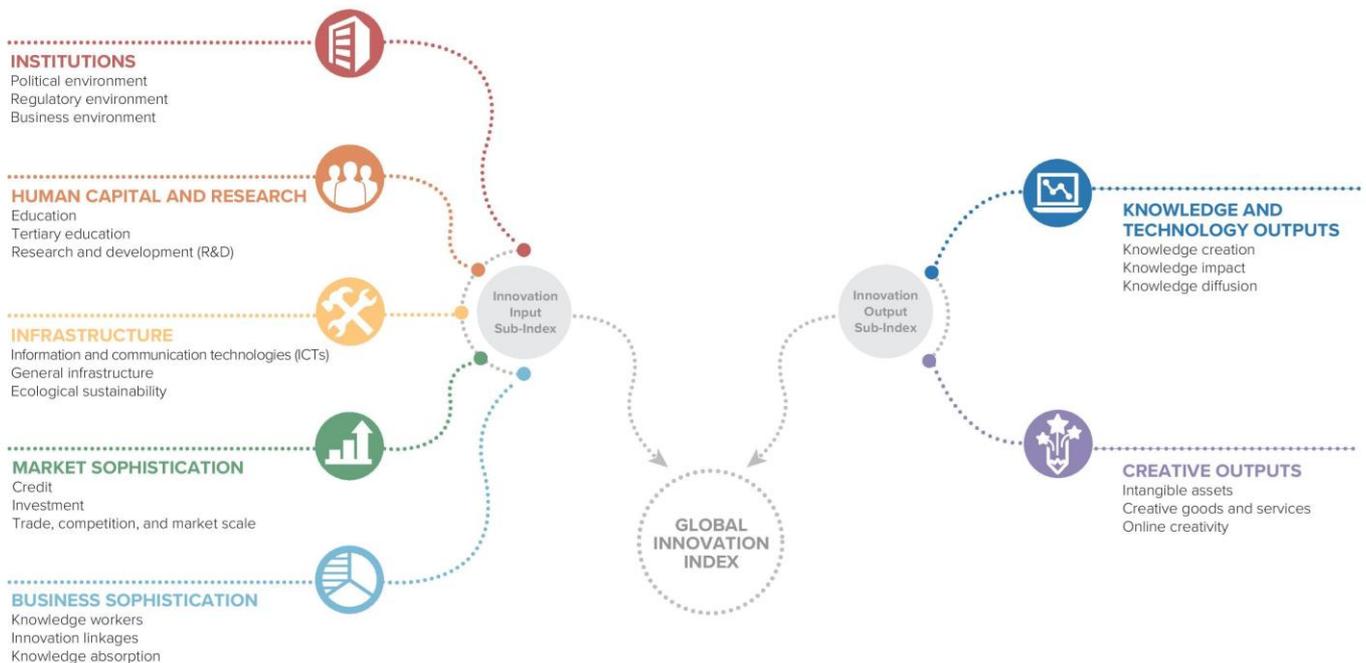
Code	Indicator name	Country year	Model year	Source
2.1.1	Expenditure on education, % GDP	2015	2018	UNESCO Institute for Statistics
2.1.2	Government funding/pupil, secondary, % GDP/cap	2015	2016	UNESCO Institute for Statistics
5.1.2	Firms offering formal training, %	2014	2018	World Bank
6.2.2	New businesses/th pop. 15–64	2016	2018	World Bank
6.2.5	High- & medium-high-tech manufacturing, %	2015	2017	United Nations Industrial Development Organization
7.2.1	Cultural & creative services exports, % total trade	2017	2018	World Trade Organization
7.2.4	Printing & other media, % manufacturing	2015	2017	United Nations Industrial Development Organization

## ABOUT THE GLOBAL INNOVATION INDEX

The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2020, the GII presents its 13<sup>th</sup> edition devoted to the theme *Who Will Finance Innovation?*

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.

### Framework of the Global Innovation Index 2020



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.

