

# GLOBAL INNOVATION INDEX 2018

## The Philippines

**73<sup>rd</sup>** The Philippines is ranked 73rd in the GII 2018, same position as the previous year.

The GII indicators are grouped into innovation inputs and outputs. The following table reflects the Philippines' rankings over time<sup>1</sup>.

**The Philippines's ranking over time**

	GII	Input	Output	Efficiency
<b>2018</b>	73	82	68	62
<b>2017</b>	73	83	65	55
<b>2016</b>	74	86	64	49

- The Philippines performs better in innovation outputs than in innovation inputs.
- This year the country improves in inputs, reaching the 82nd position, up from the 83rd and the 86th in 2017 and 2016.
- It shows a downward trend in outputs, ranking 68th, down 3 spots from 2017 and 4 from 2016.
- The Philippines is quite efficient in translating its innovation inputs into outputs. It ranks 62nd in the Innovation Efficiency Ratio, down from the 55th and the 49th spots in 2017 and 2016. Despite this downward trend, this rank is still stronger than its overall GII position (73rd). This is partly due to much higher ranking in innovation outputs (68th) compared to inputs (82nd).

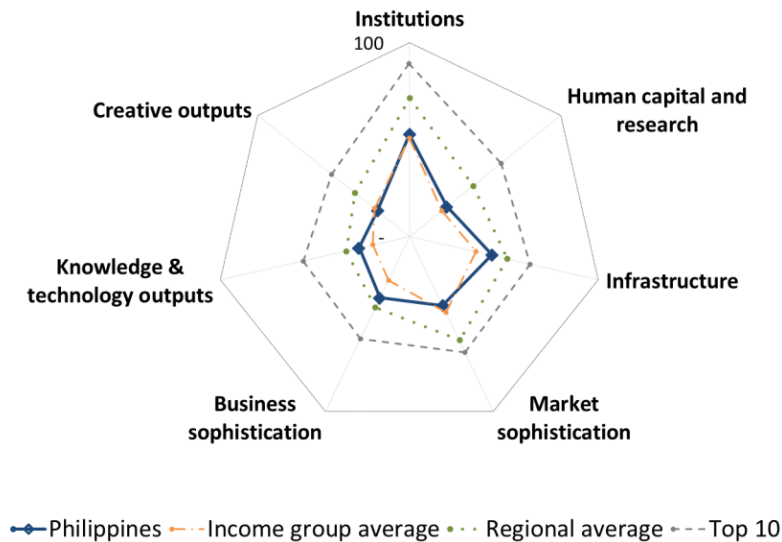
**9<sup>th</sup>** The Philippines is ranked 9th among the 30 lower-middle-income countries in the GII 2018.

**13<sup>th</sup>** The Philippines is ranked 13th among the 15 countries in South East Asia and Oceania.

<sup>1</sup> Note that year-on-year comparisons of the GII ranks are imperfect and influenced by changes in the GII model and data availability.

## Benchmarking the Philippines to other lower-middle-income countries and the South East Asia and Oceania region

The Philippines' scores by area



### Lower-middle-income countries

The Philippines has high scores in 5 of the 7 GII areas – **Institutions, Human Capital & Research, Infrastructure, Business Sophistication, and Knowledge & Technology Outputs**, in which it scores above the average of the lower-middle-income group.

Top scores in areas such as *Business environment, Tertiary education, Information & Communication Technologies (ICTs), Knowledge workers, and Knowledge impact* are behind these high rankings.

### South East Asia and Oceania region

Compared to other countries in the South East Asia and Oceania region, Philippines performs below-average in all GII areas.

## Innovation profile of the Philippines

### Strengths

- Among innovation inputs, most of the GII strengths for the Philippines lie in **Market Sophistication** (100th) and **Business Sophistication** (44th).
- **Business Sophistication** (44th) is the top-ranked GII area for the Philippines. Here it exhibits strengths in the area *Knowledge absorption* (32nd). At the indicator level, strengths are in *Firms offering formal training* (9th) and *Research talent in business enterprise* (7th).
- In **Market Sophistication** (100th) the Philippines has strong performance in the area *Trade, competition & market scale* (30th) as well as in indicators *Market capitalization* (17th) and *Domestic market scale* (28th).
- Two more strengths are found in **Infrastructure** (67th), where Philippines performs strongly in the indicators *Gross capital formation* (32nd) and *GDP per unit of energy use* (20th).
- The indicator *Graduates in science & engineering* (17th) is highlighted as a strength in **Human Capital & Research** (86th).
- On the **innovation output** side, the Philippines achieves good results in **Knowledge & Technology Outputs** (49th), where the area *Knowledge diffusion* (29th) is marked as particular strength. Furthermore, the indicators *Productivity growth* (27th), *High- & medium-high-tech manufactures* (27th), and *ICT services exports* (8th) present strong performance.

## Weaknesses

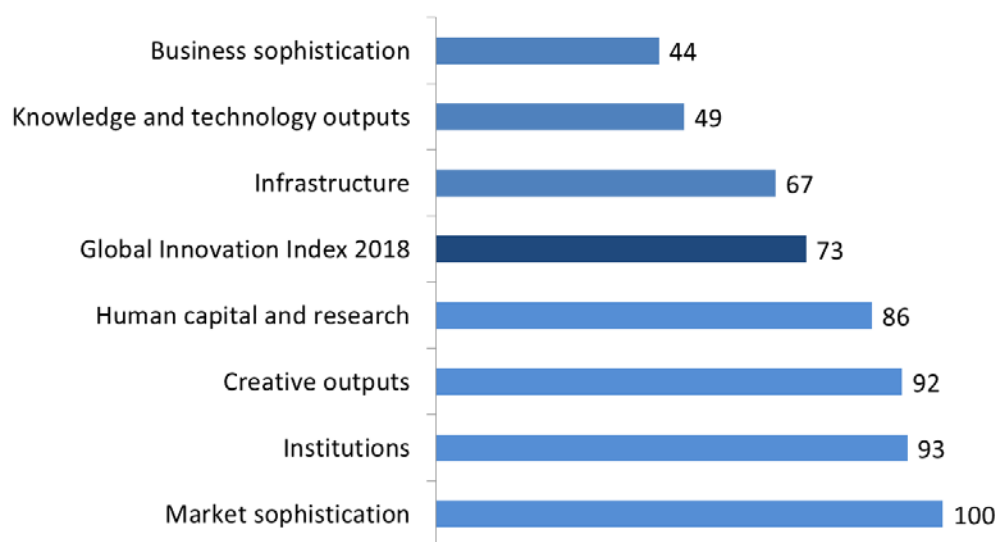
- Most of the relative weaknesses for the Philippines are accrued among **innovation inputs**, and in particular in three GII areas.
- In **Institutions** (93rd), the country performs relatively weakly in the indicators *Political stability & safety* (117th) and *Ease of starting a business* (121st).
- In **Human Capital & Research** (86th), GII weaknesses are found in four indicators: *Expenditure on education* (109th), *Pupil-teacher ratio* (95th), *Tertiary inbound mobility* (104th), and *Global R&D companies expenditure* (40th).
- Two of the three components of the GII area **Market Sophistication** (100th) – *Credit* (119th) and *Investment* (118th) – as well as the indicators *Ease of getting credit* (111th) and *Ease of protecting minority investors* (112th) are signaled as GII weaknesses.
- On the **innovation output** side, the Philippines exhibits GII weaknesses in **Knowledge & Technology Outputs** (49th), where two indicators – *PCT patents by origin* (97th) and *Scientific & technical articles* (120th) – are relatively weak.

The following figure presents a summary of the ranks of the Philippines in the 7 GII areas, as well as the overall rank in the GII 2018.

### The Philippines' rank in the GII 2018 and the 7 GII areas

Rank 1 is the highest possible in each pillar

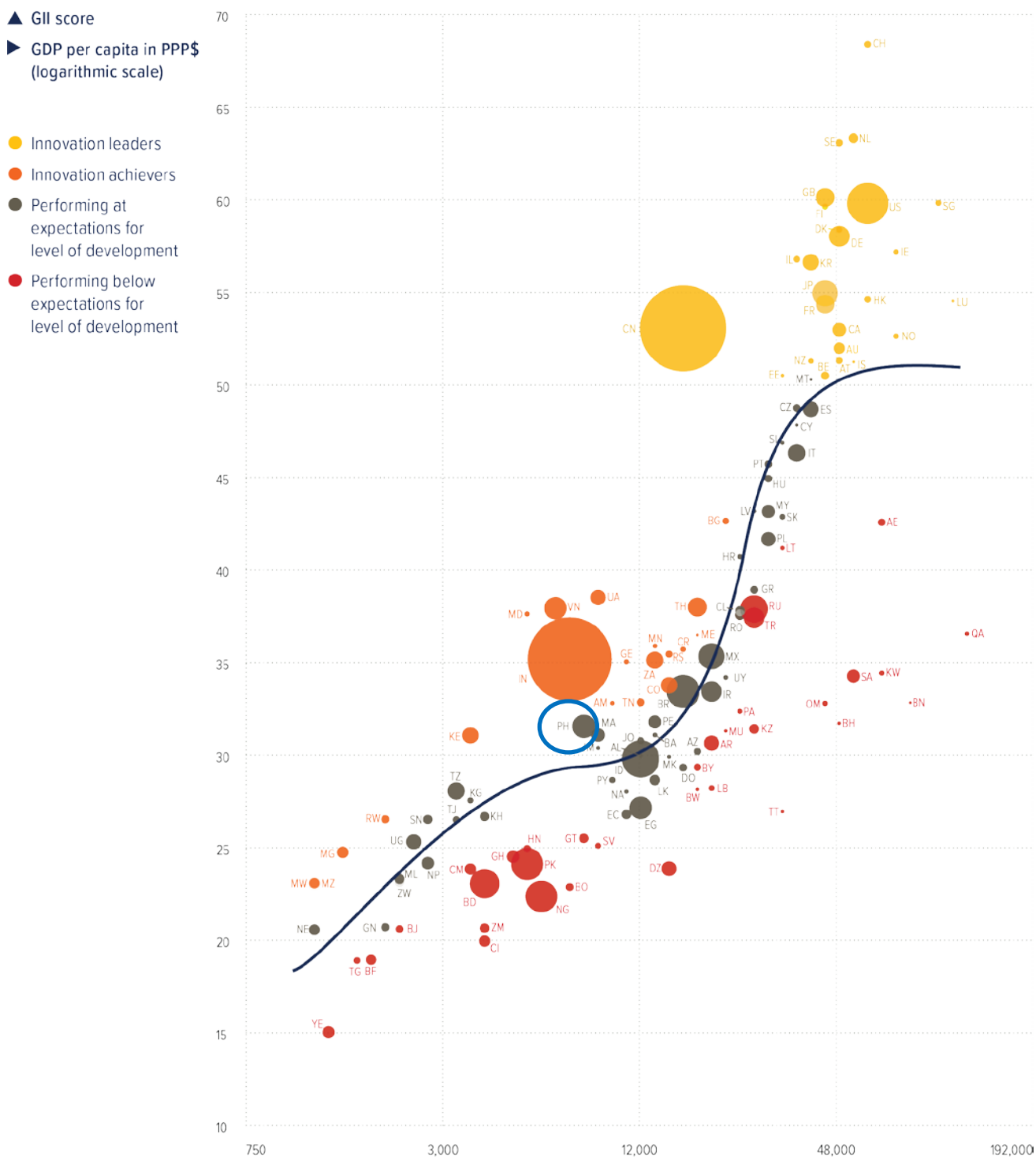
Total number of countries: 126



## Expected vs. Observed Innovation Performance

The GII bubble chart shows the relationship between income levels (GDP per capita) and innovation performance (GI score). The depicted trendline gives an indication of the expected innovation performance at different levels of income. Countries located above the trendline are performing better than what would be expected based on their income level. Countries below the line are Innovation Under-performers relative to GDP.

Relative to GDP, the Philippines performs at its expected level of development.



## Missing and Outdated Data

More and better data improve the ability of a country to understand its strengths and weaknesses and give policymakers greater capacity to plan and adapt public policies accordingly. The GII 2018 covers 126 countries that complied with the minimum indicator coverage of 35 indicators in the Innovation Input Sub-Index (66%) and 18 indicators in the Innovation Output Sub-Index (66%).

The following tables show data for the Philippines that is not available or that is outdated.

### Missing Data





Code	Indicator	Country Year	Model Year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2014	UNESCO Institute for Statistics
2.1.4	PISA scales in reading, maths & science	n/a	2015	OECD PISA
5.3.2	High-tech net imports, % total trade	n/a	2016	UN COMTRADE
6.3.2	High-tech net exports, % total trade	n/a	2016	UN COMTRADE
7.2.5	Creative goods exports, % total trade	n/a	2016	UN COMTRADE

### Outdated Data

Code	Indicator	Country Year	Model Year	Source
2.1.1	Expenditure on education, % GDP	2009	2014	UNESCO Institute for Statistics
2.1.3	School life expectancy, years	2013	2016	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	2015	2016	UNESCO Institute for Statistics
2.2.3	Tertiary inbound mobility, %	2008	2016	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2013	2016	UNESCO Institute for Statistics
2.3.2	Gross expenditure on R&D, % GDP	2013	2016	UNESCO Institute for Statistics
5.1.3	GERD performed by business, % GDP	2013	2016	UNESCO Institute for Statistics
5.1.4	GERD financed by business, %	2013	2015	UNESCO Institute for Statistics
5.2.3	GERD financed by abroad, %	2013	2015	UNESCO Institute for Statistics
5.3.5	Research talent, % in business enterprise	2013	2016	UNESCO Institute for Statistics
6.2.5	High- & medium-high-tech manufactures, %	2014	2015	UNIDO, Industrial Statistics
7.2.2	National feature films/mn pop. 15–69	2013	2015	UNESCO Institute for Statistics
7.2.4	Printing & other media, % manufacturing	2014	2015	UNIDO, Industrial Statistics





Output rank	Input rank	Income	Region	Efficiency ratio	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2017 rank
68	82	Lower-middle	SEAO	62	104.9	874.5	8,314.6	73
					Score/Value Rank			
	<b>Institutions.....</b>			<b>52.6</b>	<b>93</b>			
1.1	Political environment.....			41.4	93			
1.1.1	Political stability & safety*.....			34.5	117	○		
1.1.2	Government effectiveness*.....			44.9	73			
1.2	Regulatory environment.....			54.5	99			
1.2.1	Regulatory quality*.....			44.0	71			
1.2.2	Rule of law*.....			33.1	88			
1.2.3	Cost of redundancy dismissal, salary weeks.....			27.4	107			
1.3	Business environment.....			62.1	91			
1.3.1	Ease of starting a business*.....			68.9	121	○◇		
1.3.2	Ease of resolving insolvency*.....			55.2	55	◆		
					Score/Value Rank			
	<b>Human capital &amp; research.....</b>			<b>24.6</b>	<b>86</b>			
2.1	Education.....			32.0	105			
2.1.1	Expenditure on education, % GDP <sup>②</sup> .....			2.7	109	○◇		
2.1.2	Government funding/pupil, secondary, % GDP/cap.....			n/a	n/a			
2.1.3	School life expectancy, years <sup>②</sup> .....			12.6	80			
2.1.4	PISA scales in reading, maths & science.....			n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary <sup>②</sup> .....			26.2	95	○		
2.2	Tertiary education.....			34.3	54			
2.2.1	Tertiary enrolment, % gross.....			35.3	72			
2.2.2	Graduates in science & engineering, %.....			28.7	17	●◆		
2.2.3	Tertiary inbound mobility, % <sup>②</sup> .....			0.1	104	○		
2.3	Research & development (R&D).....			7.4	68			
2.3.1	Researchers, FTE/mn pop. <sup>④</sup> .....			187.7	76			
2.3.2	Gross expenditure on R&D, % GDP <sup>②</sup> .....			0.1	97			
2.3.3	Global R&D companies, top 3, mn US\$.....			0.0	40	○◇		
2.3.4	QS university ranking, average score top 3*.....			24.4	48	◆		
					Score/Value Rank			
	<b>Knowledge &amp; technology outputs.....</b>			<b>26.9</b>	<b>49</b>	◆		
6.1	Knowledge creation.....			11.4	64			
6.1.1	Patents by origin/bn PPP\$ GDP.....			0.4	84			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....			0.0	97	○		
6.1.3	Utility models by origin/bn PPP\$ GDP.....			1.4	18			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....			1.1	120	○		
6.1.5	Citable documents H index.....			13.1	54			
6.2	Knowledge impact.....			37.9	57			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....			2.5	27	●		
6.2.2	New businesses/th pop. 15–64.....			0.3	91			
6.2.3	Computer software spending, % GDP.....			0.2	64			
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....			4.6	63			
6.2.5	High- & medium-high-tech manufactures, % <sup>②</sup> .....			0.4	27	●◆		
6.3	Knowledge diffusion.....			31.5	29	●◆		
6.3.1	Intellectual property receipts, % total trade.....			0.0	90			
6.3.2	High-tech net exports, % total trade.....			n/a	n/a			
6.3.3	ICT services exports, % total trade.....			6.2	8	●◆		
6.3.4	FDI net outflows, % GDP.....			1.7	40	◆		
					Score/Value Rank			
	<b>Creative outputs.....</b>			<b>21.0</b>	<b>92</b>			
7.1	Intangible assets.....			37.1	83			
7.1.1	Trademarks by origin/bn PPP\$ GDP.....			27.7	76			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....			1.3	63			
7.1.3	ICTs & business model creation <sup>†</sup> .....			60.8	58			
7.1.4	ICTs & organizational model creation <sup>†</sup> .....			53.6	62			
7.2	Creative goods & services.....			7.5	104			
7.2.1	Cultural & creative services exports, % total trade.....			0.1	59			
7.2.2	National feature films/mn pop. 15–69 <sup>②</sup> .....			0.8	83			
7.2.3	Entertainment & Media market/th pop. 15–69.....			2.5	50	◆		
7.2.4	Printing & other media, % manufacturing <sup>②</sup> .....			0.6	79			
7.2.5	Creative goods exports, % total trade.....			n/a	n/a			
7.3	Online creativity.....			2.4	85			
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69.....			1.1	91			
7.3.2	Country-code TLDs/th pop. 15–69.....			0.3	99			
7.3.3	Wikipedia edits/mn pop. 15–69.....			3.8	89			
7.3.4	Mobile app creation/bn PPP\$ GDP.....			5.7	63			

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; \* an index; † a survey question.

② indicates that the country's data are older than the base year; see Appendix II for details, including the year of the data, at <http://globalinnovationindex.org>.

Square brackets indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level; see page 75 of this appendix for details.