

GLOBAL INNOVATION INDEX 2019

SRI LANKA

89th

Sri Lanka ranks 89th among the 129 economies featured in the GII 2019.

The Global Innovation Index (GII) is a ranking of world economies based on 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 Sri Lanka over the past three years, noting that data availability and the GII model influence year-on-year comparisons of the GII ranks. The confidence interval for Sri Lanka's ranking in the GII 2019 is between 82 and 91.

Sri Lanka's Rankings, 2017 - 2019

	GII	Innovation Inputs	Innovation Outputs
2019	89	94	77
2018	88	95	80
2017	90	94	77

- Sri Lanka performs better in Innovation Outputs than Inputs in 2019.
- This year Sri Lanka ranks 94th in Innovation Inputs, better than last year and the same compared to 2017.
- As for Innovation Outputs, Sri Lanka ranks 77th. This position is better than last year and the same compared to 2017.

12th

Sri Lanka ranks 12th among the 26 lower middle-income economies.

4th

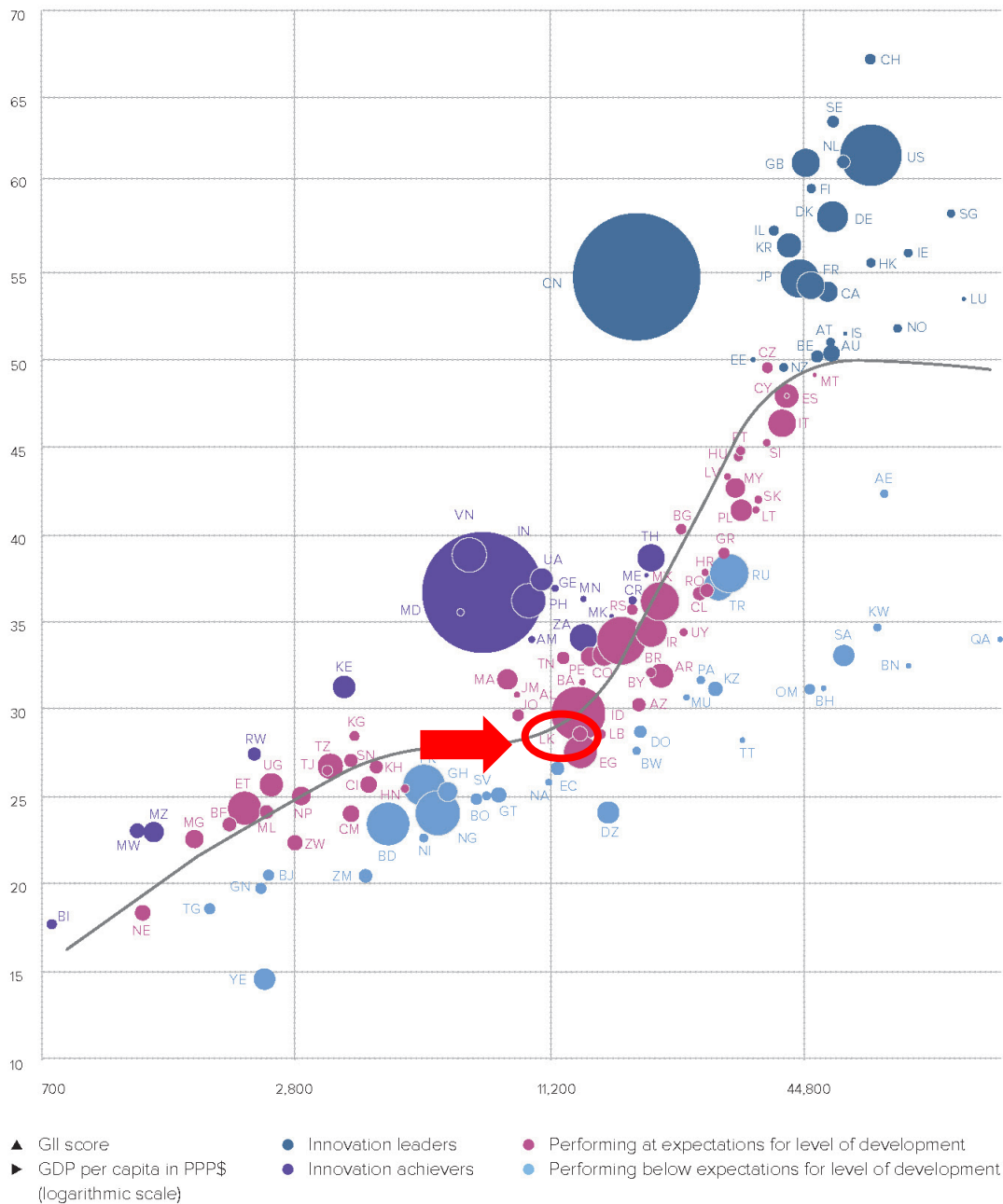
Sri Lanka ranks 4th among the 9 economies in Central and Southern Asia.

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 considered Innovation under-performers relative to GDP.

Relative to GDP, Sri Lanka performs at its expected level of development.

GII scores and GDP per capita in PPP US\$ (bubbles sized by population)

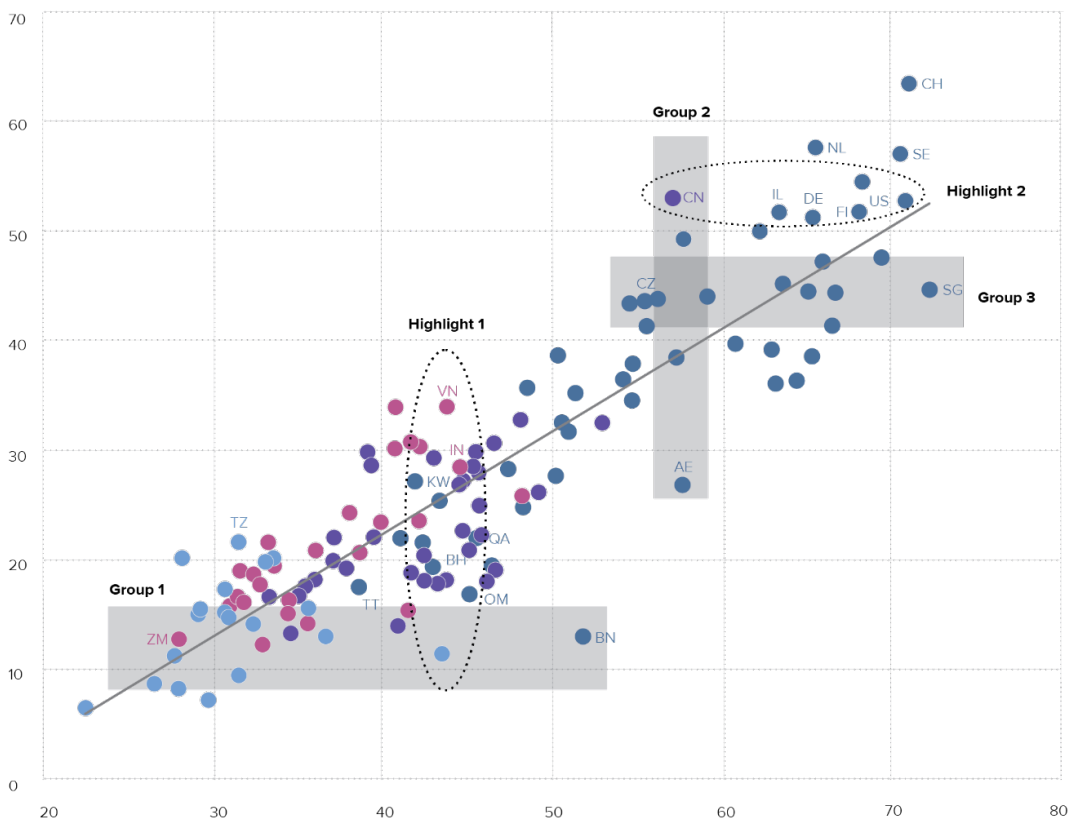


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

The chart below shows the relationship between innovation inputs and innovation outputs, indicating which economies best translate innovation inputs into innovation outputs. Economies appearing above the line are effectively translating their costly innovation investments into more and higher-quality outputs. In contrast, those below the line are not effectively translating innovation inputs into outputs.

Sri Lanka produces more innovation outputs relative to its level of innovation investments.

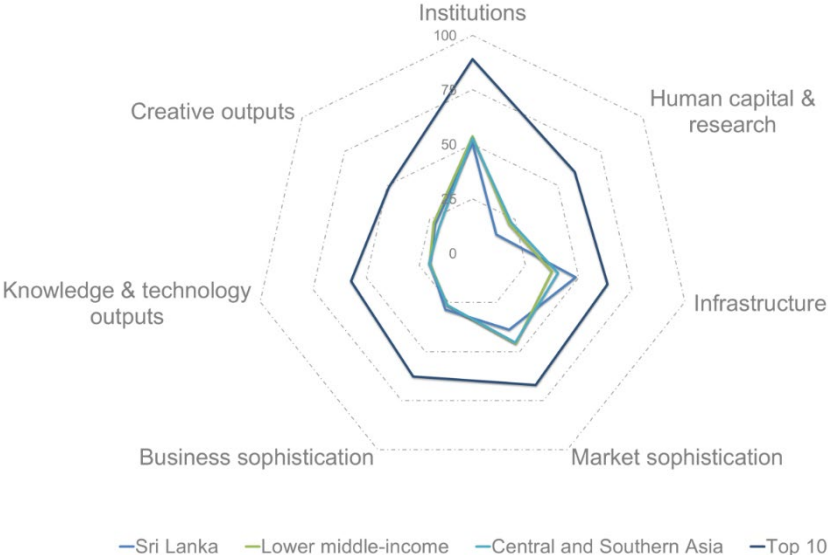
Innovation input/output performance by income group, 2019



- ▲ Output score
 - ▶ Input score
 - High income
 - Upper-middle income
 - Lower-middle income
 - Low income
 - Fitted values
-
- | | | | |
|-------------------------|-------------------|------------------------|--------------------------------|
| AE United Arab Emirates | CZ Czech Republic | NL Netherlands | TZ United Republic of Tanzania |
| BH Bahrain | DE Germany | OM Oman | US United States of America |
| BN Brunei Darussalam | FI Finland | QA Qatar | VN Viet Nam |
| CH Switzerland | IL Israel | SE Sweden | ZM Zambia |
| CN China | IN India | SG Singapore | |
| | KW Kuwait | TT Trinidad and Tobago | |

BENCHMARKING SRI LANKA TO OTHER LOWER MIDDLE-INCOME ECONOMIES AND THE CENTRAL AND SOUTHERN ASIA REGION

Sri Lanka’s scores in the seven GII pillars



Lower middle-income economies

Sri Lanka has high scores in 2 out of the 7 GII pillars: Infrastructure and Business sophistication, which are above the average of the lower middle-income group.

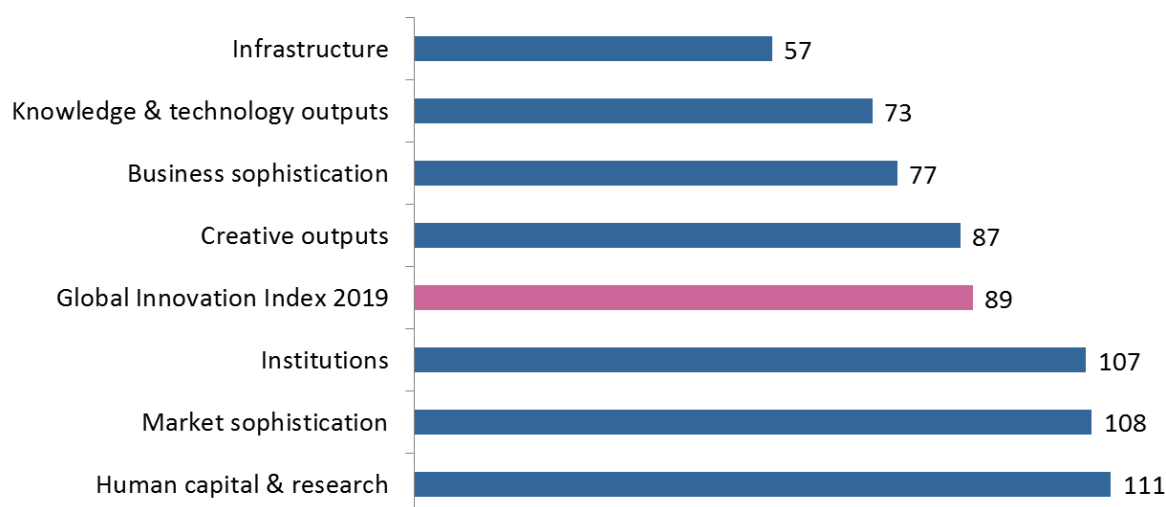
Central and Southern Asia Region

Compared to other economies in Central and Southern Asia, Sri Lanka performs above average in 3 out of the 7 GII pillars: Infrastructure, Business sophistication, and Creative outputs.

Top ranks are found in sub-pillars General infrastructure, Ecological sustainability, Knowledge absorption, Knowledge diffusion, and Creative goods and services where the country ranks in the top 60 worldwide.

OVERVIEW OF SRI LANKA'S RANKINGS IN THE 7 GII AREAS

Sri Lanka performs the best in Infrastructure and its weakest performance is in Human capital & research.



*The highest possible ranking in each pillar is 1.

SRI LANKA'S INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of Sri Lanka's strengths and weaknesses in the GII 2019.

Strengths		
Code	Indicator name	Rank
3.2	General infrastructure	43
3.2.3	Gross capital formation, % GDP	10
3.3	Ecological sustainability	12
3.3.1	GDP/unit of energy use	5
4.1.3	Microfinance gross loans, % GDP	33
4.2.1	Ease of protecting minority investors*	35
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP	20
5.3	Knowledge absorption	47
5.3.3	ICT services imports, % total trade	27
6.2.1	Growth rate of PPP\$ GDP/worker, %, 3-year average	40
6.2.3	Computer software spending, % GDP	32
6.3	Knowledge diffusion	46
6.3.3	ICT services exports, % total trade	16
7.2.4	Printing & other media, % manufacturing	17

Weaknesses		
Code	Indicator name	Rank
1.2	Regulatory environment	127
1.2.3	Cost of redundancy dismissal, salary weeks	126
2	Human capital & research	111
2.1.1	Expenditure on education, % GDP	107
2.1.2	Government funding/pupil, secondary, % GDP/cap	96
2.2	Tertiary education	113
2.2.3	Tertiary inbound mobility, %	96
2.3.2	Gross expenditure on R&D, % GDP	105
2.3.3	Global R&D companies, top 3, in mn US\$	43
4.1	Credit	113
4.1.1	Ease of getting credit*	104
5.1.2	Firms offering formal training, % firms	78
5.2.3	GERD financed by abroad, %	87
6.1.4	Scientific & technical articles/bn PPP\$ GDP	111

STRENGTHS

- GII strengths for Sri Lanka are found in five of the seven GII pillars.
- In Infrastructure (57), Sri Lanka's strengths are sub-pillars General infrastructure (43) and Ecological sustainability (12) and their indicators Gross capital formation (10) and GDP per unit of energy use (5).
- In Market sophistication (108), indicators Microfinance gross loans (33) and Ease of protecting minority investors (35) are GII strengths for the country.
- In Business sophistication (77), strengths are found in sub-pillar Knowledge absorption (47) as well as in two indicators: Joint Ventures - strategic alliance deals (20) and ICT services imports (27).
- In Knowledge & technology outputs (73), Sri Lanka presents four relative strengths: sub-pillar Knowledge diffusion (46) and indicators labor productivity growth (40), Computer software spending (32), and ICT services exports (16).
- In Creative outputs (87), Sri Lanka's only GII strength is indicator Printing & other media (17).

WEAKNESSES

- Sri Lanka's weaknesses in the GII are found in five of the seven GII pillars.
- Pillar Human capital & research (111) is a notable weakness of Sri Lanka. Several of the country's relative weaknesses are found in this area.
- In Human capital & research (111), GII weaknesses are sub-pillar Tertiary education (113) and five indicators: Expenditure on education (107), Government funding per pupil (96), Tertiary inbound mobility (96), Gross expenditure on R&D (105), and Global R&D companies (43).
- In Institutions (107), Sri Lanka's weaknesses are sub-pillar Regulatory environment (127) and one of its indicators, Cost of redundancy dismissal (126).
- In Market sophistication (108), sub-pillar Credit (113) and one of its indicators - Ease of getting credit (104) – are GII weaknesses of this country.
- In Business sophistication (77), relative weaknesses are found in two indicators: Firms offering formal training (78) and R&D financed by abroad (87).
- On the innovation output side of the GII, Sri Lanka presents only one weakness in indicator Scientific & technical article (111) in Knowledge & technology outputs (73).

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
77	94	Lower middle	CSA	21.0	292.8	13,397.5	88
				Score/Value	Rank		
INSTITUTIONS.....				50.7	107		
1.1	Political environment.....		52.6	72			
1.1.1	Political and operational stability*.....		71.9	58	◆		
1.1.2	Government effectiveness*.....		42.9	80			
1.2	Regulatory environment.....		33.1	127	○ ◇		
1.2.1	Regulatory quality*.....		38.4	78			
1.2.2	Rule of law*.....		47.8	60	◆		
1.2.3	Cost of redundancy dismissal, salary weeks.....		58.5	126	○ ◇		
1.3	Business environment.....		66.5	77			
1.3.1	Ease of starting a business*.....		87.9	67			
1.3.2	Ease of resolving insolvency*.....		45.1	82			
HUMAN CAPITAL & RESEARCH.....				14.0	111	○	
2.1	Education.....		32.3	103			
2.1.1	Expenditure on education, % GDP.....		2.8	107	○		
2.1.2	Government funding/pupil, secondary, % GDP/cap... ..		10.4	96	○		
2.1.3	School life expectancy, years.....		14.0	70			
2.1.4	PISA scales in reading, maths, & science.....		n/a	n/a			
2.1.5	Pupil-teacher ratio, secondary.....		17.4	78			
2.2	Tertiary education.....		8.0	113	○ ◇		
2.2.1	Tertiary enrolment, % gross.....		19.0	96			
2.2.2	Graduates in science & engineering, %.....		n/a	n/a			
2.2.3	Tertiary inbound mobility, %.....		0.5	96	○		
2.3	Research & development (R&D).....		1.6	95			
2.3.1	Researchers, FTE/mn pop.Ⓞ.....		107.0	85			
2.3.2	Gross expenditure on R&D, % GDP.Ⓞ.....		0.1	105	○		
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$.....		0.0	43	○ ◇		
2.3.4	QS university ranking, average score top 3*.....		3.2	75			
INFRASTRUCTURE.....				48.5	57	◆	
3.1	Information & communication technologies (ICTs).....		50.3	94			
3.1.1	ICT access*.....		49.7	88			
3.1.2	ICT use*.....		22.1	103			
3.1.3	Government's online service*.....		66.7	75			
3.1.4	E-participation*.....		62.9	82			
3.2	General infrastructure.....		40.5	43	◆ ◆		
3.2.1	Electricity output, kWh/mn pop.....		673.8	102			
3.2.2	Logistics performance*.....		25.0	89			
3.2.3	Gross capital formation, % GDP.....		36.8	10	◆ ◆		
3.3	Ecological sustainability.....		54.7	12	◆ ◆		
3.3.1	GDP/unit of energy use.....		20.4	5	◆ ◆		
3.3.2	Environmental performance*.....		60.6	63	◆		
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP..		0.8	73			
MARKET SOPHISTICATION.....				38.7	108		
4.1	Credit.....		22.5	113	○		
4.1.1	Ease of getting credit*.....		40.0	104	○ ◇		
4.1.2	Domestic credit to private sector, % GDP.Ⓞ.....		45.7	74			
4.1.3	Microfinance gross loans, % GDP.....		0.4	33	●		
4.2	Investment.....		36.5	95			
4.2.1	Ease of protecting minority investors*.....		66.7	35	●		
4.2.2	Market capitalization, % GDP.....		23.5	55			
4.2.3	Venture capital deals/bn PPP\$ GDP.....		0.0	45			
4.3	Trade, competition, & market scale.....		57.0	80			
4.3.1	Applied tariff rate, weighted avg., %.....		8.7	107			
4.3.2	Intensity of local competition*.....		65.3	80			
4.3.3	Domestic market scale, bn PPP\$.....		292.8	57			
BUSINESS SOPHISTICATION.....				28.5	77		
5.1	Knowledge workers.....		26.2	95			
5.1.1	Knowledge-intensive employment, %.....		20.4	73			
5.1.2	Firms offering formal training, % firms.Ⓞ.....		18.4	78	○ ◇		
5.1.3	GERD performed by business, % GDP.Ⓞ.....		0.0	74			
5.1.4	GERD financed by business, % GDP.Ⓞ.....		34.4	55			
5.1.5	Females employed w/advanced degrees, %.....		9.6	67			
5.2	Innovation linkages.....		21.8	73			
5.2.1	University/industry research collaboration*.....		37.9	82			
5.2.2	State of cluster development*.....		47.1	58			
5.2.3	GERD financed by abroad, % GDP.Ⓞ.....		1.5	87	○		
5.2.4	JV-strategic alliance deals/bn PPP\$ GDP.....		0.1	20	◆ ◆		
5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....		0.0	73			
5.3	Knowledge absorption.....		37.4	47	●		
5.3.1	Intellectual property payments, % total trade.....		n/a	n/a			
5.3.2	High-tech imports, % total trade.....		7.6	61			
5.3.3	ICT services imports, % total trade.....		2.0	27	◆ ◆		
5.3.4	FDI net inflows, % GDP.....		1.2	103			
5.3.5	Research talent, % in business enterprise.Ⓞ.....		22.5	52			
KNOWLEDGE & TECHNOLOGY OUTPUTS.....				19.9	73		
6.1	Knowledge creation.....		5.9	92			
6.1.1	Patents by origin/bn PPP\$ GDP.....		1.0	61			
6.1.2	PCT patents by origin/bn PPP\$ GDP.....		0.1	72			
6.1.3	Utility models by origin/bn PPP\$ GDP.....		n/a	n/a			
6.1.4	Scientific & technical articles/bn PPP\$ GDP.....		2.2	111	○		
6.1.5	Citable documents H-index.....		8.7	75			
6.2	Knowledge impact.....		32.0	85			
6.2.1	Growth rate of PPP\$ GDP/worker, %.....		2.2	40	●		
6.2.2	New businesses/th pop. 15-64.Ⓞ.....		0.5	87			
6.2.3	Computer software spending, % GDP.....		0.3	32	◆ ◆		
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....		2.4	83			
6.2.5	High- & medium-high-tech manufactures, %.....		0.1	87			
6.3	Knowledge diffusion.....		21.6	46	●		
6.3.1	Intellectual property receipts, % total trade.....		n/a	n/a			
6.3.2	High-tech net exports, % total trade.....		0.2	92			
6.3.3	ICT services exports, % total trade.....		4.2	16	●		
6.3.4	FDI net outflows, % GDP.....		0.1	95			
CREATIVE OUTPUTS.....				21.8	87		
7.1	Intangible assets.....		33.5	99			
7.1.1	Trademarks by origin/bn PPP\$ GDP.Ⓞ.....		26.3	78			
7.1.2	Industrial designs by origin/bn PPP\$ GDP.....		1.0	66			
7.1.3	ICTs & business model creation*.....		56.9	81			
7.1.4	ICTs & organizational model creation*.....		47.5	90			
7.2	Creative goods & services.....		18.8	[58]			
7.2.1	Cultural & creative services exports, % total trade.....		n/a	n/a			
7.2.2	National feature films/mn pop. 15-69.Ⓞ.....		1.0	82			
7.2.3	Entertainment & Media market/th pop. 15-69.....		n/a	n/a			
7.2.4	Printing & other media, % manufacturing.Ⓞ.....		2.1	17	●		
7.2.5	Creative goods exports, % total trade.....		0.4	64			
7.3	Online creativity.....		1.5	94			
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69.....		0.8	100			
7.3.2	Country-code TLDs/th pop. 15-69.....		0.6	89			
7.3.3	Wikipedia edits/mn pop. 15-69.Ⓞ.....		6.2	72			
7.3.4	Mobile app creation/bn PPP\$ GDP.....		0.5	69			

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 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.

DATA AVAILABILITY

The following tables list data that are missing or are outdated for Sri Lanka.

Missing data

Code	Indicator name	Country year	Model year	Source
2.1.4	PISA scales in reading, maths & science	n/a	2015	OECD Programme for International Student Assessment (PISA)
2.2.2	Graduates in science & engineering, %	n/a	2016	UNESCO Institute for Statistics
5.3.1	Intellectual property payments, % total trade	n/a	2017	World Trade Organization
6.1.3	Utility models by origin/bn PPP\$ GDP	n/a	2017	World Intellectual Property Organization
6.3.1	Intellectual property receipts, % total trade	n/a	2017	World Trade Organization
7.2.1	Cultural & creative services exports, % total trade	n/a	2017	World Trade Organization
7.2.3	Entertainment & Media market/th pop. 15–69	n/a	2017	PwC

Outdated data

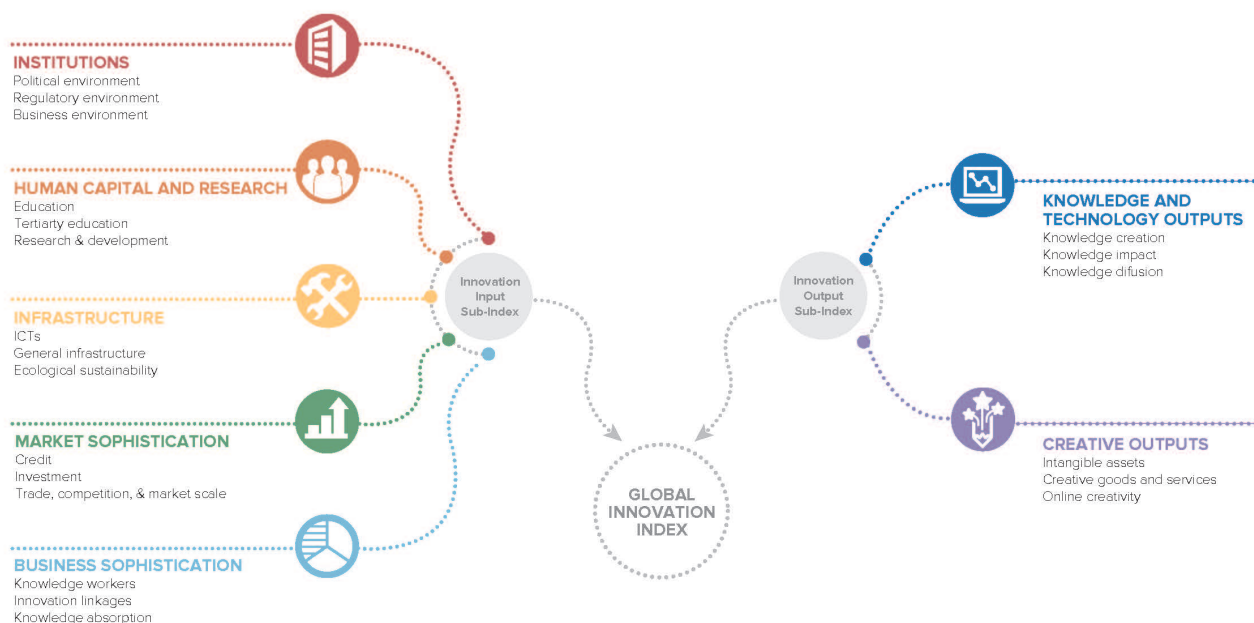
Code	Indicator name	Country year	Model year	Source
2.3.1	Researchers, FTE/mn pop.	2015	2017	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	2015	2017	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
4.1.2	Domestic credit to private sector, % GDP	2016	2017	International Monetary Fund
5.1.2	Firms offering formal training, % firms	2011	2013	World Bank
5.1.3	GERD performed by business, % GDP	2015	2017	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.1.4	GERD financed by business, %	2015	2016	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.2.3	GERD financed by abroad, %	2015	2016	UNESCO Institute for Statistics
5.3.5	Research talent, % in business enterprise	2015	2017	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
6.2.2	New businesses/th pop. 15–64	2012	2016	World Bank
6.2.5	High- & medium-high-tech manufactures, %	2015	2016	United Nations Industrial Development Organization
7.1.1	Trademarks by origin/bn PPP\$ GDP	2016	2017	World Intellectual Property Organization
7.2.2	National feature films/mn pop. 15–69	2013	2017	UNESCO Institute for Statistics
7.2.4	Printing & other media, % manufacturing	2015	2016	United Nations Industrial Development Organization
7.3.3	Wikipedia edits/mn pop. 15–69	2014	2017	Wikimedia Foundation

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 2019, the GII presents its 12th edition devoted to the theme **Creating Healthy Lives—The Future of Medical Innovation**.

Recognizing that innovation is a key driver of economic development, the GII aims to provide a rich innovation ranking and 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 countries that incorporate the GII into their innovation agendas.

Framework of the Global Innovation Index 2019



The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that includes 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 containing three sub-pillars.

