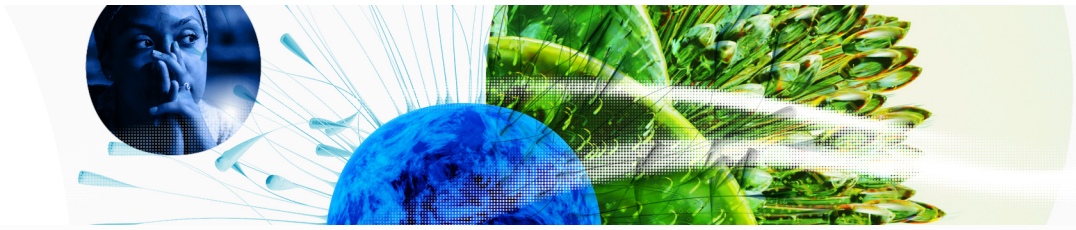
Global Innovation Index 2023



The Global Innovation Index (GII) **ranks world economies according to their innovation capabilities.**

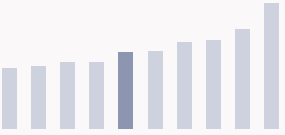
Consisting of **roughly 80 indicators**, grouped into innovation inputs and outputs, the GII **aims to capture the multi-dimensional facets of innovation**.

Sri Lanka ranking in the Global Innovation Index 2023

> Sri Lanka ranks 90th among the 132 economies featured in the GII 2023.

> Sri Lanka ranks 13th among the 37 lower-middle-income group economies.

> Sri Lanka ranks 6th among the 10 economies in Central and Southern Asia.



> Sri Lanka GII Ranking (2020-2023)

The table shows the rankings of Sri Lanka 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 Sri Lanka in the GII 2023 is between ranks 85 and 98.

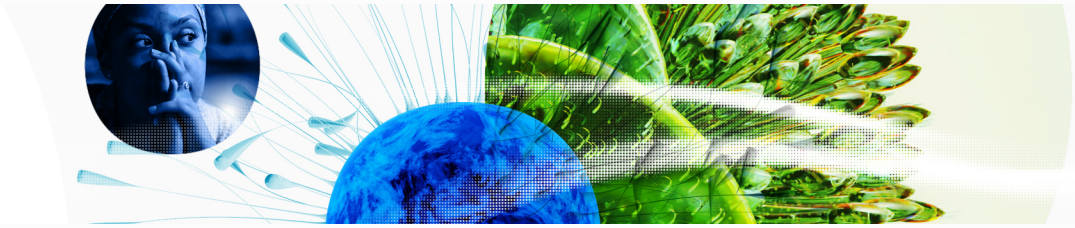
	GII Position	Innovation Inputs	Innovation Outputs
2020	101st	107th	83rd
2021	95th	103rd	85th
2022	85th	102nd	68th
2023	90th	103rd	79th

Sri Lanka performs better in innovation outputs than innovation inputs in 2023.

This year Sri Lanka ranks 103rd in innovation inputs. This position is lower than last year.

Sri Lanka ranks 79th in innovation outputs. This position is lower than last year.

Global Innovation Index 2023

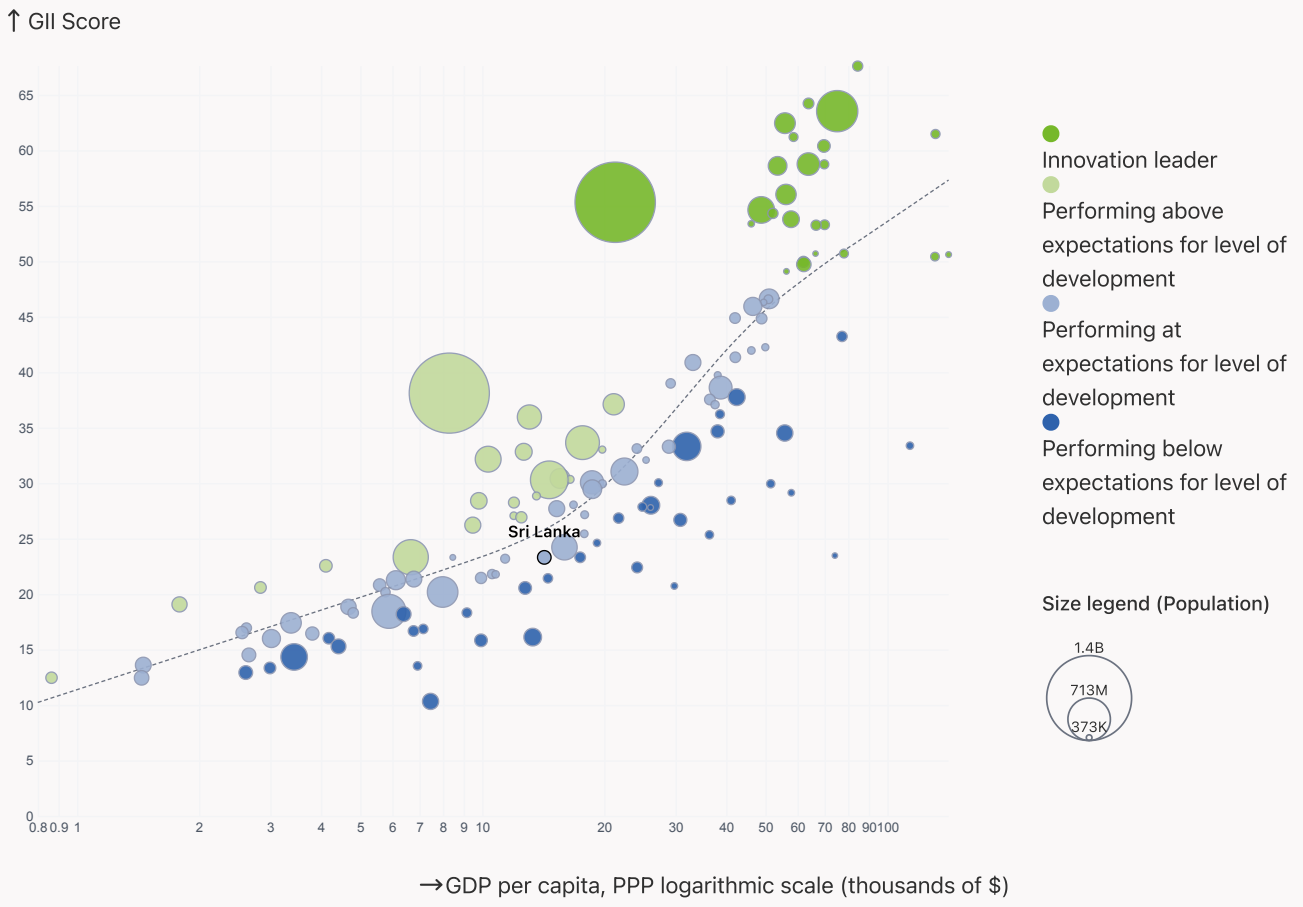


→ Expected vs. observed innovation performance

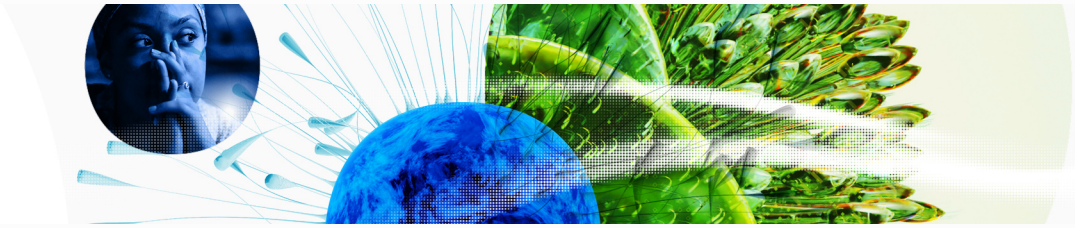
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are performing below expectations.

> Relative to GDP, Sri Lanka's performance is at expectations for its level of development.

> Innovation overperformers relative to their economic development



Global Innovation Index 2023

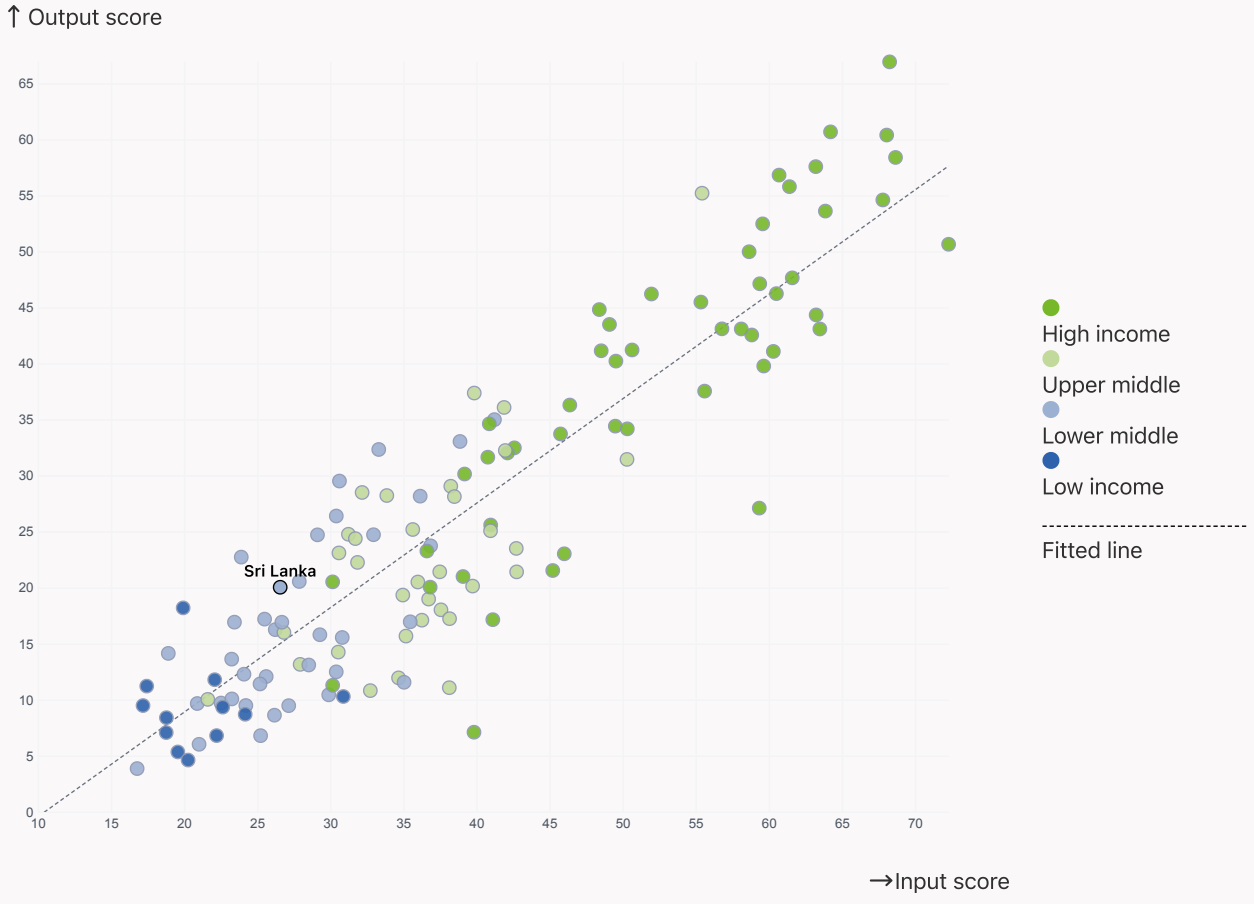


→ Effectively translating innovation investments into innovation outputs

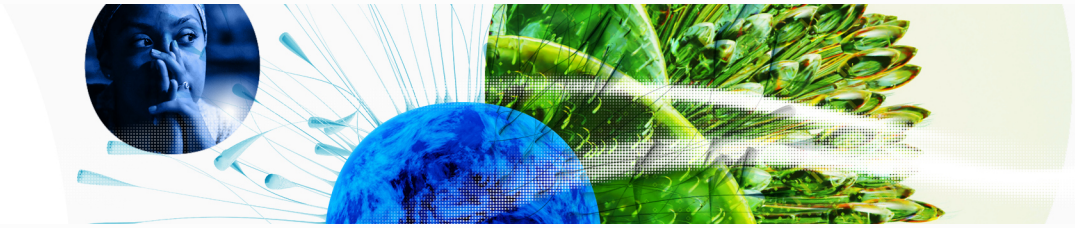
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

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

> Relationship between innovation inputs and outputs

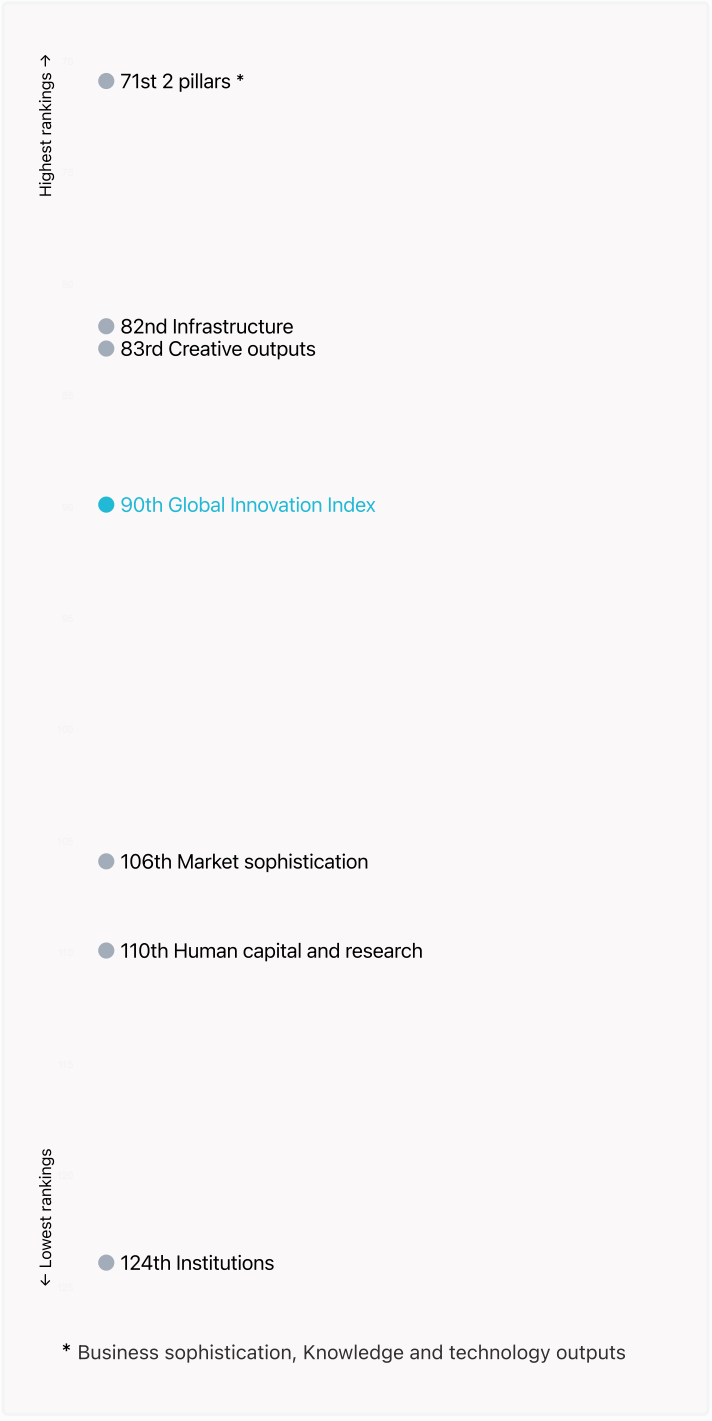


Global Innovation Index 2023



→ Overview of Sri Lanka's rankings in the seven areas of the GII in 2023

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



> Highest rankings

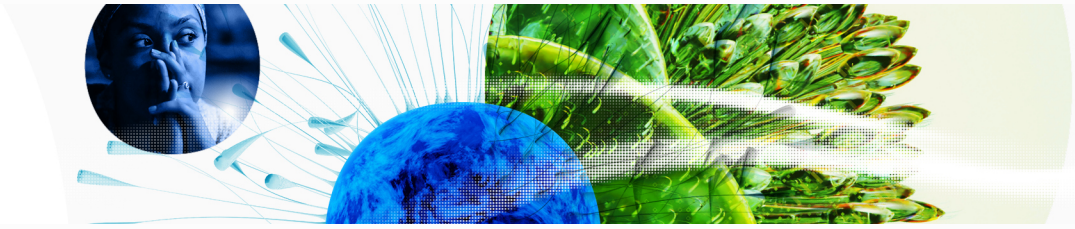
Sri Lanka ranks highest in Business sophistication, Knowledge and technology outputs (71st), Infrastructure (82nd) and Creative outputs (83rd).

> Lowest rankings

Sri Lanka ranks lowest in Institutions (124th), Human capital and research (110th) and Market sophistication (106th).

The full WIPO Intellectual Property Statistics profile for Sri Lanka can be found on this link.

Global Innovation Index 2023



→ Benchmark of Sri Lanka against other country groupings for each of the seven areas of the GII Index

The charts shows the relative position of Sri Lanka (blue bar) against other country groupings (grey bars), for each of the seven areas of the GII Index.

> Lower-Middle-Income economies

Sri Lanka performs below the lower-middle-income group average in Market sophistication, Human capital and research, Institutions.

> Central And Southern Asia

Sri Lanka performs below the regional average in Market sophistication, Human capital and research, Institutions.

Knowledge and technology outputs

- Top 10 | Score: 58.96
- Sri Lanka | Score: 21.48
- Central and Southern Asia | Score: 20.48
- Lower middle income | Score: 17.21

Creative outputs

- Top 10 | 56.09
- Sri Lanka | 18.57
- Central and Southern Asia | 17.93
- Lower middle income | 16.35

Business sophistication

- Top 10 | 64.39
- Sri Lanka | 26.87
- Central and Southern Asia | 22.96
- Lower middle income | 22.71

Market sophistication

- Top 10 | 61.93
- Central and Southern Asia | 33.20
- Lower middle income | 28.01
- Sri Lanka | 22.43

Human capital and research

- Top 10 | 60.28
- Central and Southern Asia | 23.87
- Lower middle income | 21.73
- Sri Lanka | 17.28

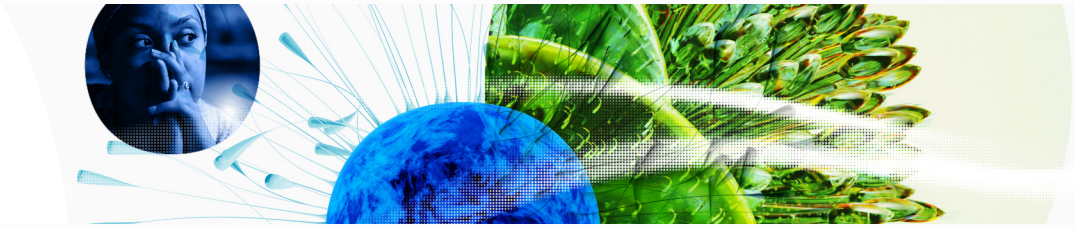
Infrastructure

- Top 10 | 62.83
- Sri Lanka | 35.52
- Central and Southern Asia | 30.45
- Lower middle income | 27.83

Institutions

- Top 10 | 79.85
- Lower middle income | 39.43
- Central and Southern Asia | 38.68
- Sri Lanka | 30.81

Global Innovation Index 2023



→ Innovation strengths and weaknesses in Sri Lanka

The table below gives an overview of the indicator strengths and weaknesses of Sri Lanka in the GII 2023.

> Sri Lanka's main innovation strengths are **GDP/unit of energy use** (rank 6), **ICT services exports, % total trade** (rank 14) and **Software spending, % GDP** (rank 20).

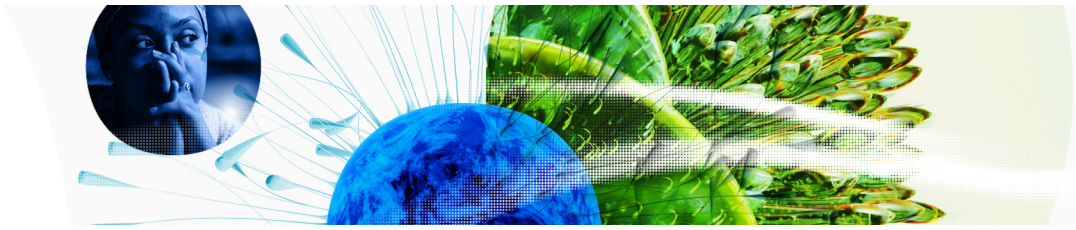
Strengths

Rank	Code	Indicator name
6	3.3.1	GDP/unit of energy use
14	6.3.4	ICT services exports, % total trade
20	6.2.3	Software spending, % GDP
24	5.3.2	High-tech imports, % total trade
40	5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP
42	5.1.4	GERD financed by business, %
46	5.2.2	State of cluster development
49	5.2.1	University-industry R&D collaboration
51	7.3.3	GitHub commits/mn pop. 15-69
56	7.2.4	Creative goods exports, % total trade

Weaknesses

Rank	Code	Indicator name
130	1.2.3	Cost of redundancy dismissal
120	2.1.1	Expenditure on education, % GDP
105	2.2.3	Tertiary inbound mobility, %
97	2.1.2	Government funding/pupil, secondary, % GDP/cap
97	4.2.4	VC received, value, % GDP
92	4.2.2	Venture capital (VC) investors, deals/bn PPP$ GDP
74	7.1.3	Global brand value, top 5,000
71	2.3.4	QS university ranking, top 3
48	6.2.2	Unicorn valuation, % GDP
40	2.3.3	Global corporate R&D investors, top 3, mn US$

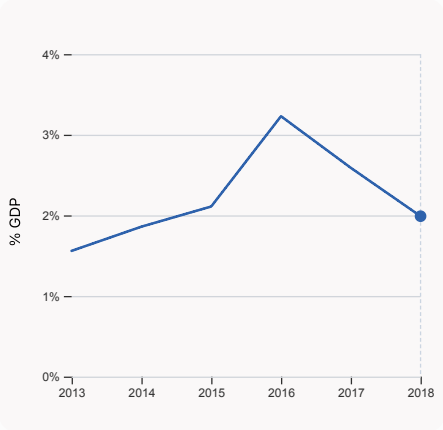
Global Innovation Index 2023



→ Sri Lanka's innovation system

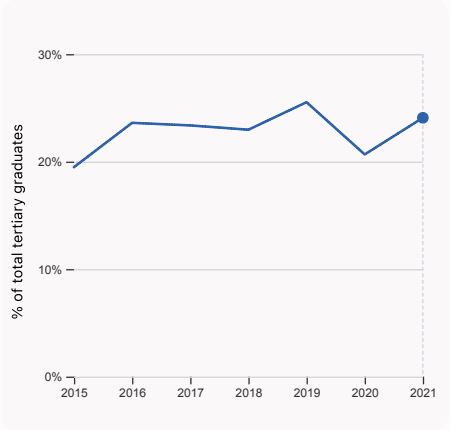
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Sri Lanka



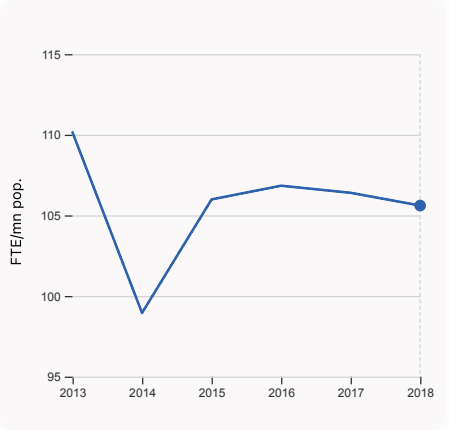
2.1.1 Expenditure on education, % GDP

was equal to 1.99% GDP in 2018, down by 0.6 percentage points from the year prior – and equivalent to an indicator rank of 120.



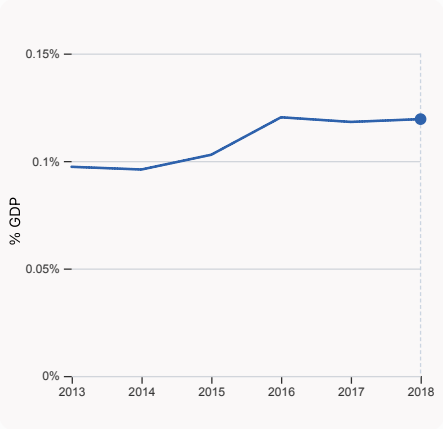
2.2.2 Graduates in science and engineering, %

was equal to 24.08% of total tertiary graduates in 2021, up by 3.41 percentage points from the year prior – and equivalent to an indicator rank of 48.



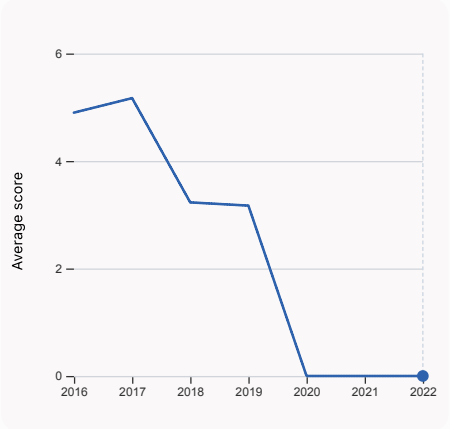
2.3.1 Researchers, FTE/mn pop.

was equal to 105.61 FTE/mn pop. in 2018, down by 0.74% from the year prior – and equivalent to an indicator rank of 89.



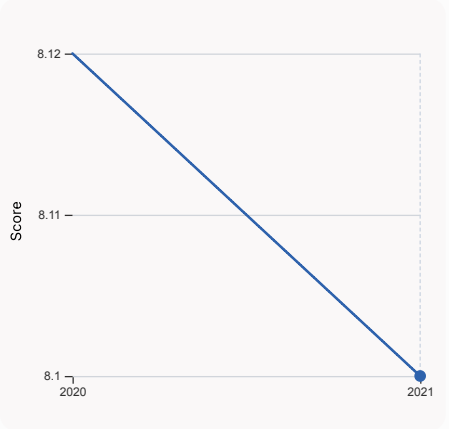
2.3.2 Gross expenditure on R&D, % GDP

was equal to 0.119% GDP in 2018, up by 0.0013 percentage points from the year prior – and equivalent to an indicator rank of 101.



2.3.4 QS university ranking, top 3

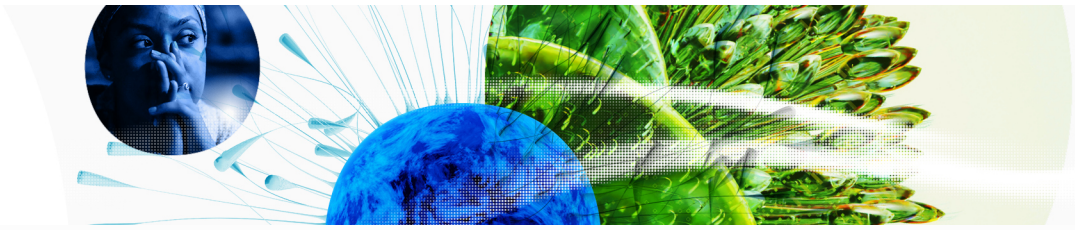
was equal to an average score of 0 for the top 3 universities in 2022, equivalent to an indicator rank of 71.

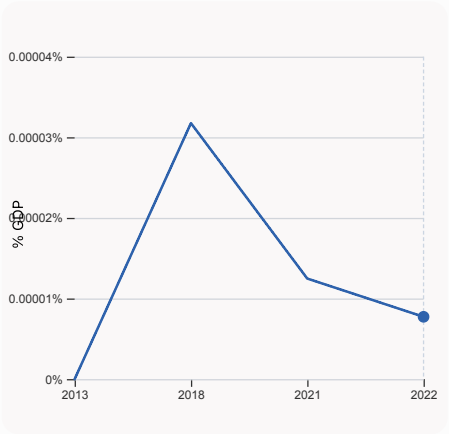


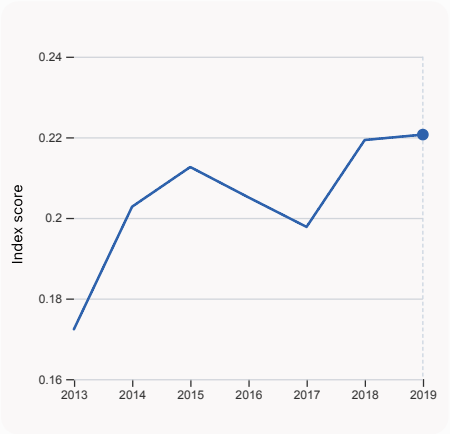
3.1.1 ICT access

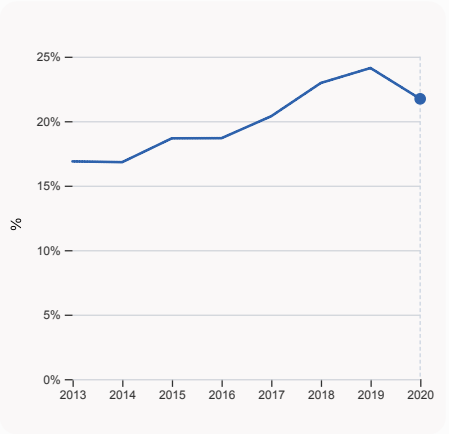
was equal to a score of 8.1 in 2021, down by 0.25% from the year prior – and equivalent to an indicator rank of 88.

Global Innovation Index 2023









4.2.4 VC received, value, % GDP

was equal to 0.00001% GDP in 2022, down by 0.0000047 percentage points from the year prior – and equivalent to an indicator rank of 97.

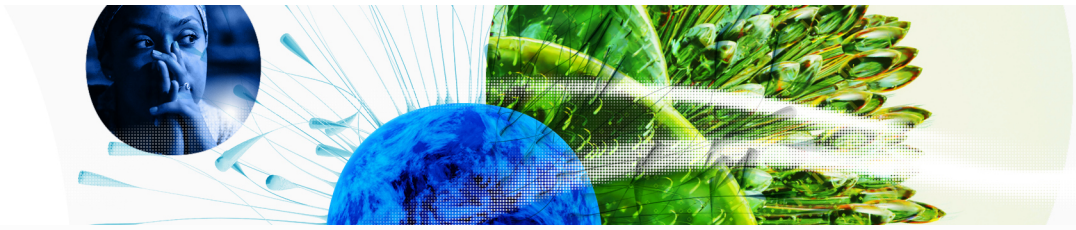
4.3.2 Domestic industry diversification

was equal to an index score of 0.221 in 2019, up by 0.61% from the year prior – and equivalent to an indicator rank of 74.

5.1.1 Knowledge-intensive employment, %

was equal to 21.73% in 2020, down by 2.39 percentage points from the year prior – and equivalent to an indicator rank of 70.

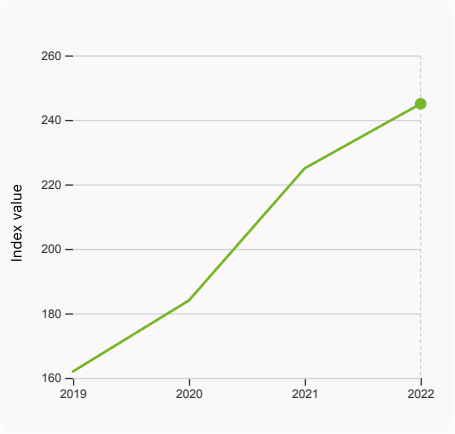
Global Innovation Index 2023



> Innovation outputs in Sri Lanka

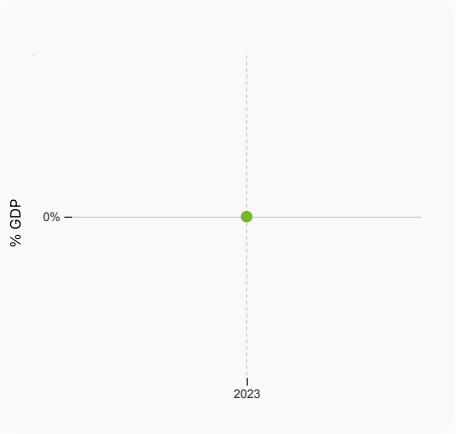
6.1.1 Patents by origin

was equal to 0.27 Thousands in 2021, down by 24.65% from the year prior – and equivalent to an indicator rank of 66.



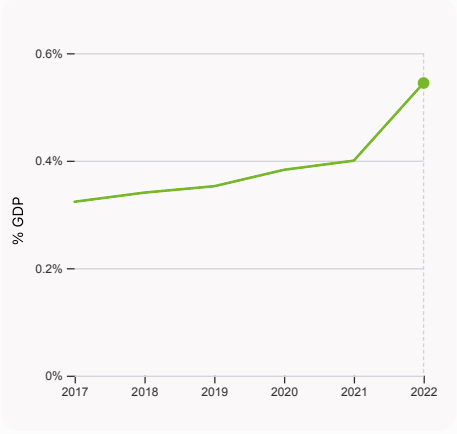
6.1.5 Citable documents H-index

was equal to an index value of 245 in 2022, up by 8.89% from the year prior – and equivalent to an indicator rank of 70.



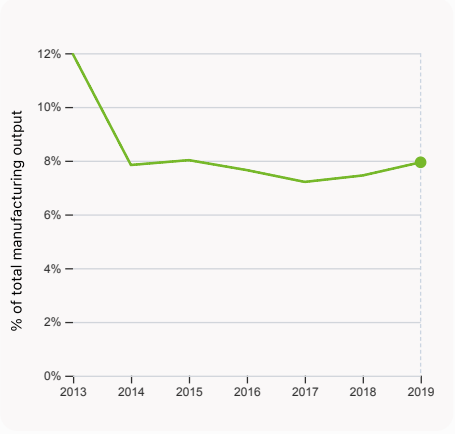
6.2.2 Unicorn valuation, % GDP

was equal to 0 % GDP in 2023 – and equivalent to an indicator rank of 48.



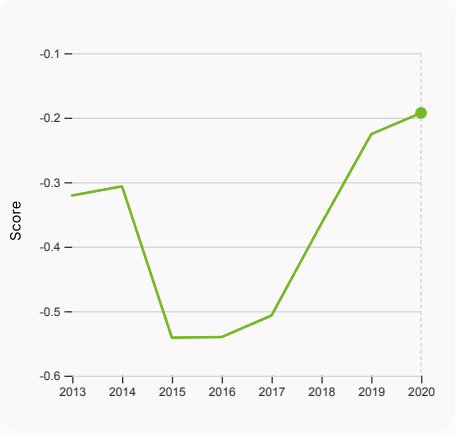
6.2.3 Software spending, % GDP

was equal to 0.545% GDP in 2022, up by 0.14 percentage points from the year prior – and equivalent to an indicator rank of 20.



6.2.4 High-tech manufacturing, %

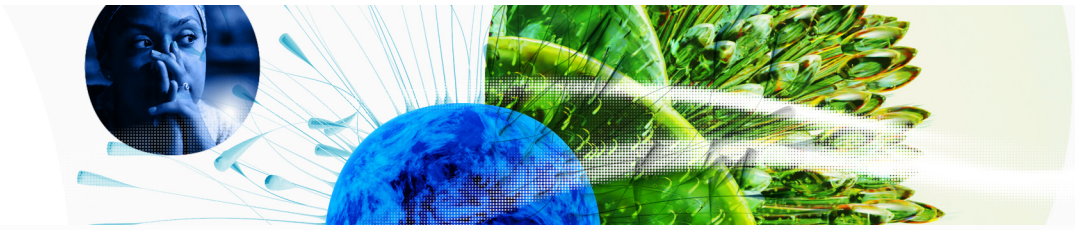
was equal to 7.94% of total manufacturing output in 2019, up by 0.49 percentage points from the year prior – and equivalent to an indicator rank of 95.

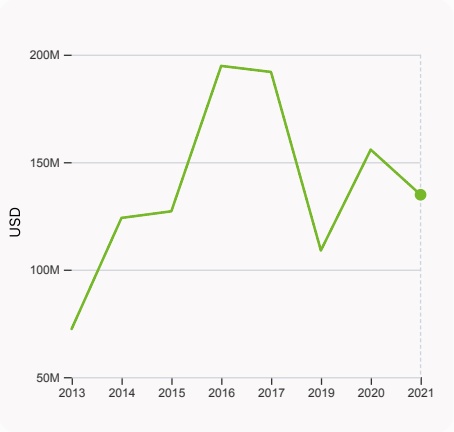


6.3.2 Production and export complexity

was equal to a score of -0.193 in 2020, up by 14.61% from the year prior – and equivalent to an indicator rank of 71.

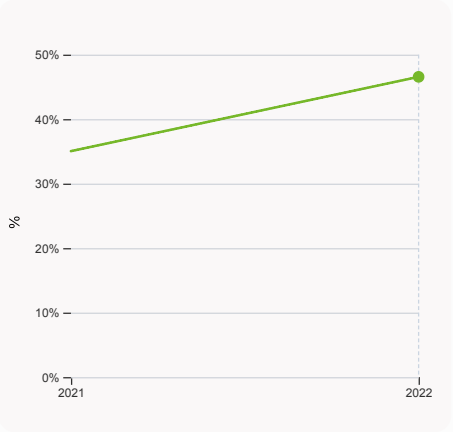
Global Innovation Index 2023





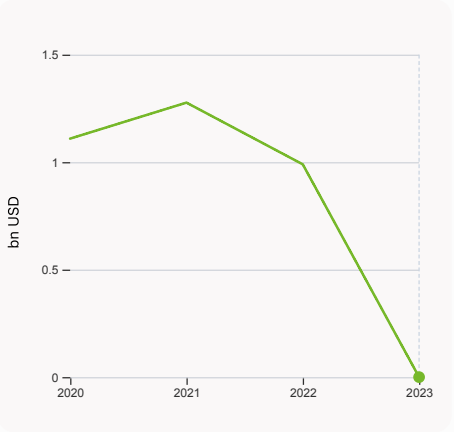
6.3.3 High-tech exports

was equal to 134,829,511 USD in 2021, down by 13.47% from the year prior – and equivalent to an indicator rank of 78.



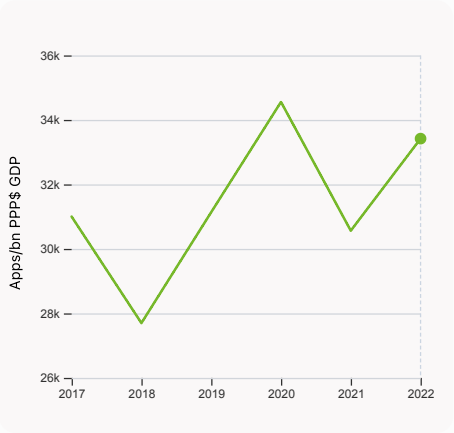
7.1.1 Intangible asset intensity, top 15, %

was equal to 46.56% in 2022, up by 11.52 percentage points from the year prior – and equivalent to an indicator rank of 54.



7.1.3 Global brand value, top 5,000

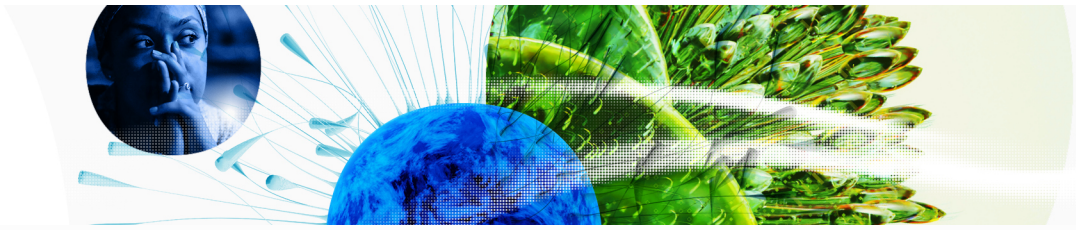
was equal to 0 bn USD in 2023, down by 100% from the year prior – and equivalent to an indicator rank of 74.



7.3.4 Mobile app creation/bn PPP$ GDP

was equal to 33,419.7 Apps/bn PPP$ GDP in 2022, up by 9.34% from the year prior – and equivalent to an indicator rank of 89.

Global Innovation Index 2023



→ Sri Lanka's innovation top performers

> 2.3.4 QS university ranking of Sri Lanka’s top universities

Rank	University	Score
1001-1200	UNIVERSITY OF PERADENIYA	7.90
1201-1400	UNIVERSITY OF COLOMBO	6.40

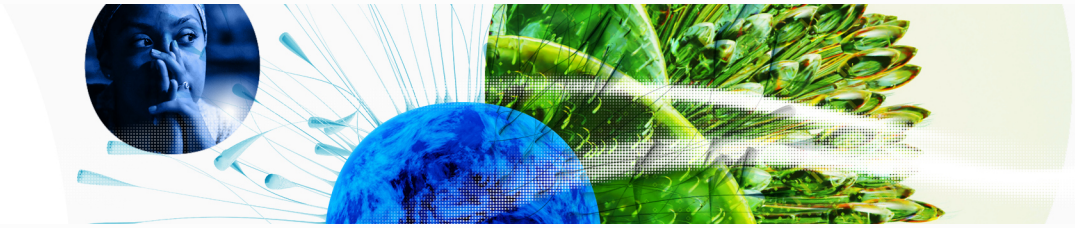
Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings/2023).
Note: QS Quacquarelli Symonds Ltd annually assesses over 1,200 universities across the globe and scores them between [0,100]. Ranks can represent a single value "x", a tie "x=" or a range "x-y".

> 7.1.1 Top 15 intangible-asset intensive companies in Sri Lanka

Rank	Firm	Intensity, %
1	LANKA IOC PLC	43.89
2	SOFTLOGIC HOLDINGS PLC	30.55
3	RICHARD PIERIS & CO PLC	31.98

Source: Brand Finance (https://brandirectory.com/reports/gift-2022).
Note: Brand Finance only provides within economy ranks.

Global Innovation Index 2023



Sri Lanka

GII 2023 rank **90**

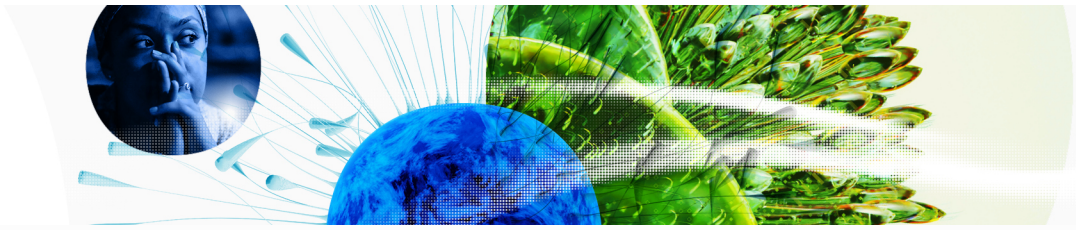
Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
79	103	Lower middle	CSA	21.8	318.7	14,230.1

	Score / Value	Rank	
Institutions	**30.8**	**124**	
1.1 Institutional environment	**34.9**	**92**	
1.1.1 Operational stability for businesses*	35.4	110	
1.1.2 Government effectiveness*	34.5	75	
1.2 Regulatory environment	**18.3**	**131**	◇
1.2.1 Regulatory quality*	32.5	92	
1.2.2 Rule of law*	40.8	61	
1.2.3 Cost of redundancy dismissal	58.5	130	○ ◇
1.3 Business environment	**39.2**	**89**	
1.3.1 Policies for doing business†	39.2	86	
1.3.2 Entrepreneurship policies and culture†	n/a	n/a	
Human capital and research	**17.3**	**110**	
2.1 Education	**32.2**	**116**	
2.1.1 Expenditure on education, % GDP	2.0	120	○ ◇
2.1.2 Government funding/pupil, secondary, % GDP/cap	6.3	97	○ ◇
2.1.3 School life expectancy, years	14.1	71	
2.1.4 PISA scales in reading, maths and science	n/a	n/a	
2.1.5 Pupil-teacher ratio, secondary	17.7	89	
2.2 Tertiary education	**18.9**	**93**	
2.2.1 Tertiary enrolment, % gross	22.2	97	
2.2.2 Graduates in science and engineering, %	24.1	48	
2.2.3 Tertiary inbound mobility, %	0.4	105	○
2.3 Research and development (R&D)	**0.7**	**105**	
2.3.1 Researchers, FTE/mn pop.	105.6	89	
2.3.2 Gross expenditure on R&D, % GDP	0.1	101	
2.3.3 Global corporate R&D investors, top 3, mn US$	0.0	40	○ ◇
2.3.4 QS university ranking, top 3*	0.0	71	○ ◇
Infrastructure	**35.5**	**82**	
3.1 Information and communication technologies (ICTs)	**55.7**	**89**	
3.1.1 ICT access*	71.4	88	
3.1.2 ICT use*	65.7	83	
3.1.3 Government's online service*	51.9	89	
3.1.4 E-participation*	33.7	97	
3.2 General infrastructure	**18.8**	**96**	
3.2.1 Electricity output, GWh/mn pop.	710.8	104	
3.2.2 Logistics performance*	31.8	71	
3.2.3 Gross capital formation, % GDP	24.7	58	
3.3 Ecological sustainability	**32.1**	**46**	
3.3.1 GDP/unit of energy use	23.6	6	●
3.3.2 Environmental performance*	26.8	94	
3.3.3 ISO 14001 environment/bn PPP$ GDP	0.9	66	
Market sophistication	**22.4**	**106**	
4.1 Credit	**16.4**	**98**	
4.1.1 Finance for startups and scaleups†	n/a	n/a	
4.1.2 Domestic credit to private sector, % GDP	47.0	76	
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a	
4.2 Investment	**2.0**	**102**	
4.2.1 Market capitalization, % GDP	17.6	63	
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	0.0	92	○ ◇
4.2.3 VC recipients, deals/bn PPP$ GDP	0.0	94	
4.2.4 VC received, value, % GDP	0.0	97	○
4.3 Trade, diversification, and market scale	**48.8**	**89**	
4.3.1 Applied tariff rate, weighted avg., %	6.3	100	
4.3.2 Domestic industry diversification	80.4	74	
4.3.3 Domestic market scale, bn PPP$	318.7	58	

	Score / Value	Rank	
Business sophistication	**26.9**	**71**	
5.1 Knowledge workers	**23.4**	**86**	
5.1.1 Knowledge-intensive employment, %	21.7	70	
5.1.2 Firms offering formal training, %	n/a	n/a	
5.1.3 GERD performed by business, % GDP	0.1	71	
5.1.4 GERD financed by business, %	40.3	42	●
5.1.5 Females employed w/advanced degrees, %	3.7	99	
5.2 Innovation linkages	**23.3**	**61**	
5.2.1 University-industry R&D collaboration†	52.9	49	●
5.2.2 State of cluster development†	49.5	46	●
5.2.3 GERD financed by abroad, % GDP	0.0	75	
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.0	40	●
5.2.5 Patent families/bn PPP$ GDP	0.0	77	
5.3 Knowledge absorption	**34.0**	**62**	
5.3.1 Intellectual property payments, % total trade	n/a	n/a	
5.3.2 High-tech imports, % total trade	11.3	24	●
5.3.3 ICT services imports, % total trade	0.9	91	
5.3.4 FDI net inflows, % GDP	0.7	107	
5.3.5 Research talent, % in businesses	20.0	53	
Knowledge and technology outputs	**21.5**	**71**	
6.1 Knowledge creation	**8.7**	**88**	
6.1.1 Patents by origin/bn PPP$ GDP	0.8	66	
6.1.2 PCT patents by origin/bn PPP$ GDP	0.1	71	
6.1.3 Utility models by origin/bn PPP$ GDP	n/a	n/a	
6.1.4 Scientific and technical articles/bn PPP$ GDP	n/a	n/a	
6.1.5 Citable documents H-index	11.2	70	
6.2 Knowledge impact	**24.7**	**75**	
6.2.1 Labor productivity growth, %	-0.6	112	
6.2.2 Unicorn valuation, % GDP	0.0	48	○ ◇
6.2.3 Software spending, % GDP	0.5	20	●
6.2.4 High-tech manufacturing, %	7.9	95	
6.3 Knowledge diffusion	**31.1**	**53**	
6.3.1 Intellectual property receipts, % total trade	n/a	n/a	
6.3.2 Production and export complexity	48.5	71	
6.3.3 High-tech exports, % total trade	0.7	78	
6.3.4 ICT services exports, % total trade	6.6	14	●
6.3.5 ISO 9001 quality/bn PPP$ GDP	4.1	62	
Creative outputs	**18.6**	**83**	
7.1 Intangible assets	**24.4**	**79**	
7.1.1 Intangible asset intensity, top 15, %	46.6	54	
7.1.2 Trademarks by origin/bn PPP$ GDP	19.4	94	
7.1.3 Global brand value, top 5,000	0.0	74	○ ◇
7.1.4 Industrial designs by origin/bn PPP$ GDP	0.3	93	
7.2 Creative goods and services	**7.8**	**76**	
7.2.1 Cultural and creative services exports, % total trade	n/a	n/a	
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	0.7	56	●
7.3 Online creativity	**17.8**	**79**	
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	0.8	102	
7.3.2 Country-code TLDs/th pop. 15-69	1.1	89	
7.3.3 GitHub commits/mn pop. 15-69	12.1	51	●
7.3.4 Mobile app creation/bn PPP$ GDP	57.1	89	

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 appendices for details, including the year of the data, at https://www.wipo.int/gii-ranking. Square brackets [ ] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.

Global Innovation Index 2023



→ Data availability

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

> Sri Lanka has missing data for eleven indicators and outdated data for fifteen indicators.

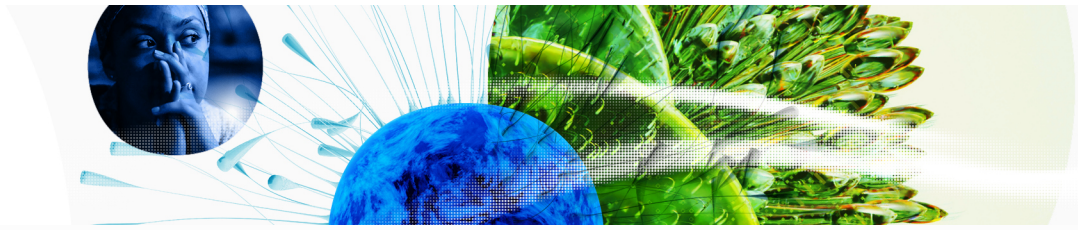
> Missing data for Sri Lanka

Code	Indicator name	Economy Year	Model Year	Source
1.3.2	Entrepreneurship policies and culture	n/a	2022	Global Entrepreneurship Monitor
2.1.4	PISA scales in reading, maths and science	n/a	2018	OECD, PISA
4.1.1	Finance for startups and scaleups	n/a	2022	Global Entrepreneurship Monitor
4.1.3	Loans from microfinance institutions, % GDP	n/a	2021	International Monetary Fund, Financial Access Survey (FAS)
5.1.2	Firms offering formal training, %	n/a	2019	World Bank Enterprise Surveys
5.3.1	Intellectual property payments, % total trade	n/a	2021	World Trade Organization and United Nations Conference on Trade and Development
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2021	World Intellectual Property Organization; International Monetary Fund
6.3.1	Intellectual property receipts, % total trade	n/a	2021	World Trade Organization and United Nations Conference on Trade and Development
7.2.1	Cultural and creative services exports, % total trade	n/a	2021	World Trade Organization and United Nations Conference on Trade and Development
7.2.2	National feature films/mn pop. 15-69	n/a	2021	OMDIA; United Nations, World Population Prospects
7.2.3	Entertainment and media market/th pop. 15-69	n/a	2022	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

> Outdated data for Sri Lanka

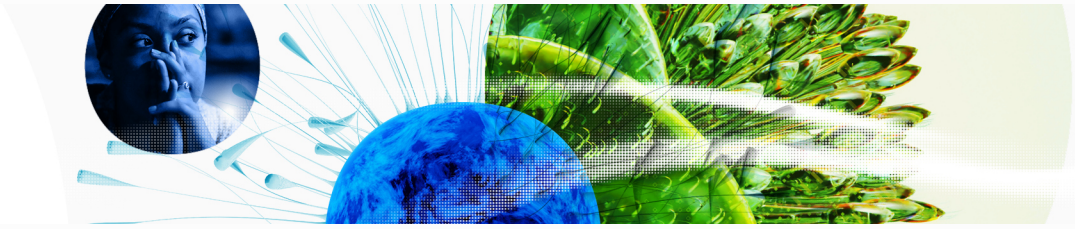
Code	Indicator name	Economy Year	Model Year	Source
2.1.1	Expenditure on education, % GDP	2018	2021	UNESCO Institute for Statistics
2.1.2	Government funding/pupil, secondary, % GDP/cap	2018	2019	UNESCO Institute for Statistics

Global Innovation Index 2023



Code	Indicator name	Economy Year	Model Year	Source
2.1.3	School life expectancy, years	2018	2020	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	2018	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	2018	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.2.1	Electricity output, GWh/mn pop.	2020	2021	International Energy Agency
4.1.2	Domestic credit to private sector, % GDP	2019	2020	International Monetary Fund; World Bank and OECD GDP estimates.
4.3.2	Domestic industry diversification	2019	2020	United Nations Industrial Development Organization
5.1.1	Knowledge-intensive employment, %	2020	2022	International Labour Organization
5.1.3	GERD performed by business, % GDP	2017	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.4	GERD financed by business, %	2017	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.1.5	Females employed w/advanced degrees, %	2020	2022	International Labour Organization
5.2.3	GERD financed by abroad, % GDP	2017	2020	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.5	Research talent, % in businesses	2017	2021	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
6.2.4	High-tech manufacturing, %	2019	2020	United Nations Industrial Development Organization

Global Innovation Index 2023



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.

Source: Global Innovation Index Database, WIPO, 2023.

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.