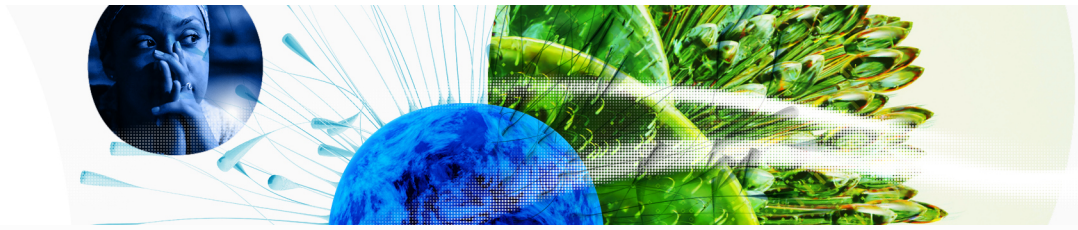
Global Innovation Index 2023



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

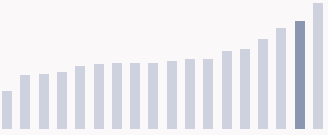
Consisting of **roughly 80 indicators**, grouped into innovation inputs and outputs, the GII **aims to capture the multi-dimensional facets of innovation**.

Cyprus ranking in the Global Innovation Index 2023

> Cyprus ranks 28th among the 132 economies featured in the GII 2023.

> Cyprus ranks 27th among the 50 high-income group economies.

> Cyprus ranks 2nd among the 18 economies in Northern Africa and Western Asia.



> Cyprus GII Ranking (2020-2023)

The table shows the rankings of Cyprus 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 Cyprus in the GII 2023 is between ranks 27 and 29.

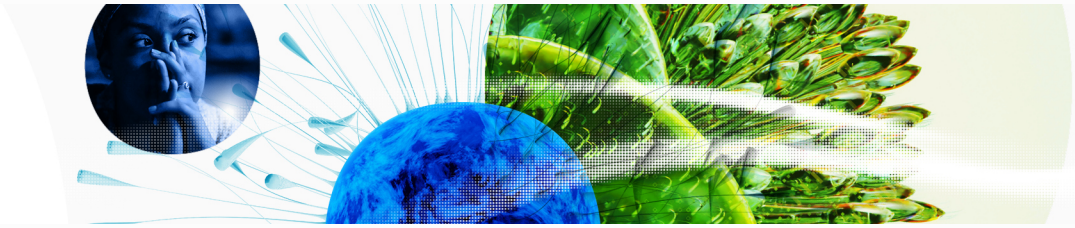
	GII Position	Innovation Inputs	Innovation Outputs
2020	29th	30th	26th
2021	28th	31st	21st
2022	27th	29th	20th
2023	28th	33rd	21st

Cyprus performs better in innovation outputs than innovation inputs in 2023.

This year Cyprus ranks 33rd in innovation inputs. This position is lower than last year.

Cyprus ranks 21st in innovation outputs. This position is lower than last year.

Global Innovation Index 2023

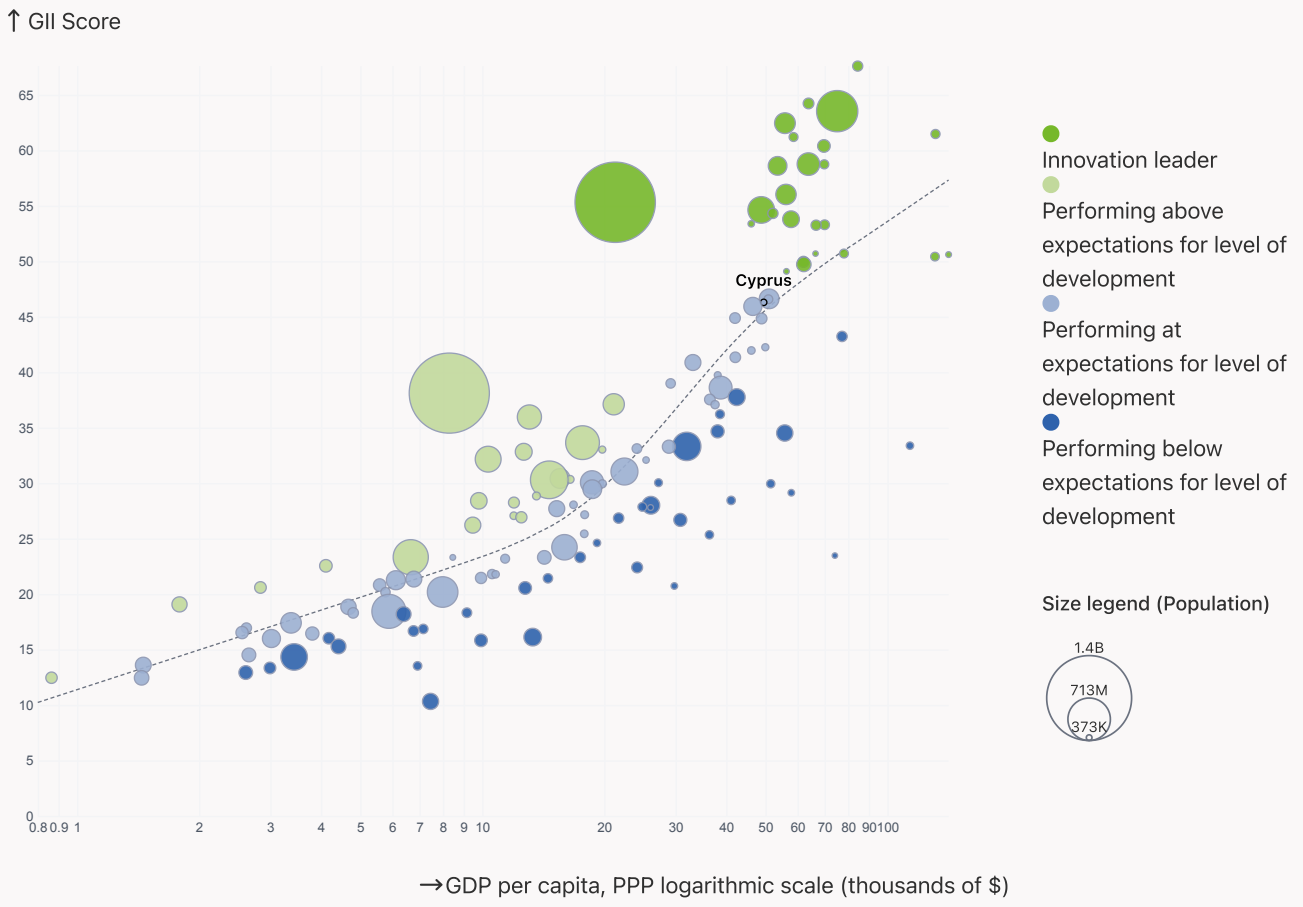


→ Expected vs. observed innovation performance

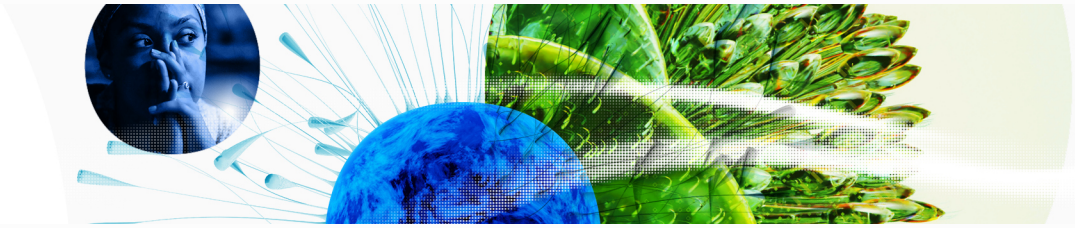
The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected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

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

> Innovation overperformers relative to their economic development



Global Innovation Index 2023

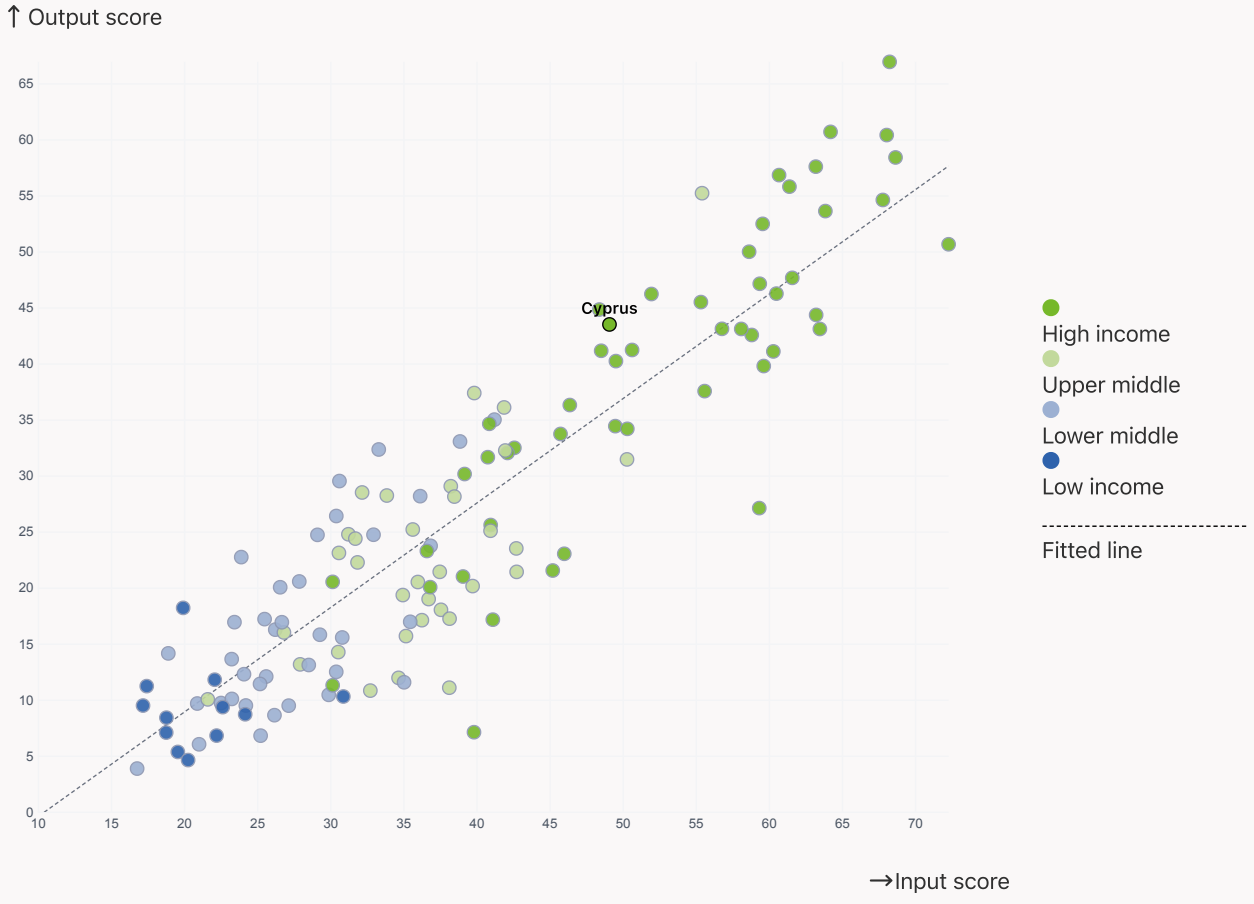


→ Effectively translating innovation investments into innovation outputs

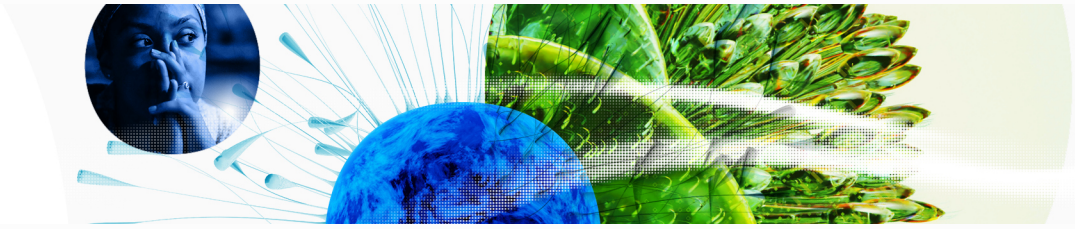
The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

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

> Relationship between innovation inputs and outputs

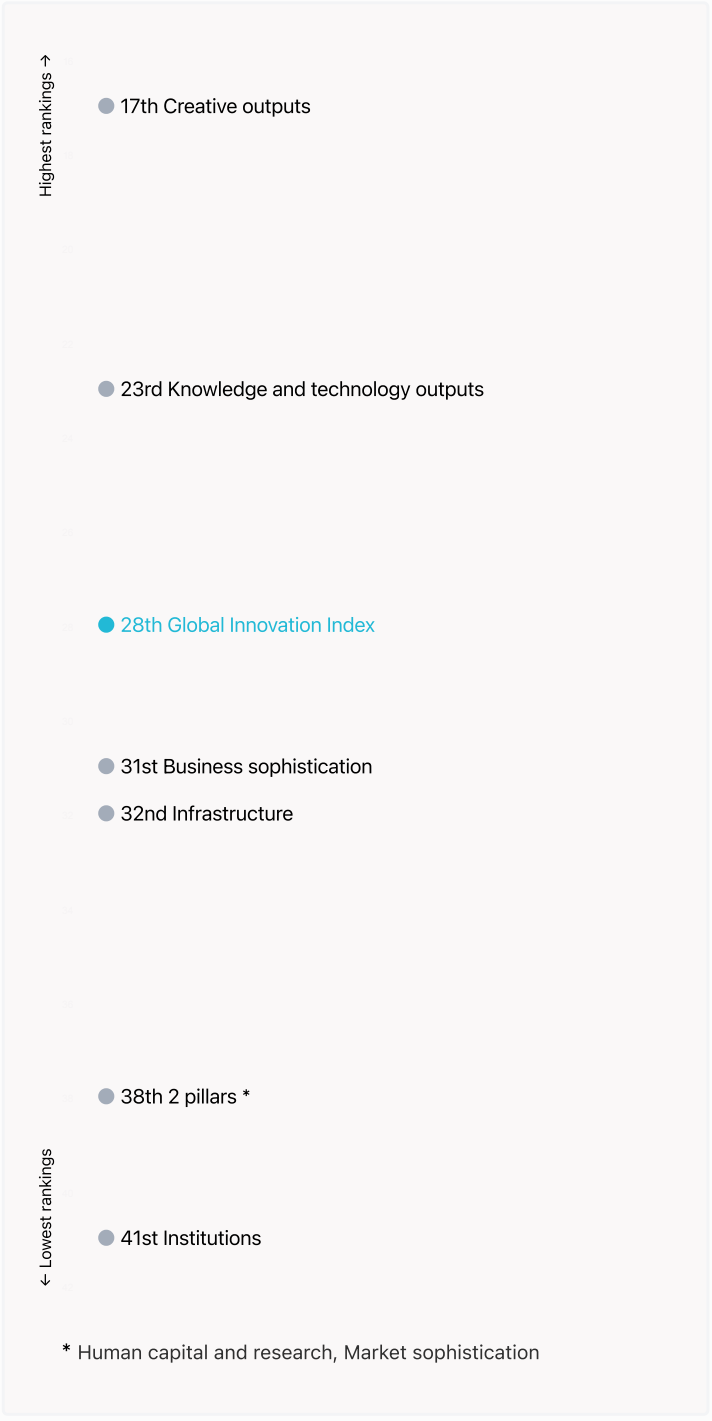


Global Innovation Index 2023



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



> Highest rankings

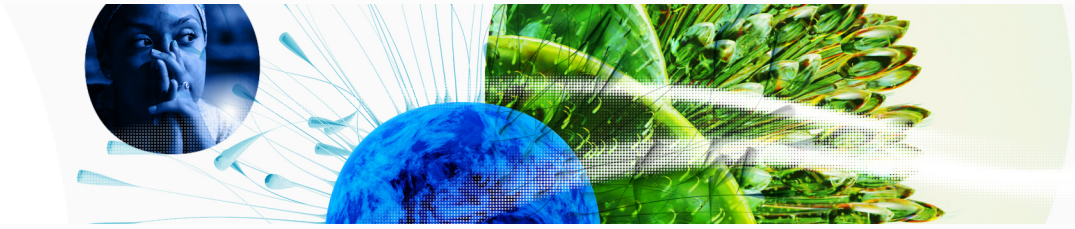
Cyprus ranks highest in Creative outputs (17th) and Knowledge and technology outputs (23rd).

> Lowest rankings

Cyprus ranks lowest in Institutions (41st), Human capital and research, Market sophistication (38th) and Infrastructure (32nd).

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

Global Innovation Index 2023



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

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

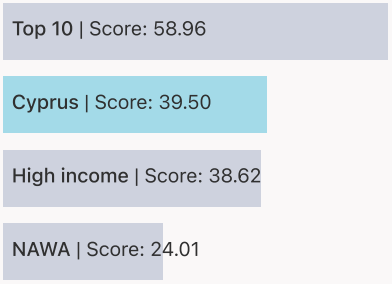
> High-Income economies

Cyprus performs below the high-income group average in Business sophistication, Market sophistication, Human capital and research, Infrastructure, Institutions.

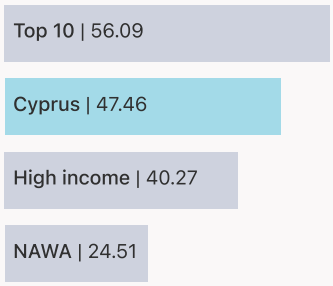
> Northern Africa And Western Asia

Cyprus performs above the regional average in all the pillars.

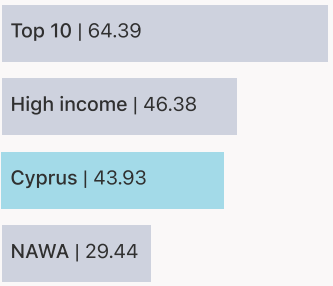
Knowledge and technology outputs



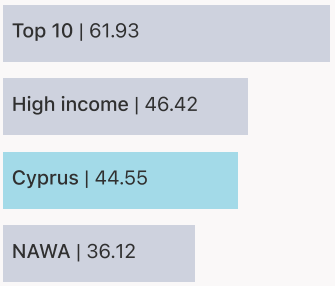
Creative outputs



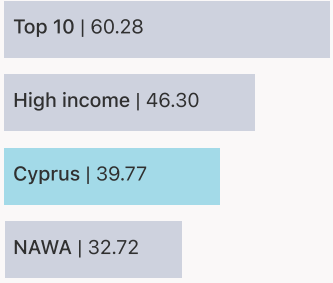
Business sophistication



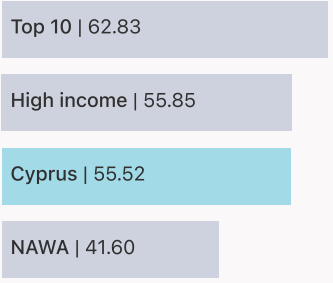
Market sophistication



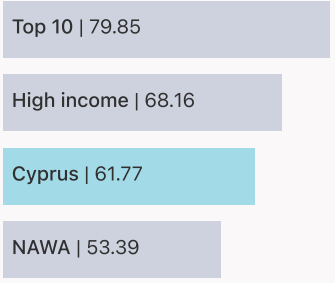
Human capital and research



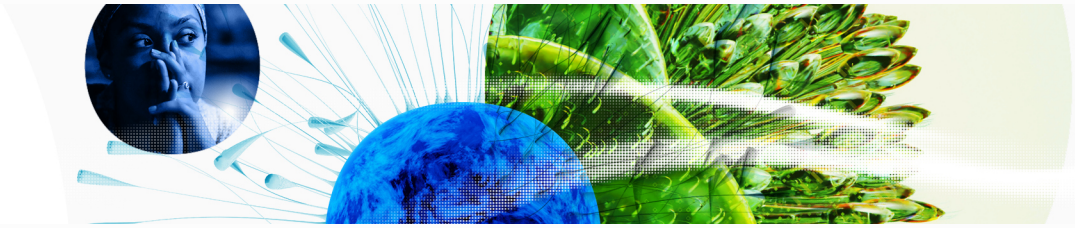
Infrastructure



Institutions



Global Innovation Index 2023



→ Innovation strengths and weaknesses in Cyprus

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

> Cyprus's main innovation strengths are **Mobile app creation/bn PPP$ GDP** (rank 1), **Cost of redundancy dismissal** (rank 1) and **ICT services exports, % total trade** (rank 1).

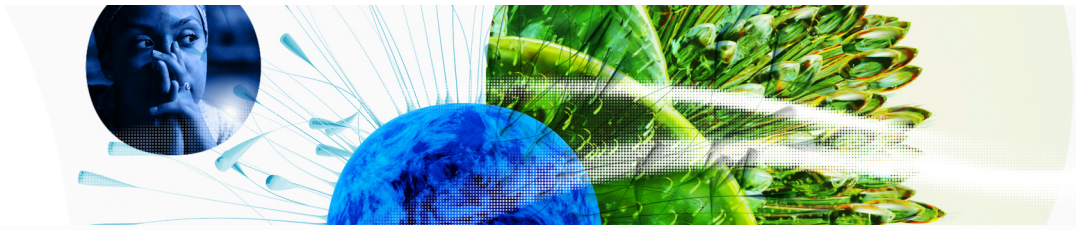
Strengths

Rank	Code	Indicator name
1	7.3.4	Mobile app creation/bn PPP$ GDP
1	1.2.3	Cost of redundancy dismissal
1	6.3.4	ICT services exports, % total trade
1	5.3.3	ICT services imports, % total trade
4	2.1.2	Government funding/pupil, secondary, % GDP/cap
4	6.1.4	Scientific and technical articles/bn PPP$ GDP
4	2.2.3	Tertiary inbound mobility, %
4	4.2.2	Venture capital (VC) investors, deals/bn PPP$ GDP
6	3.1.1	ICT access
7	2.1.5	Pupil-teacher ratio, secondary
8	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69

Weaknesses

Rank	Code	Indicator name
130	5.3.4	FDI net inflows, % GDP
122	5.3.2	High-tech imports, % total trade
113	4.3.3	Domestic market scale, bn PPP$
107	3.2.3	Gross capital formation, % GDP
103	2.2.2	Graduates in science and engineering, %
74	7.1.3	Global brand value, top 5,000
71	2.3.4	QS university ranking, top 3
64	4.2.1	Market capitalization, % GDP
48	6.2.2	Unicorn valuation, % GDP
40	2.3.3	Global corporate R&D investors, top 3, mn US$

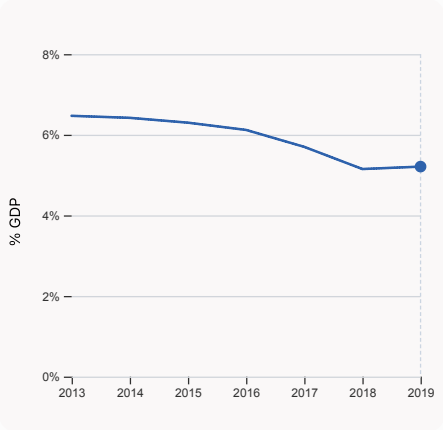
Global Innovation Index 2023



→ Cyprus's innovation system

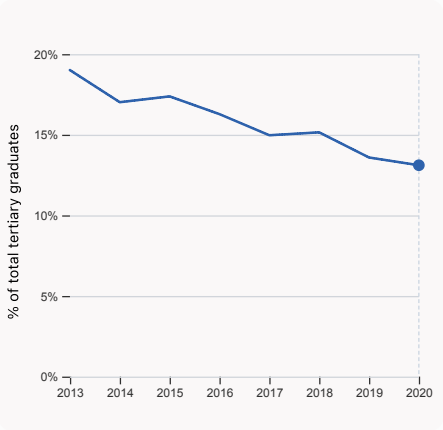
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Cyprus



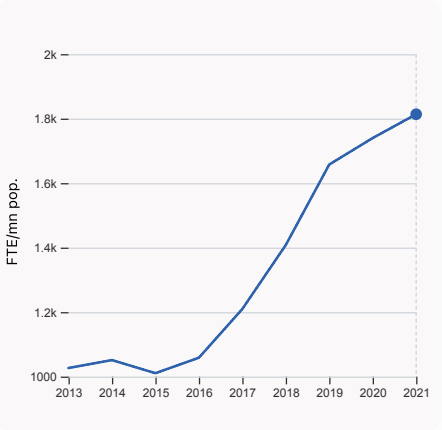
2.1.1 Expenditure on education, % GDP

was equal to 5.21% GDP in 2019, up by 0.06 percentage points from the year prior – and equivalent to an indicator rank of 31.



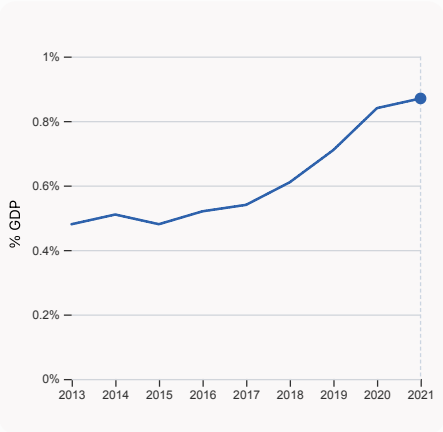
2.2.2 Graduates in science and engineering, %

was equal to 13.11% of total tertiary graduates in 2020, down by 0.48 percentage points from the year prior – and equivalent to an indicator rank of 103.



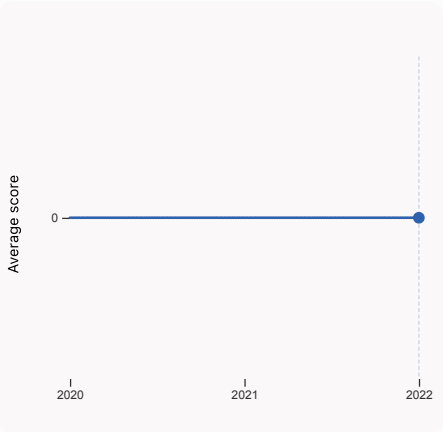
2.3.1 Researchers, FTE/mn pop.

was equal to 1,813.6 FTE/mn pop. in 2021, up by 4.24% from the year prior – and equivalent to an indicator rank of 43.



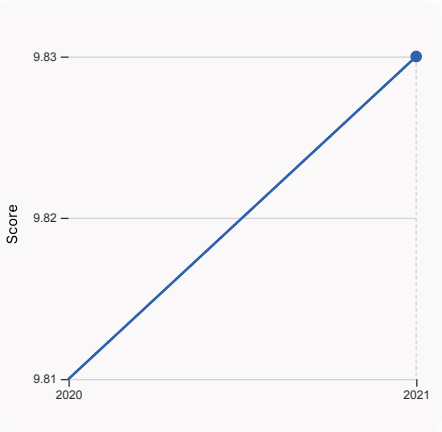
2.3.2 Gross expenditure on R&D, % GDP

was equal to 0.87% GDP in 2021, up by 0.03 percentage points from the year prior – and equivalent to an indicator rank of 45.



2.3.4 QS university ranking, top 3

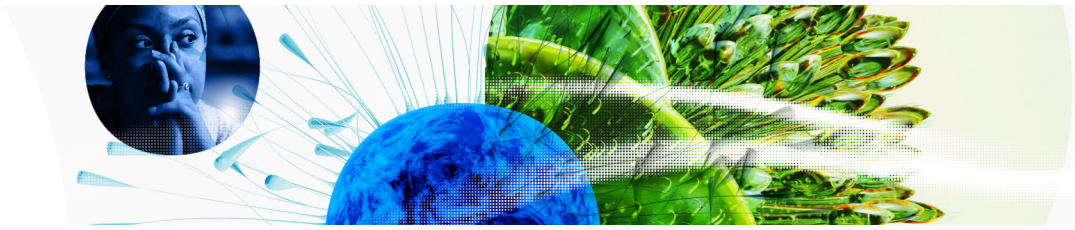
was equal to an average score of 0 for the top 3 universities in 2022, equivalent to an indicator rank of 71.

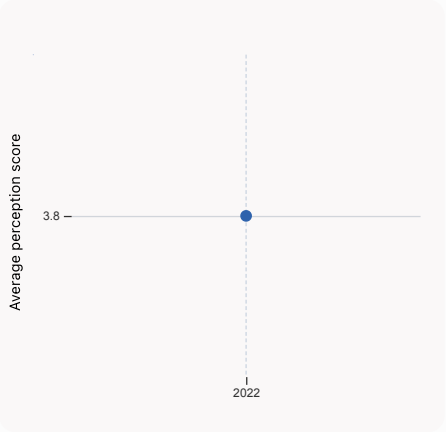


3.1.1 ICT access

was equal to a score of 9.83 in 2021, up by 0.2% from the year prior – and equivalent to an indicator rank of 6.

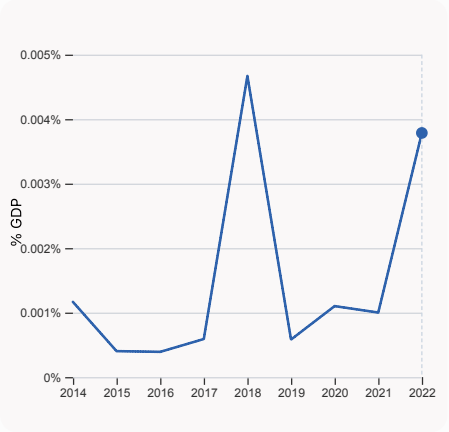
Global Innovation Index 2023





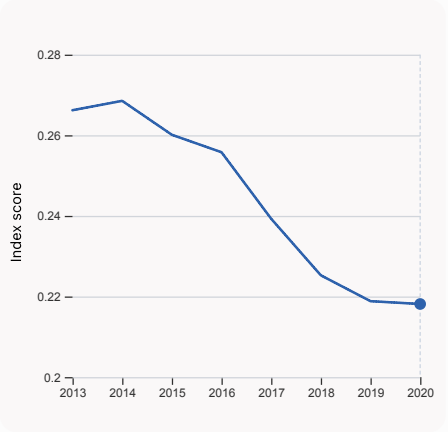
4.1.1 Finance for startups and scaleups

was equal to an average perception score of 3.8 in 2022, equivalent to an indicator rank of 62.



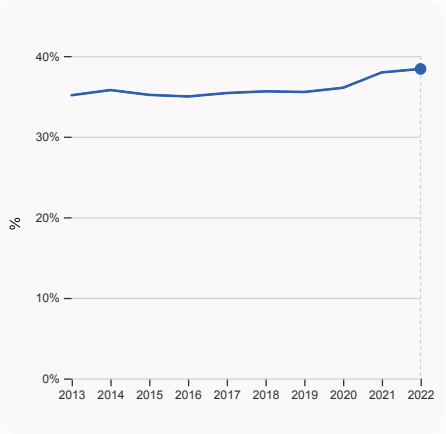
4.2.4 VC received, value, % GDP

was equal to 0.00379% GDP in 2022, up by 0.0028 percentage points from the year prior – and equivalent to an indicator rank of 33.



4.3.2 Domestic industry diversification

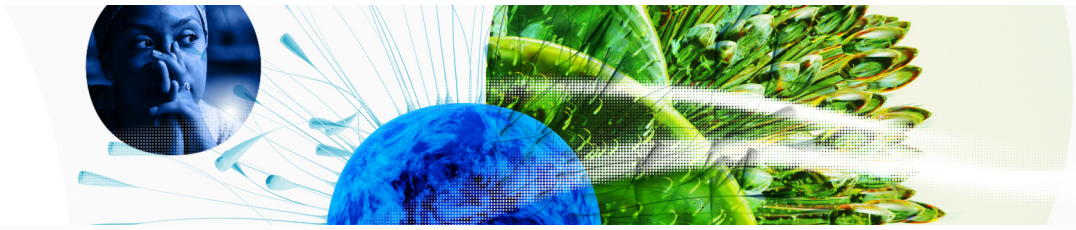
was equal to an index score of 0.218 in 2020, down by 0.32% from the year prior – and equivalent to an indicator rank of 72.



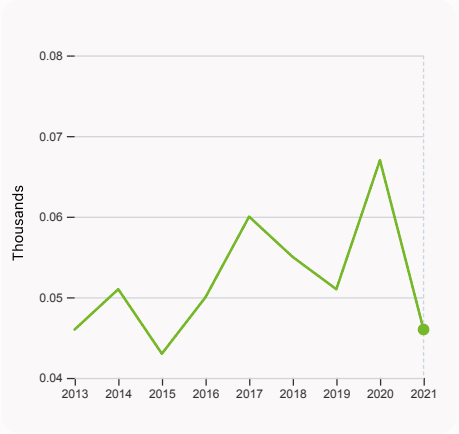
5.1.1 Knowledge-intensive employment, %

was equal to 38.4% in 2022, up by 0.43 percentage points from the year prior – and equivalent to an indicator rank of 33.

Global Innovation Index 2023

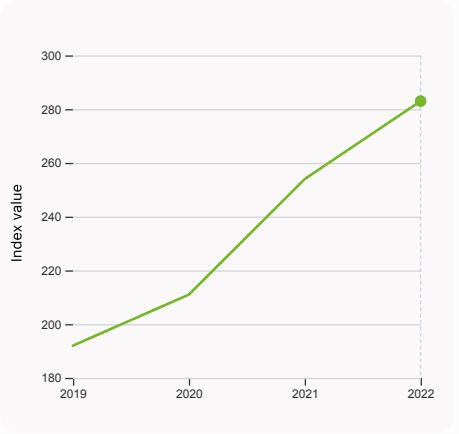


> Innovation outputs in Cyprus



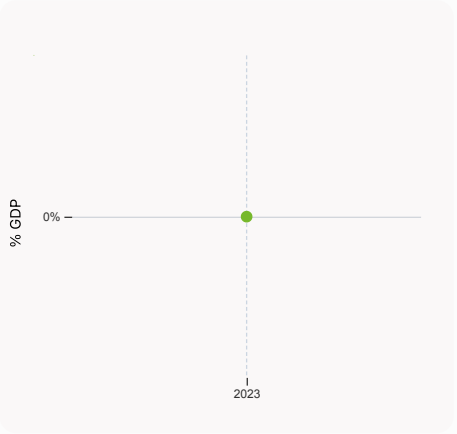
6.1.1 Patents by origin

was equal to 0.046 Thousands in 2021, down by 31.34% from the year prior – and equivalent to an indicator rank of 55.



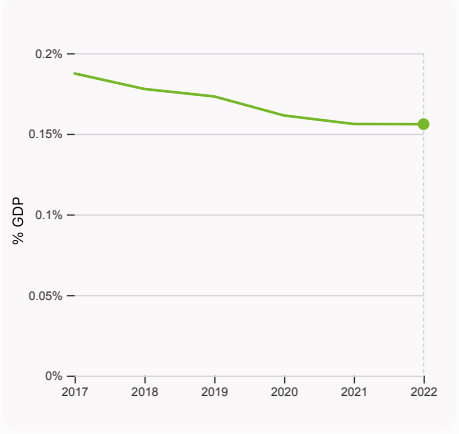
6.1.5 Citable documents H-index

was equal to an index value of 283 in 2022, up by 11.42% from the year prior – and equivalent to an indicator rank of 64.



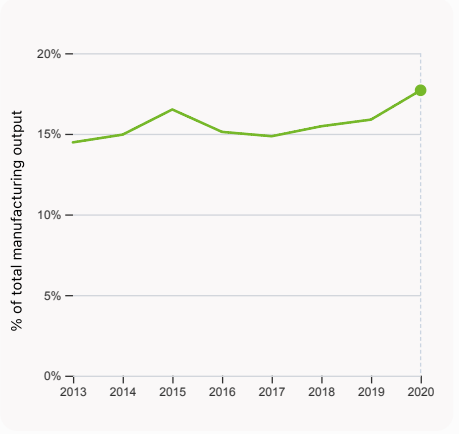
6.2.2 Unicorn valuation, % GDP

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



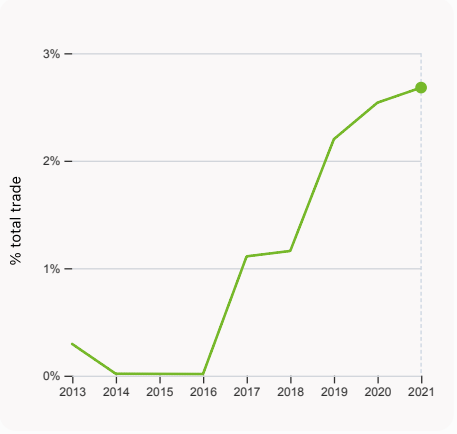
6.2.3 Software spending, % GDP

was equal to 0.156% GDP in 2022, down by 0.00013 percentage points from the year prior – and equivalent to an indicator rank of 81.



6.2.4 High-tech manufacturing, %

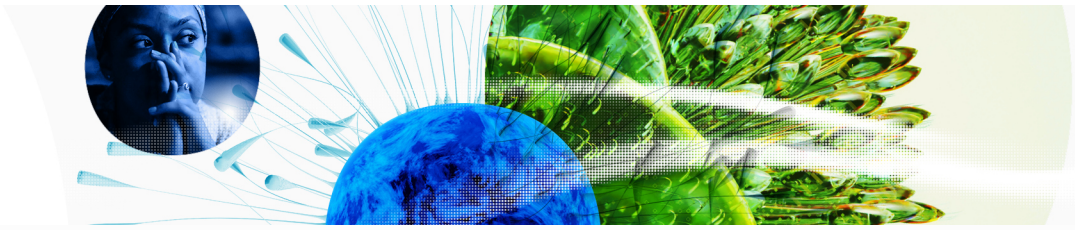
was equal to 17.7% of total manufacturing output in 2020, up by 1.82 percentage points from the year prior – and equivalent to an indicator rank of 68.

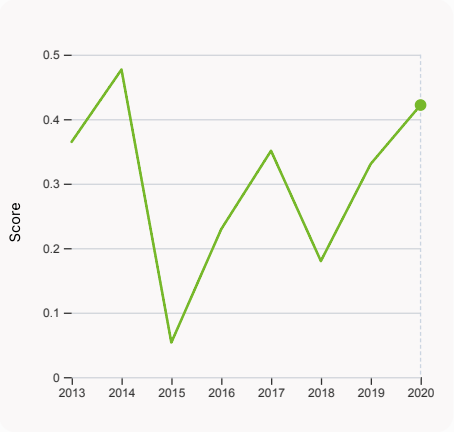


6.3.1 Intellectual property receipts, % total trade

was equal to 2.68% total trade in 2021, up by 0.14 percentage points from the year prior – and equivalent to an indicator rank of 12.

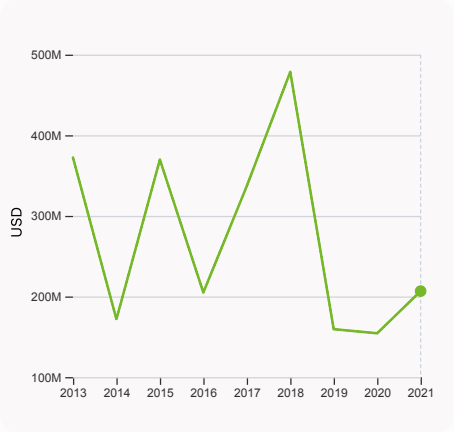
Global Innovation Index 2023





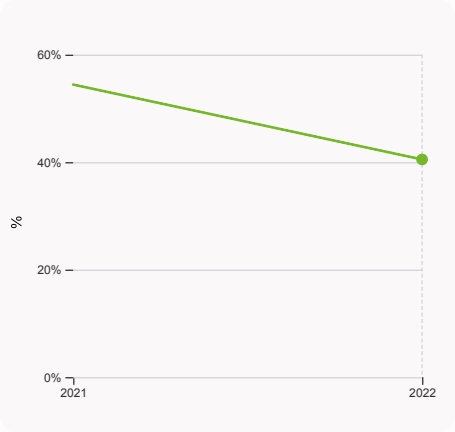
6.3.2 Production and export complexity

was equal to a score of 0.422 in 2020, up by 27.61% from the year prior – and equivalent to an indicator rank of 45.



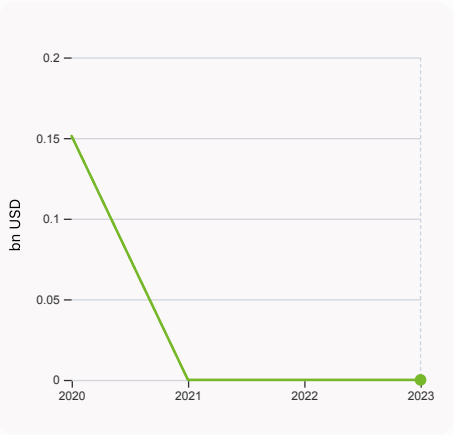
6.3.3 High-tech exports

was equal to 206,673,487 USD in 2021, up by 33.89% from the year prior – and equivalent to an indicator rank of 74.



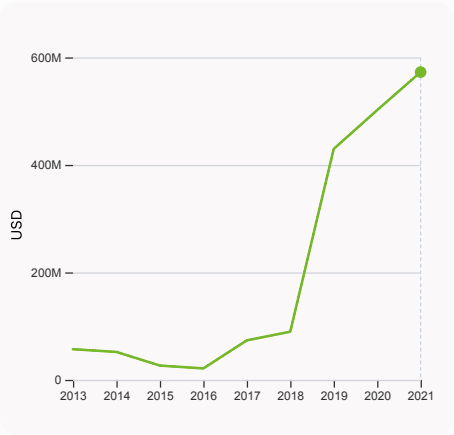
7.1.1 Intangible asset intensity, top 15, %

was equal to 40.5% in 2022, down by 13.93 percentage points from the year prior – and equivalent to an indicator rank of 61.



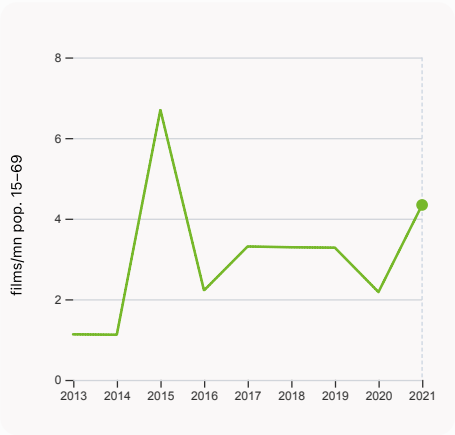
7.1.3 Global brand value, top 5,000

was equal to 0 bn USD in 2023 – and equivalent to an indicator rank of 74.



7.2.1 Cultural and creative services exports

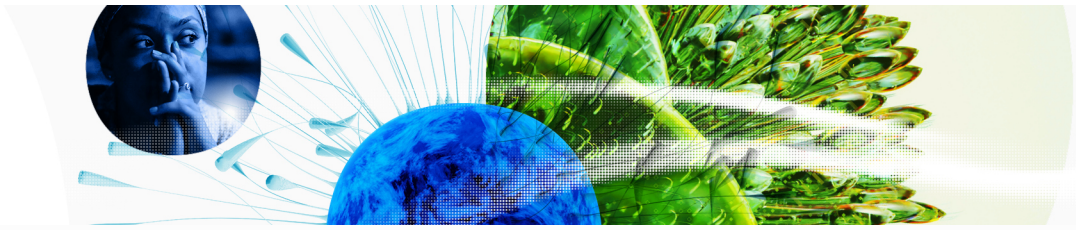
was equal to 572,688,000 USD in 2021, up by 14.094% from the year prior – and equivalent to an indicator rank of 9.

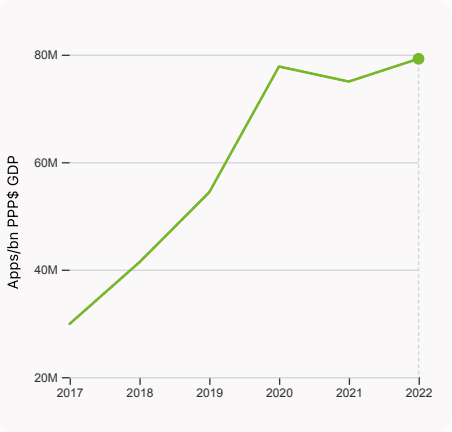


7.2.2 National feature films/mn pop. 15-69

was equal to 4.34 films/mn pop. 15–69 in 2021, up by 99.083% from the year prior – and equivalent to an indicator rank of 28.

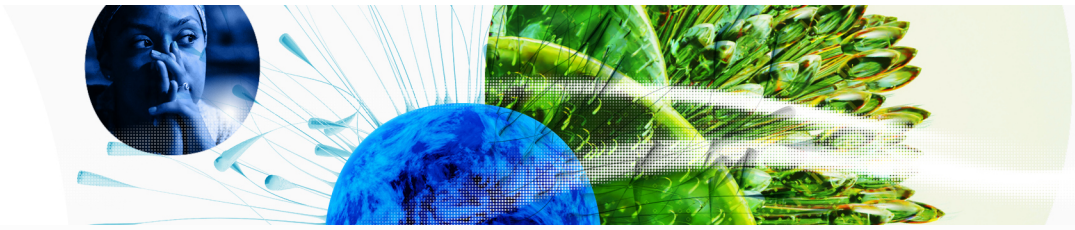
Global Innovation Index 2023





7.3.4 Mobile app creation/bn PPP$ GDP

was equal to 79,234,357.24 Apps/bn PPP$ GDP in 2022, up by 5.65% from the year prior – and equivalent to an indicator rank of 1.



→ Cyprus's innovation top performers

> 7.1.1 Top 15 intangible-asset intensive companies in Cyprus

Rank	Firm	Intensity, %
1	HANGJI GLOBAL LTD	86.44
2	ADVANCED MERGER PARTNERS INC	23.41
3	ASBISC ENTERPRISES PLC	25.51

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

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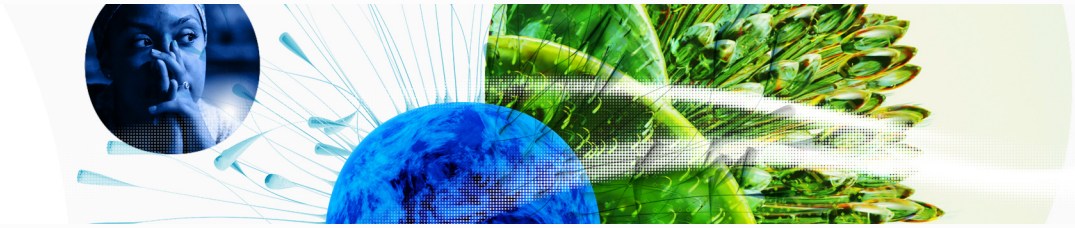

Cyprus

GII 2023 rank **28**

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$
21	33	High	NAWA	1.3	44.8	49,504.4

	Score / Value	Rank
Institutions	**61.8**	**41**
1.1 Institutional environment	**61.9**	**39**
1.1.1 Operational stability for businesses*	66.7	36
1.1.2 Government effectiveness*	57.1	39
1.2 Regulatory environment	**80.7**	**27**
1.2.1 Regulatory quality*	64.4	35
1.2.2 Rule of law*	58.4	39
1.2.3 Cost of redundancy dismissal	8.0	1 ●
1.3 Business environment	**42.8**	**75**
1.3.1 Policies for doing business†	56.2	48
1.3.2 Entrepreneurship policies and culture†	29.4	58
Human capital and research	**39.8**	**38**
2.1 Education	**62.5**	**22**
2.1.1 Expenditure on education, % GDP	5.2	31
2.1.2 Government funding/pupil, secondary, % GDP/cap	34.9	4 ●
2.1.3 School life expectancy, years	15.8	42
2.1.4 PISA scales in reading, maths and science	438.0	45 ◇
2.1.5 Pupil-teacher ratio, secondary	7.7	7 ●
2.2 Tertiary education	**48.3**	**12**
2.2.1 Tertiary enrolment, % gross	92.9	10
2.2.2 Graduates in science and engineering, %	13.1	103 ○ ◇
2.2.3 Tertiary inbound mobility, %	27.2	4 ●
2.3 Research and development (R&D)	**8.5**	**66** ◇
2.3.1 Researchers, FTE/mn pop.	1,813.6	43
2.3.2 Gross expenditure on R&D, % GDP	0.9	45
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	**55.5**	**32**
3.1 Information and communication technologies (ICTs)	**83.0**	**28**
3.1.1 ICT access*	97.6	6 ●
3.1.2 ICT use*	84.3	42
3.1.3 Government's online service*	75.6	46
3.1.4 E-participation*	74.4	25
3.2 General infrastructure	**30.2**	**54** ◇
3.2.1 Electricity output, GWh/mn pop.	5,856.2	34
3.2.2 Logistics performance*	50.0	50 ◇
3.2.3 Gross capital formation, % GDP	18.5	107 ○ ◇
3.3 Ecological sustainability	**53.3**	**14**
3.3.1 GDP/unit of energy use	15.1	25
3.3.2 Environmental performance*	66.3	22
3.3.3 ISO 14001 environment/bn PPP$ GDP	7.2	12
Market sophistication	**44.5**	**38**
4.1 Credit	**37.2**	**45**
4.1.1 Finance for startups and scaleups†	33.6	62 ◇
4.1.2 Domestic credit to private sector, % GDP	108.8	24
4.1.3 Loans from microfinance institutions, % GDP	n/a	n/a
4.2 Investment	**39.1**	**15**
4.2.1 Market capitalization, % GDP	16.1	64 ○
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP	1.6	4 ●
4.2.3 VC recipients, deals/bn PPP$ GDP	0.2	10
4.2.4 VC received, value, % GDP	0.0	33
4.3 Trade, diversification, and market scale	**57.3**	**70**
4.3.1 Applied tariff rate, weighted avg., %	1.5	20
4.3.2 Domestic industry diversification	80.8	72
4.3.3 Domestic market scale, bn PPP$	44.8	113 ○

	Score / Value	Rank
Business sophistication	**43.9**	**31**
5.1 Knowledge workers	**49.7**	**31**
5.1.1 Knowledge-intensive employment, %	38.4	33
5.1.2 Firms offering formal training, %	39.7	35
5.1.3 GERD performed by business, % GDP	0.4	44
5.1.4 GERD financed by business, %	38.0	47
5.1.5 Females employed w/advanced degrees, %	26.7	13
5.2 Innovation linkages	**36.4**	**32**
5.2.1 University-industry R&D collaboration†	39.4	75
5.2.2 State of cluster development†	47.3	51
5.2.3 GERD financed by abroad, % GDP	0.2	22
5.2.4 Joint venture/strategic alliance deals/bn PPP$ GDP	0.1	17
5.2.5 Patent families/bn PPP$ GDP	1.4	24
5.3 Knowledge absorption	**45.7**	**31**
5.3.1 Intellectual property payments, % total trade	1.2	29
5.3.2 High-tech imports, % total trade	4.3	122 ○ ◇
5.3.3 ICT services imports, % total trade	13.9	1 ●
5.3.4 FDI net inflows, % GDP	-5.9	130 ○ ◇
5.3.5 Research talent, % in businesses	35.4	38
Knowledge and technology outputs	**39.5**	**23**
6.1 Knowledge creation	**36.0**	**26**
6.1.1 Patents by origin/bn PPP$ GDP	1.1	55
6.1.2 PCT patents by origin/bn PPP$ GDP	1.2	23
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	13.4	64
6.2 Knowledge impact	**23.0**	**89** ◇
6.2.1 Labor productivity growth, %	1.4	51
6.2.2 Unicorn valuation, % GDP	0.0	48 ○ ◇
6.2.3 Software spending, % GDP	0.2	81 ◇
6.2.4 High-tech manufacturing, %	17.7	68 ◇
6.3 Knowledge diffusion	**59.4**	**5**
6.3.1 Intellectual property receipts, % total trade	2.5	12
6.3.2 Production and export complexity	61.4	45
6.3.3 High-tech exports, % total trade	0.9	74 ◇
6.3.4 ICT services exports, % total trade	17.6	1 ●
6.3.5 ISO 9001 quality/bn PPP$ GDP	19.1	14
Creative outputs	**47.5**	**17**
7.1 Intangible assets	**52.9**	**18**
7.1.1 Intangible asset intensity, top 15, %	40.5	61
7.1.2 Trademarks by origin/bn PPP$ GDP	110.6	8
7.1.3 Global brand value, top 5,000	0.0	74 ○ ◇
7.1.4 Industrial designs by origin/bn PPP$ GDP	8.5	12
7.2 Creative goods and services	**27.4**	**35**
7.2.1 Cultural and creative services exports, % total trade	2.6	9
7.2.2 National feature films/mn pop. 15-69	4.3	28
7.2.3 Entertainment and media market/th pop. 15-69	n/a	n/a
7.2.4 Creative goods exports, % total trade	0.2	79
7.3 Online creativity	**56.6**	**17**
7.3.1 Generic top-level domains (TLDs)/th pop. 15-69	79.0	8 ●
7.3.2 Country-code TLDs/th pop. 15-69	7.8	45
7.3.3 GitHub commits/mn pop. 15-69	39.6	26
7.3.4 Mobile app creation/bn PPP$ GDP	100.0	1 ●

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.

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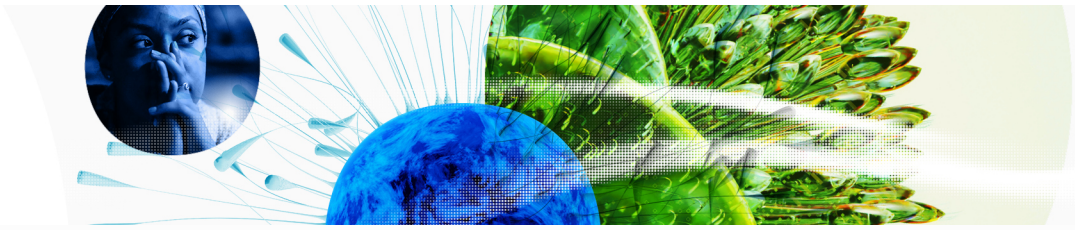

→ Data availability

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

> Cyprus has missing data for three indicators and outdated data for one indicator.

> Missing data for Cyprus

Code	Indicator name	Economy Year	Model Year	Source
4.1.3	Loans from microfinance institutions, % GDP	n/a	2021	International Monetary Fund, Financial Access Survey (FAS)
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2021	World Intellectual Property Organization; International Monetary Fund
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 Cyprus

Code	Indicator name	Economy Year	Model Year	Source
2.1.1	Expenditure on education, % GDP	2019	2021	UNESCO Institute for Statistics

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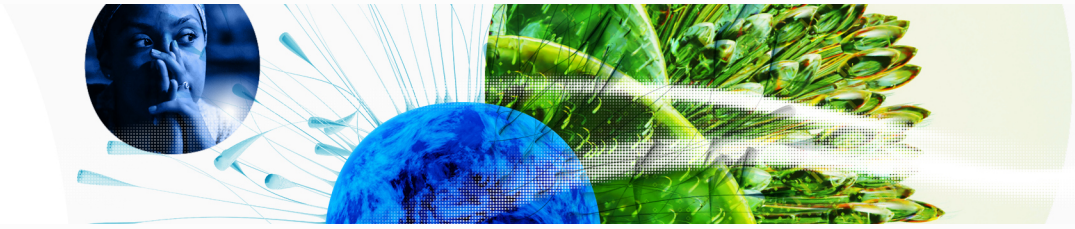

About the Global Innovation Index

- 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 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.