GLOBAL INNOVATION INDEX 2020

CYPRUS

29th Cyprus ranks 29th 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 Cyprus 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 Cyprus in the GII 2020 is between ranks 22 and 30.

Rankings of Cyprus (2018–2020)

	GII	Innovation inputs	Innovation outputs
2020	29	30	26
2019	28	28	23
2018	29	33	22

- Cyprus performs better in innovation outputs than innovation inputs in 2020.
- This year Cyprus ranks 30th in innovation inputs, lower than last year and higher compared to 2018.
- As for innovation outputs, Cyprus ranks 26th. This position is lower than last year and lower compared to 2018.

28th Cyprus ranks 28th among the 49 high-income group economies.

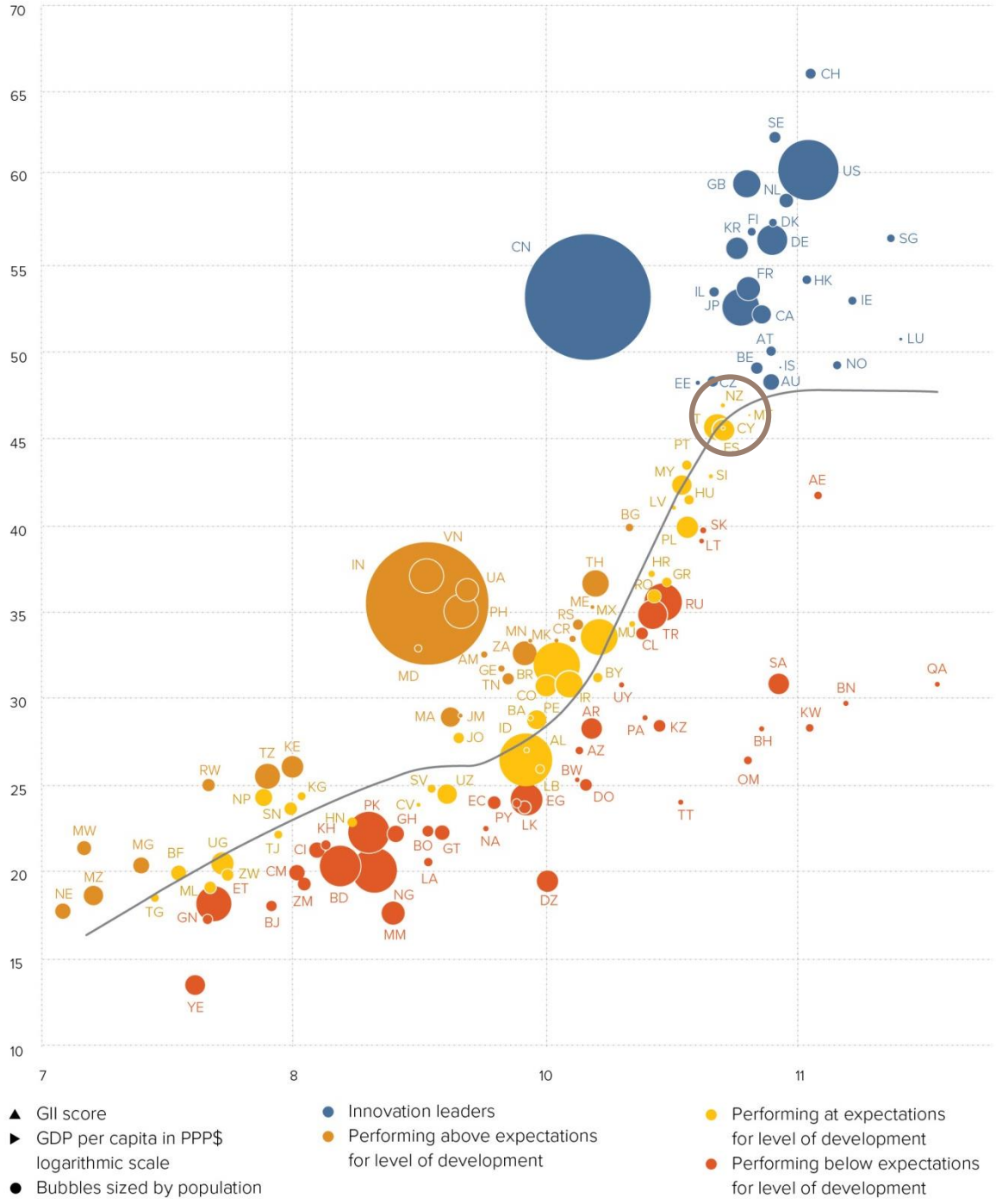
2nd Cyprus ranks 2nd among the 19 economies in Northern Africa and Western Asia.

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 performing below expectations.

Relative to GDP, Cyprus's performance matches expectations for its level of development.

The positive relationship between innovation and development

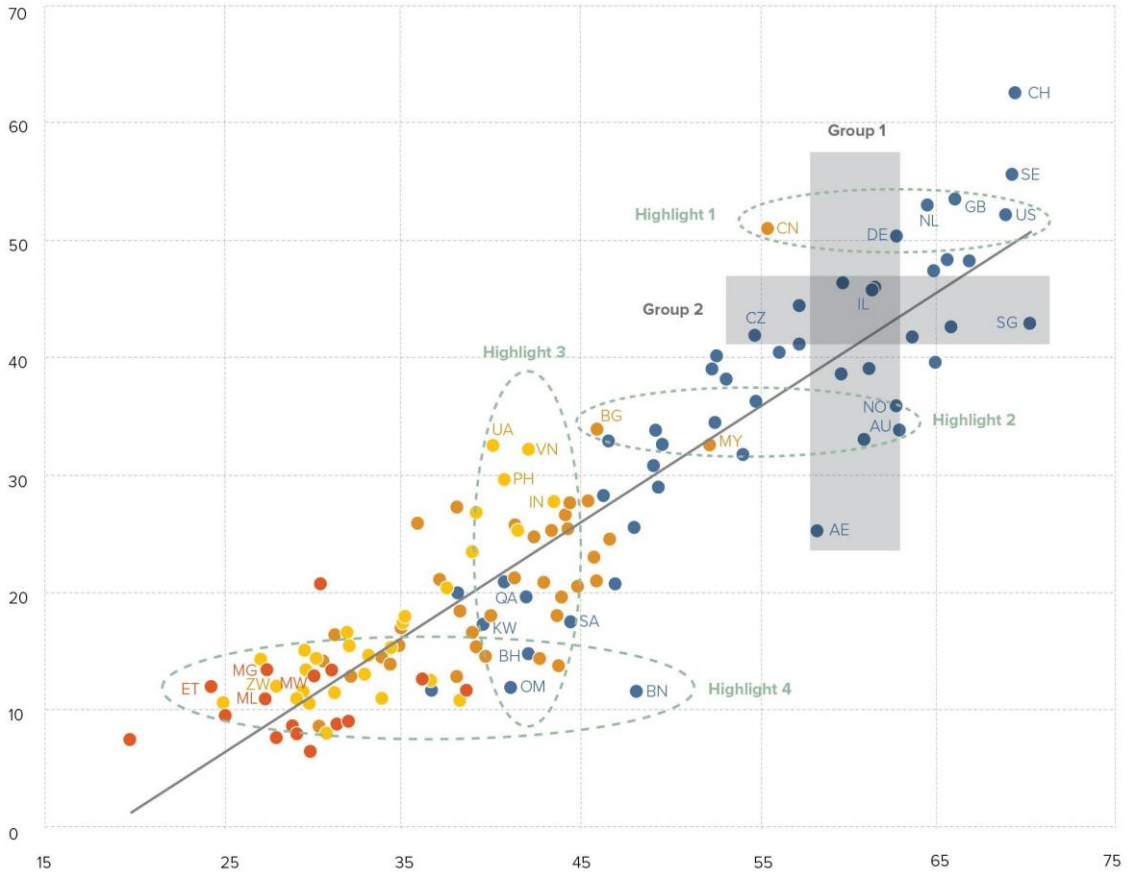


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

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

Innovation input to output performance, 2020



▲ Output score
▶ Input score

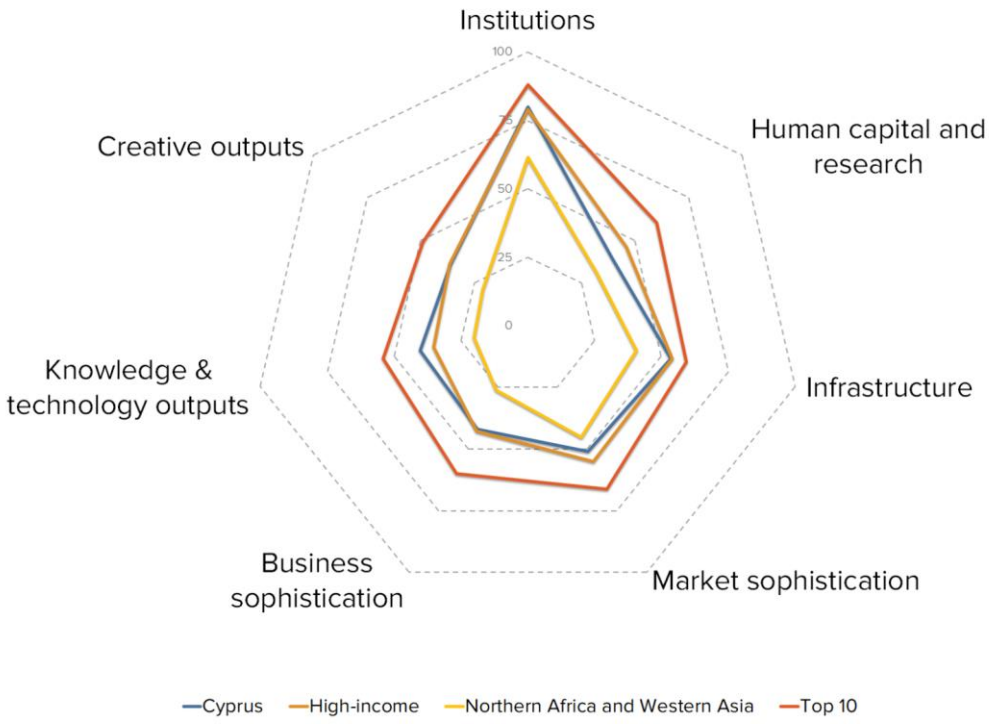
● High income group
● Upper middle-income group
● Lower middle-income group
● Low income group

— Fitted values

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 CYPRUS AGAINST OTHER HIGH-INCOME GROUP ECONOMIES AND NORTHERN AFRICA AND WESTERN ASIA

Cyprus's scores in the seven GII pillars



High-income group economies

Cyprus has high scores in two out of the seven GII pillars: Institutions and Knowledge & technology outputs, which are above average for the high-income group.

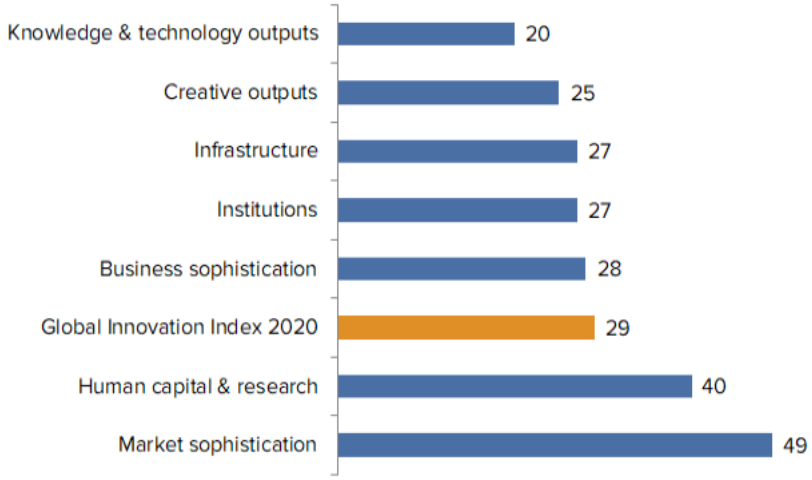
Conversely, Cyprus scores below average for its income group in five pillars: Human capital & research, Infrastructure, Market sophistication, Business sophistication and Creative outputs.

Northern Africa and Western Asia

Compared to other economies in Northern Africa and Western Asia, Cyprus performs above average in all seven of the GII pillars.

OVERVIEW OF CYPRUS RANKINGS IN THE SEVEN GII AREAS

Cyprus performs best in Knowledge & technology outputs and its weakest performance is in Market 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 Cyprus in the GII 2020.

Strengths

Code	Indicator name	Rank
1.2.3	Cost of redundancy dismissal, salary weeks	1
2.1.2	Government funding/pupil, secondary, % GDP/cap	4
2.2.3	Tertiary inbound mobility, %	1
5.2.4	JV–strategic alliance deals/bn PPP$ GDP	4
5.3.3	ICT services imports, % total trade	1
5.3.4	FDI net inflows, % GDP	1
6.2.2	New businesses/th pop. 15–64	5
6.3.3	ICT services exports, % total trade	1
6.3.4	FDI net outflows, % GDP	1
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	7
7.3.4	Mobile app creation/bn PPP$ GDP	1

Weaknesses

Code	Indicator name	Rank
2.2.2	Graduates in science & engineering, %	97
2.3.3	Global R&D companies, top 3, mn US$	42
2.3.4	QS university ranking, average score top 3*	77
3.2.3	Gross capital formation, % GDP	93
4.2	Investment	98
4.2.2	Market capitalization, % GDP	65
4.3.3	Domestic market scale, bn PPP$	113
5.3.2	High-tech imports, % total trade	124
6.2.1	Growth rate of PPP$ GDP/worker, %	97
6.3.1	Intellectual property receipts, % total trade	85
7.1.4	ICTs & organizational model creation†	93

STRENGTHS

GII strengths for Cyprus are found in five of the seven GII pillars.

- Institutions (27): the indicator Cost of redundancy dismissal (1) demonstrates a strength.
- Human capital & research (40): shows strengths in the indicators Government funding/pupil (4) and Tertiary inbound mobility (1).
- Business sophistication (28): displays strengths in the indicators JV–strategic alliance deals (4), ICT services imports (1) and FDI net inflows (1).
- Knowledge & technology outputs (20): reveals strengths in the indicators New businesses (5), ICT services exports (1) and FDI net outflows (1).
- Creative outputs (25): exhibits strengths in the indicators Generic top-level domains (7) and Mobile app creation (1).

WEAKNESSES

GII weaknesses for Cyprus are found in six of the seven GII pillars.

- Human capital & research (40): shows weaknesses in the indicators Graduates in science & engineering (97), Global R&D companies (42) and QS university ranking (77).
- Infrastructure (27): the indicator Gross capital formation (93) reveals a weakness.
- Market sophistication (49): exhibits weaknesses in the sub-pillar Investment (98) and in the indicators Market capitalization (65) and Domestic market scale (113).
- Business sophistication (28): the indicator High-tech imports (124) demonstrates a weakness.
- Knowledge & technology outputs (20): displays weaknesses in the indicators Growth rate of PPP (97) and Intellectual property receipts (85).
- Creative outputs (25): shows weakness in the indicator ICTs & organizational model creation (93).

CYPRUS

GII 2020 rank

29

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$	GDP per capita, PPP$	GII 2019 rank
26	30	High	NAWA	1.2	36.3	36,149.4	28

		Score/Value	Rank	
INSTITUTIONS		**80.0**	**27**	
1.1	**Political environment**	**73.9**	**36**	
1.1.1	Political and operational stability*	80.4	33	
1.1.2	Government effectiveness*	70.7	36	
1.2	**Regulatory environment**	**83.7**	**21**	
1.2.1	Regulatory quality*	68.6	32	
1.2.2	Rule of law*	66.3	35	
1.2.3	Cost of redundancy dismissal, salary weeks	8.0	1	● ◆
1.3	**Business environment**	**82.3**	**26**	
1.3.1	Ease of starting a business*	92.0	45	
1.3.2	Ease of resolving insolvency*	72.5	29	
HUMAN CAPITAL & RESEARCH		**39.3**	**40**	
2.1	**Education**	**63.4**	**13**	◆
2.1.1	Expenditure on education, % GDP	6.3	11	◆
2.1.2	Government funding/pupil, secondary, % GDP/cap	39.3	4	● ◆
2.1.3	School life expectancy, years	15.2	48	
2.1.4	PISA scales in reading, maths, & science	438.0	45	
2.1.5	Pupil-teacher ratio, secondary	8.3	14	◆
2.2	**Tertiary education**	**48.0**	**20**	
2.2.1	Tertiary enrolment, % gross	75.9	23	
2.2.2	Graduates in science & engineering, %	15.0	97	○ ◇
2.2.3	Tertiary inbound mobility, %	23.1	1	● ◆
2.3	**Research & development (R&D)**	**6.5**	**72**	◇
2.3.1	Researchers, FTE/mn pop	1,255.9	49	◇
2.3.2	Gross expenditure on R&D, % GDP	0.6	59	
2.3.3	Global R&D companies, avg. exp. top 3, mn $US	0.0	42	○ ◇
2.3.4	QS university ranking, average score top 3*	0.0	77	○ ◇
INFRASTRUCTURE		**53.6**	**27**	
3.1	**Information & communication technologies (ICTs)**	**81.4**	**28**	
3.1.1	ICT access*	83.4	17	
3.1.2	ICT use*	81.6	17	
3.1.3	Government's online service*	78.5	52	
3.1.4	E-participation*	82.0	46	
3.2	**General infrastructure**	**27.1**	**63**	◇
3.2.1	Electricity output, kWh/mn pop	5,819.0	34	
3.2.2	Logistics performance*	50.7	44	
3.2.3	Gross capital formation, % GDP	20.6	93	○
3.3	**Ecological sustainability**	**52.4**	**18**	
3.3.1	GDP/unit of energy use	12.5	29	
3.3.2	Environmental performance*	64.8	31	
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	6.7	12	◆
MARKET SOPHISTICATION		**50.9**	**49**	
4.1	**Credit**	**62.0**	**14**	
4.1.1	Ease of getting credit*	60.0	74	
4.1.2	Domestic credit to private sector, % GDP	142.3	12	◆
4.1.3	Microfinance gross loans, % GDP	n/a	n/a	
4.2	**Investment**	**28.7**	**98**	○
4.2.1	Ease of protecting minority investors*	76.0	21	
4.2.2	Market capitalization, % GDP	12.6	65	○
4.2.3	Venture capital deals/bn PPP$ GDP	0.0	48	
4.3	**Trade, competition, and market scale**	**61.9**	**69**	
4.3.1	Applied tariff rate, weighted avg., %	1.7	22	
4.3.2	Intensity of local competition+	76.0	20	
4.3.3	Domestic market scale, bn PPP$	36.3	113	○ ◇

		Score/Value	Rank	
BUSINESS SOPHISTICATION		**42.0**	**28**	
5.1	**Knowledge workers**	**41.4**	**42**	
5.1.1	Knowledge-intensive employment, %	35.6	37	
5.1.2	Firms offering formal training, %	39.7	30	
5.1.3	GERD performed by business, % GDP	0.2	51	
5.1.4	GERD financed by business, %	32.8	53	
5.1.5	Females employed w/advanced degrees, %	25.1	14	
5.2	**Innovation linkages**	**44.4**	**19**	
5.2.1	University/industry research collaboration+	39.7	75	◇
5.2.2	State of cluster development+	48.2	59	
5.2.3	GERD financed by abroad, % GDP	0.1	32	
5.2.4	JV-strategic alliance deals/bn PPP$ GDP	0.3	4	● ◆
5.2.5	Patent families 2+ offices/bn PPP$ GDP	1.8	22	
5.3	**Knowledge absorption**	**40.3**	**30**	
5.3.1	Intellectual property payments, % total trade	0.9	42	
5.3.2	High-tech imports, % total trade	3.9	124	○ ◇
5.3.3	ICT services imports, % total trade	6.7	1	● ◆
5.3.4	FDI net inflows, % GDP	47.6	1	● ◆
5.3.5	Research talent, % in business enterprise	27.3	46	
KNOWLEDGE & TECHNOLOGY OUTPUTS		**40.3**	**20**	
6.1	**Knowledge creation**	**32.4**	**31**	
6.1.1	Patents by origin/bn PPP$ GDP	1.6	49	
6.1.2	PCT patents by origin/bn PPP$ GDP	1.2	25	
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	n/a	
6.1.4	Scientific & technical articles/bn PPP$ GDP	28.0	12	
6.1.5	Citable documents H-index	12.3	60	
6.2	**Knowledge impact**	**34.2**	**30**	
6.2.1	Growth rate of PPP$ GDP/worker, %	-0.3	97	○
6.2.2	New businesses/th pop. 15-64	17.6	5	● ◆
6.2.3	Computer software spending, % GDP	0.0	70	
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	22.3	9	◆
6.2.5	High- and medium-high-tech manufacturing, %	15.8	63	
6.3	**Knowledge diffusion**	**54.2**	**9**	◆
6.3.1	Intellectual property receipts, % total trade	0.0	85	○
6.3.2	High-tech net exports, % total trade	0.6	77	◇
6.3.3	ICT services exports, % total trade	14.6	1	● ◆
6.3.4	FDI net outflows, % GDP	30.5	1	● ◆
CREATIVE OUTPUTS		**36.1**	**25**	
7.1	**Intangible assets**	**33.1**	**41**	
7.1.1	Trademarks by origin/bn PPP$ GDP	79.3	23	
7.1.2	Global brand value, top 5,000, % GDP	6.2	67	◇
7.1.3	Industrial designs by origin/bn PPP$ GDP	12.1	11	◆
7.1.4	ICTs & organizational model creation+	47.3	93	○ ◇
7.2	**Creative goods and services**	**15.1**	**64**	
7.2.1	Cultural & creative services exports, % total trade	0.2	73	
7.2.2	National feature films/mn pop. 15-69	6.9	32	
7.2.3	Entertainment & Media market/th pop. 15-69	n/a	n/a	
7.2.4	Printing and other media, % manufacturing	2.1	13	
7.2.5	Creative goods exports, % total trade	0.3	72	
7.3	**Online creativity**	**62.9**	**9**	◆
7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	74.3	7	● ◆
7.3.2	Country-code TLDs/th pop. 15-69	5.0	55	
7.3.3	Wikipedia edits/mn pop. 15-69	73.8	35	
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 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 either missing or outdated for Cyprus.

Missing data

Code	Indicator name	Country year	Model year	Source
4.1.3	Microfinance gross loans, % GDP	n/a	2018	Microfinance Information Exchange
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	2018	World Intellectual Property Organization
7.2.3	Entertainment & Media market/th pop. 15–69	n/a	2018	PwC

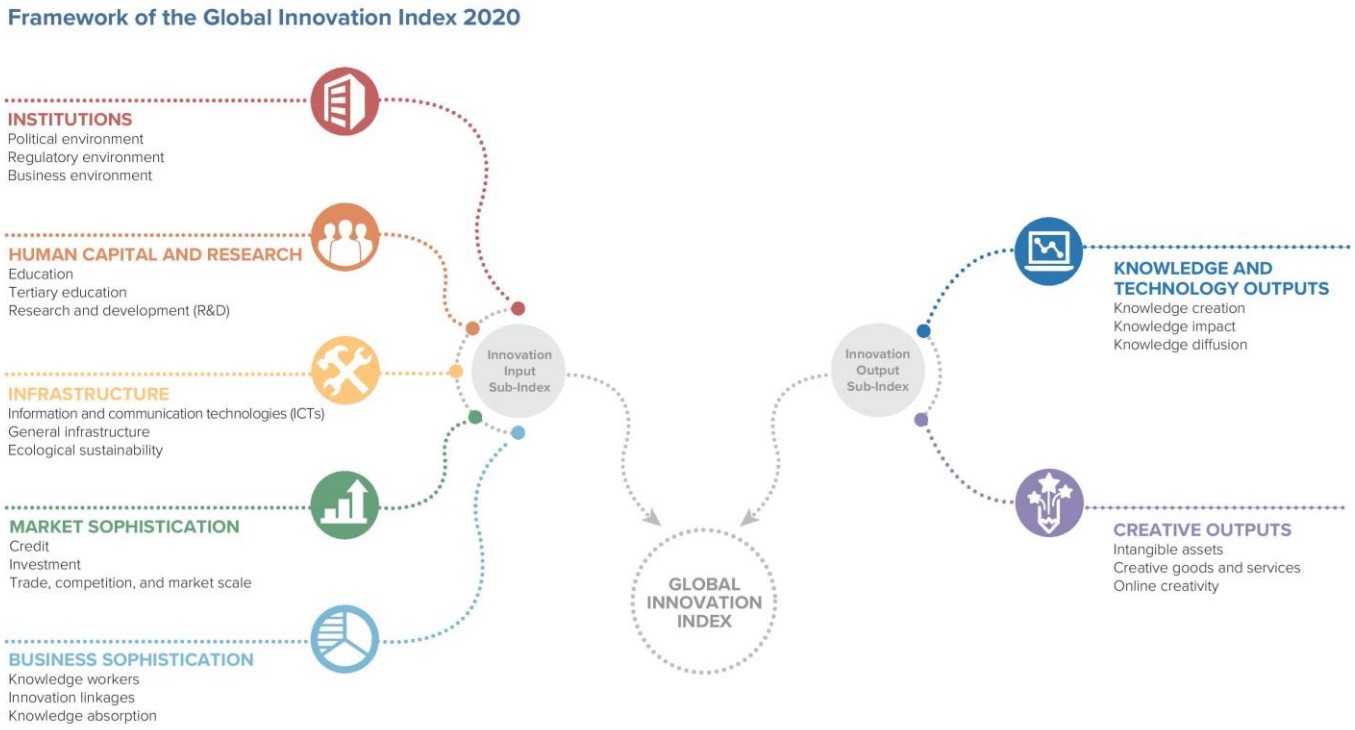
Outdated data

Code	Indicator name	Country year	Model year	Source
2.1.1	Expenditure on education, % GDP	2016	2018	UNESCO Institute for Statistics
2.1.5	Pupil-teacher ratio, secondary	2017	2018	UNESCO Institute for Statistics
7.2.1	Cultural & creative services exports, % total trade	2016	2018	World Trade 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 13th 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.



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.