

AZERBAIJAN

82nd

Azerbaijan ranks 82nd 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 Azerbaijan 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 Azerbaijan in the GII 2020 is between ranks 82 and 88.

Rankings of Azerbaijan (2018–2020)

	GII	Innovation inputs	Innovation outputs
2020	82	76	86
2019	84	77	90
2018	82	76	87

- Azerbaijan performs better in innovation inputs than innovation outputs in 2020.
- This year Azerbaijan ranks 76th in innovation inputs, higher than last year and the same compared to 2018.
- As for innovation outputs, Azerbaijan ranks 86th. This position is higher than last year and higher compared to 2018.

27th

Azerbaijan ranks 27th among the 37 upper middle-income group economies.

14th

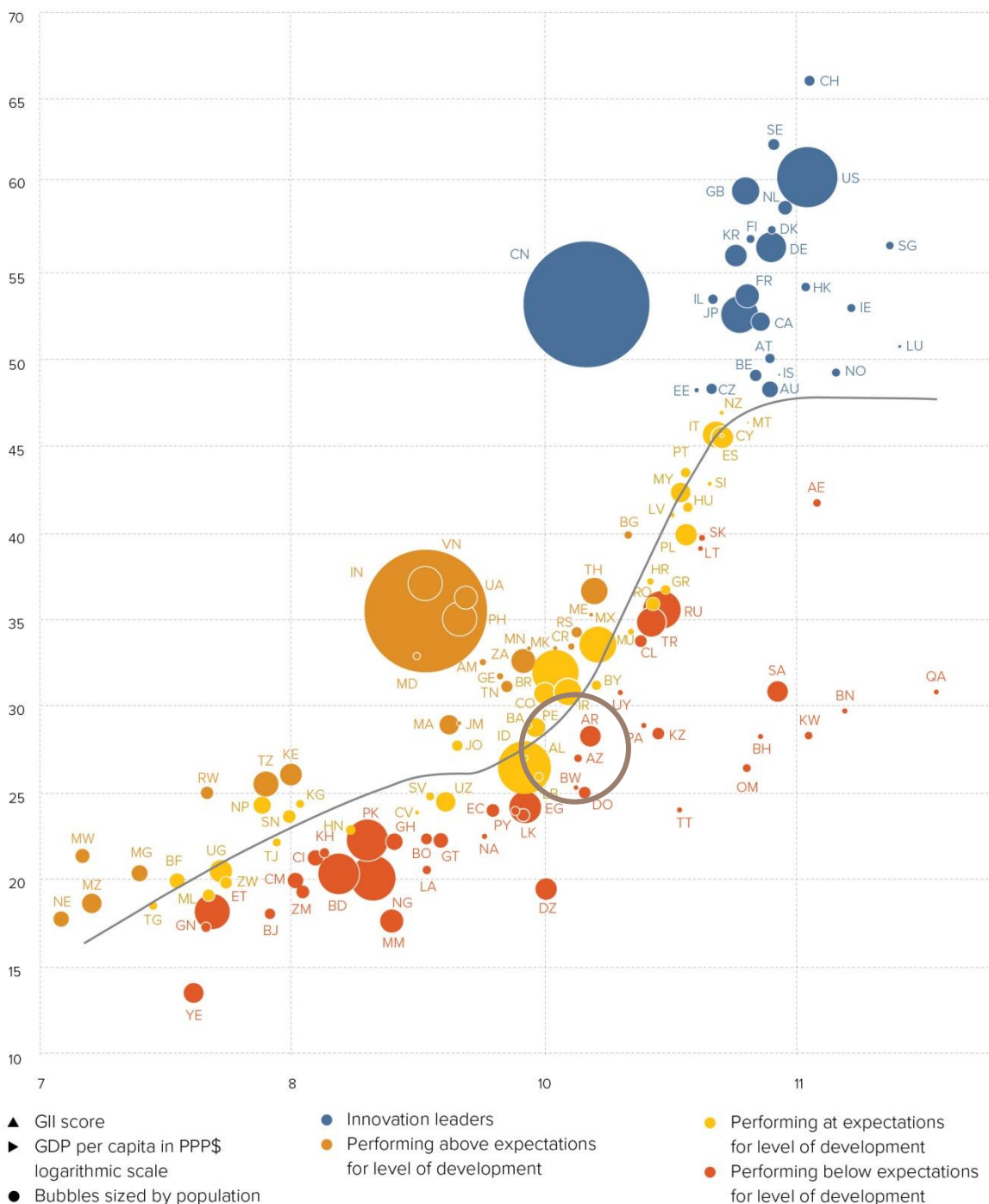
Azerbaijan ranks 14th among the 19 economies in Northern Africa and Western Asia.

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, Azerbaijan is performing below expectations for its level of development.

The positive relationship between innovation and development

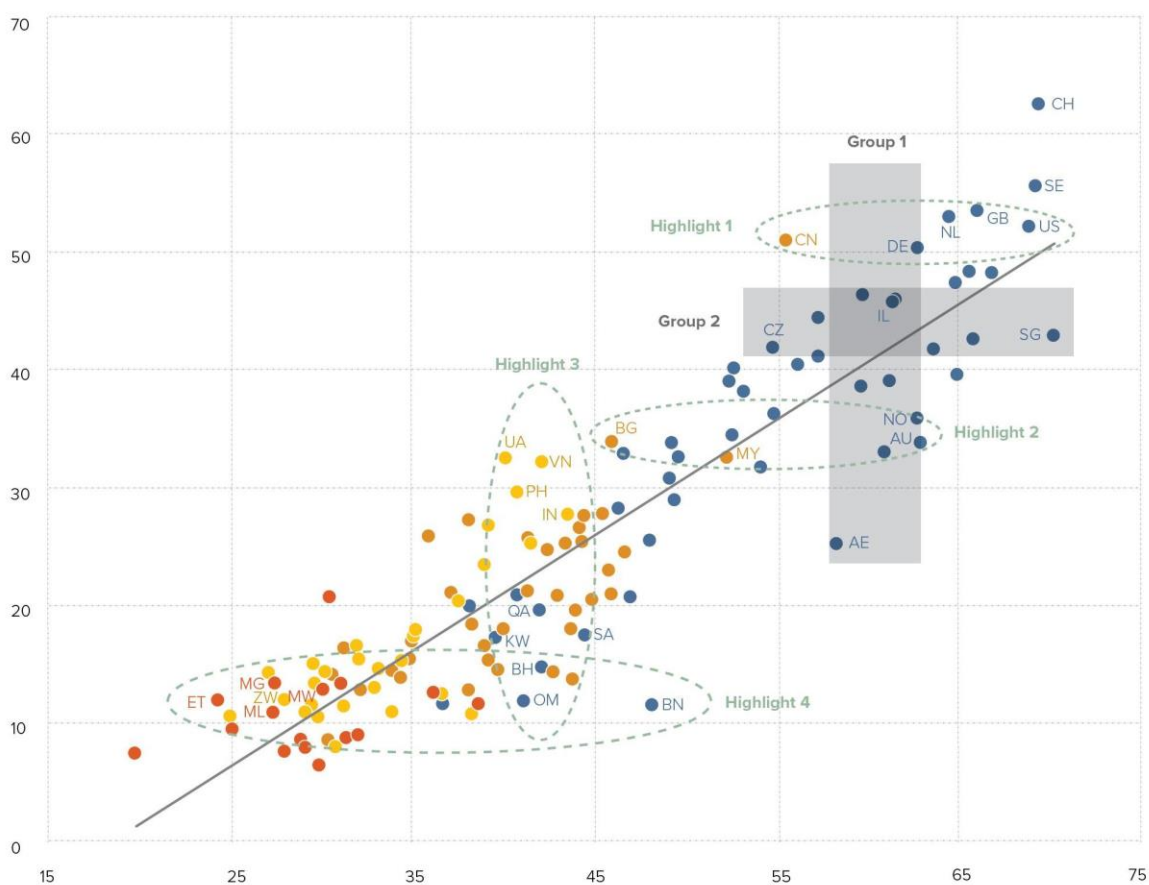


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

Azerbaijan produces less innovation outputs relative to its level of innovation investments.

Innovation input to output performance, 2020

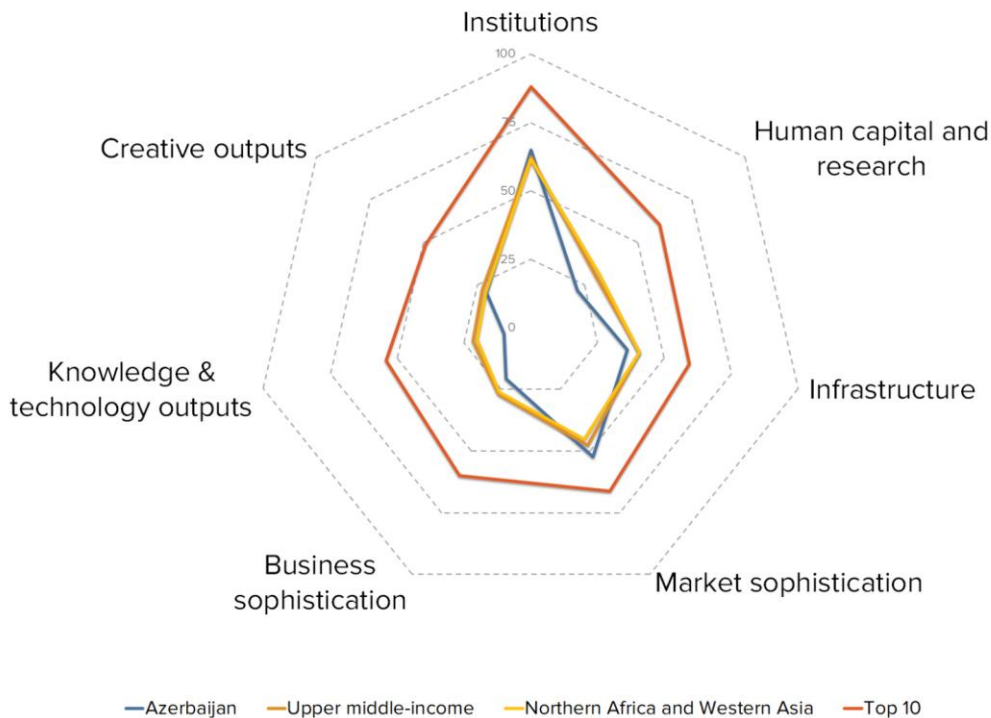


▲ Output score ● High income group ● Lower middle-income group — Fitted values
 ► Input score ● Upper middle-income group ● Low income group

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 AZERBAIJAN AGAINST OTHER UPPER MIDDLE-INCOME GROUP ECONOMIES AND NORTHERN AFRICA AND WESTERN ASIA

Azerbaijan's scores in the seven GII pillars



Upper middle-income group economies

Azerbaijan has high scores in two out of the seven GII pillars: Institutions and Market sophistication, which are above average for the upper middle-income group.

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

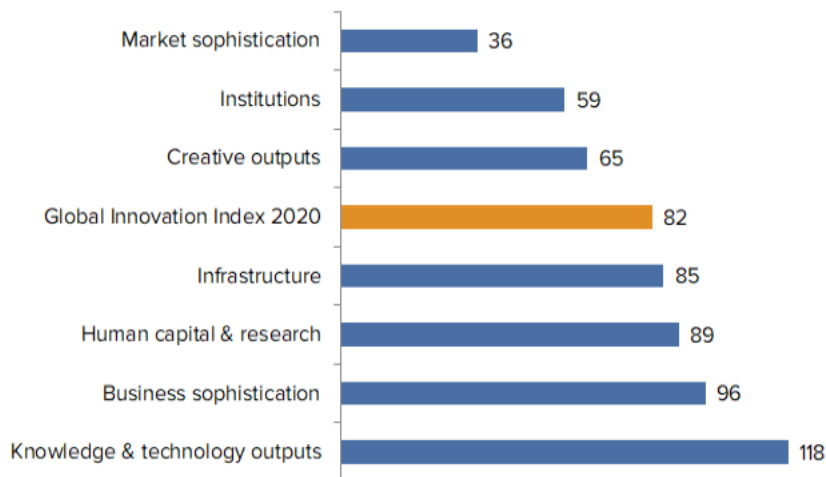
Northern Africa and Western Asia

Compared to other economies in Northern Africa and Western Asia, Azerbaijan performs:

- above average in two out of the seven GII pillars: Institutions and Market sophistication; and
- below average in five of the seven GII pillars: Human capital & research, Infrastructure, Business sophistication, Knowledge & technology outputs and Creative outputs.

OVERVIEW OF AZERBAIJAN RANKINGS IN THE SEVEN GII AREAS

Azerbaijan performs best in Market sophistication and its weakest performance is in Knowledge & technology outputs.



*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 Azerbaijan in the GII 2020.

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.3	Business environment	33	2.1.1	Expenditure on education, % GDP	109
1.3.1	Ease of starting a business*	9	2.3.3	Global R&D companies, top 3, mn US\$	42
2.1.5	Pupil-teacher ratio, secondary	6	3.2	General infrastructure	120
4	Market sophistication	36	5.1.3	GERD performed by business, % GDP	88
4.1.1	Ease of getting credit*	1	5.2.3	GERD financed by abroad, % GDP	101
4.1.3	Microfinance gross loans, % GDP	14	5.2.4	JV-strategic alliance deals/bn PPP\$ GDP	109
5.2.1	University/industry research collaboration [†]	23	5.3	Knowledge absorption	119
5.2.2	State of cluster development [†]	29	5.3.1	Intellectual property payments, % total trade	105
5.3.4	FDI net inflows, % GDP	16	5.3.2	High-tech imports, % total trade	121
6.3.4	FDI net outflows, % GDP	8	6	Knowledge & technology outputs	118
7.1.4	ICTs & organizational model creation [†]	35	6.3.1	Intellectual property receipts, % total trade	106
7.2.2	National feature films/mn pop. 15-69	27	7.2.5	Creative goods exports, % total trade	120
			7.3.4	Mobile app creation/bn PPP\$ GDP	97

STRENGTHS

GII strengths for Azerbaijan are found in six of the seven GII pillars.

- Institutions (59): exhibits strengths in the sub-pillar Business environment (33) and in the indicator Ease of starting a business (9).
- Human capital & research (89): the indicator Pupil–teacher ratio (6) reveals a strength.
- Market sophistication (36): shows strengths in the indicators Ease of getting credit (1) and Microfinance gross loans (14).
- Business sophistication (96): displays strengths in the indicators University/industry research collaboration (23), State of cluster development (29) and FDI net inflows (16).
- Knowledge & technology outputs (118): the indicator FDI net outflows (8) reveals a strength.
- Creative outputs (65): shows strengths in the indicators ICTs & organizational model creation (35) and National feature films (27).

WEAKNESSES

GII weaknesses for Azerbaijan are found in five of the seven GII pillars.

- Human capital & research (89): shows weaknesses in the indicators Expenditure on education (109) and Global R&D companies (42).
- Infrastructure (85): the sub-pillar General infrastructure (120) displays a weakness.
- Business sophistication (96): demonstrates weaknesses in the sub-pillar Knowledge absorption (119) and in the indicators GERD performed by business (88), GERD financed by abroad (101), JV–strategic alliance deals (109), Intellectual property payments (105) and High-tech imports (121).
- Knowledge & technology outputs (118): the indicator Intellectual property receipts (106) reveals a weakness.
- Creative outputs (65): displays weaknesses in the indicators Creative goods exports (120) and Mobile app creation (97).

DATA AVAILABILITY

The following tables list data that are either missing or outdated for Azerbaijan.

Missing data

Code	Indicator name	Country year	Model year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2016	UNESCO Institute for Statistics
2.3.1	Researchers, FTE/mn pop.	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
3.2.2	Logistics performance*	n/a	2018	World Bank and Turku School of Economics
4.2.2	Market capitalization, % GDP	n/a	2018	World Federation of Exchanges
4.2.3	Venture capital deals/bn PPP\$ GDP	n/a	2019	Thomson Reuters
5.3.5	Research talent, % in business enterprise	n/a	2018	UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators
7.1.2	Global brand value, top 5000, % GDP	n/a	2019	Brand Finance
7.2.3	Entertainment & Media market/th pop. 15–69	n/a	2018	PwC

Outdated data

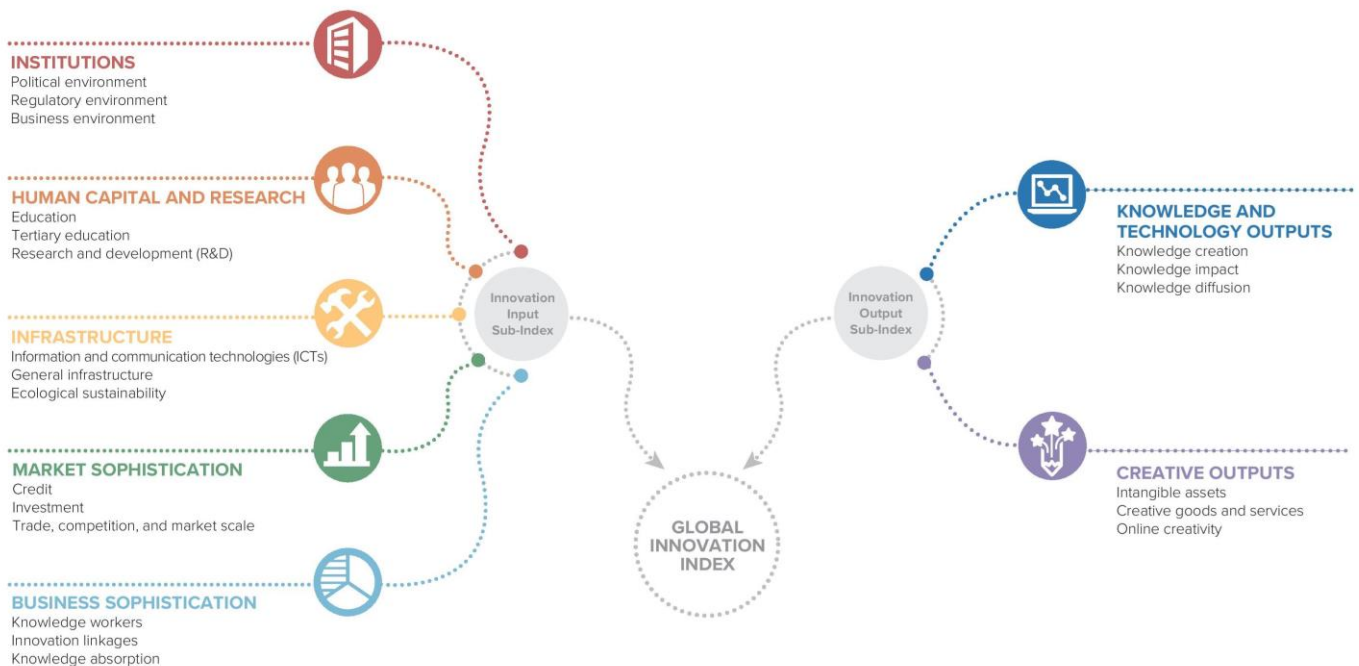
Code	Indicator name	Country year	Model year	Source
2.1.1	Expenditure on education, % GDP	2017	2018	UNESCO Institute for Statistics
4.3.1	Applied tariff rate, weighted avg., %	2015	2018	World Bank
5.1.2	Firms offering formal training, %	2012	2018	World Bank
5.1.5	Females employed w/advanced degrees, %	2013	2018	International Labour Organization
5.3.1	Intellectual property payments, % total trade	2012	2018	World Trade Organization
6.3.1	Intellectual property receipts, % total trade	2012	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.

Framework of the Global Innovation Index 2020



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.

