Global Innovation Index 2021

GEORGIA

63rd Georgia ranks 63rd among the 132 economies featured in the GII 2021.

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 Georgia 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 Georgia in the GII 2021 is between ranks 61 and 69.

Rankings for Georgia (2019–2021)

	GII	Innovation inputs	Innovation outputs
2021	63	49	74
2020	63	54	71
2019	48	44	60

- Georgia performs better in innovation inputs than innovation outputs in 2021.
- This year Georgia ranks 49th in innovation inputs, higher than last year but lower than 2019.
- As for innovation outputs, Georgia ranks 74th. This position is lower than both 2020 and 2019.

16th Georgia ranks 16th among the 34 upper middle-income group economies.

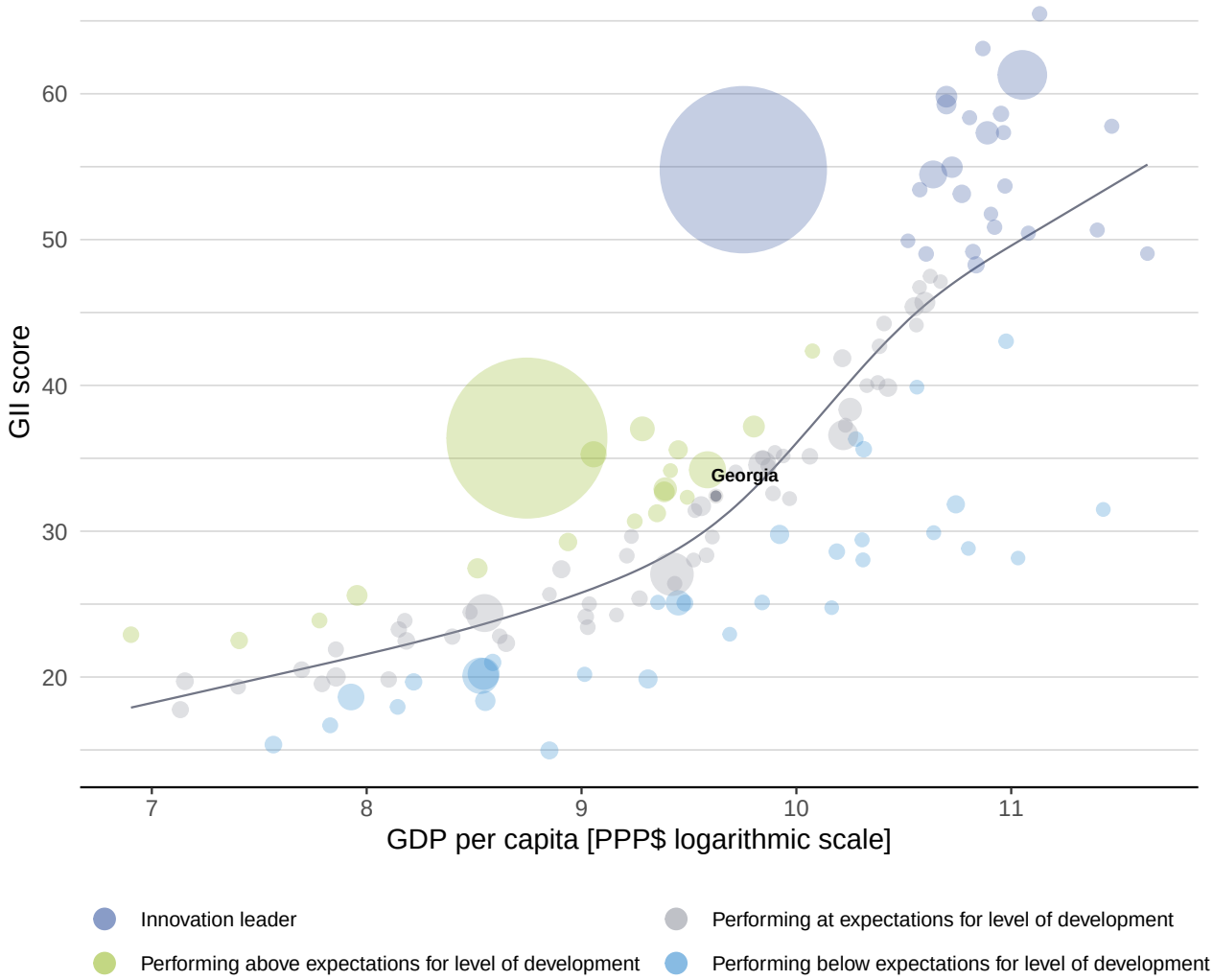
5th Georgia ranks 5th among the 19 economies in Northern Africa and Western Asia.

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, Georgia's performance is at expectations for its level of development.

The positive relationship between innovation and development

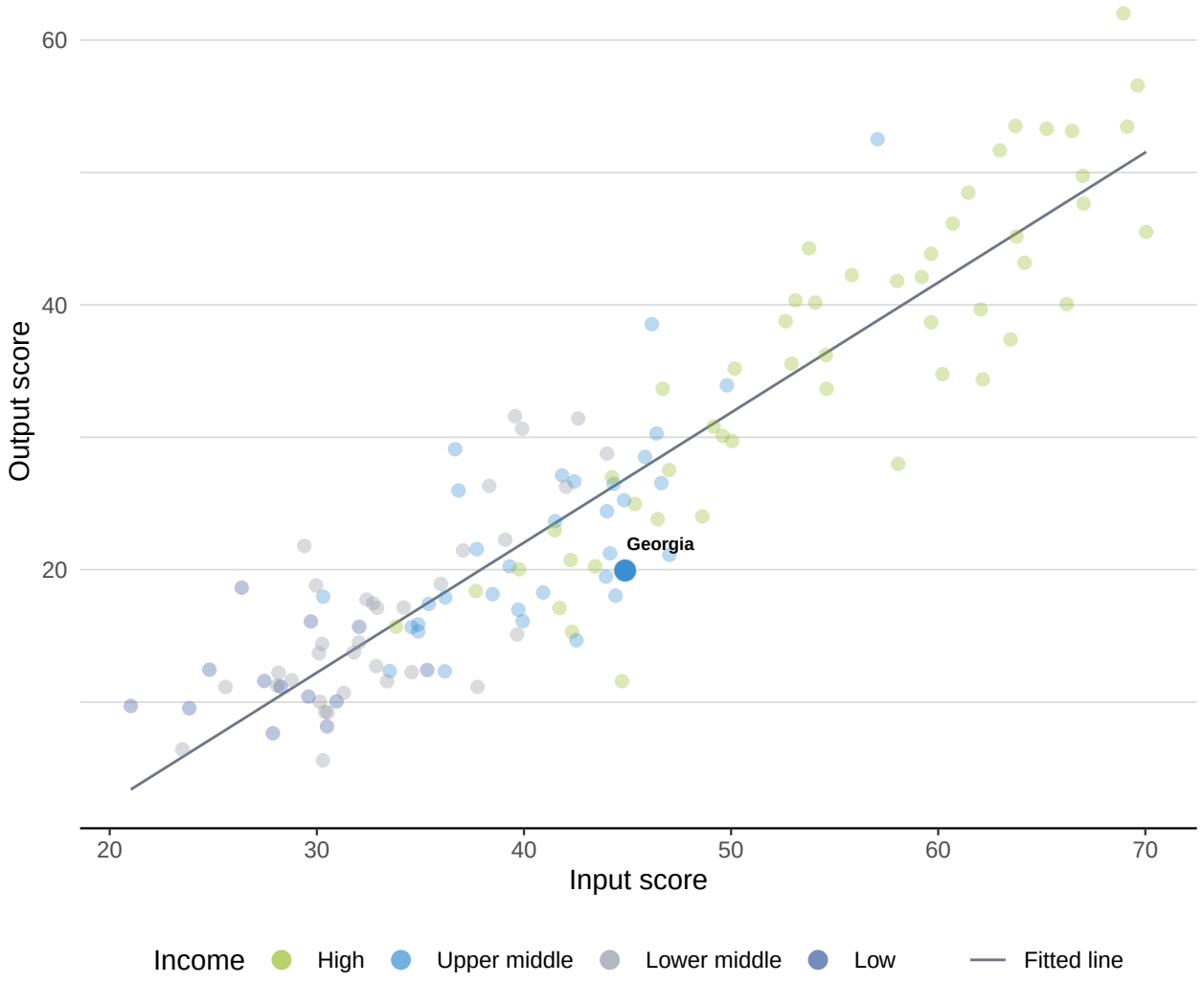


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

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

Innovation input to output performance



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

The seven GII pillar scores for Georgia

Upper middle-income group economies

Georgia performs above the upper middle-income group average in three pillars, namely: Institutions; Human capital and research; and, Market sophistication.

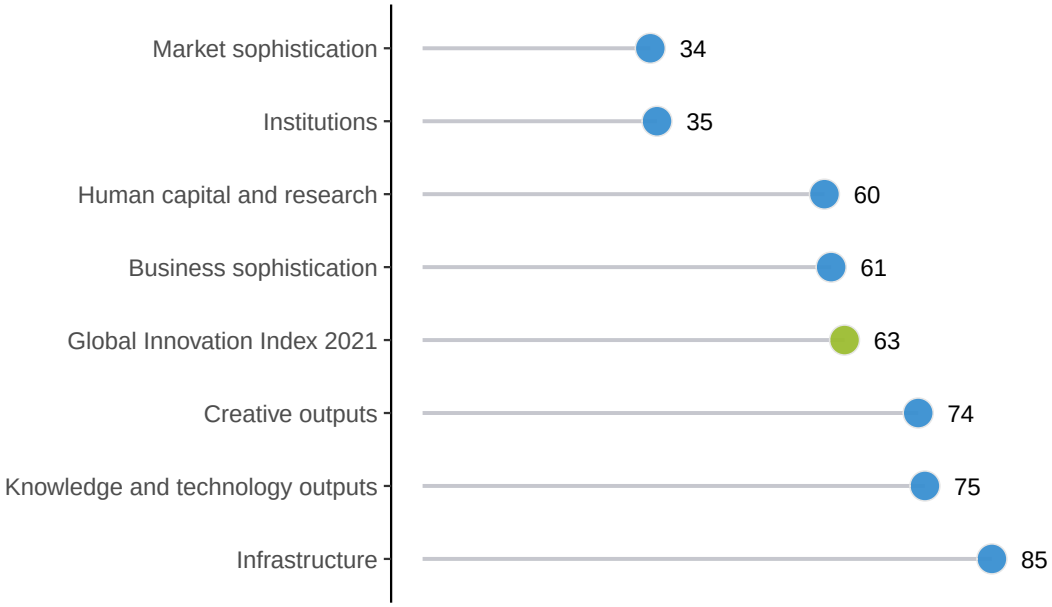
Northern Africa and Western Asia

Georgia performs above the regional average in three pillars, namely: Institutions; Market sophistication; and, Business sophistication.

OVERVIEW OF RANKINGS IN THE SEVEN GII 2021 AREAS

Georgia performs best in Market sophistication and its weakest performance is in Infrastructure.

The seven GII pillar ranks for Georgia



Note: The highest possible ranking in each pillar is one.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Georgia in the GII 2021.

Strengths and weaknesses for Georgia

Strengths			Weaknesses		
Code	**Indicator name**	**Rank**	**Code**	**Indicator name**	**Rank**
1.2.3	Cost of redudancy dismissal	16	2.1.4	PISA scales in reading, maths and science	70
1.3.1	Ease of starting a business	2	2.3.3	Global corporate R&D investors, top 3, mn US$	41
2.1.5	Pupil-teacher ratio, secondary	3	2.3.4	QS university ranking, top 3	74
4.1.1	Ease of getting credit	14	3.2.2	Logistics performance	111
4.2.1	Ease of protecting minority investors	7	3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	102
4.3.1	Applied tariff rate, weighted avg., %	5	5.1.4	GERD financed by business, %	89
5.1.5	Females employed w/advanced degrees, %	23	6.2.5	High-tech manufacturing, %	90
5.3.4	FDI net inflows, % GDP	9	6.3.1	Intellectual property receipts, % total trade	97
6.2.1	Labor productivity growth, %	24	7.1.4	ICTs and organizational model creation	101
6.2.2	New businesses/th pop. 15–64	11	7.2.5	Creative goods exports, % total trade	104

Georgia

GII 2021 rank
63

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP$ (bn)	GDP per capita, PPP$	GII 2020 rank
74	49	Upper middle	NAWA	4.0	56.1	15,142	63

		Score/ Value	Rank	
Institutions		**76.2**	**35**	◆
1.1	**Political environment**	**69.3**	**40**	◆
1.1.1	Political and operational stability*	69.6	60	
1.1.2	Government effectiveness*	69.1	38	◆
1.2	**Regulatory environment**	**81.3**	**28**	◆
1.2.1	Regulatory quality*	72.8	28	◆
1.2.2	Rule of law*	54.9	51	◆
1.2.3	Cost of redundancy dismissal	8.6	16	●
1.3	**Business environment**	**77.9**	**40**	
1.3.1	Ease of starting a business*	99.6	2	● ◆
1.3.2	Ease of resolving insolvency*	56.2	59	
Human capital and research		**32.5**	**60**	
2.1	**Education**	**52.0**	**60**	
2.1.1	Expenditure on education, % GDP	3.5	85	
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	n/a	
2.1.3	School life expectancy, years	15.6	44	
2.1.4	PISA scales in reading, maths and science	386.7	70	○
2.1.5	Pupil-teacher ratio, secondary	7.2	3	● ◆
2.2	**Tertiary education**	**39.6**	**43**	
2.2.1	Tertiary enrolment, % gross	63.9	43	
2.2.2	Graduates in science and engineering, %	24.6	42	
2.2.3	Tertiary inbound mobility, %	8.1	29	◆
2.3	**Research and development (R&D)**	**5.7**	**75**	
2.3.1	Researchers, FTE/mn pop.	◴1,463.8	46	
2.3.2	Gross expenditure on R&D, % GDP	◴ 0.3	83	
2.3.3	Global corporate R&D investors, top 3, mn US$	0.0	41	○ ◇
2.3.4	QS university ranking, top 3*	0.0	74	○ ◇
Infrastructure		**36.3**	**85**	
3.1	**Information and communication technologies (ICTs)**	**64.0**	**72**	
3.1.1	ICT access*	70.4	59	
3.1.2	ICT use*	62.7	58	
3.1.3	Government's online service*	58.8	88	
3.1.4	E-participation*	64.3	80	
3.2	**General infrastructure**	**23.5**	**90**	
3.2.1	Electricity output, GWh/mn pop.	3,256.2	62	
3.2.2	Logistics performance*	18.4	111	○ ◇
3.2.3	Gross capital formation, % GDP	25.4	42	
3.3	**Ecological sustainability**	**21.3**	**92**	◇
3.3.1	GDP/unit of energy use	8.7	84	
3.3.2	Environmental performance*	41.3	86	◇
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	0.3	102	○
Market sophistication		**53.9**	**34**	
4.1	**Credit**	**50.6**	**29**	◆
4.1.1	Ease of getting credit*	85.0	14	●
4.1.2	Domestic credit to private sector, % GDP	67.7	48	
4.1.3	Microfinance gross loans, % GDP	1.6	17	
4.2	**Investment**	**44.8**	**[24]**	
4.2.1	Ease of protecting minority investors*	84.0	7	● ◆
4.2.2	Market capitalization, % GDP	n/a	n/a	
4.2.3	Venture capital investors, deals/bn PPP$ GDP	◴ 0.0	50	
4.2.4	Venture capital recipients, deals/bn PPP$ GDP	n/a	n/a	
4.3	**Trade, diversification, and market scale**	**66.4**	**73**	
4.3.1	Applied tariff rate, weighted avg., %	◴ 0.7	5	●
4.3.2	Domestic industry diversification	78.4	82	
4.3.3	Domestic market scale, bn PPP$	56.1	99	

		Score/ Value	Rank	
Business sophistication		**25.6**	**61**	
5.1	**Knowledge workers**	**35.7**	**56**	
5.1.1	Knowledge-intensive employment, %	33.6	43	◆
5.1.2	Firms offering formal training, %	32.0	46	
5.1.3	GERD performed by business, % GDP	n/a	n/a	
5.1.4	GERD financed by business, %	1.7	89	○ ◇
5.1.5	Females employed w/advanced degrees, %	22.5	23	● ◆
5.2	**Innovation linkages**	**20.2**	**68**	
5.2.1	University-industry R&D collaboration†	40.4	73	
5.2.2	State of cluster development and depth†	49.3	50	
5.2.3	GERD financed by abroad, % GDP	0.0	61	
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP ◴	0.1	32	◆
5.2.5	Patent families/bn PPP$ GDP	0.0	67	
5.3	**Knowledge absorption**	**20.9**	**88**	
5.3.1	Intellectual property payments, % total trade	0.3	77	
5.3.2	High-tech imports, % total trade	6.2	94	
5.3.3	ICT services imports, % total trade	0.8	86	
5.3.4	FDI net inflows, % GDP	8.9	9	● ◆
5.3.5	Research talent, % in businesses	n/a	n/a	
Knowledge and technology outputs		**18.1**	**75**	
6.1	**Knowledge creation**	**17.4**	**59**	
6.1.1	Patents by origin/bn PPP$ GDP	1.5	51	
6.1.2	PCT patents by origin/bn PPP$ GDP	0.1	62	
6.1.3	Utility models by origin/bn PPP$ GDP	1.3	18	
6.1.4	Scientific and technical articles/bn PPP$ GDP	15.1	58	
6.1.5	Citable documents H-index	10.6	72	
6.2	**Knowledge impact**	**25.5**	**83**	
6.2.1	Labor productivity growth, %	2.2	24	●
6.2.2	New businesses/th pop. 15–64	10.4	11	● ◆
6.2.3	Software spending, % GDP	0.1	90	
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	3.1	74	
6.2.5	High-tech manufacturing, %	9.8	90	○ ◇
6.3	**Knowledge diffusion**	**11.4**	**88**	
6.3.1	Intellectual property receipts, % total trade	0.0	97	○ ◇
6.3.2	Production and export complexity	43.0	65	
6.3.3	High-tech exports, % total trade	0.8	79	
6.3.4	ICT services exports, % total trade	1.1	80	
Creative outputs		**21.8**	**74**	
7.1	**Intangible assets**	**27.3**	**77**	
7.1.1	Trademarks by origin/bn PPP$ GDP	51.0	45	
7.1.2	Global brand value, top 5,000, % GDP	8.3	63	
7.1.3	Industrial designs by origin/bn PPP$ GDP	3.2	34	
7.1.4	ICTs and organizational model creation†	43.6	101	○ ◇
7.2	**Creative goods and services**	**11.3**	**76**	
7.2.1	Cultural and creative services exports, % total trade	0.1	80	
7.2.2	National feature films/mn pop. 15–69	6.7	34	
7.2.3	Entertainment and media market/th pop. 15–69	n/a	n/a	
7.2.4	Printing and other media, % manufacturing	1.5	26	
7.2.5	Creative goods exports, % total trade	0.1	104	○
7.3	**Online creativity**	**21.1**	**55**	
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	1.7	84	
7.3.2	Country-code TLDs/th pop. 15–69	4.5	56	
7.3.3	Wikipedia edits/mn pop. 15–69	73.1	30	◆
7.3.4	Mobile app creation/bn PPP$ GDP	2.1	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 IV 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 Georgia.

Missing data for Georgia

Code	Indicator name	Economy year	Model year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2017	UNESCO Institute for Statistics
4.2.2	Market capitalization, % GDP	n/a	2019	World Federation of Exchanges
4.2.4	Venture capital recipients, deals/bn PPP$ GDP	n/a	2020	Refinitiv Eikon
5.1.3	GERD performed by business, % GDP	n/a	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
5.3.5	Research talent, % in businesses	n/a	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2020	PwC

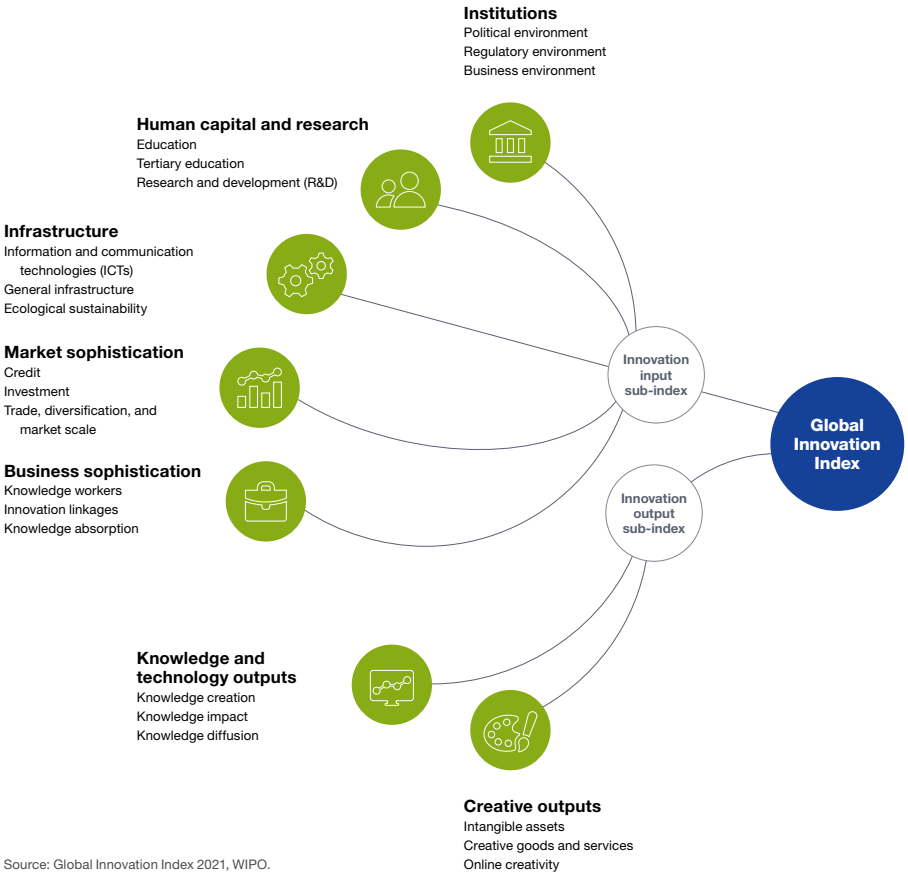
Outdated data for Georgia

Code	Indicator name	Economy year	Model year	Source
2.3.1	Researchers, FTE/mn pop.	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
2.3.2	Gross expenditure on R&D, % GDP	2018	2019	UNESCO Institute for Statistics; Eurostat; OECD - Main Science and Technology Indicators
4.2.3	Venture capital investors, deals/bn PPP$ GDP	2019	2020	Refinitiv Eikon
4.3.1	Applied tariff rate, weighted avg., %	2016	2019	World Bank
5.2.4	Joint venture/strategic alliance deals/bn PPP$ GDP	2019	2020	Refinitiv

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 2021, WIPO.

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.