



GEORGIA

74th

Georgia ranks 74th among the 132 economies featured in the GII 2022.

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 2022 is between ranks 66 and 78.

Rankings for Georgia (2020–2022)

GIIYR	GII	Innovation inputs	Innovation outputs
2020	63	54	71
2021	63	49	74
2022	74	61	82

- Georgia performs better in innovation inputs than innovation outputs in 2022.
- This year Georgia ranks 61st in innovation inputs, lower than both 2021 and 2020.
- As for innovation outputs, Georgia ranks 82nd. This position is lower than both 2021 and 2020.

21st

Georgia ranks 21st among the 36 upper-middle-income group economies.

11th

Georgia ranks 11th among the 19 economies in Northern Africa and Western Asia.

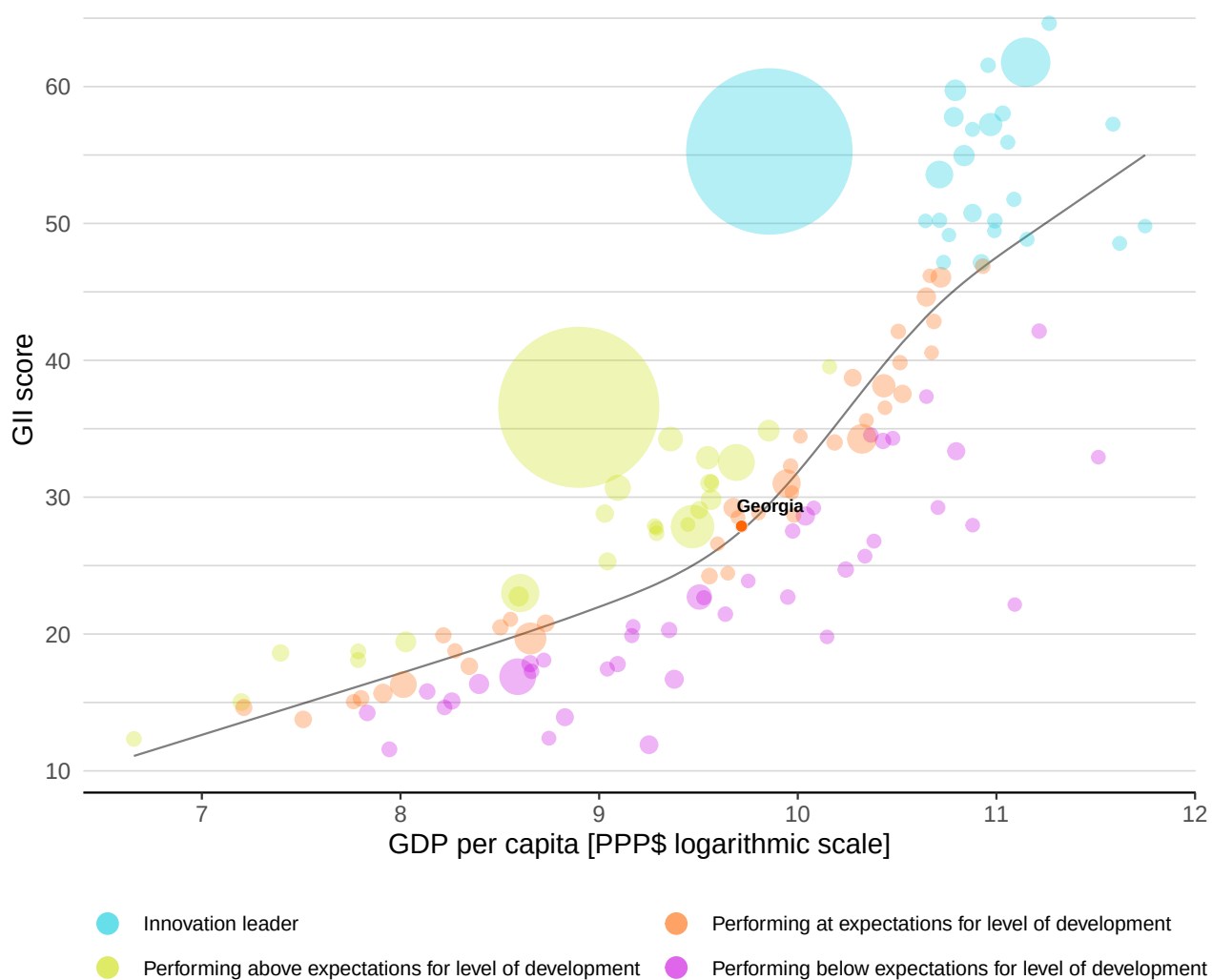


EXPECTED VS. OBSERVED INNOVATION PERFORMANCE

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

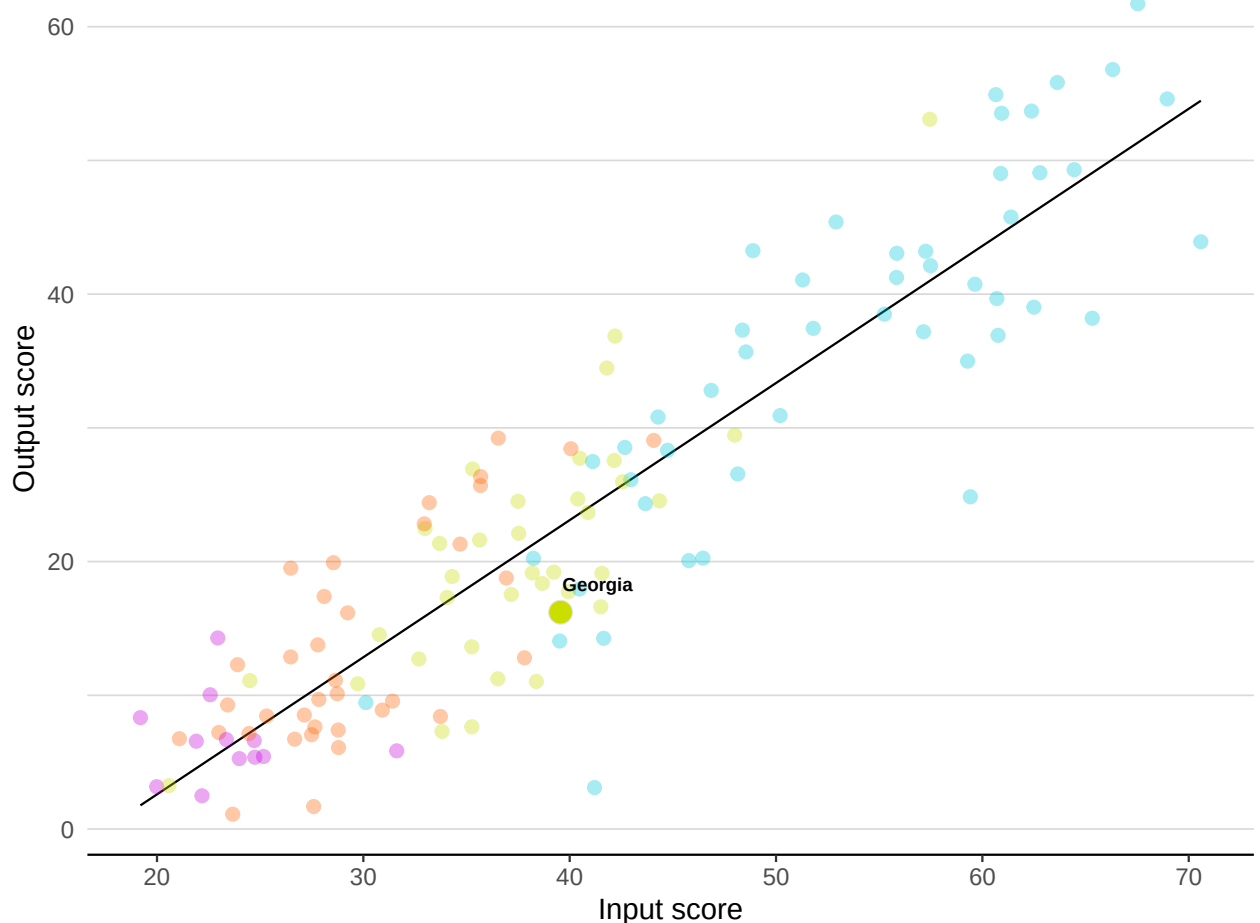


EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

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.

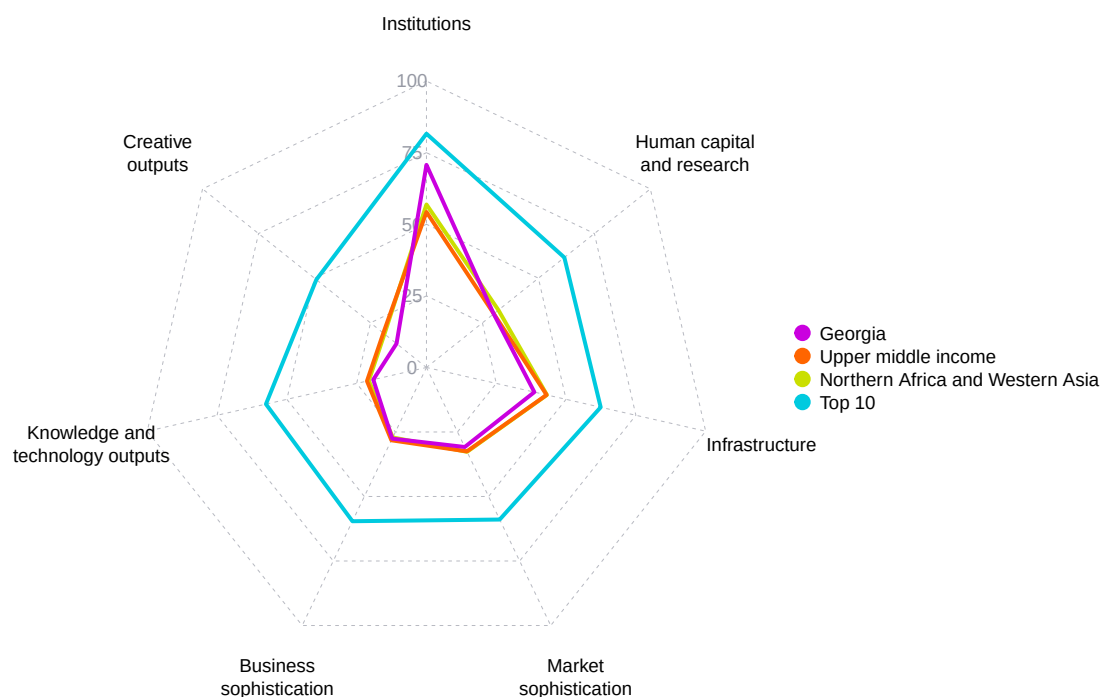
Innovation input to output performance



Income High income Upper middle Lower middle Low income — Fitted line

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 Institutions.

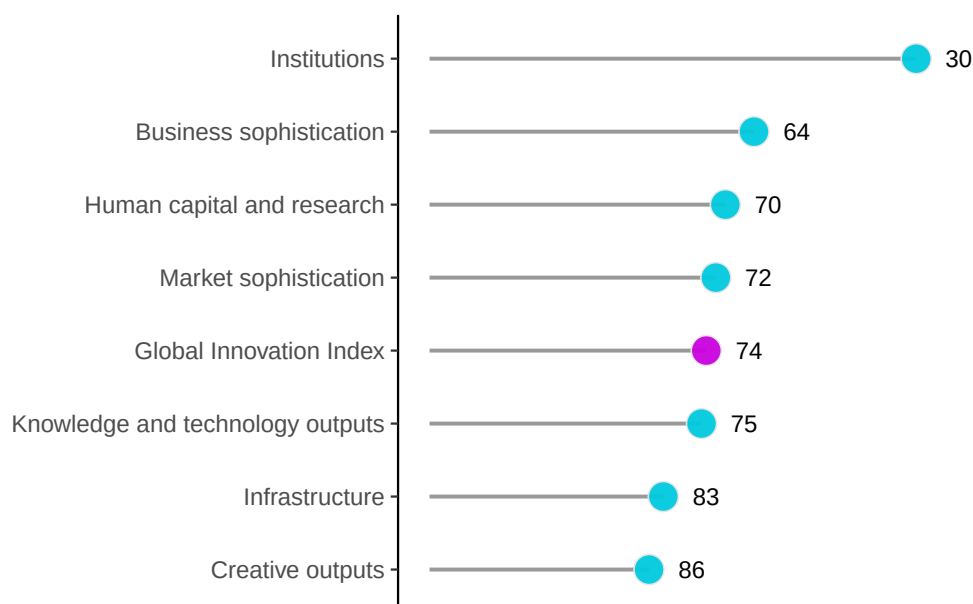
Northern Africa and Western Asia

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

OVERVIEW OF RANKINGS IN THE SEVEN GII 2022 AREAS

Georgia performs best in Institutions and its weakest performance is in Creative outputs.

The seven GII pillar ranks for Georgia



Note: The highest possible ranking in each pillar is 1.

The full WIPO Intellectual Property Statistics profile for Georgia can be found at:

https://www.wipo.int/ipstats/en/statistics/country_profile/profile.jsp?code=GE.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the indicator strengths and weaknesses of Georgia in the GII 2022.

Strengths and weaknesses for Georgia

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
1.2.1	Regulatory quality	28	2.1.4	PISA scales in reading, maths and science	70
1.2.3	Cost of redundancy dismissal	16	2.3.3	Global corporate R&D investors, top 3, mn USD	38
1.3.1	Policies for doing business	28	2.3.4	QS university ranking, top 3	72
2.1.5	Pupil-teacher ratio, secondary	2	3.2.2	Logistics performance	109
3.1.1	ICT access	27	4.3.2	Domestic industry diversification	83
4.1.3	Loans from microfinance institutions, % GDP	13	4.3.3	Domestic market scale, bn PPP\$	98
4.3.1	Applied tariff rate, weighted avg., %	4	5.1.4	GERD financed by business, %	90
5.3.4	FDI net inflows, % GDP	14	6.2.3	Software spending, % GDP	93
6.2.1	Labor productivity growth, %	22	6.2.5	High-tech manufacturing, %	87
6.2.2	New businesses/th pop. 15–64	19	6.3.1	Intellectual property receipts, % total trade	96

Georgia

74

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$	
82	61	Upper middle	NAWA	4.0	61.6	16,590	
		Score/Value	Rank				
 Institutions		70.7	30	 Business sophistication			
1.1	Political environment	67.0	46	5.1	Knowledge workers	33.5	60
1.1.1	Political and operational stability*	67.3	71	5.1.1	Knowledge-intensive employment, %	24.7	58
1.1.2	Government effectiveness*	66.7	39	5.1.2	Firms offering formal training, %	32.0	49
1.2	Regulatory environment	80.9	29	5.1.3	GERD performed by business, % GDP	n/a	n/a
1.2.1	Regulatory quality*	72.6	28	5.1.4	GERD financed by business, %	1.7	90
1.2.2	Rule of law*	53.5	52	5.1.5	Females employed w/advanced degrees, %	18.1	40
1.2.3	Cost of redundancy dismissal	8.6	16	5.2	Innovation linkages	22.8	68
1.3	Business environment	64.3	[25]	5.2.1	University-industry R&D collaboration†	45.6	57
1.3.1	Policies for doing business†	64.3	28	5.2.2	State of cluster development and depth†	50.2	49
1.3.2	Entrepreneurship policies and culture*	n/a	n/a	5.2.3	GERD financed by abroad, % GDP	0.0	56
 Human capital and research		30.0	70	5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP	0.0	48
2.1	Education	53.4	61	5.2.5	Patent families/bn PPP\$ GDP	0.1	67
2.1.1	Expenditure on education, % GDP	3.9	86	5.3	Knowledge absorption	26.5	83
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	n/a	5.3.1	Intellectual property payments, % total trade	0.5	71
2.1.3	School life expectancy, years	15.6	45	5.3.2	High-tech imports, % total trade	6.9	94
2.1.4	PISA scales in reading, maths and science	386.7	70	5.3.3	ICT services imports, % total trade	1.1	84
2.1.5	Pupil-teacher ratio, secondary	6.5	2	5.3.4	FDI net inflows, % GDP	6.1	14
2.2	Tertiary education	32.5	61	5.3.5	Research talent, % in businesses	n/a	n/a
2.2.1	Tertiary enrolment, % gross	66.7	41	 Knowledge and technology outputs		19.1	75
2.2.2	Graduates in science and engineering, %	18.6	80	6.1	Knowledge creation	13.8	61
2.2.3	Tertiary inbound mobility, %	8.7	30	6.1.1	Patents by origin/bn PPP\$ GDP	1.5	51
2.3	Research and development (R&D)	4.1	75	6.1.2	PCT patents by origin/bn PPP\$ GDP	0.3	41
2.3.1	Researchers, FTE/mn pop.	1,712.4	44	6.1.3	Utility models by origin/bn PPP\$ GDP	1.0	23
2.3.2	Gross expenditure on R&D, % GDP	0.3	77	6.1.4	Scientific and technical articles/bn PPP\$ GDP	14.7	65
2.3.3	Global corporate R&D investors, top 3, mn USD	0.0	38	6.1.5	Citable documents H-index	10.2	71
2.3.4	QS university ranking, top 3*	0.0	72	6.2	Knowledge impact	26.1	69
 Infrastructure		38.6	83	6.2.1	Labor productivity growth, %	2.9	22
3.1	Information and communication technologies (ICTs)	70.2	75	6.2.2	New businesses/th pop. 15–64	7.5	19
3.1.1	ICT access*	92.2	27	6.2.3	Software spending, % GDP	0.1	93
3.1.2	ICT use*	65.6	61	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP	3.7	68
3.1.3	Government's online service*	58.8	88	6.2.5	High-tech manufacturing, %	11.0	87
3.1.4	E-participation*	64.3	80	6.3	Knowledge diffusion	17.2	82
3.2	General infrastructure	22.8	90	6.3.1	Intellectual property receipts, % total trade	0.0	96
3.2.1	Electricity output, GWh/mn pop.	3,008.1	63	6.3.2	Production and export complexity	41.3	62
3.2.2	Logistics performance*	18.1	109	6.3.3	High-tech exports, % total trade	0.9	78
3.2.3	Gross capital formation, % GDP	25.6	50	6.3.4	ICT services exports, % total trade	1.5	77
3.3	Ecological sustainability	22.9	80	 Creative outputs		13.4	86
3.3.1	GDP/unit of energy use	10.5	64	7.1	Intangible assets	17.8	83
3.3.2	Environmental performance*	39.1	74	7.1.1	Intangible asset intensity, top 15, %	n/a	n/a
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	0.3	97	7.1.2	Trademarks by origin/bn PPP\$ GDP	47.1	51
 Market sophistication		30.8	72	7.1.3	Global brand value, top 5,000, % GDP	9.4	58
4.1	Credit	32.5	43	7.1.4	Industrial designs by origin/bn PPP\$ GDP	2.6	40
4.1.1	Finance for startups and scaleups*	n/a	n/a	7.2	Creative goods and services	14.1	68
4.1.2	Domestic credit to private sector, % GDP	79.9	42	7.2.1	Cultural and creative services exports, % total trade	0.2	72
4.1.3	Loans from microfinance institutions, % GDP	2.4	13	7.2.2	National feature films/mn pop. 15–69	3.6	33
4.2	Investment	2.8	[97]	7.2.3	Entertainment and media market/th pop. 15–69	n/a	n/a
4.2.1	Market capitalization, % GDP	n/a	n/a	7.2.4	Printing and other media, % manufacturing	1.4	28
4.2.2	Venture capital investors, deals/bn PPP\$ GDP	0.0	64	7.2.5	Creative goods exports, % total trade	0.1	94
4.2.3	Venture capital recipients, deals/bn PPP\$ GDP	n/a	n/a	7.3	Online creativity	3.8	68
4.2.4	Venture capital received, value, % GDP	n/a	n/a	7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	1.8	81
4.3	Trade, diversification, and market scale	57.2	64	7.3.2	Country-code TLDs/th pop. 15–69	5.6	52
4.3.1	Applied tariff rate, weighted avg., %	0.2	4	7.3.3	GitHub commit pushes received/mn pop. 15–69	5.4	56
4.3.2	Domestic industry diversification	71.7	83	7.3.4	Mobile app creation/bn PPP\$ GDP	2.3	67
4.3.3	Domestic market scale, bn PPP\$	61.6	98				

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/global_innovation_index/en/2022. 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 indicators that are either missing or outdated for Georgia.

Missing data for Georgia

Code	Indicator name	Economy year	Model year	Source
1.3.2	Entrepreneurship policies and culture	n/a	2021	Global Entrepreneurship Monitor
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2018	UNESCO Institute for Statistics
4.1.1	Finance for startups and scaleups	n/a	2021	Global Entrepreneurship Monitor
4.2.1	Market capitalization, % GDP	n/a	2020	World Federation of Exchanges
4.2.3	Venture capital recipients, deals/bn PPP\$ GDP	n/a	2021	Refinitiv
4.2.4	Venture capital received, value, % GDP	n/a	2021	Refinitiv
5.1.3	GERD performed by business, % GDP	n/a	2020	UNESCO Institute for Statistics
5.3.5	Research talent, % in businesses	n/a	2020	UNESCO Institute for Statistics
7.1.1	Intangible asset intensity, top 15, %	n/a	2021	Brand Finance
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2021	PwC, GEMO

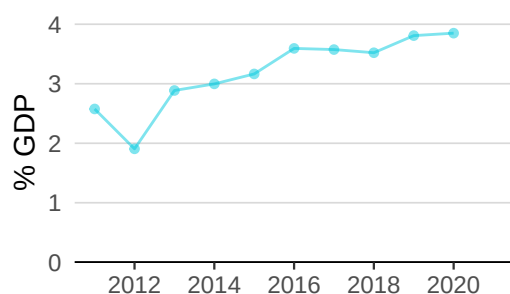
Outdated data for Georgia

Code	Indicator name	Economy year	Model year	Source
5.1.1	Knowledge-intensive employment, %	2020	2021	International Labour Organization
5.1.4	GERD financed by business, %	2018	2019	UNESCO Institute for Statistics
5.1.5	Females employed w/advanced degrees, %	2020	2021	International Labour Organization
5.2.3	GERD financed by abroad, % GDP	2018	2019	UNESCO Institute for Statistics

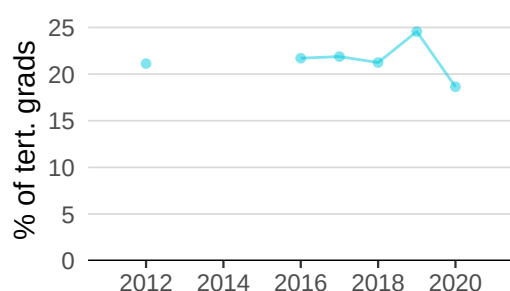
GEORGIA'S INNOVATION SYSTEM

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

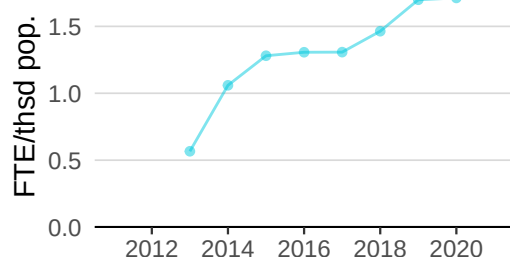
Innovation inputs



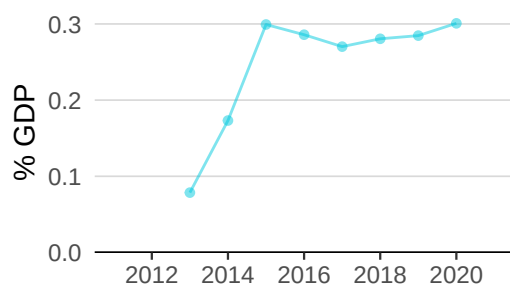
2.1.1 Expenditure on education was equal to 3.9% GDP in 2020—up by 1 percentage point from the year prior—and equivalent to an indicator rank of 86.



2.2.2 Graduates in science and engineering was equal to 18.6% of tert. grads in 2020—down by 24 percentage points from the year prior—and equivalent to an indicator rank of 80.



2.3.1 Researchers was equal to 1.7 FTE/thsd pop. in 2020—up by 1 percentage point from the year prior—and equivalent to an indicator rank of 44.



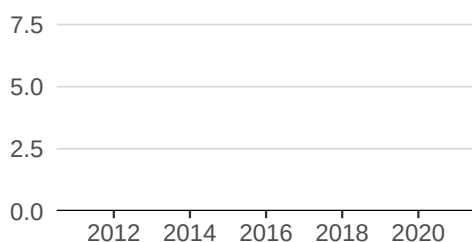
2.3.2 Gross expenditure on R&D was equal to 0.3% GDP in 2020—up by 6 percentage points from the year prior—and equivalent to an indicator rank of 77.



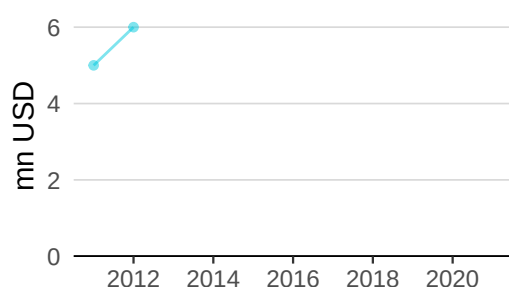
2.3.4 QS university ranking was equal to 0.0 in 2021—effectively unchanged from the year prior—and equivalent to an indicator rank of 72.



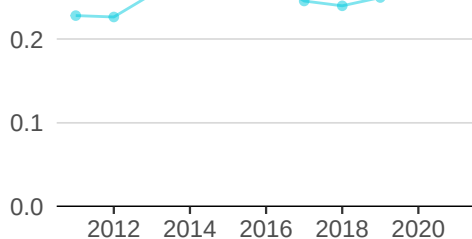
3.1.1 ICT access was equal to 9.2 in 2020 and equivalent to an indicator rank of 27.



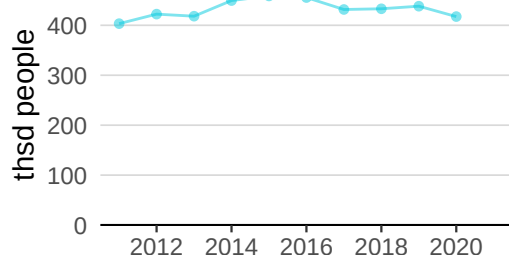
4.2.4 Venture capital received was equal to 6.0 mn USD in 2012—up by 20 percentage points from the year prior.



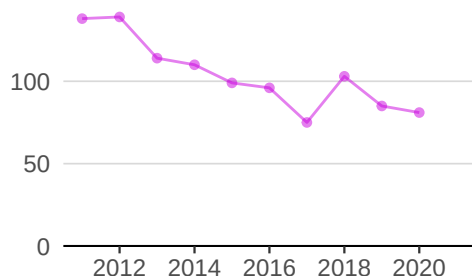
4.3.2 Domestic industry diversification was equal to 0.2 in 2019—up by 4 percentage points from the year prior—and equivalent to an indicator rank of 83.



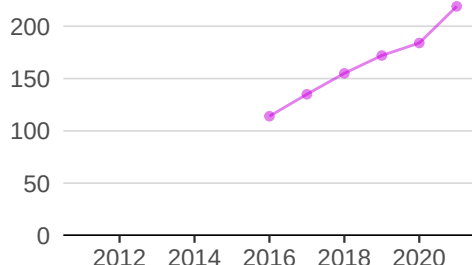
5.1.1 Knowledge-intensive employment was equal to 417.4 thsd people in 2020—down by 5 percentage points from the year prior—and equivalent to an indicator rank of 58.



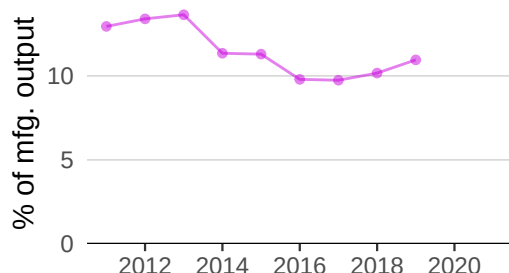
Innovation outputs



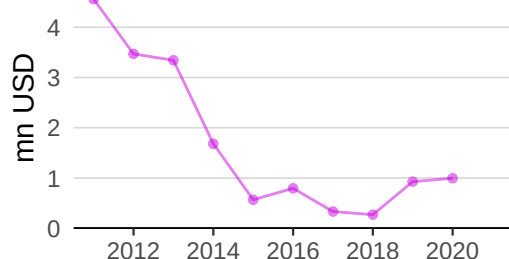
6.1.1 Patents by origin was equal to 81.0 in 2020—down by 5 percentage points from the year prior—and equivalent to an indicator rank of 51.



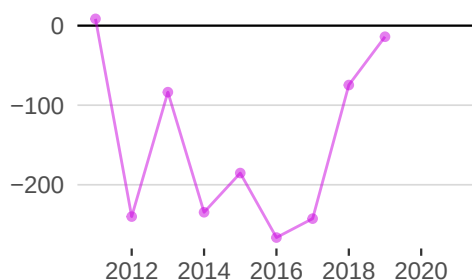
6.1.5 Citable documents H-index was equal to 219.0 in 2021—up by 19 percentage points from the year prior—and equivalent to an indicator rank of 71.



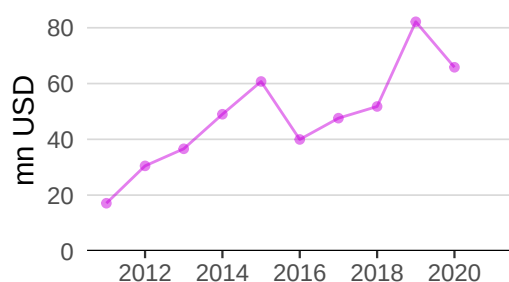
6.2.5 High-tech manufacturing was equal to 11.0% of mfg. output in 2019—up by 8 percentage points from the year prior—and equivalent to an indicator rank of 87.



6.3.1 Intellectual property receipts was equal to 1.0 mn USD in 2020—up by 7 percentage points from the year prior—and equivalent to an indicator rank of 96.



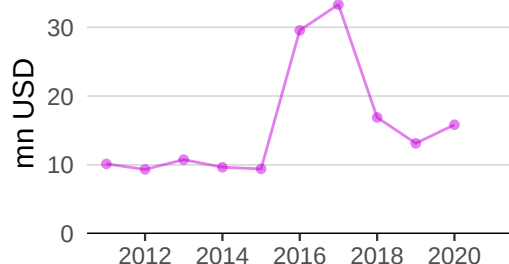
6.3.2 Production and export complexity was equal to -13.9 in 2019—up by 81 percentage points from the year prior—and equivalent to an indicator rank of 62.



6.3.3 High-tech exports was equal to 65.8 mn USD in 2020—down by 20 percentage points from the year prior—and equivalent to an indicator rank of 78.



7.1.3 Global brand value was equal to 167.5 mn USD in 2021—up by 23 percentage points from the year prior—and equivalent to an indicator rank of 58.



7.2.1 Cultural and creative services exports was equal to 15.8 mn USD in 2020—up by 21 percentage points from the year prior—and equivalent to an indicator rank of 72.



GEORGIA'S INNOVATION TOP PERFORMERS

2.3.3 Global corporate R&D investors

Firm	Industry	R&D	R&D Growth	R&D Intensity	Rank
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No observations

Source: European Commission's Joint Research Centre (<https://iri.jrc.ec.europa.eu/scoreboard/2021-eu-industrial-rd-investment-scoreboard>).

2.3.4 QS university ranking

University	Score	Rank
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No observations

Source: QS Quacquarelli Symonds Ltd (<https://www.topuniversities.com/university-rankings/world-university-rankings/2022>).

7.1.1 Intangible asset intensity, top 15

Firm	Rank
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No observations

Source: Brand Finance (<https://brandirectory.com/reports/gift-2021>).

7.1.3 Global brand value, top 5,000

Brand	Industry	Rank
BANK OF GEORGIA	Banking	1

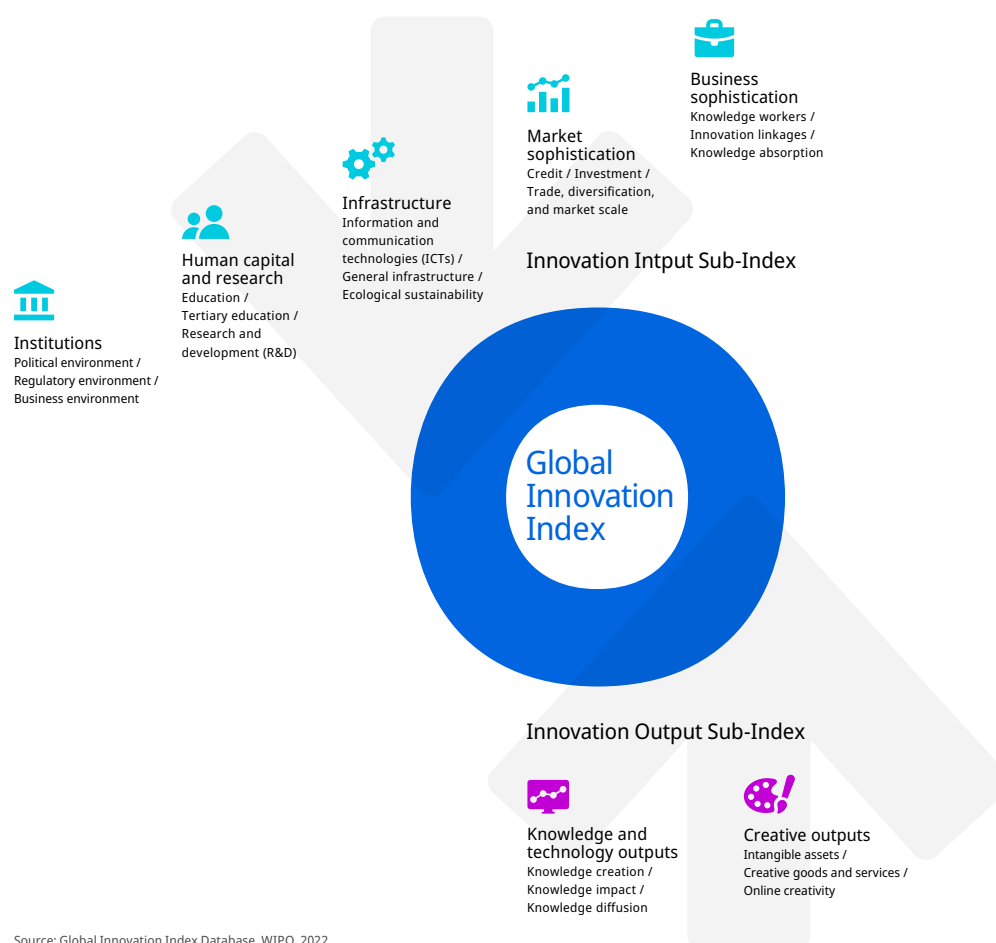
Source: Brand Finance (<https://brandirectory.com>).

Note: Rank corresponds to within economy ranks.

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.



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.