

# GLOBAL INNOVATION INDEX 2018

Georgia

**59<sup>th</sup>** Georgia is ranked 59th in the GII 2018, moving up 9 positions from the previous year.

The GII indicators are grouped into innovation inputs and outputs. The following table reflects Georgia's ranking over time<sup>1</sup>.

Georgia's ranking over time

	GII	Input	Output	Efficiency
2018	59	53	62	79
2017	68	69	62	60
2016	64	67	60	67

- Georgia exhibits stable ranking in innovation outputs, taking the 60th-62nd position globally.
- This year the country improves in innovation inputs, gaining 16 positions from 2017 and taking the 53rd spot.
- Georgia positions 79th in the Innovation Efficiency Ratio, dropping from the 60th spot it held last year. Relative to its overall GII position (59th), the Efficiency Ratio (79th) ranks rather low, indicating that the economy could improve its efficiency in translating innovation inputs into more outputs. This low rank is partly due to a lower position in outputs (62nd) compared to inputs (53rd).

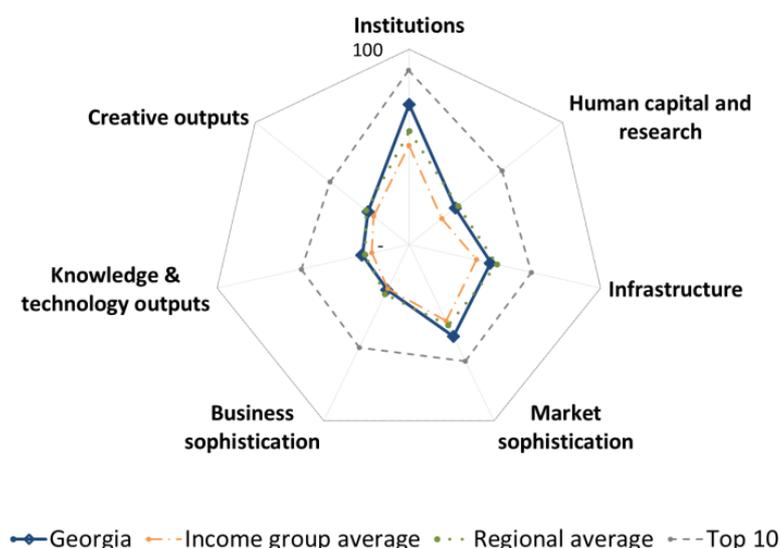
**6<sup>th</sup>** Georgia is ranked 6th among the 30 lower-middle-income economies in the GII 2018.

**6<sup>th</sup>** Georgia is ranked 6th among the 19 countries in Northern Africa and Western Asia.

<sup>1</sup> Note that year-on-year comparisons of the GII ranks are imperfect and influenced by changes in the GII model and data availability.

## Benchmarking Georgia to other lower-middle-income countries and the Northern Africa and Western Asia region

Georgia's scores by GII area



### Lower-middle-income countries

Georgia has high scores in all the 7 GII areas – **Institutions, Human Capital & Research, Infrastructure, Market Sophistication, Business Sophistication, Knowledge & Technology Outputs** and **Creative Outputs**, in which it scores above the average of the lower-middle-income group.

Top scores in areas such as *Regulatory environment, Education, Information & Communication Technologies (ICTs), Trade, competition & market scale, Knowledge absorption, Knowledge impact, and Intangible assets* are behind these high rankings.

### Northern Africa and Western Asia region

Compared to other countries in the Northern Africa and Western Asia region, Georgia performs above-average in 3 of the 7 GII areas: **Institutions, Market Sophistication, and Knowledge & Technology Outputs**.

## Georgia's innovation profile

### Strengths

- On the **innovation input** side, Georgia presents strengths in each of the five GII areas capturing inputs.
- In **Market Sophistication** (39th), the country exhibits strengths in the area *Investment* (21st). At the indicator level, Georgia performs strongly in *Ease of getting credit* (11th), *Applied tariff rate* (6th), and *Ease of protecting minority investors*, in which it positions 2nd.
- In **Institutions** (39th), Georgia shows strong performance in the indicators *Cost of redundancy dismissal* (18th) and *Ease of starting a business*, where it ranks 4th in the world.
- On the input side, three additional indicators are marked as strong. In **Human Capital & Research** (67th), *Pupil-teacher ratio* ranks 5th and is highlighted as a strength.
- In **Infrastructure** (71st), strength is shown in the indicator *Gross capital formation* (14th).
- The indicator *FDI inflows* (11th) is marked as a strength in **Business Sophistication** (91st).

- On the **innovation output** side, Georgia's strengths lie in **Knowledge & Technology Outputs** (57th), where the country performs strongly in two indicators – *New business density* (17th) and *FDI outflows* (25th).

## Weaknesses

- On the **innovation input** side, most of relative GII weaknesses for Georgia are accrued in **Human Capital & Research** (67th) and **Business Sophistication** (91st).
- Indicators *PISA results* (61st), *Global R&D companies expenditures* (40th), and *Quality of universities* (78th) are signaled as GII weaknesses in **Human Capital & Research** (67th).
- *Firms offering formal training* (88th), *University-industry research collaboration* (105th), and *State of cluster development* (112th) present relatively weak performance in **Business Sophistication** (91st).
- Relative GII weaknesses in innovation inputs are also identified in **Infrastructure** (71st) in the indicator *Logistics performance* (117th) and in **Market Sophistication** (39th) in the indicator *Market capitalization* (81st).
- On the **innovation output** side, two indicators are marked as weak: *High- & medium-high-tech manufactures* (84th) in **Knowledge & Technology Outputs** (57th) and *ICTs & organizational model creation* (100th) in **Creative Outputs** (73rd).

The following figure presents a summary of Georgia's ranks in the 7 GII areas, as well as the overall rank in the GII 2018.





## Missing and Outdated Data

More and better data improves the ability of a country to understand its strengths and weaknesses and give policymakers greater capacity to plan and adapt public policies accordingly. The GII 2018 covers 126 countries that complied with the minimum indicator coverage of 35 indicators in the Innovation Input Sub-Index (66%) and 18 indicators in the Innovation Output Sub-Index (66%).

The following tables show data for Georgia that is not available or that is outdated.

### Missing Data

Code	Indicator	Country Year	Model Year	Source
2.1.2	Government funding/pupil, secondary, % GDP/cap	n/a	2014	UNESCO Institute for Statistics
4.2.3	Venture capital deals/bn PPP\$ GDP	n/a	2017	Thomson Reuters, Thomson One Banker Private Equity, SDC Platinum
5.1.1	Knowledge-intensive employment, %	n/a	2016	ILO, ILOSTAT
5.1.3	GERD performed by business, % GDP	n/a	2016	UNESCO Institute for Statistics
5.1.4	GERD financed by business, %	n/a	2015	UNESCO Institute for Statistics
5.3.5	Research talent, % in business enterprise	n/a	2016	UNESCO Institute for Statistics
7.2.3	Entertainment & Media market/th pop. 15–69	n/a	2016	PwC's Global Entertainment and Media Outlook, 2017–2021

### Outdated Data

Code	Indicator	Country Year	Model Year	Source
4.2.2	Market capitalization, % GDP	2012	2016	World Bank, World Development Indicators
5.2.3	GERD financed by abroad, %	2013	2015	UNESCO Institute for Statistics
7.2.5	Creative goods exports, % total trade	2015	2016	UN COMTRADE
7.3.3	Wikipedia edits/mn pop. 15–69	2016	2017	Wikimedia Foundation



Output rank	Input rank	Income	Region	Efficiency ratio	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2017 rank
62	53	Lower-middle	NAWA	79	3.9	39.3	10,747.1	68

	Score/Value	Rank		Score/Value	Rank		
	<b>Institutions</b> .....	<b>71.7</b>	<b>39</b> ◆	<b>Business sophistication</b> .....	<b>25.7</b> <b>91</b>		
1.1	Political environment.....	57.9	51 ◆	5.1	Knowledge workers.....	22.5	[98]
1.1.1	Political stability & safety*.....	58.0	81	5.1.1	Knowledge-intensive employment, %.....	n/a	n/a
1.1.2	Government effectiveness*.....	57.9	43 ◆	5.1.2	Firms offering formal training, % firms.....	10.5	88 ○ ◆
1.2	Regulatory environment.....	80.5	28 ◆	5.1.3	GERD performed by business, % GDP.....	n/a	n/a
1.2.1	Regulatory quality*.....	69.9	32 ◆	5.1.4	GERD financed by business, %.....	n/a	n/a
1.2.2	Rule of law*.....	54.0	50 ◆	5.1.5	Females employed w/advanced degrees, %.....	16.4	36 ◆
1.2.3	Cost of redundancy dismissal, salary weeks.....	8.6	18 ● ◆	5.2	Innovation linkages.....	25.6	73
1.3	Business environment.....	76.7	40 ◆	5.2.1	University/industry research collaboration†.....	29.3	105 ○
1.3.1	Ease of starting a business*.....	97.8	4 ● ◆	5.2.2	State of cluster development†.....	32.5	112 ○ ◆
1.3.2	Ease of resolving insolvency*.....	55.6	53 ◆	5.2.3	GERD financed by abroad, % <sup>Ⓔ</sup> .....	14.7	31
				5.2.4	JV–strategic alliance deals/bn PPP\$ GDP.....	0.1	27 ◆
				5.2.5	Patent families 2+ offices/bn PPP\$ GDP.....	0.1	68
	<b>Human capital &amp; research</b> .....	<b>30.0</b>	<b>67</b>	5.3	Knowledge absorption.....	29.2	69
2.1	Education.....	50.5	54	5.3.1	Intellectual property payments, % total trade.....	0.2	82
2.1.1	Expenditure on education, % GDP.....	3.8	86	5.3.2	High-tech net imports, % total trade.....	7.3	75
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	n/a	n/a	5.3.3	ICT services imports, % total trade.....	0.7	86
2.1.3	School life expectancy, years.....	15.0	50 ◆	5.3.4	FDI net inflows, % GDP.....	11.0	11 ● ◆
2.1.4	PISA scales in reading, maths & science.....	405.4	61 ○	5.3.5	Research talent, % in business enterprise.....	n/a	n/a
2.1.5	Pupil-teacher ratio, secondary.....	7.4	5 ● ◆				
2.2	Tertiary education.....	33.8	57		<b>Knowledge &amp; technology outputs</b> .....	<b>24.5</b>	<b>57</b>
2.2.1	Tertiary enrolment, % gross.....	51.9	50 ◆	6.1	Knowledge creation.....	21.0	46
2.2.2	Graduates in science & engineering, %.....	21.7	49	6.1.1	Patents by origin/bn PPP\$ GDP.....	2.6	38
2.2.3	Tertiary inbound mobility, %.....	4.9	40	6.1.2	PCT patents by origin/bn PPP\$ GDP.....	0.3	47 ◆
2.3	Research & development (R&D).....	5.7	74	6.1.3	Utility models by origin/bn PPP\$ GDP.....	1.8	14
2.3.1	Researchers, FTE/mn pop.....	1,336.6	44 ◆	6.1.4	Scientific & technical articles/bn PPP\$ GDP.....	13.5	38 ◆
2.3.2	Gross expenditure on R&D, % GDP.....	0.3	79	6.1.5	Citable documents H index.....	8.6	75
2.3.3	Global R&D companies, top 3, mn US\$.....	0.0	40 ○ ◆	6.2	Knowledge impact.....	34.4	69
2.3.4	QS university ranking, average score top 3*.....	0.0	78 ○ ◆	6.2.1	Growth rate of PPP\$ GDP/worker, %.....	2.7	23
				6.2.2	New businesses/th pop. 15–64.....	8.4	17 ● ◆
				6.2.3	Computer software spending, % GDP.....	0.1	89
	<b>Infrastructure</b> .....	<b>42.5</b>	<b>71</b>	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	4.0	69
3.1	Information & communication technologies (ICTs).....	56.8	70 ◆	6.2.5	High- & medium-high-tech manufactures, %.....	0.1	84 ○
3.1.1	ICT access*.....	62.6	68 ◆	6.3	Knowledge diffusion.....	18.2	74
3.1.2	ICT use*.....	44.7	70 ◆	6.3.1	Intellectual property receipts, % total trade.....	0.0	89
3.1.3	Government's online service*.....	63.8	55	6.3.2	High-tech net exports, % total trade.....	0.3	90
3.1.4	E-participation*.....	55.9	74	6.3.3	ICT services exports, % total trade.....	0.7	90
3.2	General infrastructure.....	40.3	53	6.3.4	FDI net outflows, % GDP.....	2.2	25 ● ◆
3.2.1	Electricity output, kWh/cap.....	2,912.1	63 ◆				
3.2.2	Logistics performance*.....	13.4	117 ○		<b>Creative outputs</b> .....	<b>26.8</b>	<b>73</b>
3.2.3	Gross capital formation, % GDP.....	33.7	14 ● ◆	7.1	Intangible assets.....	37.2	82
3.3	Ecological sustainability.....	30.6	90	7.1.1	Trademarks by origin/bn PPP\$ GDP.....	59.6	35
3.3.1	GDP/unit of energy use.....	7.1	82	7.1.2	Industrial designs by origin/bn PPP\$ GDP.....	3.2	39
3.3.2	Environmental performance*.....	55.7	80	7.1.3	ICTs & business model creation†.....	51.4	99
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP.....	0.3	96	7.1.4	ICTs & organizational model creation†.....	42.7	100 ○
	<b>Market sophistication</b> .....	<b>52.2</b>	<b>39</b> ◆	7.2	Creative goods & services.....	19.5	70
4.1	Credit.....	44.6	43	7.2.1	Cultural & creative services exports, % total trade.....	0.3	35 ◆
4.1.1	Ease of getting credit*.....	85.0	11 ● ◆	7.2.2	National feature films/mn pop. 15–69.....	5.5	35
4.1.2	Domestic credit to private sector, % GDP.....	61.9	54	7.2.3	Entertainment & Media market/th pop. 15–69.....	n/a	n/a
4.1.3	Microfinance gross loans, % GDP.....	1.4	23	7.2.4	Printing & other media, % manufacturing.....	1.6	27
4.2	Investment.....	55.4	21 ● ◆	7.2.5	Creative goods exports, % total trade <sup>Ⓔ</sup> .....	0.1	100
4.2.1	Ease of protecting minority investors*.....	81.7	2 ● ◆	7.3	Online creativity.....	13.1	52 ◆
4.2.2	Market capitalization, % GDP <sup>Ⓔ</sup> .....	6.9	81 ○	7.3.1	Generic top-level domains (TLDs)/th pop. 15–69.....	1.6	84
4.2.3	Venture capital deals/bn PPP\$ GDP.....	n/a	n/a	7.3.2	Country-code TLDs/th pop. 15–69.....	2.1	65
4.3	Trade, competition, & market scale.....	56.5	79	7.3.3	Wikipedia edits/mn pop. 15–69 <sup>Ⓔ</sup> .....	44.5	31 ◆
4.3.1	Applied tariff rate, weighted mean, %.....	0.7	6 ● ◆	7.3.4	Mobile app creation/bn PPP\$ GDP.....	18.9	46
4.3.2	Intensity of local competition†.....	62.9	89				
4.3.3	Domestic market scale, bn PPP\$.....	39.3	102				

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; \* an index; † a survey question.

Ⓔ indicates that the country'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; see page 75 of this appendix for details.