

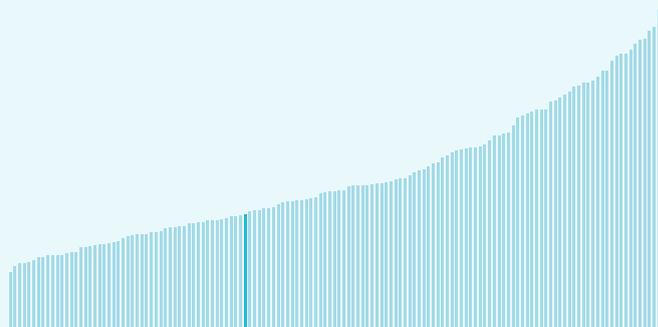
Global Innovation Index 2025



Senegal ranking in the Global Innovation Index 2025

Senegal ranks **89th** among the 139 economies featured in the GII 2025.

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.



Senegal ranks 9th among the 37 Lower middle-income group economies.



Senegal ranks 5th among the 32 economies in Sub-Saharan Africa.



Senegal GII Ranking (2020-2025)

The table shows the rankings of Senegal over the past six years. 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 Senegal in the GII 2025 is between ranks 85 and 94.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	102nd	102nd	84th
2021	105th	105th	102nd
2022	99th	93rd	105th
2023	93rd	95th	93rd
2024	92nd	90th	95th
2025	89th	82nd	97th

Senegal performs worse in innovation outputs than innovation inputs in 2025.

This year Senegal ranks 82nd in innovation inputs. This position is higher than last year.

Senegal ranks 97th in innovation outputs. This position is lower than last year.

Senegal has no clusters in the world's top innovation clusters of the Global Innovation Index.

Global Innovation Index 2025



> Global Innovation Tracker

The Global Innovation Tracker 2025 shows what is the current state of innovation in Senegal, how rapidly is technology being embraced and what are the resulting societal impacts.



For Senegal, 5 indicators have improved in the short-term and 3 indicators have worsened.

Science and innovation investment

	Scientific publications	R&D investments	Venture capital deal numbers	International patent filings
Short term	▲ 2.8 % 2023 - 2024	n/a	▼ -20 % 2023 - 2024	▼ -50 % 2023 - 2024
Long term (annual growth)	▲ 4.7 % 2014 - 2024	n/a	▲ 2.2 % 2020 - 2024	▼ -10.4 % 2014 - 2024

Technology adoption

	Safe sanitation	Connectivity	Robots	Electric vehicles
		Fixed broadband	5G	
Short term	▲ 3.1% 2023 - 2024	▲ 44% 2022 - 2023	n/a	n/a
Long term (annual growth)	▲ 3.3% 2014 - 2024	▲ 12.8% 2013 - 2023	n/a	n/a
Penetration	30.1 per 100 inhabitants in 2024	2 per 100 inhabitants in 2023	n/a	n/a

Socioeconomic impact

	Labor productivity	Life expectancy	Temperature change
Short term	▲ 2.8 % 2023 - 2024	▲ 1.3 % 2022 - 2023	+ 2 °C 2024
Long term (annual growth)	▼ -0.4 % 2014 - 2024	▲ 0.5 % 2013 - 2023	+ 1.2 °C 2014
Level	16,230.3 USD in 2024	68.7 years in 2023	n/a

Notes: Not all indicators of the Global Innovation Tracker are used to calculate the Global Innovation Index. Long-term annual growth refers to the compound annual growth rate (CAGR) over the indicated period. For each variable, a one-year growth rate is set for the short run, and ten-year CAGR is set for the long run; time windows might differ when gaps exist in data availability. The end period corresponds to the most recent available observation, which may differ among countries. Temperature change is an exception: it indicates the change in degrees Celsius with respect to the average temperature in the countries. from 1951–1980. Figures are rounded.

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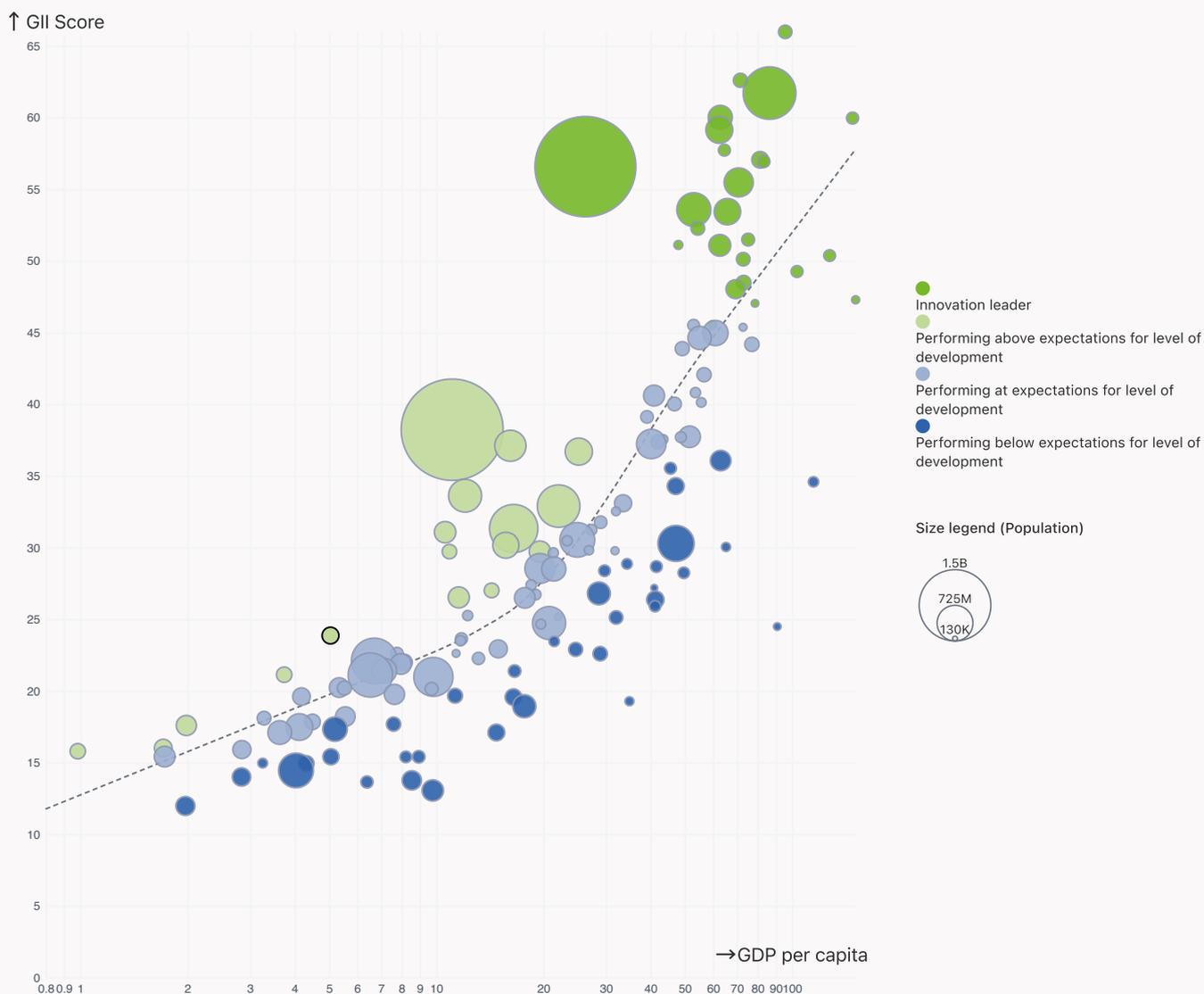
Expected vs. Observed Innovation Performance

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 Senegal performs above expectations for its level of development.

> Innovation overperformers relative to their economic development



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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.



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

> Relationship between innovation inputs and outputs

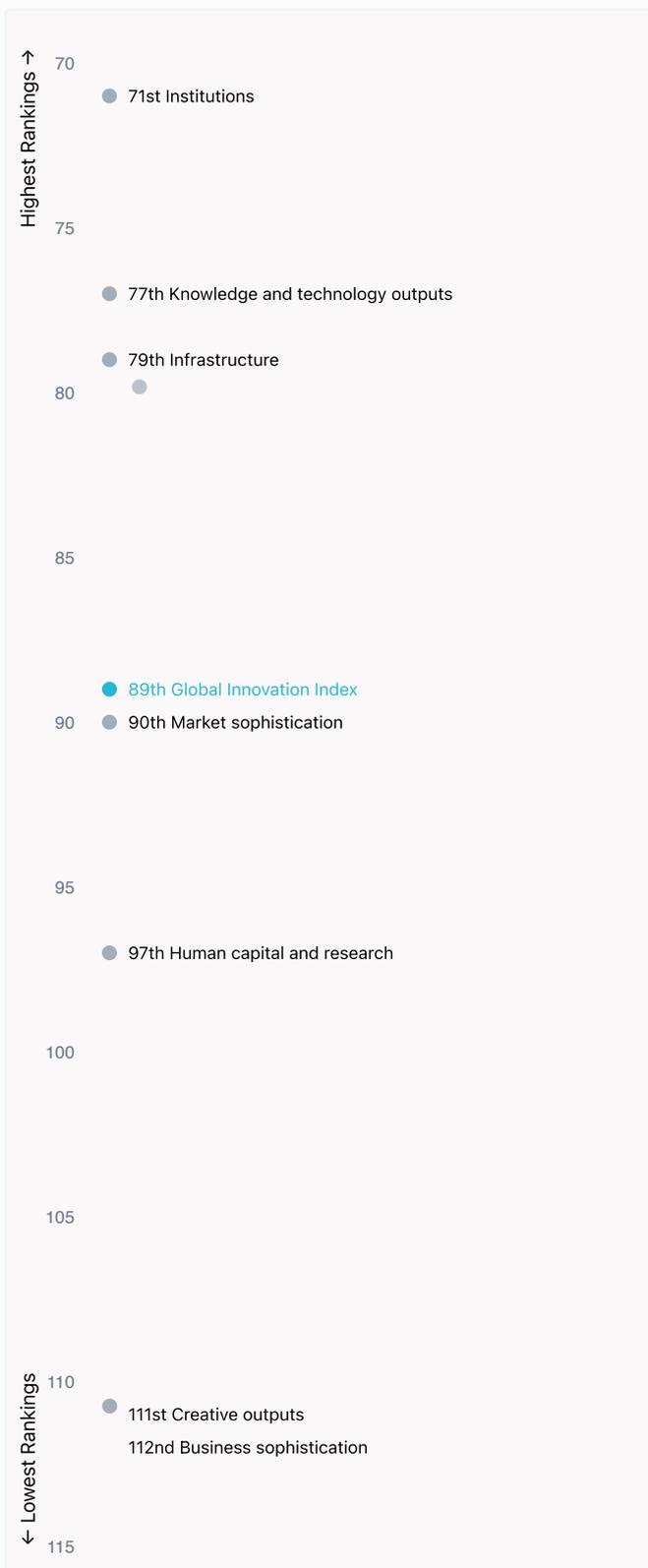


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Overview of Senegal's rankings in the seven areas of the GII in 2025

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Senegal are those that rank above the GII (shown in blue) and the weakest are those that rank below.



Highest Rankings

Senegal ranks highest in Institutions (71st), Knowledge and technology outputs (77th) and Infrastructure (79th).



Lowest Rankings

Senegal ranks lowest in Business sophistication (112nd), Creative outputs (111st) and Human capital and research (97th).



The full WIPO Intellectual Property Statistics profile for Senegal can be found on <https://www.wipo.int/edocs/statistics-country-profile/en/sn.pdf>

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Benchmark of Senegal against other economy groupings for each of the seven areas of the GII Index



Lower middle-income economies

Senegal performs above the Lower middle-income group average in Institutions, Human capital and research, Infrastructure, Market sophistication, Knowledge and technology outputs.



Sub-Saharan Africa

Senegal performs above the regional average in Institutions, Human capital and research, Infrastructure, Market sophistication, Knowledge and technology outputs.

Institutions

Top 10 | Score: 78.63

Senegal | Score: 48.96

Sub-Saharan Africa | Score: 40.29

Lower middle-income | Score: 37.2

Human capital and research

Top 10 | Score: 59.30

Senegal | Score: 22.57

Lower middle-income | Score: 20.9

Sub-Saharan Africa | Score: 18.06

Infrastructure

Top 10 | Score: 61.36

Senegal | Score: 38.76

Lower middle-income | Score: 32.1

Sub-Saharan Africa | Score: 27.58

Market sophistication

Top 10 | Score: 61.82

Senegal | Score: 31.49

Lower middle-income | Score: 28.1

Sub-Saharan Africa | Score: 22.67

Business sophistication

Top 10 | Score: 59.10

Lower middle-income | Score: 25.3

Sub-Saharan Africa | Score: 25.36

Senegal | Score: 22.20

Knowledge and technology outputs

Top 10 | Score: 54.93

Senegal | Score: 19.74

Lower middle-income | Score: 15.4

Sub-Saharan Africa | Score: 11.53

Creative outputs

Top 10 | Score: 55.98

Lower middle-income | Score: 13.8

Sub-Saharan Africa | Score: 10.61

Senegal | Score: 10.01

Global Innovation Index 2025



Innovation strengths and weaknesses in Senegal

The table below gives an overview of the indicator strengths and weaknesses of Senegal in the GII 2025.



Senegal's best-ranked innovation strengths are **Gross capital formation, % GDP (rank 1)**, **FDI net inflows, % GDP (rank 8)** and **Government funding/pupil, secondary, % GDP/cap (rank 9)**.

Strengths

Rank	Code	Indicator name
1	3.2.3	Gross capital formation, % GDP
8	5.3.4	FDI net inflows, % GDP
9	2.1.2	Government funding/pupil, secondary, % GDP/cap
9	4.1.3	Loans from microfinance institutions, % GDP
10	6.2.2	Unicorn valuation, % GDP
15	2.1.1	Expenditure on education, % GDP
22	5.1.3	Youth demographic dividend, %
32	4.2.2	Venture capital (VC) received, deal count/bn PPP\$ GDP
34	2.2.3	Tertiary inbound mobility, %

Weaknesses

Rank	Code	Indicator name
133	5.2.1	Public research–industry co-publications, %
123	7.1.2	Trademarks by origin/bn PPP\$ GDP
117	2.1.3	School life expectancy, years
116	3.2.1	Electricity output, GWh/mn pop.
111	5.1.1	Knowledge-intensive employment, %
109	5.1.2	Females employed w/advanced degrees, %
100	5.2.5	Patent families/bn PPP\$ GDP
80	2.3.4	QS university ranking, top 3*
75	6.1.3	Utility models by origin/bn PPP\$ GDP
44	2.3.3	Global corporate R&D investors, top 3, mn USD

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Senegal's innovation system

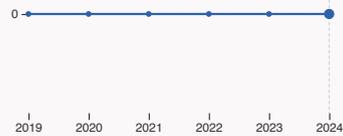
As far as practicable, the plots below present unscaled indicator data.

> Innovation inputs in Senegal



2.1.1 Expenditure on education

was equal to 6.16 % GDP in 2023, up by 0.18 percentage points from the year prior – and equivalent to an indicator rank of 15.



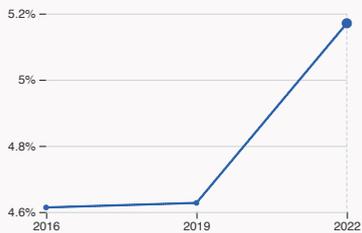
2.3.4 QS university ranking

The country does not have any universities in the QS world universities ranking in 2024.



4.3.2 Domestic industry diversification

was equal to an index score of 0.177 in 2019, up by 3.04% from the year prior – and equivalent to an indicator rank of 71.



5.1.1 Knowledge-intensive employment

was equal to 5.17 % of total workforce in 2022, up by 0.54 percentage points from the year prior – and equivalent to an indicator rank of 111.

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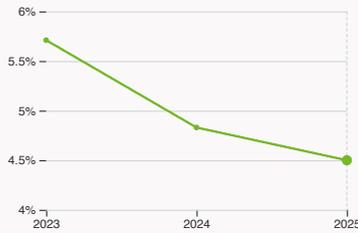


> Innovation outputs in Senegal



6.1.1 Patents by origin

was equal to 21 patents in 2023, down by 38.24% from the year prior – and equivalent to an indicator rank of 96.



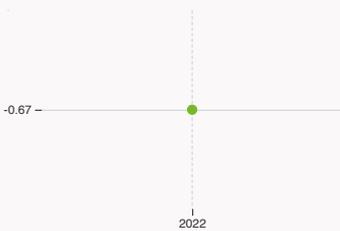
6.2.2 Unicorn valuation

was equal to 4.5 % GDP in 2025, down by 0.33 percentage points from the year prior – and equivalent to an indicator rank of 10.



6.2.4 High-tech manufacturing

was equal to 1.21 high-tech manufacturing output in billion USD in 2019, down by 0.82% from the year prior – and equivalent to an indicator rank of 56.



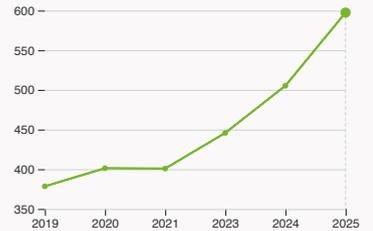
6.3.2 Production and export complexity

was equal to a score of -0.67 in 2022 – and equivalent to an indicator rank of 99.



6.3.3 High-tech exports

was equal to 23.74 million USD in 2023, down by 38.32% from the year prior – and equivalent to an indicator rank of 112.



7.1.3 Global brand value, top 5,000

was equal to 597.34 million USD in 2025, up by 18.24% from the year prior – and equivalent to an indicator rank of 51.



7.3.3 Mobile app creation

was equal to 3.35 million global downloads of mobile apps in 2024, up by 4087.5% from the year prior – and equivalent to an indicator rank of 100.

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Senegal's innovation top performers

Data not available for 2.3.3 Global corporate R&D investors, 2.3.4 QS university ranking of top universities, 5.2.3 University–industry & international engagement and 7.1.1 Top 15 intangible–asset intensive companies.

Disclaimer: This section contains only the top performers per country. For the complete list, please visit the GII Innovation Ecosystems and Data Explorer website.

6.2.2 Top Unicorn Companies in Senegal

Rank	Unicorn Company	Industry	City	Valuation, bn USD
1	WAVE	Financial Services	Dakar	2

Source: CBInsights, Tracker – The Complete List of Unicorn Companies: <https://www.cbinsights.com/research-unicorn-companies>.

7.1.3 Top 5,000 companies in Senegal with highest global brand value

Rank	Brand	Industry	Brand Value, mn USD
1	SONATEL	Telecoms	597.3

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

Note: Rank corresponds to within economy ranks.

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$
97	82	Lower middle	Sub-Saharan Africa	18.5	94.4	5,056.1
Score / Value Rank				Score / Value Rank		
Institutions				49	71	
1.1 Institutional environment				53.1	73	◆
1.1.1 Operational stability for businesses*				61.3	70	◆
1.1.2 Government effectiveness*				44.8	67	◆
1.2 Regulatory environment				42.2	88	
1.2.1 Regulatory quality*				38.8	93	
1.2.2 Rule of law*				45.6	82	
1.3 Business environment				51.6	56	
1.3.1 Policy stability for doing business†				52.7	59	
1.3.2 Entrepreneurship policies and culture†				50.5	28	●
Human capital and research				22.6	97	
2.1 Education				49	77	
2.1.1 Expenditure on education, % GDP				6.2	15	●◆
2.1.2 Government funding/pupil, secondary, % GDP/cap				31.3	9	●◆
2.1.3 School life expectancy, years				9.1	117	○◇
2.1.4 PISA scales in reading, maths and science				n/a	n/a	
2.1.5 Pupil-teacher ratio, secondary				23	109	
2.2 Tertiary education				15.1	109	
2.2.1 Tertiary enrolment, % gross				16.1	107	
2.2.2 Graduates in science and engineering, %				n/a	n/a	
2.2.3 Tertiary inbound mobility, %				9	34	●◆
2.3 Research and development (R&D)				3.6	85	
2.3.1 Researchers, FTE/mn pop.				572.4	70	●
2.3.2 Gross expenditure on R&D, % GDP				0.6	62	●
2.3.3 Global corporate R&D investors, top 3, mn USD				0	44	○◇
2.3.4 QS university ranking, top 3*				0	80	○◇
Infrastructure				38.8	79	
3.1 Information and communication technologies (ICTs)				55	109	
3.1.1 ICT access*				67.5	100	
3.1.2 ICT use*				60.4	103	
3.1.3 Government's online service*				37.2	110	
3.2 General infrastructure				50.8	20	◆
3.2.1 Electricity output, GWh/mn pop.				435.9	116	○
3.2.2 Logistics performance*				n/a	n/a	
3.2.3 Gross capital formation, % GDP				44.6	1	●◆
3.3 Ecological sustainability				10.4	113	
3.3.1 GDP/unit of energy use				11.1	65	
3.3.2 Low-carbon energy use, %				5	112	
3.3.3 ISO 14001 environment/bn PPP\$ GDP				0.3	102	
Market sophistication				31.5	90	
4.1 Credit				32.7	57	
4.1.1 Finance for startups and scaleups†				45.7	56	●
4.1.2 Domestic credit to private sector, % GDP				31.3	94	
4.1.3 Loans from microfinance institutions, % GDP				4	9	●
4.2 Investment				9.9	48	◆
4.2.1 Market capitalization, % GDP				n/a	n/a	
4.2.2 Venture capital (VC) received, deal count/bn PPP\$ GDP				0.2	32	●◆
4.2.3 Late-stage VC deal count, % global VC				0.01	60	
4.2.4 VC investors, deal count/bn PPP\$ GDP				0.2	46	◆
4.2.5 VC investor co-participation/bn PPP\$ GDP				0.1	40	◆
4.3 Trade, diversification and market scale				51.9	108	
4.3.1 Applied tariff rate, weighted avg., %				8.3	121	
4.3.2 Domestic industry diversification				77.2	71	●
4.3.3 Domestic market scale, bn PPP\$				94.4	95	
Business sophistication				22.2	112	
5.1 Knowledge workers				24	121	
5.1.1 Knowledge-intensive employment, %				5.2	111	○◇
5.1.2 Females employed w/advanced degrees, %				2	109	○
5.1.3 Youth demographic dividend, %				58.4	22	●
5.1.4 GERD performed by business, % GDP				n/a	n/a	
5.1.5 GERD financed by business, %				2.1	83	●
5.2 Innovation linkages				16.1	104	
5.2.1 Public research-industry co-publications, %				0.3	133	○◇
5.2.2 University-industry R&D collaboration†				32.1	76	
5.2.3 University industry & international engagement, top 5*				n/a	n/a	
5.2.4 State of cluster development†				31	107	
5.2.5 Patent families/bn PPP\$ GDP				0	100	○◇
5.3 Knowledge absorption				26.5	70	
5.3.1 Intellectual property payments, % total trade				0.1	114	●
5.3.2 High-tech imports, % total trade				5.2	117	
5.3.3 ICT services imports, % total trade				1.2	77	●
5.3.4 FDI net inflows, % GDP				11.8	8	●◆
5.3.5 Research talent, % in businesses				n/a	n/a	
Knowledge and technology outputs				19.7	77	
6.1 Knowledge creation				4.6	119	
6.1.1 Patents by origin/bn PPP\$ GDP				0.2	96	
6.1.2 PCT patents by inventor origin/bn PPP\$ GDP				0.004	103	
6.1.3 Utility models by origin/bn PPP\$ GDP				0	75	○◇
6.1.4 Scientific and technical articles/bn PPP\$ GDP				6.1	98	
6.1.5 Citable documents H-index				5.8	96	
6.2 Knowledge impact				43.8	17	◆
6.2.1 Labor productivity growth, %				1.2	53	
6.2.2 Unicorn valuation, % GDP				4.5	10	●◆
6.2.3 Software spending, % GDP				0.2	65	
6.2.4 High-tech manufacturing, %				22.1	56	●
6.3 Knowledge diffusion				10.9	100	
6.3.1 Intellectual property receipts, % total trade				0.07	67	●
6.3.2 Production and export complexity				33.7	99	
6.3.3 High-tech exports, % total trade				0.2	112	
6.3.4 ICT services exports, % total trade				1.7	68	●
6.3.5 ISO 9001 quality/bn PPP\$ GDP				1.2	107	
Creative outputs				10	111	
7.1 Intangible assets				5.9	114	
7.1.1 Intangible asset intensity, top 15, %				n/a	n/a	
7.1.2 Trademarks by origin/bn PPP\$ GDP				4.8	123	○
7.1.3 Global brand value, top 5,000, % GDP				1.6	51	
7.1.4 Industrial designs by origin/bn PPP\$ GDP				0.3	97	
7.2 Creative goods and services				9.8	[71]	
7.2.1 Cultural and creative services exports, % total trade				0.9	37	●
7.2.2 National feature films/mn pop. 15-69				n/a	n/a	
7.2.3 Entertainment and media market/th pop. 15-69				n/a	n/a	
7.2.4 Creative goods exports, % total trade				0.03	120	
7.3 Online creativity				18.3	107	
7.3.1 Top-level domains (TLDs)/th pop. 15-69				0.6	109	
7.3.2 GitHub commits/mn pop. 15-69				1.1	116	
7.3.3 Mobile app creation/bn PPP\$ GDP				53.3	100	

NOTES: ● indicates a strength ○ a weakness ◆ an income group strength ◇ an income group weakness * an index † a survey question ● that the economy's data is outdated. Square brackets [] indicate the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level, n/a represents missing values, a dash - indicates an indicator which is not relevant to this economy and thus not considered for DMC thresholds.

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Data Availability

The following tables list indicators that are either missing or outdated for Senegal.



Senegal has missing data for ten indicators and outdated data for sixteen indicators.

Missing data for Senegal

Code	Indicator name	Economy year	Model year*	Source
2.1.4	PISA scales in reading, maths and science	n/a	2022	OECD, PISA
2.2.2	Graduates in science and engineering, %	n/a	2022	UNESCO Institute for Statistics; Eurostat; OECD
3.2.2	Logistics performance*	n/a	2023	World Bank, Logistics Performance Index 2023
4.2.1	Market capitalization, % GDP	n/a	2022	World Federation of Exchanges; World Bank
5.1.4	GERD performed by business, % GDP	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.2.3	University industry & international engagement, top 5*	n/a	2025	Times Higher Education, World University Rankings 2025
5.3.5	Research talent, % in businesses	n/a	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
7.1.1	Intangible asset intensity, top 15, %	n/a	2024	Brand Finance
7.2.2	National feature films/mn pop. 15–69	n/a	2023	OMDIA; United Nations, World Population Prospects
7.2.3	Entertainment and media market/th pop. 15–69	n/a	2024	PwC, GEMO; United Nations, World Population Prospects; International Monetary Fund

*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

Outdated data for Senegal

Code	Indicator name	Economy year	Model year*	Source
1.3.2	Entrepreneurship policies and culture [†]	2016	2024	Global Entrepreneurship Monitor
2.3.1	Researchers, FTE/mn pop.	2015	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
2.3.2	Gross expenditure on R&D, % GDP	2015	2023	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
3.2.1	Electricity output, GWh/mn pop.	2022	2023	International Energy Agency
4.1.1	Finance for startups and scaleups [†]	2016	2024	Global Entrepreneurship Monitor

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Code	Indicator name	Economy year	Model year*	Source
4.3.2	Domestic industry diversification	2019	2022	United Nations Industrial Development Organization (UNIDO)
5.1.1	Knowledge-intensive employment, %	2022	2024	International Labour Organization
5.1.2	Females employed w/advanced degrees, %	2022	2024	International Labour Organization
5.1.5	GERD financed by business, %	2015	2022	UNESCO Institute for Statistics; Eurostat; OECD; RICYT
5.3.1	Intellectual property payments, % total trade	2021	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development
5.3.3	ICT services imports, % total trade	2021	2023	World Trade Organization and United Nations Conference on Trade and Development
6.1.3	Utility models by origin/bn PPP\$ GDP	2021	2023	World Intellectual Property Organization; International Monetary Fund
6.2.4	High-tech manufacturing, %	2019	2022	United Nations Industrial Development Organization (UNIDO)
6.3.1	Intellectual property receipts, % total trade	2021	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development
6.3.4	ICT services exports, % total trade	2021	2023	World Trade Organization and United Nations Conference on Trade and Development
7.2.1	Cultural and creative services exports, % total trade	2021	2023	World Trade Organization, Organisation for Economic Co-operation and Development; United Nations Conference on Trade and Development

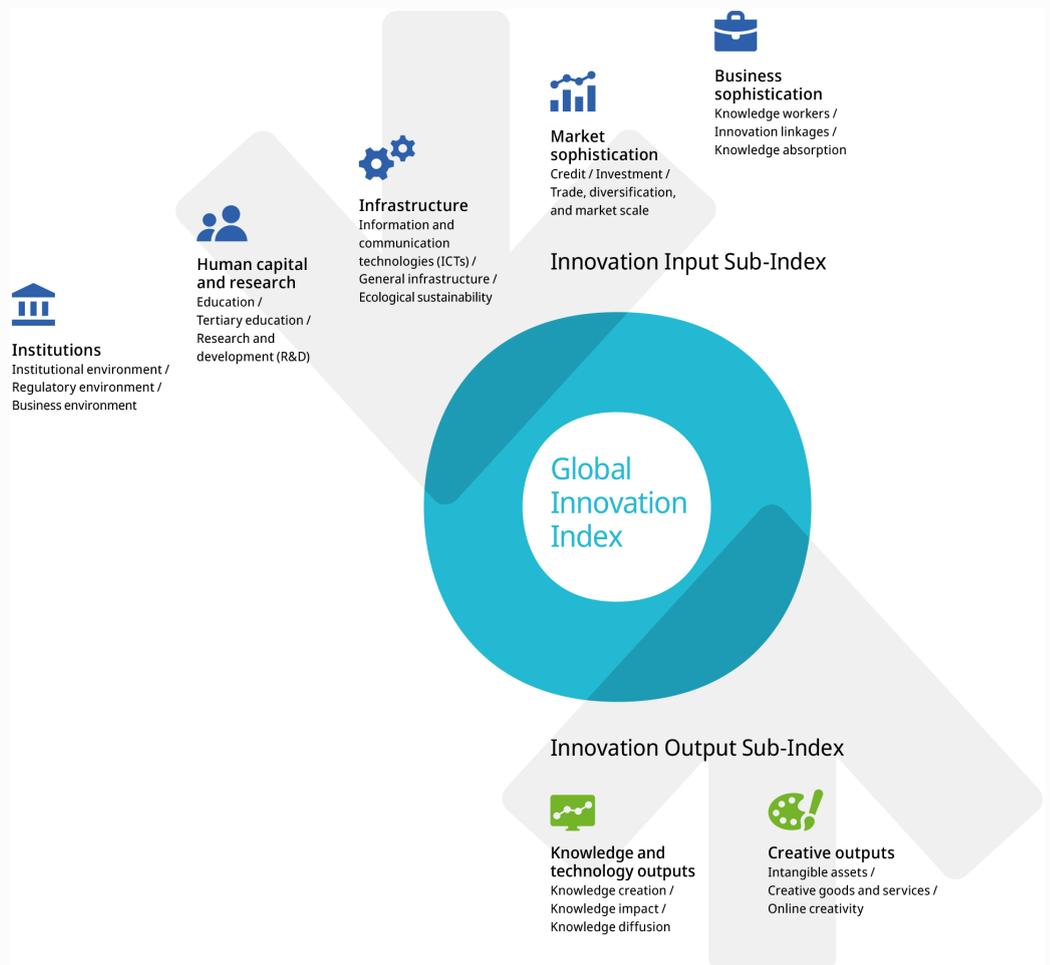
*Model year corresponds to the most frequent data year (the year that appears most often across all economies in the GII).

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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 140 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.