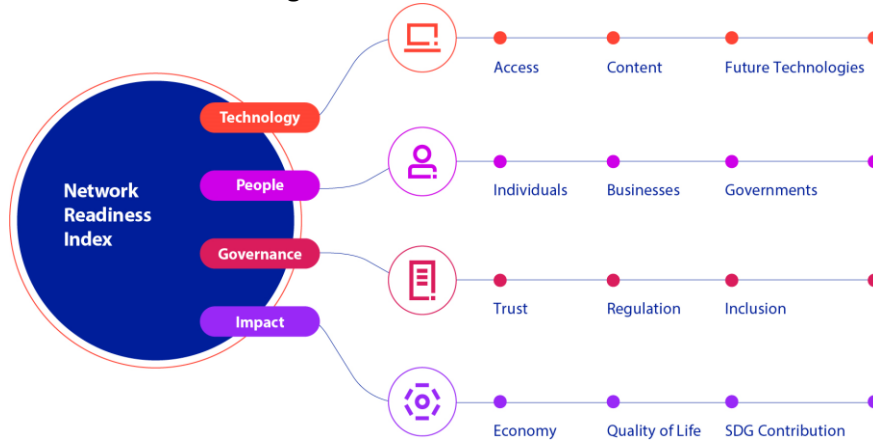




South Africa

The Network Readiness Index (NRI) is one of the leading global indices on the application and impact of information and communication technology (ICT) in economies around the world. In its latest version of 2023 the NRI Report maps the network-based readiness landscape of 134 economies based on their performances in four different pillars: Technology, People, Governance, and Impact. Each of these pillars is itself comprised of three sub-pillars (see Figure 1) that have been populated by a total of 58 variables.

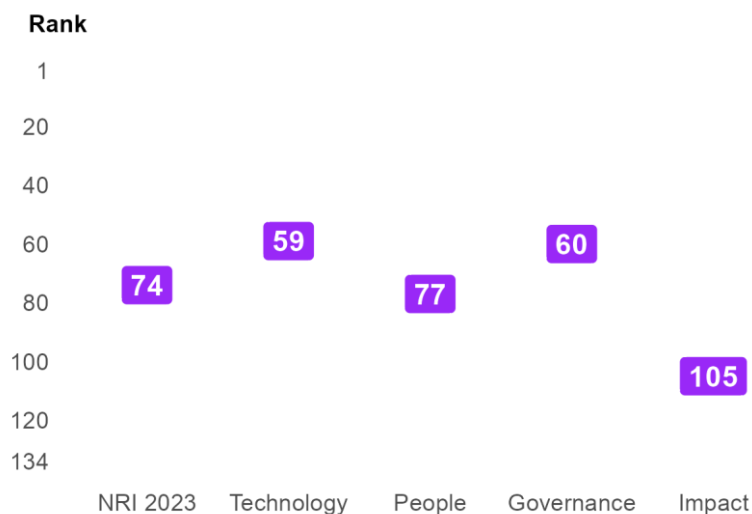
Figure 1: The NRI 2023 model



Global NRI position of South Africa

South Africa ranks 74th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Technology. The greatest scope for improvement, meanwhile, concerns Impact.

Figure 2: South Africa global ranking, overall and by pillar



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Performance at sub-pillar level

When it comes to sub-pillars, the strongest showings of South Africa relate to Future Technologies, Businesses and Trust, among others (Table 1). More could be done, though, to improve the economy's performances in the Economy, Individuals and Quality of Life sub-pillars.

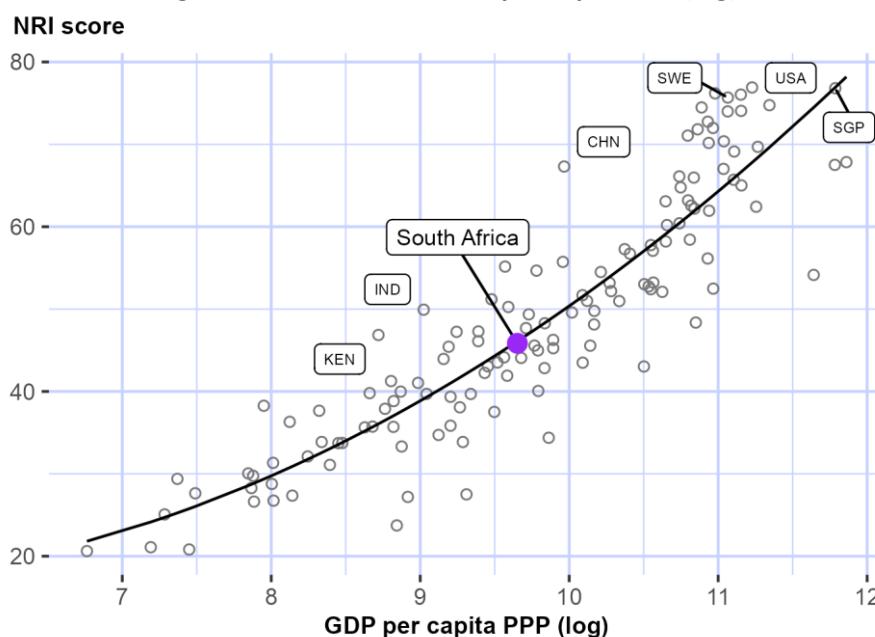
Table 1: South Africa rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Future Technologies	49	Regulation	67
Businesses	58	SDG Contribution	70
Trust	60	Access	71
Content	61	Economy	75
Inclusion	65	Individuals	104
Governments	66	Quality of Life	124

NRI score and income

Figure 3 shows the position of South Africa in terms of both NRI score and GDP per capita (PPP). The trend line shows the expected NRI score given an economy's income level. As can be seen, South Africa is slightly below the trend line, which suggests that its network readiness is more or less in line with what would be expected given its income level.

Figure 3: NRI score and GDP per capita PPP (log)



Note: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). South Africa belongs to the group of upper-middle-income countries, where the best performer is China (CHN). The top performer of its region-Africa-is Kenya (KEN).

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Performance against its income group and region

Upper-middle-income countries

South Africa is ranked 21st in the group of upper-middle-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in two of the four pillars: Technology and Governance. At the sub-pillar level, it outperforms upper-middle-income countries in seven of the twelve sub-pillars: Content, Future Technologies, Businesses, Governments, Trust, Regulation and Inclusion.

Africa

South Africa is ranked 2nd within Africa (Figure 4, right panel). It outperforms its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in Africa in eleven of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Businesses, Governments, Trust, Regulation, Inclusion, Economy and SDG Contribution.

Figure 4: Performance of South Africa against its income group and region, overall and by pillar

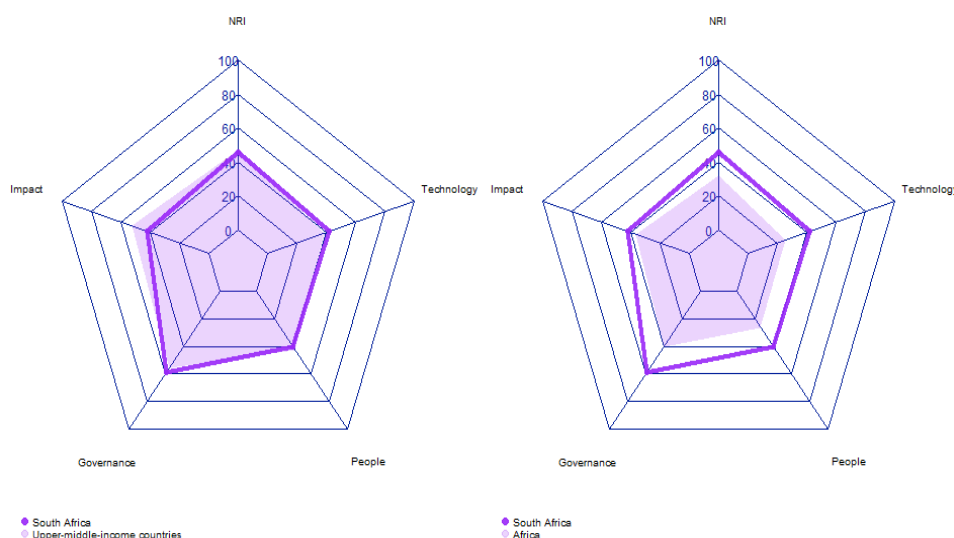


Table 2: South Africa scores vs. averages of its income group and region, overall and by pillar

Dimension	South Africa	Upper-middle-income countries	Africa
NRI	45.85	47.35	32.14
Technology	41.74	38.48	25.14
People	40.31	42.59	26.19
Governance	59.14	55.90	40.44
Impact	42.20	52.43	36.77

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Strongest and weakest indicators

The indicators where South Africa performs particularly well include 3.2.4 E-commerce legislation, 2.2.1 Firms with website, and 2.2.4 Annual investment in telecommunication services (Table 3). By contrast, the economy's weakest indicators include 4.3.4 SDG 7: Affordable and Clean Energy, 4.2.3 Income inequality, and 4.2.4 Healthy life expectancy at birth.

Table 3: Highlight of Strengths and Opportunities for South Africa

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	2.1.6 AI talent concentration	47
2.2.1 Firms with website	20	4.2.2 Freedom to make life choices	109
2.2.4 Annual investment in telecommunication services	24	4.2.4 Healthy life expectancy at birth	115
1.2.4 AI scientific publications	25	4.2.3 Income inequality	116
1.3.4 Computer software spending	28	4.3.4 SDG 7: Affordable and Clean Energy	119
1.1.3 FTTH/building Internet subscriptions	31		
4.1.4 Domestic market size	32		
1.1.5 International Internet bandwidth	33		
1.3.1 Adoption of emerging technologies	33		
1.1.4 Population covered by at least a 3G mobile network	36		
3.1.1 Secure Internet servers	37		

Note: For the full list of strengths and weaknesses, see At-A-Glance table.

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NRI 2023 At-A-Glance: South Africa

Network Readiness Index

Rank: 74 (out of 134)

Score: 45.85

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	59	41.74	C. Governance pillar	60	59.14
1st sub-pillar: Access	71	62.87	1st sub-pillar: Trust	60	49.52
2nd sub-pillar: Content	61	24.01	2nd sub-pillar: Regulation	67	65.80
3rd sub-pillar: Future Technologies	49	38.34	3rd sub-pillar: Inclusion	65	62.10
B. People pillar	77	40.31	D. Impact pillar	105	42.20
1st sub-pillar: Individuals	104	34.18	1st sub-pillar: Economy	75	25.47
2nd sub-pillar: Businesses	58	47.48	2nd sub-pillar: Quality of Life	124	38.76
3rd sub-pillar: Governments	66	39.28	3rd sub-pillar: SDG Contribution	70	62.36

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	59	41.74	C. Governance pillar	60	59.14
1st sub-pillar: Access	71	62.87	1st sub-pillar: Trust	60	49.52
1.1.1 Mobile tariffs	83	52.35	3.1.1 Secure Internet servers	37	76.48
1.1.2 Handset prices	74	42.96	3.1.2 Cybersecurity	67	78.08
1.1.3 FTTH/building Internet subscriptions	31	42.18	3.1.3 Online access to financial account	66	28.13
1.1.4 Population covered by at least a 3G mobile network	36	99.96	3.1.4 Internet shopping	79	15.39
1.1.5 International Internet bandwidth	33	76.88	2nd sub-pillar: Regulation	67	65.80
1.1.6 Internet access in schools	NA	NA	3.2.1 Regulatory quality	74	47.95
2nd sub-pillar: Content	61	24.01	3.2.2 ICT regulatory environment	69	83.88
1.2.1 GitHub commits	72	4.95	3.2.3 Regulation of emerging technologies	60	45.45
1.2.2 Internet domain registrations	49	7.26	3.2.4 E-commerce legislation	1	100.00
1.2.3 Mobile apps development	81	61.55	3.2.5 Privacy protection by law content	92	51.70
1.2.4 AI scientific publications	25	22.30	3rd sub-pillar: Inclusion	65	62.10
3rd sub-pillar: Future Technologies	49	38.34	3.3.1 E-Participation	61	58.14
1.3.1 Adoption of emerging technologies	33	64.29	3.3.2 Socioeconomic gap in use of digital payments	69	72.97
1.3.2 Investment in emerging technologies	40	51.75	3.3.3 Availability of local online content	89	49.76

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Indicator	Rank	Score	Indicator	Rank	Score
1.3.3 Robot density	39	5.07	3.3.4 Gender gap in Internet use	NA	NA
1.3.4 Computer software spending	28	32.26	3.3.5 Rural gap in use of digital payments	54	67.52
B. People pillar			D. Impact pillar		
<i>1st sub-pillar: Individuals</i>			<i>1st sub-pillar: Economy</i>		
2.1.1 Mobile broadband internet traffic within the country	34	23.26	4.1.1 High-tech and medium-high-tech manufacturing	55	28.12
2.1.2 ICT skills in the education system	85	34.79	4.1.2 High-tech exports	72	9.95
2.1.3 Use of virtual social networks	95	39.30	4.1.3 PCT patent applications	40	8.86
2.1.4 Tertiary enrollment	94	14.52	4.1.4 Domestic market size	32	66.45
2.1.5 Adult literacy rate	51	93.20	4.1.5 Prevalence of gig economy	86	33.72
2.1.6 AI talent concentration	47	0.00	4.1.6 ICT services exports	94	5.73
<i>2nd sub-pillar: Businesses</i>			<i>2nd sub-pillar: Quality of Life</i>		
2.2.1 Firms with website	20	80.98	4.2.1 Happiness	76	60.38
2.2.2 GERD financed by business enterprise	60	33.57	4.2.2 Freedom to make life choices	109	54.76
2.2.3 Knowledge intensive employment	64	31.84	4.2.3 Income inequality	116	0.00
2.2.4 Annual investment in telecommunication services	24	85.61	4.2.4 Healthy life expectancy at birth	115	39.90
2.2.5 GERD performed by business enterprise	51	5.38	<i>3rd sub-pillar: SDG Contribution</i>		
<i>3rd sub-pillar: Governments</i>			4.3.1 SDG 3: Good Health and Well-Being	80	64.22
2.3.1 Government online services	55	72.23	4.3.2 SDG 4: Quality Education	NA	NA
2.3.2 Publication and use of open data	38	41.18	4.3.3 SDG 5: Women's economic opportunity	48	83.19
2.3.3 Government promotion of investment in emerging tech	84	31.64	4.3.4 SDG 7: Affordable and Clean Energy	119	44.36
2.3.4 R&D expenditure by governments and higher education	54	12.06	4.3.5 SDG 11: Sustainable Cities and Communities	80	57.67

NOTE: ● a strength and ○ a weakness.

Network Readiness Index 2023



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