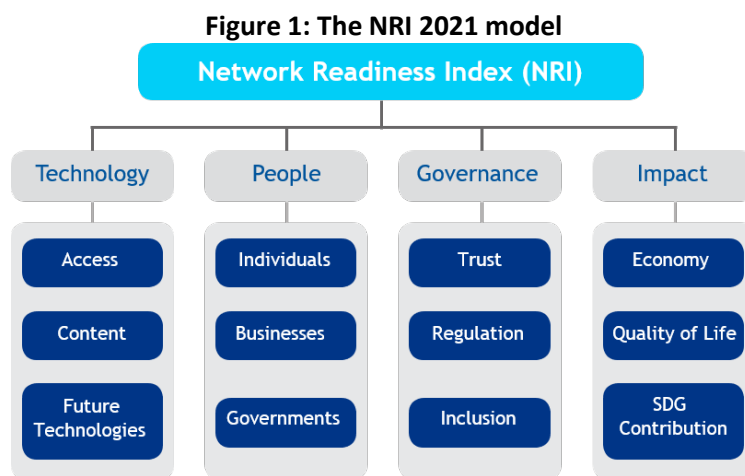


Network Readiness Index 2021 Zambia

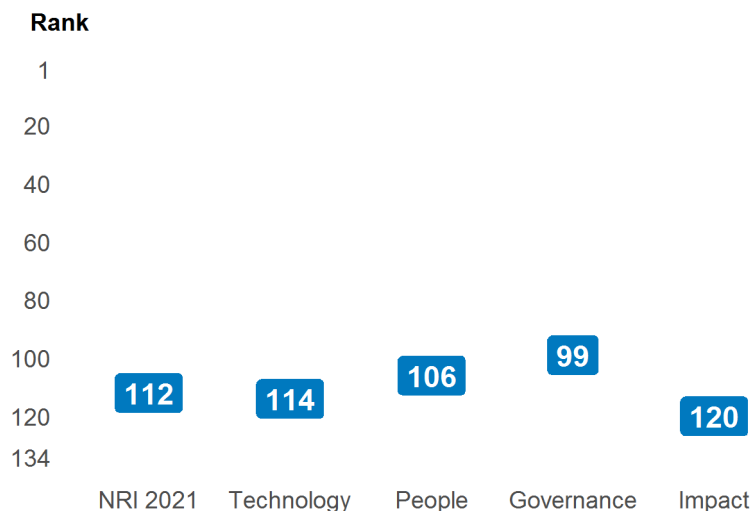
The Network Readiness Index (NRI) is one of the leading global indices on the application and impact of information and communication technology (ICT) in economies around the world. In its latest version of 2021 the NRI Report maps the network-based readiness landscape of 130 economies based on their 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 60 variables.



Global NRI position of Zambia

Zambia ranks 112th out of the 130 economies included in the NRI 2021 (Figure 2). Its main strength relates to Governance. The greatest scope for improvement, meanwhile, concerns Impact.

Figure 2: Zambia global ranking, overall and by pillar



Performance at sub-pillar level

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

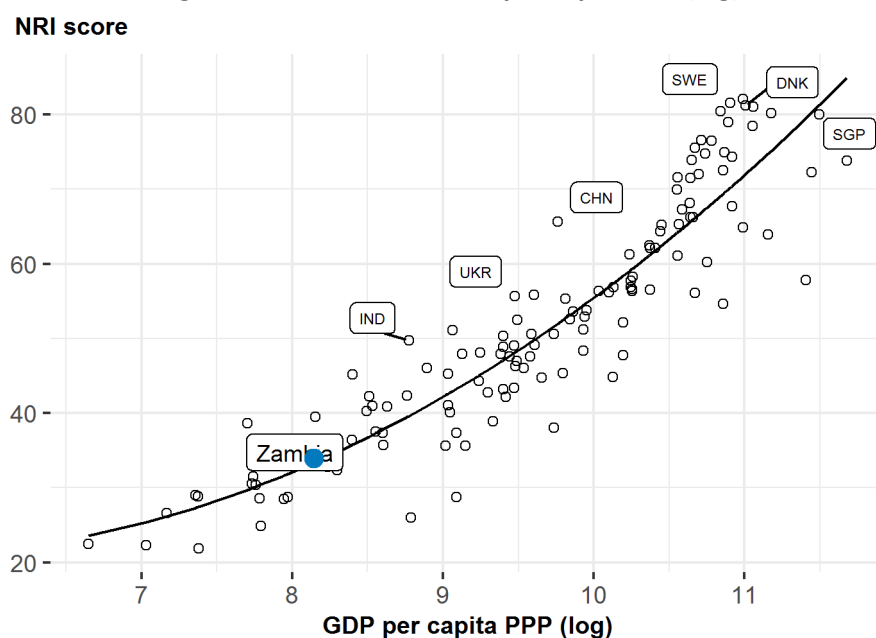
Table 1: Zambia rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Businesses	59	Future Technologies	110
Trust	75	Inclusion	116
Regulation	86	Content	121
Individuals	105	Economy	121
SDG Contribution	107	Quality of Life	122
Access	109	Governments	129

NRI score and income

Figure 3 shows the position of Zambia 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, Zambia is slightly above 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: NLD = Netherlands (rank: 1), SWE = Sweden (2), DNK = Denmark (3), CHN = China (29), IND = India (67). USA is ranked 4th. Zambia belongs to the group of lower-middle-income countries, where the best performer is Ukraine (UKR). The top performer of its region-Africa-is South Africa (ZAF).

Performance against its income group and region

Lower-middle-income countries

Zambia is ranked 27th in the group of lower-middle-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in one of the four pillars: governance. At the sub-pillar level, it outperforms lower-middle-income countries in three of the twelve sub-pillars: Businesses, Trust and Regulation.

Africa

Zambia is ranked 13th within Africa (Figure 4, right panel). It has a score above the regional average in two of the four pillars: nri.score, people and governance. With regard to sub-pillars, it outperforms the average in Africa in six of the twelve sub-pillars: Access, Individuals, Businesses, Trust, Regulation and SDG Contribution.

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



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

Dimension	Zambia	Lower-middle-income countries	Africa
NRI	33.93	40.00	33.19
Technology	25.08	33.64	26.99
People	33.93	37.84	30.56
Governance	43.61	43.38	39.23
Impact	33.12	45.13	35.99

Strongest and weakest indicators

The indicators where Zambia performs particularly well include 3.2.4 E-commerce legislation, 1.1.4 SMS sent by population 15-69, and 3.2.5 Privacy protection by law content (Table 3). By contrast, the economy's weakest indicators include 2.3.1 Government online services, 3.3.3 Availability of local online content, and 3.3.1 E-Participation.

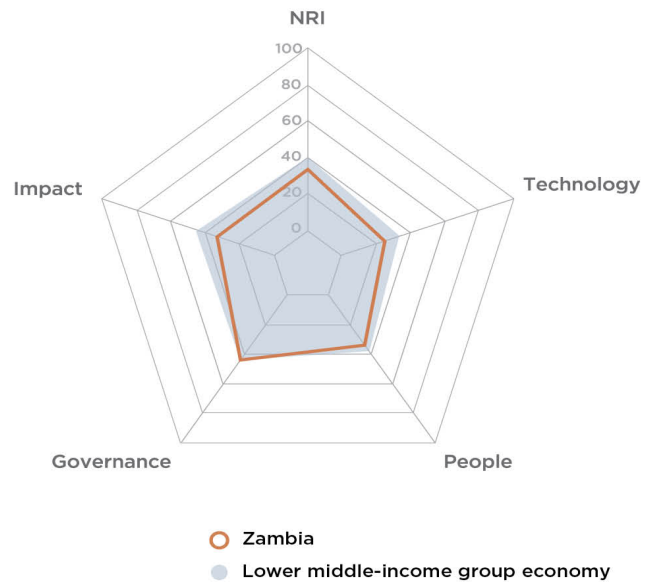
Table 3: Strongest and weakest indicators of Zambia

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	4.2.3 Income inequality	115
1.1.4 SMS sent by population 15-69	27	2.1.4 Tertiary enrollment	121
3.2.5 Privacy protection by law content	33	3.3.1 E-Participation	122
2.1.2 ICT skills	42	2.3.1 Government online services	124
3.1.3 Online access to financial account	44	3.3.3 Availability of local online content	124
2.1.1 Active mobile broadband subscriptions	51		
2.2.1 Firms with website	56		
2.1.5 Adult literacy rate	71		
2.2.3 Professionals	75		
3.1.2 Cybersecurity	78		

Zambia

Network Readiness Index Rank (out of 130) **112** Score **33.93**

Pillar/sub-pillar	Rank	Score
A. Technology pillar	114	25.08
1st sub-pillar: Access	109	40.45
2nd sub-pillar: Content	121	15.24
3rd sub-pillar: Future Technologies	110	19.54
B. People pillar	106	33.93
1st sub-pillar: Individuals	105	44.37
2nd sub-pillar: Businesses	59	42.43
3rd sub-pillar: Governments	129	15.00
C. Governance pillar	99	43.61
1st sub-pillar: Trust	75	36.19
2nd sub-pillar: Regulation	86	58.34
3rd sub-pillar: Inclusion	116	36.29
D. Impact pillar	120	33.12
1st sub-pillar: Economy	121	17.52
2nd sub-pillar: Quality of Life	122	37.15
3rd sub-pillar: SDG Contribution	107	44.69



Network Readiness Index in detail

Indicator	Rank	Score
A. Technology pillar	114	25.08
1st sub-pillar: Access	109	40.45
1.1.1 Mobile tariffs	99	42.34
1.1.2 Handset prices	88	41.19
1.1.3 Households with internet access	111	17.51
1.1.4 SMS sent by population 15-69	27	82.17
1.1.5 Population covered by at least a 3G mobile network	110	93.27
1.1.6 International Internet bandwidth	65	0.88
1.1.7 Internet access in schools	64	5.81
2nd sub-pillar: Content	121	15.24
1.2.1 GitHub commits	110	0.34
1.2.2 Wikipedia edits	111	22.91
1.2.3 Internet domain registrations	*	*
1.2.4 Mobile apps development	122	38.87
1.2.5 AI scientific publications	106	13.98
3rd sub-pillar: Future Technologies	110	19.54
1.3.1 Adoption of emerging technologies	112	25.44
1.3.2 Investment in emerging technologies	91	31.39
1.3.3 Robot density	NA	NA
1.3.4 Computer software spending	110	1.79
B. People pillar	106	33.93
1st sub-pillar: Individuals	105	44.37
2.1.1 Active mobile broadband subscriptions	51	76.48
2.1.2 ICT skills	42	48.57
2.1.3 Use of virtual social networks	115	11.54
2.1.4 Tertiary enrollment	121	2.32
2.1.5 Adult literacy rate	71	82.97
2nd sub-pillar: Businesses	59	42.43
2.2.1 Firms with website	56	57.28
2.2.2 GERD financed by business enterprise	NA	NA
2.2.3 Professionals	75	21.10
2.2.4 Technicians and associate professionals	93	18.65
2.2.5 Annual investment in telecommunication services	90	72.69
2.2.6 GERD performed by business enterprise	NA	NA
3rd sub-pillar: Governments	129	15.00
2.3.1 Government online services	124	23.63
2.3.2 Publication and use of open data	99	3.55
2.3.3 Government promotion of investment in emerging tech	107	17.81
2.3.4 R&D expenditure by governments and higher education	NA	NA

Indicator	Rank	Score
C. Governance pillar	99	43.61
1st sub-pillar: Trust	75	36.19
3.1.1 Secure Internet servers	114	29.48
3.1.2 Cybersecurity	78	68.33
3.1.3 Online access to financial account	44	40.46
3.1.4 Internet shopping	84	6.50
2nd sub-pillar: Regulation	86	58.34
3.2.1 Regulatory quality	103	26.03
3.2.2 ICT regulatory environment	93	70.20
3.2.3 Legal framework's adaptability to emerging technologies	108	15.07
3.2.4 E-commerce legislation	1	100.00
3.2.5 Privacy protection by law content	33	80.42
3rd sub-pillar: Inclusion	116	36.29
3.3.1 E-Participation	122	28.39
3.3.2 Socioeconomic gap in use of digital payments	90	38.60
3.3.3 Availability of local online content	124	21.37
3.3.4 Gender gap in Internet use	84	40.27
3.3.5 Rural gap in use of digital payments	93	52.80
D. Impact pillar	120	33.12
1st sub-pillar: Economy	121	17.52
4.1.1 High-tech and medium-high-tech manufacturing	84	10.43
4.1.2 High-tech exports	96	6.74
4.1.3 PCT patent applications	90	13.92
4.1.4 Growth rate of GDP per person engaged	96	48.28
4.1.5 Prevalence of gig economy	111	20.04
4.1.6 ICT services exports	116	5.73
2nd sub-pillar: Quality of Life	122	37.15
4.2.1 Happiness	100	35.48
4.2.2 Freedom to make life choices	98	63.71
4.2.3 Income inequality	115	15.36
4.2.4 Healthy life expectancy at birth	120	34.04
3rd sub-pillar: SDG Contribution	107	44.69
4.3.1 SDG 3: Good Health and Well-Being	105	40.98
4.3.2 SDG 4: Quality Education	NA	NA
4.3.3 Females employed with advanced degrees	87	20.17
4.3.4 SDG 7: Affordable and Clean Energy	117	47.04
4.3.5 SDG 11: Sustainable Cities and Communities	89	70.57

NOTE: * Indicates confidential data; ● a strength and ○ a weakness.

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