

Network Readiness Index 2020 Uganda

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 2020 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 60 variables.

Figure 1: The NRI 2020 model **Network Readiness Index (NRI) Technology** People Governance **Impact** Individuals Trust Access **Economy** Quality of Life Content **Businesses** Regulation **SDG Future** Inclusion Governments Contribution Technologies

Global NRI position of Uganda

Uganda ranks 114th out of the 134 economies included in the NRI 2020 (Figure 2). Its main strength relates to Governance. The greatest scope for improvement, meanwhile, concerns Impact.

Rank 1 20 40 60 80 90 100 114 112 120 121 129 134 NRI 2020 Technology People Governance Impact

Figure 2: Uganda global ranking, overall and by pillar



Performance at sub-pillar level

When it comes to sub-pillars, the strongest showings of Uganda relate to Trust, Inclusion and Future Technologies, among others (Table 1). More could be done, though, to improve the economy's performances in the Businesses, Content and SDG Contribution sub-pillars.

Table 1: Uganda rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Trust	84	Quality of Life	115
Inclusion	87	Economy	116
Future Technologies	91	Individuals	120
Regulation	91	Businesses	121
Access	97	Content	123
Governments	103	SDG Contribution	130

NRI score and income

Figure 3 shows the position of Uganda 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, Uganda is well above the trend line, which suggests that it has a greater network readiness than would be expected given its income level.

NRI score

80 - SWE DNK SGP

60 - CHN MUS

10 - Uganda

7 8 9 10 11

GDP per capita PPP (log)

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

Note: SWE = Sweden (rank: 1), DNK = Denmark (2), SGP = Singapore (3), CHN = China (40), IND = India (88). USA is ranked 8th. Uganda belongs to the group of low-income countries, where the best performer is Rwanda (RWA). The top performer of its region-Africa-is Mauritius (MUS).



Performance against its income group and region

Low-income countries

Uganda is ranked 3rd in the group of low-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in three of the four pillars: nri.score, technology, people and governance. At the sub-pillar level, it outperforms low-income countries in nine of the twelve sub-pillars: Access, Future Technologies, Individuals, Businesses, Governments, Trust, Regulation, Inclusion and Quality of Life.

Africa

Uganda is ranked 12th within Africa (Figure 4, right panel). It has a score above the regional average in two of the four pillars: nri.score, technology and governance. With regard to sub-pillars, it outperforms the average in Africa in six of the twelve sub-pillars: Access, Future Technologies, Trust, Regulation, Inclusion and Quality of Life.

Technology

People

Governance

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

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

Dimension	Uganda	Low-income countries	Africa
NRI	31.40	25.61	30.62
Technology	23.76	16.33	21.47
People	24.33	20.61	26.75
Governance	47.57	32.58	39.31
Impact	29.96	32.92	34.94



Strongest and weakest indicators

The indicators where Uganda performs particularly well include Rural gap in use of digital payments, ICT regulatory environment, and Fixed-broadband subscriptions (Table 3). By contrast, the economy's weakest indicators include Use of virtual social networks, SDG 7: Affordable and Clean Energy, and Internet access.

Table 3: Top-ranked and bottom-ranked indicators of Uganda

Strongest indicators	Rank	Weakest indicators	Rank
Rural gap in use of digital payments	38	Secure Internet servers	119
ICT regulatory environment	51	Mobile tariffs	121
Fixed-broadband subscriptions	60	Computer software spending	121
Online access to financial account	64	Tertiary enrollment	121
Cybersecurity	67	SDG 5: Gender Equality	122
Socioeconomic gap in use of digital payments	68	SDG 11: Sustainable Cities and Communities	122
Investment in emerging technologies	77	Availability of local online content	123
e-commerce legislation	77	Internet access	124
Adult literacy rate	86	SDG 7: Affordable and Clean Energy	126
R&D expenditure by businesses	86	Use of virtual social networks	128



NRI 2020 At-A-Glance: Uganda

Network Readiness Index

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	112	23.76	C. Governance pillar	90	47.57
1st sub-pillar: Access	97	40.76	1st sub-pillar: Trust	84	31.60
2nd sub-pillar: Content	123	8.28	2nd sub-pillar: Regulation	91	56.42
3rd sub-pillar: Future Technologies	91	22.23	3rd sub-pillar: Inclusion	87	54.69
B. People pillar	121	24.33	D. Impact pillar	129	29.96
1st sub-pillar: Individuals	120	23.18	1st sub-pillar: Economy	116	12.44
2nd sub-pillar: Businesses	121	22.68	2nd sub-pillar: Quality of Life	115	45.12
3rd sub-nillar: Governments	103	27 12	3rd sub-nillar: SDG Contribution	130	32 31

Rank: 114 (out of 134)

Score: 31.40

The Network Readiness Index in detail

The N	etwork Readiness Index in detail			
Indica	tor	Rank	Score	ln
A. Tec	hnology pillar	112	23.76	(
1st sui	b-pillar: Access	97	40.76	
1.1.1	Mobile tariffs	121	28.67	;
1.1.2	Handset prices	114	21.53	;
1.1.3	Internet access	124	10.52	;
1.1.4	4G mobile network coverage	100	57.00	;
1.1.5	Fixed-broadband subscriptions	60	71.01	
1.1.6	International Internet bandwidth	116	55.80	;
1.1.7	Internet access in schools	NA	NA	;
2nd su	ıb-pillar: Content	123	8.28	;
1.2.1	GitHub commits	105	0.75	;
1.2.2	Wikipedia edits	119	3.00	;
1.2.3	Internet domain registrations	*	*	-
1.2.4	Mobile apps development	119	29.26	;
3rd su	b-pillar: Future Technologies	91	22.23	;
1.3.1	Adoption of emerging technologies	101	29.80	;
1.3.2	Investment in emerging technologies	77	36.03	;
1.3.3	ICT PCT patent applications	NA	NA	;
1.3.4	Computer software spending	121	0.86	
1.3.5	Robot density	NA	NA	
B. Pec	pple pillar	121	24.33	4
1st su	b-pillar: Individuals	120	23.18	4
2.1.1	Internet users	114	21.70	4
2.1.2	Active mobile-broadband subscriptions	113	12.05	4
2.1.3	Use of virtual social networks	128	3.71	
2.1.4	Tertiary enrollment	121	2.96	
2.1.5	Adult literacy rate	86	69.81	4
2.1.6	ICT skills	116	28.87	4
2nd su	ıb-pillar: Businesses	121	22.68	4
2.2.1	Firms with website	116	11.26	4
2.2.2	Ease of doing business	99	52.62	-;
2.2.3	Professionals	96	14.26	4
2.2.4	Technicians and associate professionals	109	11.61	
2.2.5	Business use of digital tools	98	46.18	
2.2.6	R&D expenditure by businesses	86	0.18	4
3rd su	b-pillar: Governments	103	27.12	
2.3.1	Government online services	88	56.98	
2.3.2	Publication and use of open data	89	11.59	
2.3.3	Government promotion of investment in emerging tech	96	27.21	
	R&D expenditure by governments and higher education	87	12.71	
* Confider	ntial data			

Indicator	Rank	Score
C. Governance pillar	90	47.57
1st sub-pillar: Trust	84	31.60
3.1.1 Secure Internet servers	119	24.77
3.1.2 Cybersecurity	67	66.41
3.1.3 Online access to financial account	64	30.31
3.1.4 Internet shopping	95	4.91
2nd sub-pillar: Regulation	91	56.42
3.2.1 Regulatory quality	92	45.88
3.2.2 ICT regulatory environment	51	86.88
3.2.3 Legal framework's adaptability to emerging technologies	106	17.92
3.2.4 e-commerce legislation	77	75.00
3.2.5 Privacy protection by law content	NA	NA
3rd sub-pillar: Inclusion	87	54.69
3.3.1 E-Participation	90	55.55
3.3.2 Socioeconomic gap in use of digital payments	68	65.42
3.3.3 Availability of local online content	123	23.57
3.3.4 Gender gap in Internet use	NA	NA
3.3.5 Rural gap in use of digital payments	38	74.20
D. Impact pillar	129	29.96
1st sub-pillar: Economy	116	12.44
4.1.1 Medium and high-tech industry	100	13.88
4.1.2 High-tech exports	93	6.70
4.1.3 PCT patent applications	NA	NA
4.1.4 Labor productivity per employee	111	2.55
4.1.5 Prevalence of gig economy	101	26.61
2nd sub-pillar: Quality of Life	115	45.12
4.2.1 Happiness	101	44.32
4.2.2 Freedom to make life choices	110	56.02
4.2.3 Income inequality	92	52.06
4.2.4 Healthy life expectancy at birth	117	28.08
3rd sub-pillar: SDG Contribution	130	32.31
4.3.1 SDG 3: Good Health and Well-Being	117	27.87
4.3.2 SDG 4: Quality Education	NA	NA
4.3.3 SDG 5: Gender Equality	122	39.06
4.3.4 SDG 7: Affordable and Clean Energy	126	40.75



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