

Mauritania

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 Access Content **Future Technologies** Network Individuals Businesses Governments Readiness Index 囯 Trust Regulation Inclusion Impact (<u>o</u>) **SDG** Contribution

Global NRI position of Mauritania

Mauritania ranks 131st 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 People.

Figure 2: Mauritania global ranking, overall and by pillar Rank 1 20 40 60 80 100 117 120 123 131 131 134 134 NRI 2023 Technology People Governance Impact







Performance at sub-pillar level

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

Table 1: Mauritania rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Future Technologies	56	Inclusion	128
Quality of Life	101	Trust	131
Access	124	Economy	131
Individuals	124	Businesses	132
SDG Contribution	127	Content	133
Regulation	128	Governments	134

NRI score and income

Figure 3 shows the position of Mauritania 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, Mauritania is well below the trend line, which suggests that it is underachieving and that one would expect it could raise its network readiness in view of its income level.

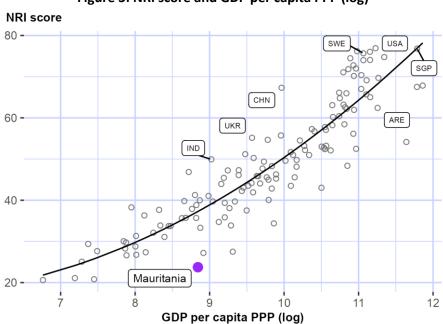


Figure 3: NRI score and GDP per capita PPP (log)

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). Mauritania belongs to the group of lower-middle-income countries, where the best performer is Ukraine (UKR). The top performer of its region-Arab States-is United Arab Emirates (ARE).



Performance against its income group and region

Lower-middle-income countries

Mauritania is ranked 40th in the group of lower-middle-income countries (Figure 4, left panel). In terms of pillar performance, it has a score below the income group average in each of the four pillars. At the sub-pillar level, it outperforms lower-middle-income countries in one of the twelve sub-pillars: Future Technologies.

Arab States

Mauritania is ranked 13th within Arab States (Figure 4, right panel). It lags behind its region in each of the four pillars. With regard to sub-pillars, it trails the regional average in each of them.

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

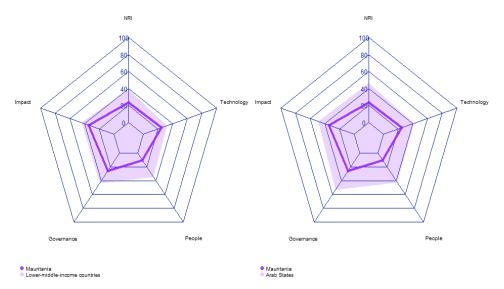


Table 2: Mauritania scores vs. averages of its income group and region, overall and by pillar

Dimension	Mauritania	Lower-middle- income countries	Arab States
NRI	23.73	38.41	46.59
Technology	24.72	32.12	41.17
People	10.13	34.38	42.66
Governance	25.39	43.27	53.45
Impact	34.70	43.89	49.08



Strongest and weakest indicators

The indicators where Mauritania performs particularly well include 1.3.4 Computer software spending, 4.2.3 Income inequality, and 4.3.4 SDG 7: Affordable and Clean Energy (Table 3). By contrast, the economy's weakest indicators include 2.3.1 Government online services, 3.3.1 E-Participation, and 1.1.4 Population covered by at least a 3G mobile network.

Table 3: Highlight of Strengths and Opportunities for Mauritania

Strongest indicators	Rank	Weakest indicators	Rank
1.3.4 Computer software spending	33	4.1.3 PCT patent applications	99
4.2.3 Income inequality	34	2.3.4 R&D expenditure by governments and higher education	115
4.3.4 SDG 7: Affordable and Clean Energy	46	2.2.4 Annual investment in telecommunication services	124
3.3.2 Socioeconomic gap in use of digital payments	52	1.2.1 GitHub commits	128
1.3.2 Investment in emerging technologies	60	4.3.3 SDG 5: Women's economic opportunity	128
2.2.1 Firms with website	83	1.1.5 International Internet bandwidth	130
2.1.1 Mobile broadband internet traffic within the country	95	1.2.4 Al scientific publications	130
4.2.1 Happiness	96	3.2.5 Privacy protection by law content	130
4.1.2 High-tech exports	98	1.1.4 Population covered by at least a 3G mobile network	132
4.2.4 Healthy life expectancy at birth	105	2.3.1 Government online services	133
		3.3.1 E-Participation	133

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



NRI 2023 At-A-Glance: Mauritania

Network Readiness Index Rank: 131 (out of 134) Score: 23.73

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	117	24.72	C. Governance pillar	131	25.39
1st sub-pillar: Access	124	37.94	1st sub-pillar: Trust	131	12.69
2nd sub-pillar: Content	133	0.15	2nd sub-pillar: Regulation	128	33.92
3rd sub-pillar: Future Technologies	56	36.08	3rd sub-pillar: Inclusion	128	29.55
B. People pillar	134	10.13	D. Impact pillar	123	34.70
1st sub-pillar: Individuals	124	18.42	1st sub-pillar: Economy	131	9.50
2nd sub-pillar: Businesses	132	11.98	2nd sub-pillar: Quality of Life	101	53.50
3rd sub-pillar: Governments	134	0.00	3rd sub-pillar: SDG Contribution	127	41.10

The Network Readiness Index in detail

Indicator	Rank	Score		Indicator	Rank	Score
A. Technology pillar	117	24.72		C. Governance pillar	131	25.39
1st sub-pillar: Access	124	37.94		1st sub-pillar: Trust	131	12.69
1.1.1 Mobile tariffs	116	25.44		3.1.1 Secure Internet servers	126	21.16
1.1.2 Handset prices	122	18.54		3.1.2 Cybersecurity	119	17.51
1.1.3 FTTH/building Internet subscriptions	NA	NA		3.1.3 Online access to financial account	115	8.20
1.1.4 Population covered by at least a 3G mobile network	132	60.18	0	3.1.4 Internet shopping	115	3.88
1.1.5 International Internet bandwidth	130	47.60	0	2nd sub-pillar: Regulation	128	33.92
1.1.6 Internet access in schools	NA	NA		3.2.1 Regulatory quality	126	25.76
2nd sub-pillar: Content	133	0.15		3.2.2 ICT regulatory environment	116	61.18
1.2.1 GitHub commits	128	0.25	0	3.2.3 Regulation of emerging technologies	119	1.04
1.2.2 Internet domain registrations	124	0.14		3.2.4 E-commerce legislation	87	66.67
1.2.3 Mobile apps development	NA	NA		3.2.5 Privacy protection by law content	130	14.95
1.2.4 Al scientific publications	130	0.04	0	3rd sub-pillar: Inclusion	128	29.55
3rd sub-pillar: Future Technologies	56	36.08	_	3.3.1 E-Participation	133	0.00
1.3.1 Adoption of emerging technologies	NA	NA		3.3.2 Socioeconomic gap in use of digital payments	52	82.96
1.3.2 Investment in emerging technologies	60	41.25		3.3.3 Availability of local online content	121	25.00







Indicator	Rank	Score		Indicator	Rank	Score	
1.3.3 Robot density	NA	NA		3.3.4 Gender gap in Internet use	NA	NA	
1.3.4 Computer software spending	33	30.91		3.3.5 Rural gap in use of digital payments	123	10.24	
B. People pillar	134	10.13		D. Impact pillar	123	34.70	
1st sub-pillar: Individuals	124	18.42		1st sub-pillar: Economy	131	9.50	
2.1.1 Mobile broadband internet traffic within the country	95	2.58		4.1.1 High-tech and medium-high-tech manufacturing	NA	NA	
2.1.2 ICT skills in the education system	NA	NA		4.1.2 High-tech exports	98	3.47	
2.1.3 Use of virtual social networks	112	14.08		4.1.3 PCT patent applications	99	0.00	0
2.1.4 Tertiary enrollment	124	2.13		4.1.4 Domestic market size	124	31.67	
2.1.5 Adult literacy rate	95	54.89		4.1.5 Prevalence of gig economy	NA	NA	
2.1.6 Al talent concentration	NA	NA		4.1.6 ICT services exports	107	2.85	
2nd sub-pillar: Businesses	132	11.98		2nd sub-pillar: Quality of Life	101	53.50	
2.2.1 Firms with website	83	35.93		4.2.1 Happiness	96	44.11	
2.2.2 GERD financed by business enterprise	100	0.00		4.2.2 Freedom to make life choices	120	41.52	
2.2.3 Knowledge intensive employment	NA	NA		4.2.3 Income inequality	34	76.38	
2.2.4 Annual investment in telecommunication services	124	0.00	0	4.2.4 Healthy life expectancy at birth	105	51.99	
2.2.5 GERD performed by business enterprise	NA	NA	•	3rd sub-pillar: SDG Contribution	127	41.10	
3rd sub-pillar: Governments	134	0.00	_	4.3.1 SDG 3: Good Health and Well-Being	126	18.63	
2.3.1 Government online services	133	0.00	0	4.3.2 SDG 4: Quality Education	NA	NA	
2.3.2 Publication and use of open data	NA	NA		4.3.3 SDG 5: Women's economic opportunity	128	26.55	0
2.3.3 Government promotion of investment in emerging tech	NA	NA		4.3.4 SDG 7: Affordable and Clean Energy	46	75.79	
2.3.4 R&D expenditure by governments and higher education	115	0.00	0	4.3.5 SDG 11: Sustainable Cities and Communities	107	43.43	

NOTE: ● a strength and o a weakness.



Sources

Dutta, S., & Lanvin, B. (eds.) (2022). The Network Readiness Index 2022: Benchmarking the Future of the Network Economy. Washington DC: Portulans Institute.

Berry, B. (2019). berryFunctions: Function Collection Related to Plotting and Hydrology. R package version 1.18.2. URL: https://CRAN.R-project.org/package=berryFunctions

Dutta, S., & Lanvin, B. (eds.) (2019). The Network Readiness Index 2019: Towards a Future-Ready Society. Washington DC: Portulans Institute.

Dutta, S., & Lanvin, B. (eds.) (2020). The Network Readiness Index 2020: Fostering Digital Transformation in a post-COVID Global Economy. Washington DC: Portulans Institute.

Dutta, S., & Lanvin, B. (eds.) (2021). The Network Readiness Index 2021: Shaping the Global Recovery. How digital technologies can make the post-COVID world more equal. Washington DC: Portulans Institute.

Gohel, D. (2019). officer: Manipulation of Microsoft Word and PowerPoint Documents. R package version 0.3.6. URL: https://CRAN.R-project.org/package=officer

Gohel, D. (2019). flextable: Functions for Tabular Reporting. R package version 0.5.6. URL: https://CRAN.R-project.org/package=flextable

Milton Bache, S. & Wickham, H. (2014). magrittr: A Forward-Pipe Operator for R. R package version 1.5. URL: https://CRAN.R-project.org/package=magrittr

Nakazawa, M. (2019). fmsb: Functions for Medical Statistics Book with some Demographic Data. R package version 0.7.0. URL: https://CRAN.R-project.org/package=fmsb

R Core Team (2018). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL: https://www.R-project.org/.

Slowikowski, K. (2019). ggrepel: Automatically Position Non-Overlapping Text Labels with 'ggplot2'. R package version 0.8.1. URL: https://CRAN.R-project.org/package=ggrepel

Wickham, H. (2007). Reshaping Data with the reshape Package. Journal of Statistical Software, 21(12), 1-20. URL: http://www.jstatsoft.org/v21/i12/.

Wickham, H. (2016). ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag. New York.

Wickham et al., (2019). Welcome to the tidyverse. Journal of Open Source Software, 4(43), 1686, URL: https://doi.org/10.21105/joss.01686