Mali

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.
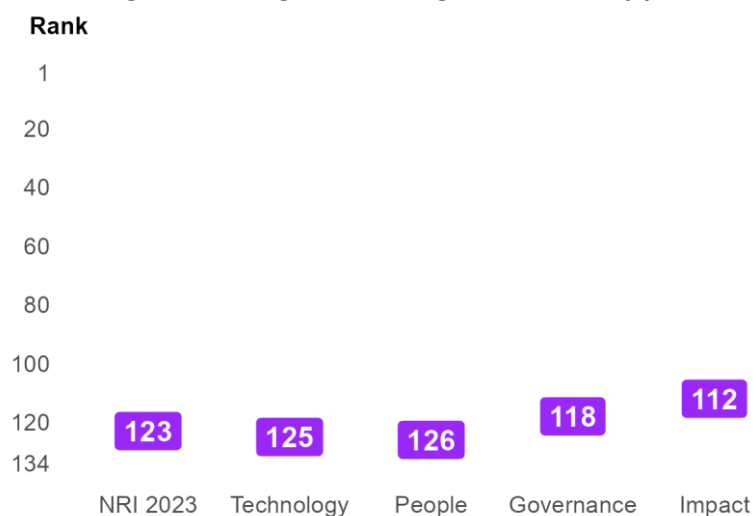
Figure 1: The NRI 2023 model

Global NRI position of Mali

Mali ranks 123rd out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Impact. The greatest scope for improvement, meanwhile, concerns People.

Figure 2: Mali global ranking, overall and by pillar

Performance at sub-pillar level

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

Table 1: Mali rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Economy	94	Future Technologies	123
Quality of Life	103	SDG Contribution	123
Regulation	105	Content	124
Businesses	112	Governments	125
Inclusion	113	Trust	130
Access	118	Individuals	131

NRI score and income

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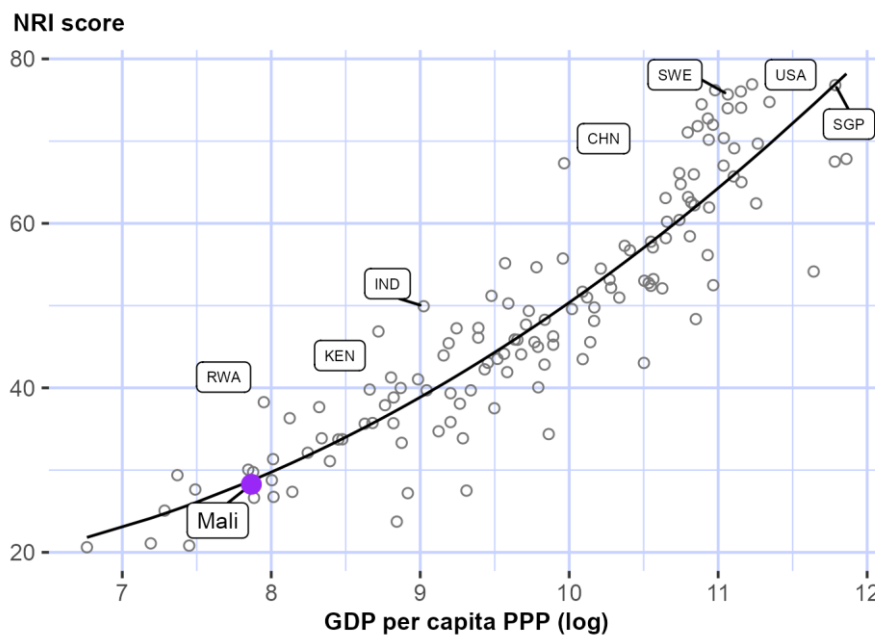
Note: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Mali belongs to the group of low-income countries, where the best performer is Rwanda (RWA). The top performer of its region-Africa-is Kenya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

Performance against its income group and region

Low-income countries
Mali is ranked 5th 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, Technology, Governance and Impact. At the sub-pillar level, it outperforms low-income countries in seven of the twelve sub-pillars: Access, Businesses, Regulation, Inclusion, Economy, Quality of Life and SDG Contribution.

Africa
Mali is ranked 21st within Africa (Figure 4, right panel). It has a score above the regional average in one of the four pillars: Impact. With regard to sub-pillars, it outperforms the average in Africa in three of the twelve sub-pillars: Inclusion, Economy and Quality of Life.

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

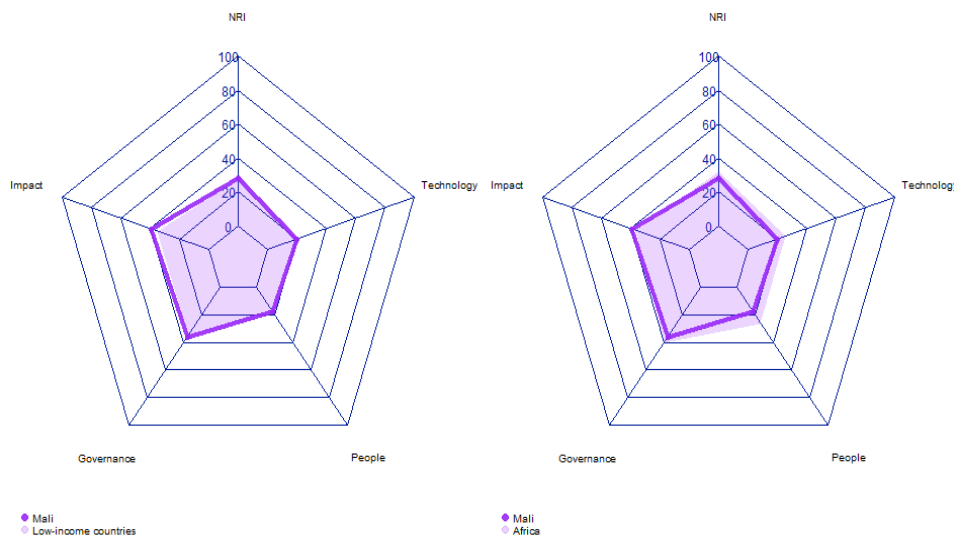**Table 2: Mali scores vs. averages of its income group and region, overall and by pillar**

Dimension	Mali	Low-income countries	Africa
NRI	28.27	27.19	32.14
Technology	19.83	19.75	25.14
People	17.93	19.57	26.19
Governance	36.15	34.61	40.44
Impact	39.19	34.82	36.77

Strongest and weakest indicators

The indicators where Mali performs particularly well include 4.1.6 ICT services exports, 4.2.3 Income inequality, and 2.1.2 ICT skills in the education system (Table 3). By contrast, the economy's weakest indicators include 1.2.1 GitHub commits, 3.1.2 Cybersecurity, and 2.2.3 Knowledge intensive employment.

Table 3: Highlight of Strengths and Opportunities for Mali

Strongest indicators	Rank	Weakest indicators	Rank
4.1.6 ICT services exports	42	4.1.3 PCT patent applications	99
4.2.3 Income inequality	58	2.3.2 Publication and use of open data	103
2.1.2 ICT skills in the education system	65	2.1.5 Adult literacy rate	105
3.2.5 Privacy protection by law content	66	2.1.1 Mobile broadband internet traffic within the country	119
4.2.2 Freedom to make life choices	67	2.2.3 Knowledge intensive employment	125
1.2.2 Internet domain registrations	70	3.1.2 Cybersecurity	128
3.1.3 Online access to financial account	71	1.2.1 GitHub commits	130
4.1.2 High-tech exports	73		
3.2.2 ICT regulatory environment	79		
3.3.2 Socioeconomic gap in use of digital payments	84		

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

NRI 2023 At-A-Glance: Mali

Network Readiness Index — Rank: 123 (out of 134) — Score: 28.27

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	125	19.83	C. Governance pillar	118	36.15
1st sub-pillar: Access	118	40.72	1st sub-pillar: Trust	130	13.58
2nd sub-pillar: Content	124	1.55	2nd sub-pillar: Regulation	105	53.71
3rd sub-pillar: Future Technologies	123	17.20	3rd sub-pillar: Inclusion	113	41.15
B. People pillar	126	17.93	D. Impact pillar	112	39.19
1st sub-pillar: Individuals	131	12.21	1st sub-pillar: Economy	94	20.86
2nd sub-pillar: Businesses	112	28.88	2nd sub-pillar: Quality of Life	103	52.67
3rd sub-pillar: Governments	125	12.70	3rd sub-pillar: SDG Contribution	123	44.05

The Network Readiness Index in detail

Indicator	Rank	Score		Indicator	Rank	Score	
A. Technology pillar	125	19.83		**C. Governance pillar**	118	36.15	
1st sub-pillar: Access	118	40.72		*1st sub-pillar: Trust*	130	13.58	
1.1.1 Mobile tariffs	123	14.96		3.1.1 Secure Internet servers	127	18.34	
1.1.2 Handset prices	123	18.29		3.1.2 Cybersecurity	128	8.56	○
1.1.3 FTTH/building Internet subscriptions	88	20.26		3.1.3 Online access to financial account	71	24.23	●
1.1.4 Population covered by at least a 3G mobile network	125	87.04		3.1.4 Internet shopping	118	3.21	
1.1.5 International Internet bandwidth	107	63.04		*2nd sub-pillar: Regulation*	105	53.71	
1.1.6 Internet access in schools	NA	NA		3.2.1 Regulatory quality	106	35.56	
2nd sub-pillar: Content	124	1.55		3.2.2 ICT regulatory environment	79	76.47	●
1.2.1 GitHub commits	130	0.13	○	3.2.3 Regulation of emerging technologies	95	25.45	
1.2.2 Internet domain registrations	70	3.49	●	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	66	64.39	●
1.2.4 AI scientific publications	102	1.04		*3rd sub-pillar: Inclusion*	113	41.15	
3rd sub-pillar: Future Technologies	123	17.20		3.3.1 E-Participation	111	25.58	
1.3.1 Adoption of emerging technologies	120	16.80		3.3.2 Socioeconomic gap in use of digital payments	84	63.47	●
1.3.2 Investment in emerging technologies	90	33.25		3.3.3 Availability of local online content	113	29.57	

Network Readiness Index 2023

Indicator	Rank	Score	
1.3.3 Robot density	NA	NA	
1.3.4 Computer software spending	118	1.55	
B. People pillar	126	17.93	
1st sub-pillar: Individuals	131	12.21	
2.1.1 Mobile broadband internet traffic within the country	119	0.28	○
2.1.2 ICT skills in the education system	65	49.24	●
2.1.3 Use of virtual social networks	126	4.59	
2.1.4 Tertiary enrollment	127	1.47	
2.1.5 Adult literacy rate	105	5.46	○
2.1.6 AI talent concentration	NA	NA	
2nd sub-pillar: Businesses	112	28.88	
2.2.1 Firms with website	79	37.78	
2.2.2 GERD financed by business enterprise	93	1.02	
2.2.3 Knowledge intensive employment	125	1.32	○
2.2.4 Annual investment in telecommunication services	84	75.39	
2.2.5 GERD performed by business enterprise	NA	NA	
3rd sub-pillar: Governments	125	12.70	
2.3.1 Government online services	119	29.84	
2.3.2 Publication and use of open data	103	1.47	○
2.3.3 Government promotion of investment in emerging tech	113	16.50	
2.3.4 R&D expenditure by governments and higher education	92	2.98	

Indicator	Rank	Score	
3.3.4 Gender gap in Internet use	NA	NA	
3.3.5 Rural gap in use of digital payments	95	45.97	
D. Impact pillar	112	39.19	
1st sub-pillar: Economy	94	20.86	
4.1.1 High-tech and medium-high-tech manufacturing	NA	NA	
4.1.2 High-tech exports	73	9.69	●
4.1.3 PCT patent applications	99	0.00	○
4.1.4 Domestic market size	104	38.36	
4.1.5 Prevalence of gig economy	90	31.10	
4.1.6 ICT services exports	42	25.13	●
2nd sub-pillar: Quality of Life	103	52.67	
4.2.1 Happiness	112	34.56	
4.2.2 Freedom to make life choices	67	73.74	●
4.2.3 Income inequality	58	67.59	●
4.2.4 Healthy life expectancy at birth	122	34.79	
3rd sub-pillar: SDG Contribution	123	44.05	
4.3.1 SDG 3: Good Health and Well-Being	125	21.85	
4.3.2 SDG 4: Quality Education	NA	NA	
4.3.3 SDG 5: Women's economic opportunity	119	48.67	
4.3.4 SDG 7: Affordable and Clean Energy	91	65.61	
4.3.5 SDG 11: Sustainable Cities and Communities	112	40.08	

NOTE: ● a strength and ○ a weakness.

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