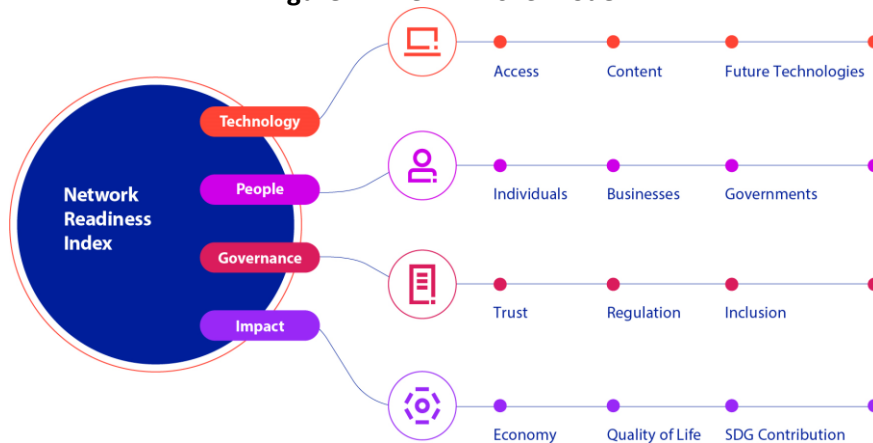




Lebanon

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.

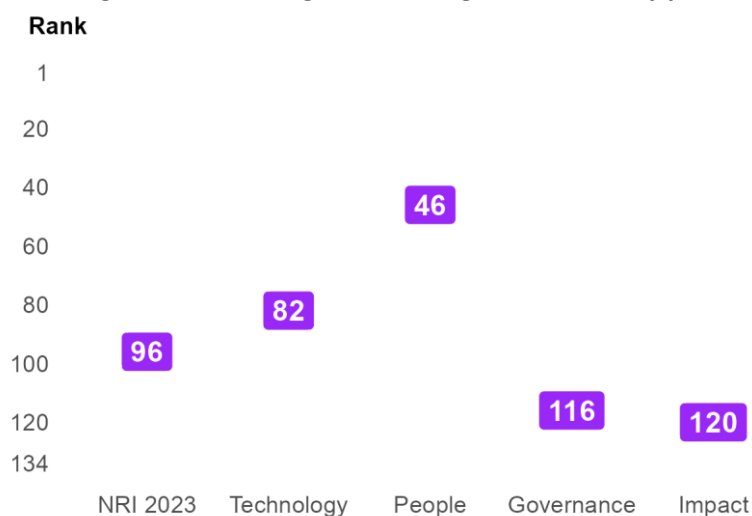
Figure 1: The NRI 2023 model



Global NRI position of Lebanon

Lebanon ranks 96th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to People. The greatest scope for improvement, meanwhile, concerns Impact.

Figure 2: Lebanon 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 Lebanon relate to Individuals, Businesses and Content, among others (Table 1). More could be done, though, to improve the economy's performances in the Trust, Regulation and Quality of Life sub-pillars.

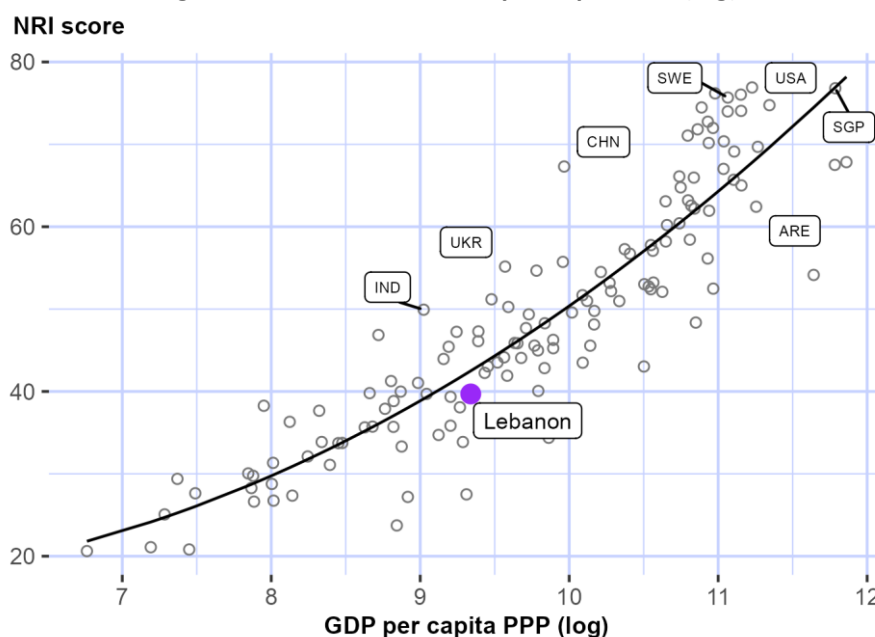
Table 1: Lebanon rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Individuals	14	Future Technologies	87
Businesses	32	SDG Contribution	94
Content	64	Governments	105
Economy	76	Trust	110
Access	78	Regulation	129
Inclusion	86	Quality of Life	132

NRI score and income

Figure 3 shows the position of Lebanon 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, Lebanon 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). Lebanon 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).

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Performance against its income group and region

Lower-middle-income countries

Lebanon is ranked 18th 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 two of the four pillars: NRI, Technology and People. At the sub-pillar level, it outperforms lower-middle-income countries in eight of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Businesses, Inclusion, Economy and SDG Contribution.

Arab States

Lebanon is ranked 11th within Arab States (Figure 4, right panel). It has a score above the regional average in one of the four pillars: People. With regard to sub-pillars, it outperforms the average in Arab States in three of the twelve sub-pillars: Content, Individuals and Businesses.

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

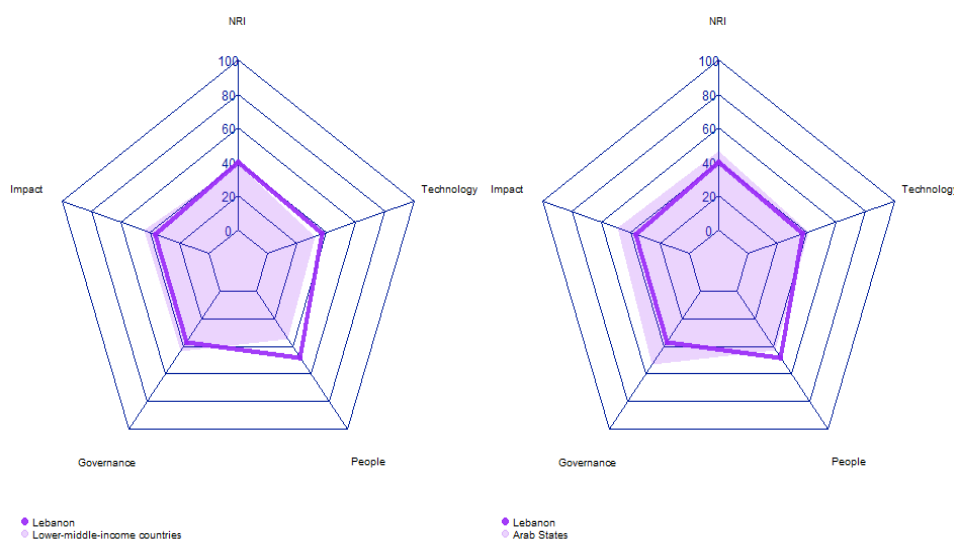


Table 2: Lebanon scores vs. averages of its income group and region, overall and by pillar

Dimension	Lebanon	Lower-middle-income countries	Arab States
NRI	39.70	38.41	46.59
Technology	37.43	32.12	41.17
People	48.08	34.38	42.66
Governance	37.11	43.27	53.45
Impact	36.16	43.89	49.08

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Strongest and weakest indicators

The indicators where Lebanon performs particularly well include 2.1.3 Use of virtual social networks, 1.2.3 Mobile apps development, and 1.1.6 Internet access in schools (Table 3). By contrast, the economy's weakest indicators include 3.2.2 ICT regulatory environment, 4.2.1 Happiness, and 4.2.2 Freedom to make life choices.

Table 3: Highlight of Strengths and Opportunities for Lebanon

Strongest indicators	Rank	Weakest indicators	Rank
2.1.3 Use of virtual social networks	5	2.3.2 Publication and use of open data	97
1.2.3 Mobile apps development	25	2.1.1 Mobile broadband internet traffic within the country	112
1.1.6 Internet access in schools	37	4.2.2 Freedom to make life choices	128
2.2.1 Firms with website	44	4.2.1 Happiness	130
3.3.5 Rural gap in use of digital payments	44	3.2.2 ICT regulatory environment	132
4.3.4 SDG 7: Affordable and Clean Energy	47		
1.1.4 Population covered by at least a 3G mobile network	49		
2.2.3 Knowledge intensive employment	49		
1.2.1 GitHub commits	55		
4.1.6 ICT services exports	58		

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

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NRI 2023 At-A-Glance: Lebanon

Network Readiness Index

Rank: 96 (out of 134)

Score: 39.70

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	82	37.43	C. Governance pillar	116	37.11
1st sub-pillar: Access	78	60.78	1st sub-pillar: Trust	110	24.00
2nd sub-pillar: Content	64	23.48	2nd sub-pillar: Regulation	129	33.73
3rd sub-pillar: Future Technologies	87	28.03	3rd sub-pillar: Inclusion	86	53.60
B. People pillar	46	48.08	D. Impact pillar	120	36.16
1st sub-pillar: Individuals	14	60.10	1st sub-pillar: Economy	76	25.10
2nd sub-pillar: Businesses	32	60.47	2nd sub-pillar: Quality of Life	132	28.42
3rd sub-pillar: Governments	105	23.68	3rd sub-pillar: SDG Contribution	94	54.96

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	82	37.43	C. Governance pillar	116	37.11
1st sub-pillar: Access	78	60.78	1st sub-pillar: Trust	110	24.00
1.1.1 Mobile tariffs	124	13.31	3.1.1 Secure Internet servers	82	46.14
1.1.2 Handset prices	103	31.05	3.1.2 Cybersecurity	108	29.22
1.1.3 FTTH/building Internet subscriptions	NA	NA	3.1.3 Online access to financial account	101	12.96
1.1.4 Population covered by at least a 3G mobile network	49	99.87	3.1.4 Internet shopping	101	7.69
1.1.5 International Internet bandwidth	90	66.82	2nd sub-pillar: Regulation	129	33.73
1.1.6 Internet access in schools	37	92.86	3.2.1 Regulatory quality	119	29.66
2nd sub-pillar: Content	64	23.48	3.2.2 ICT regulatory environment	132	12.94
1.2.1 GitHub commits	55	9.03	3.2.3 Regulation of emerging technologies	96	24.94
1.2.2 Internet domain registrations	64	4.08	3.2.4 E-commerce legislation	87	66.67
1.2.3 Mobile apps development	25	75.41	3.2.5 Privacy protection by law content	119	34.46
1.2.4 AI scientific publications	69	5.37	3rd sub-pillar: Inclusion	86	53.60
3rd sub-pillar: Future Technologies	87	28.03	3.3.1 E-Participation	88	38.37
1.3.1 Adoption of emerging technologies	80	40.87	3.3.2 Socioeconomic gap in use of digital payments	102	52.99
1.3.2 Investment in emerging technologies	63	40.75	3.3.3 Availability of local online content	81	51.68

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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	112	2.47	3.3.5 Rural gap in use of digital payments	44	71.37 ●
B. People pillar			D. Impact pillar		
<i>1st sub-pillar: Individuals</i>	46	48.08	<i>1st sub-pillar: Economy</i>	120	36.16
2.1.1 Mobile broadband internet traffic within the country	14	60.10	4.1.1 High-tech and medium-high-tech manufacturing	76	25.10
2.1.2 ICT skills in the education system	112	0.90 ○	4.1.2 High-tech exports	NA	NA
2.1.3 Use of virtual social networks	NA	NA	4.1.3 PCT patent applications	95	3.66
2.1.4 Tertiary enrollment	5	85.83 ●	4.1.4 Domestic market size	NA	NA
2.1.5 Adult literacy rate	NA	NA	4.1.5 Prevalence of gig economy	93	41.72
2.1.6 AI talent concentration	48	93.58	4.1.6 ICT services exports	68	38.37
<i>2nd sub-pillar: Businesses</i>	NA	NA	<i>2nd sub-pillar: Quality of Life</i>	58	16.63 ●
2.2.1 Firms with website	32	60.47	4.2.1 Happiness	132	28.42
2.2.2 GERD financed by business enterprise	44	62.38 ●	4.2.2 Freedom to make life choices	130	0.00 ○
2.2.3 Knowledge intensive employment	NA	NA	4.2.3 Income inequality	128	12.49 ○
2.2.4 Annual investment in telecommunication services	49	40.33 ●	4.2.4 Healthy life expectancy at birth	NA	NA
2.2.5 GERD performed by business enterprise	59	78.70	<i>3rd sub-pillar: SDG Contribution</i>	66	72.76
<i>3rd sub-pillar: Governments</i>	NA	NA	4.3.1 SDG 3: Good Health and Well-Being	94	54.96
2.3.1 Government online services	105	23.68	4.3.2 SDG 4: Quality Education	60	71.60
2.3.2 Publication and use of open data	110	36.53	4.3.3 SDG 5: Women's economic opportunity	70	17.44
2.3.3 Government promotion of investment in emerging tech	97	5.88 ○	4.3.4 SDG 7: Affordable and Clean Energy	122	41.59
2.3.4 R&D expenditure by governments and higher education	94	28.62	4.3.5 SDG 11: Sustainable Cities and Communities	47	75.72 ●
	NA	NA		59	68.47

NOTE: ● a strength and ○ a weakness.

Network Readiness Index 2023



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