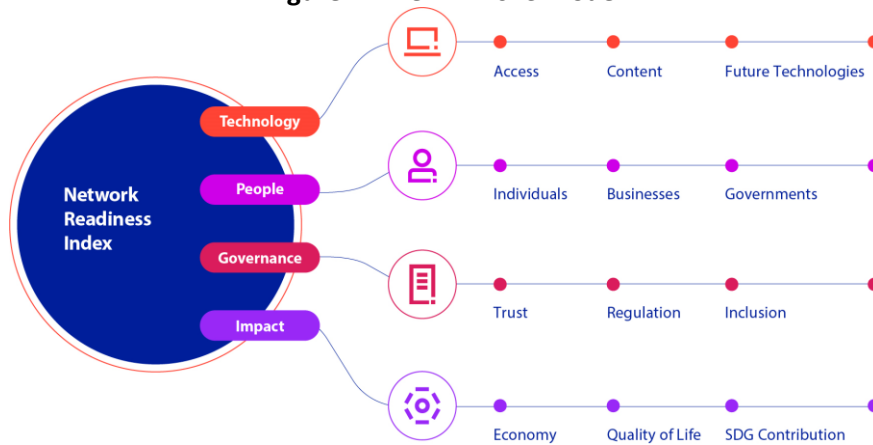# Saudi Arabia

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.
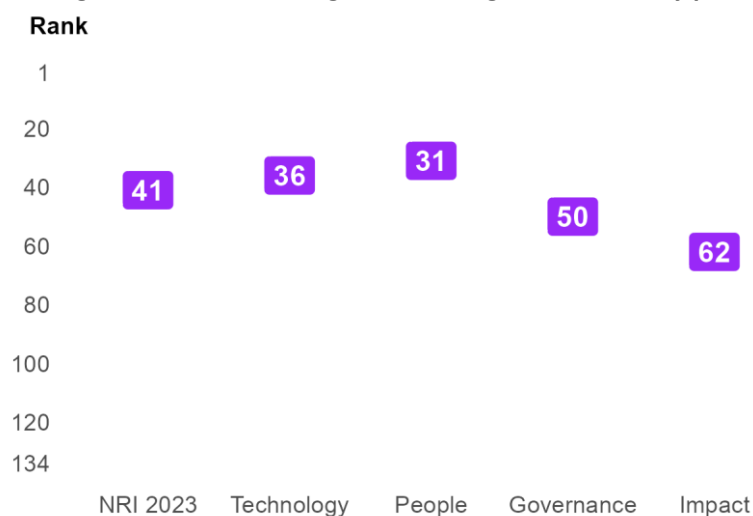
Figure 1: The NRI 2023 model

Global NRI position of Saudi Arabia

Saudi Arabia ranks 41st 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: Saudi Arabia global ranking, overall and by pillar

Performance at sub-pillar level

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

Table 1: Saudi Arabia rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Individuals	10	Businesses	40
Future Technologies	19	Trust	44
Access	30	Economy	47
Inclusion	30	Content	80
Governments	35	Regulation	98
Quality of Life	38	SDG Contribution	104

NRI score and income

Figure 3 shows the position of Saudi Arabia 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, Saudi Arabia 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)
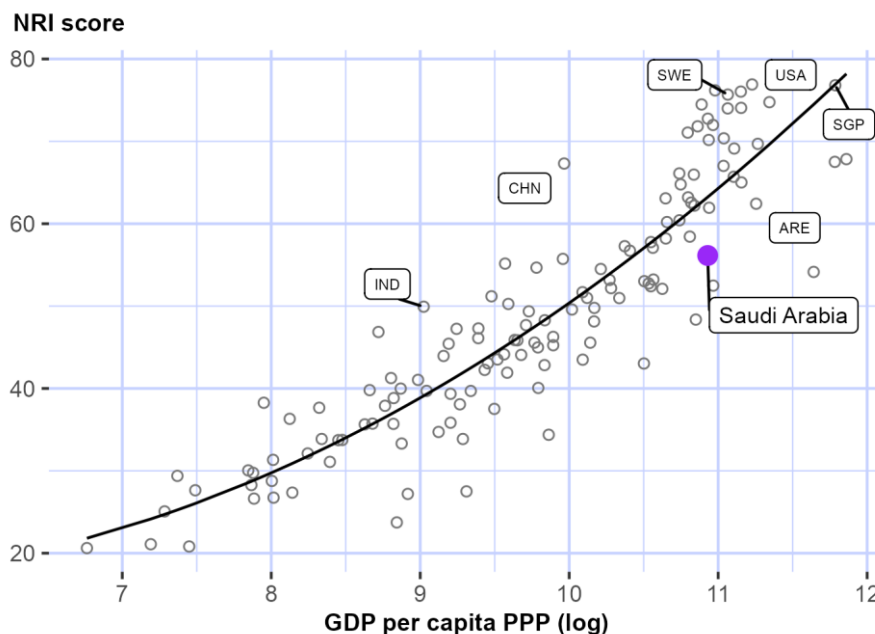
Note: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Saudi Arabia belongs to the group of high-income countries, where the best performer is United States of America (USA). The top performer of its region-Arab States-is United Arab Emirates (ARE).

Performance against its income group and region

High-income countries
Saudi Arabia is ranked 38th in the group of high-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 high-income countries in three of the twelve sub-pillars: Access, Future Technologies and Individuals.

Arab States
Saudi Arabia is ranked 2nd within Arab States (Figure 4, right panel). It outperforms its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in Arab States in ten of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Businesses, Governments, Trust, Inclusion, Economy and Quality of Life.

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

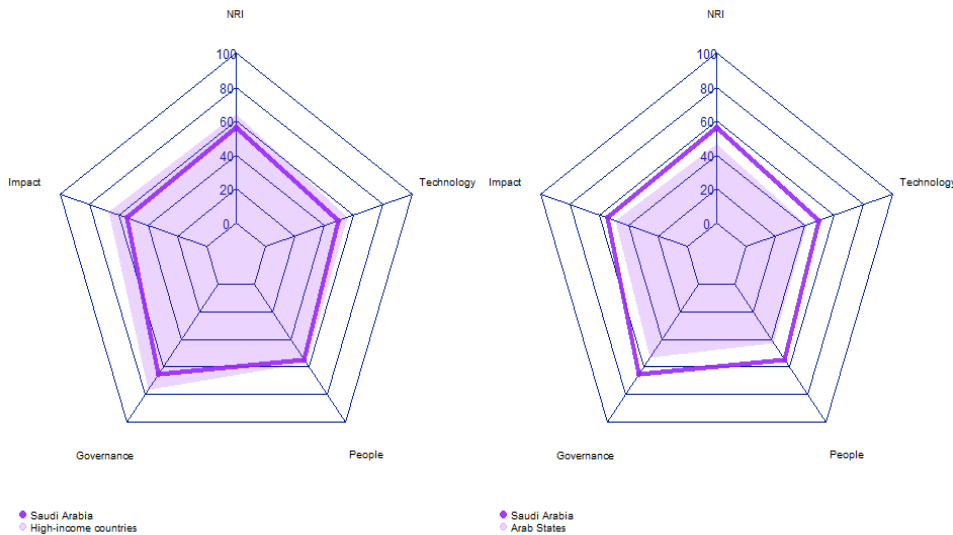**Table 2: Saudi Arabia scores vs. averages of its income group and region, overall and by pillar**

Dimension	Saudi Arabia	High-income countries	Arab States
NRI	56.14	64.07	46.59
Technology	49.52	55.76	41.17
People	55.02	56.99	42.66
Governance	65.69	76.81	53.45
Impact	54.34	66.73	49.08

Strongest and weakest indicators

The indicators where Saudi Arabia performs particularly well include 1.1.4 Population covered by at least a 3G mobile network, 1.1.6 Internet access in schools, and 3.1.2 Cybersecurity (Table 3). By contrast, the economy's weakest indicators include 3.2.5 Privacy protection by law content, 3.2.4 E-commerce legislation, and 4.1.2 High-tech exports.

Table 3: Highlight of Strengths and Opportunities for Saudi Arabia

Strongest indicators	Rank	Weakest indicators	Rank
1.1.4 Population covered by at least a 3G mobile network	1	4.3.2 SDG 4: Quality Education	68
1.1.6 Internet access in schools	1	2.2.1 Firms with website	94
3.1.2 Cybersecurity	2	4.1.2 High-tech exports	120
2.3.3 Government promotion of investment in emerging technologies	5	3.2.4 E-commerce legislation	121
4.1.5 Prevalence of gig economy	5	3.2.5 Privacy protection by law content	127
2.1.1 Mobile broadband internet traffic within the country	8		
2.1.2 ICT skills in the education system	8		
1.1.5 International Internet bandwidth	9		
3.3.3 Availability of local online content	11		
1.1.3 FTTH/building Internet subscriptions	17		
4.1.4 Domestic market size	17		
2.2.4 Annual investment in telecommunication services	18		

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

Network Readiness Index 2023

NRI 2023 At-A-Glance: Saudi Arabia

Network Readiness Index   Rank: 41 (out of 134)   Score: 56.14

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	36	49.52	C. Governance pillar	50	65.69
1st sub-pillar: Access	30	74.45	1st sub-pillar: Trust	44	63.80
2nd sub-pillar: Content	80	19.26	2nd sub-pillar: Regulation	98	57.05
3rd sub-pillar: Future Technologies	19	54.85	3rd sub-pillar: Inclusion	30	76.21
B. People pillar	31	55.02	D. Impact pillar	62	54.34
1st sub-pillar: Individuals	10	60.97	1st sub-pillar: Economy	47	34.38
2nd sub-pillar: Businesses	40	54.69	2nd sub-pillar: Quality of Life	38	76.35
3rd sub-pillar: Governments	35	49.39	3rd sub-pillar: SDG Contribution	104	52.29

The Network Readiness Index in detail

Indicator	Rank	Score		Indicator	Rank	Score	
A. Technology pillar	36	49.52		**C. Governance pillar**	50	65.69	
1st sub-pillar: Access	30	74.45		*1st sub-pillar: Trust*	44	63.80	
1.1.1 Mobile tariffs	48	71.74		3.1.1 Secure Internet servers	88	43.09	
1.1.2 Handset prices	90	37.70		3.1.2 Cybersecurity	2	99.53	●
1.1.3 FTTH/building Internet subscriptions	17	49.29	●	3.1.3 Online access to financial account	44	40.98	
1.1.4 Population covered by at least a 3G mobile network	1	100.00	●	3.1.4 Internet shopping	21	71.59	
1.1.5 International Internet bandwidth	9	87.99	●	*2nd sub-pillar: Regulation*	98	57.05	
1.1.6 Internet access in schools	1	100.00	●	3.2.1 Regulatory quality	52	57.18	
2nd sub-pillar: Content	80	19.26		3.2.2 ICT regulatory environment	14	94.12	
1.2.1 GitHub commits	100	1.97		3.2.3 Regulation of emerging technologies	18	77.14	
1.2.2 Internet domain registrations	83	1.92		3.2.4 E-commerce legislation	121	33.33	○
1.2.3 Mobile apps development	68	65.03		3.2.5 Privacy protection by law content	127	23.47	○
1.2.4 AI scientific publications	52	8.13		*3rd sub-pillar: Inclusion*	30	76.21	
3rd sub-pillar: Future Technologies	19	54.85		3.3.1 E-Participation	43	68.61	
1.3.1 Adoption of emerging technologies	23	72.31		3.3.2 Socioeconomic gap in use of digital payments	61	78.24	
1.3.2 Investment in emerging technologies	30	61.50		3.3.3 Availability of local online content	11	91.11	●

Indicator	Rank	Score	
1.3.3 Robot density	NA	NA	
1.3.4 Computer software spending	35	30.74	
B. People pillar	31	55.02	
1st sub-pillar: Individuals	10	60.97	
2.1.1 Mobile broadband internet traffic within the country	8	54.68	●
2.1.2 ICT skills in the education system	8	83.33	●
2.1.3 Use of virtual social networks	35	74.88	
2.1.4 Tertiary enrollment	31	46.36	
2.1.5 Adult literacy rate	34	96.70	
2.1.6 AI talent concentration	35	9.87	
2nd sub-pillar: Businesses	40	54.69	
2.2.1 Firms with website	94	22.64	○
2.2.2 GERD financed by business enterprise	NA	NA	
2.2.3 Knowledge intensive employment	NA	NA	
2.2.4 Annual investment in telecommunication services	18	86.74	●
2.2.5 GERD performed by business enterprise	NA	NA	
3rd sub-pillar: Governments	35	49.39	
2.3.1 Government online services	32	80.33	
2.3.2 Publication and use of open data	65	25.00	
2.3.3 Government promotion of investment in emerging tech	5	84.06	●
2.3.4 R&D expenditure by governments and higher education	63	8.19	

Indicator	Rank	Score	
3.3.4 Gender gap in Internet use	26	71.55	
3.3.5 Rural gap in use of digital payments	42	71.56	
D. Impact pillar	62	54.34	
1st sub-pillar: Economy	47	34.38	
4.1.1 High-tech and medium-high-tech manufacturing	46	31.89	
4.1.2 High-tech exports	120	0.85	○
4.1.3 PCT patent applications	42	8.83	
4.1.4 Domestic market size	17	73.78	●
4.1.5 Prevalence of gig economy	5	86.05	●
4.1.6 ICT services exports	97	4.87	
2nd sub-pillar: Quality of Life	38	76.35	
4.2.1 Happiness	34	74.94	
4.2.2 Freedom to make life choices	25	87.86	
4.2.3 Income inequality	NA	NA	
4.2.4 Healthy life expectancy at birth	86	66.24	
3rd sub-pillar: SDG Contribution	104	52.29	
4.3.1 SDG 3: Good Health and Well-Being	57	73.04	
4.3.2 SDG 4: Quality Education	68	21.27	○
4.3.3 SDG 5: Women's economic opportunity	109	59.29	
4.3.4 SDG 7: Affordable and Clean Energy	103	59.68	
4.3.5 SDG 11: Sustainable Cities and Communities	96	48.16	

NOTE: ● a strength and ○ a weakness.

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