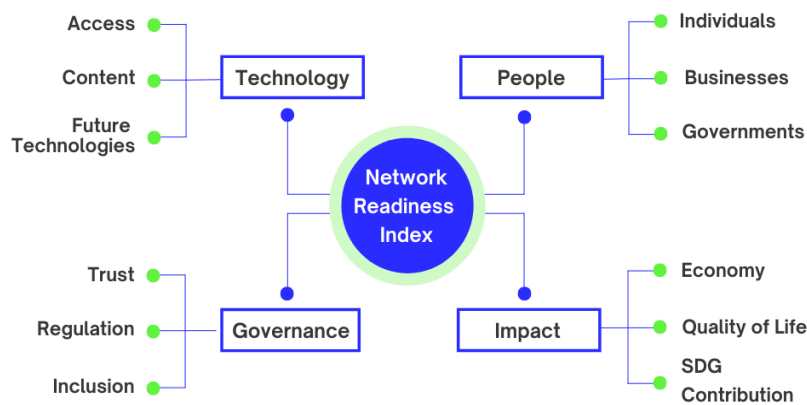


# Network Readiness Index 2022

## Qatar

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 2022 the NRI Report maps the network-based readiness landscape of 131 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.

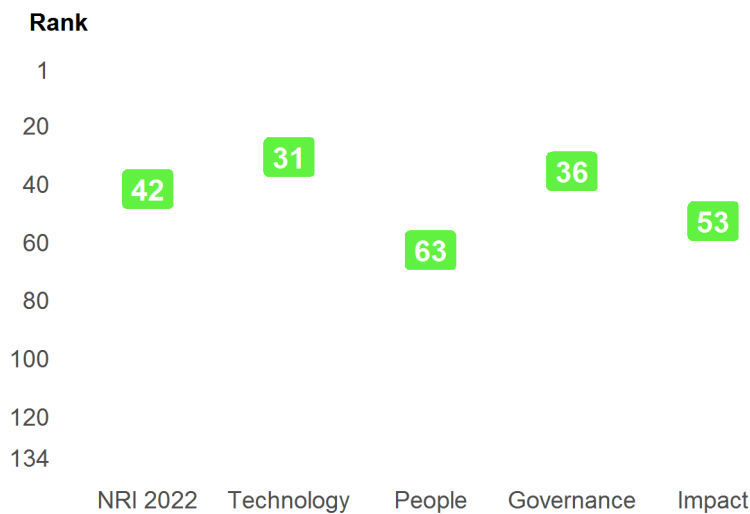
**Figure 1: The NRI 2022 model**



### Global NRI position of Qatar

Qatar ranks 42nd out of the 131 economies included in the NRI 2022 (Figure 2). Its main strength relates to Technology. The greatest scope for improvement, meanwhile, concerns People.

**Figure 2: Qatar global ranking, overall and by pillar**



### Performance at sub-pillar level

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

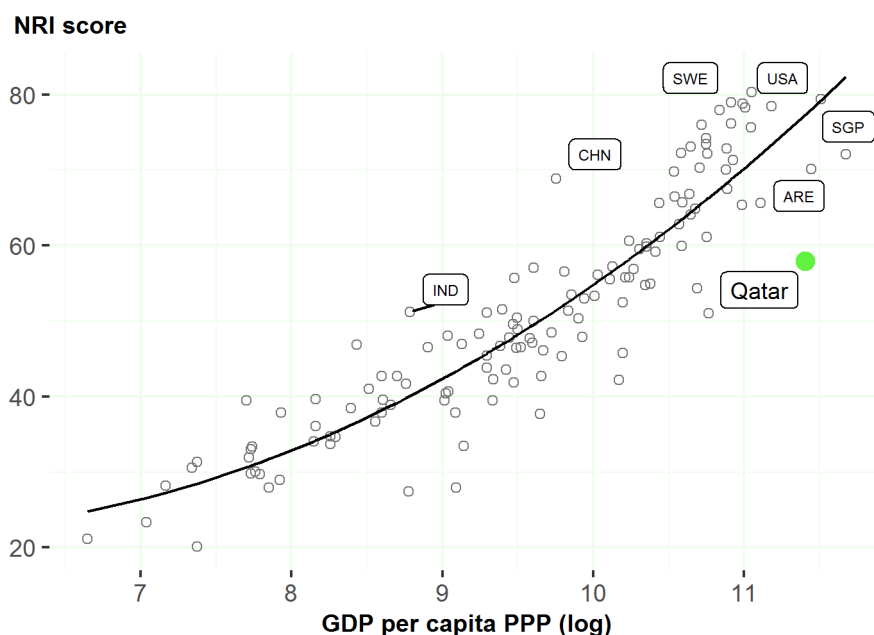
**Table 1: Qatar rankings by sub-pillar**

Sub-pillar	Rank	Sub-pillar	Rank
Future Technologies	18	Economy	47
Access	21	Governments	49
Quality of Life	23	Inclusion	49
Individuals	24	Content	61
Trust	29	Businesses	101
Regulation	43	SDG Contribution	108

### NRI score and income

Figure 3 shows the position of Qatar 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, Qatar 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), SWE = Sweden (3), CHN = China (23), IND = India (61). Netherlands (NLD) is ranked 4th. Qatar 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

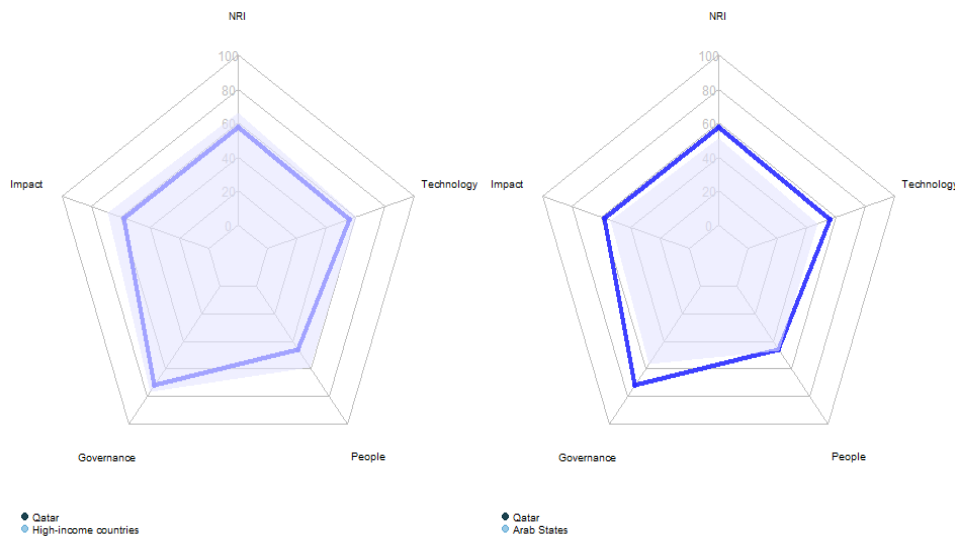
### High-income countries

Qatar is ranked 39th 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 four of the twelve sub-pillars: Access, Future Technologies, Individuals and Quality of Life.

### Arab States

Qatar is ranked 3rd within Arab States (Figure 4, right panel). It has a score above the regional average in three of the four pillars: nri.score, technology, governance and impact. With regard to sub-pillars, it outperforms the average in Arab States in ten of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Governments, Trust, Regulation, Inclusion, Economy and Quality of Life.

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



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

Dimension	Qatar	High-income countries	Arab States
NRI	57.87	66.21	51.21
Technology	56.02	60.28	47.66
People	45.75	58.83	47.11
Governance	71.94	76.89	56.68
Impact	57.75	68.86	53.39

### Strongest and weakest indicators

The indicators where Qatar performs particularly well include 1.1.4 Population covered by at least a 3G mobile network, 1.1.6 Internet access in schools, and 3.2.4 E-commerce legislation (Table 3). By contrast, the economy's weakest indicators include 4.3.3 SDG 5: Women's economic opportunity, 4.3.4 SDG 7: Affordable and Clean Energy, and 3.2.2 ICT regulatory environment.

**Table 3: Strongest and weakest indicators of Qatar**

Strongest indicators	Rank	Weakest indicators	Rank
1.1.4 Population covered by at least a 3G mobile network	1	1.1.3 FTTH/building Internet subscriptions	83
1.1.6 Internet access in schools	1	2.1.4 Tertiary enrollment	96
3.2.4 E-commerce legislation	1	3.2.2 ICT regulatory environment	101
2.1.3 Use of virtual social networks	4	4.3.4 SDG 7: Affordable and Clean Energy	111
1.1.2 Handset prices	6	4.3.3 SDG 5: Women's economic opportunity	130
2.1.2 ICT skills in the education system	8		
4.2.2 Freedom to make life choices	11		
4.3.5 SDG 11: Sustainable Cities and Communities	12		
4.1.5 Prevalence of gig economy	14		
1.3.2 Investment in emerging technologies	17		
2.3.3 Government promotion of investment in emerging technologies	19		
3.2.3 Regulation of emerging technologies	25		

# NRI 2022 At-A-Glance: Qatar

Network Readiness Index

Rank: 42 (out of 131)

Score: 57.87

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	31	56.02	C. Governance pillar	36	71.94
1st sub-pillar: Access	21	76.02	1st sub-pillar: Trust	29	71.42
2nd sub-pillar: Content	61	37.73	2nd sub-pillar: Regulation	43	71.52
3rd sub-pillar: Future Technologies	18	54.32	3rd sub-pillar: Inclusion	49	72.89
B. People pillar	63	45.75	D. Impact pillar	53	57.75
1st sub-pillar: Individuals	24	57.93	1st sub-pillar: Economy	47	39.76
2nd sub-pillar: Businesses	101	30.80	2nd sub-pillar: Quality of Life	23	81.42
3rd sub-pillar: Governments	49	48.54	3rd sub-pillar: SDG Contribution	108	52.06

## The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
<b>A. Technology pillar</b>	31	56.02	<b>C. Governance pillar</b>	36	71.94
1st sub-pillar: Access	21	76.02	1st sub-pillar: Trust	29	71.42
1.1.1 Mobile tariffs	33	76.53	3.1.1 Secure Internet servers	73	48.44
1.1.2 Handset prices	6	95.60	3.1.2 Cybersecurity	34	94.40
1.1.3 FTTH/building Internet subscriptions	83	13.12	3.1.3 Online access to financial account	NA	NA
1.1.4 Population covered by at least a 3G mobile network	1	100.00	3.1.4 Internet shopping	NA	NA
1.1.5 International Internet bandwidth	66	70.85	2nd sub-pillar: Regulation	43	71.52
1.1.6 Internet access in schools	1	100.00	3.2.1 Regulatory quality	36	63.73
2nd sub-pillar: Content	61	37.73	3.2.2 ICT regulatory environment	101	66.67
1.2.1 GitHub commits	89	2.71	3.2.3 Regulation of emerging technologies	25	73.16
1.2.2 Internet domain registrations	75	2.83	3.2.4 E-commerce legislation	1	100.00
1.2.3 Mobile apps development	46	84.75	3.2.5 Privacy protection by law content	90	54.05
1.2.4 AI scientific publications	38	60.61	3rd sub-pillar: Inclusion	49	72.89
3rd sub-pillar: Future Technologies	18	54.32	3.3.1 E-Participation	75	64.20
1.3.1 Adoption of emerging technologies	35	62.68	3.3.2 Socioeconomic gap in use of digital payments	NA	NA
1.3.2 Investment in emerging technologies	17	71.00	3.3.3 Availability of local online content	30	81.97
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	37	72.48
1.3.4 Computer software spending	33	29.26	3.3.5 Rural gap in use of digital payments	NA	NA

Indicator	Rank	Score	Indicator	Rank	Score	
<b>B. People pillar</b>	63	45.75	<b>D. Impact pillar</b>	53	57.75	
<i>1st sub-pillar: Individuals</i>	24	57.93	<i>1st sub-pillar: Economy</i>	47	39.76	
2.1.1 Mobile broadband internet traffic within the country	66	7.92	4.1.1 High-tech and medium-high-tech manufacturing	31	49.05	
2.1.2 ICT skills in the education system	8	83.14	• 4.1.2 High-tech exports	69	17.40	
2.1.3 Use of virtual social networks	4	93.96	• 4.1.3 PCT patent applications	63	3.83	
2.1.4 Tertiary enrollment	96	12.99	○ 4.1.4 Domestic market size	58	54.89	
2.1.5 Adult literacy rate	58	91.62	4.1.5 Prevalence of gig economy	14	71.22	•
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	32	42.18	
<i>2nd sub-pillar: Businesses</i>	101	30.80	<i>2nd sub-pillar: Quality of Life</i>	23	81.42	
2.2.1 Firms with website	NA	NA	4.2.1 Happiness	37	74.72	
2.2.2 GERD financed by business enterprise	77	11.40	4.2.2 Freedom to make life choices	11	93.10	•
2.2.3 Knowledge intensive employment	70	31.92	4.2.3 Income inequality	NA	NA	
2.2.4 Annual investment in telecommunication services	56	78.25	4.2.4 Healthy life expectancy at birth	51	76.44	
2.2.5 GERD performed by business enterprise	68	1.62	<i>3rd sub-pillar: SDG Contribution</i>	108	52.06	
<i>3rd sub-pillar: Governments</i>	49	48.54	4.3.1 SDG 3: Good Health and Well-Being	51	75.55	
2.3.1 Government online services	74	64.85	4.3.2 SDG 4: Quality Education	59	34.86	
2.3.2 Publication and use of open data	73	19.12	4.3.3 SDG 5: Women's economic opportunity	130	0.88	○
2.3.3 Government promotion of investment in emerging tech	19	70.01	4.3.4 SDG 7: Affordable and Clean Energy	111	54.30	○
2.3.4 R&D expenditure by governments and higher education	48	40.18	4.3.5 SDG 11: Sustainable Cities and Communities	12	94.70	•

NOTE: • a strength and ○ a weakness.

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