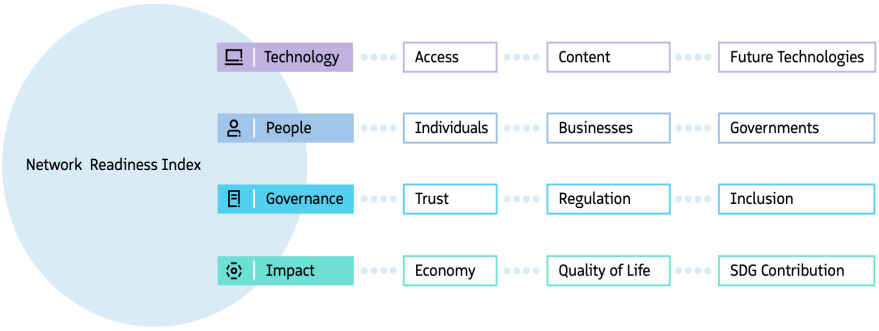
Kazakhstan

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 2025 the NRI Report maps the network-based readiness landscape of 127 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 53 variables.

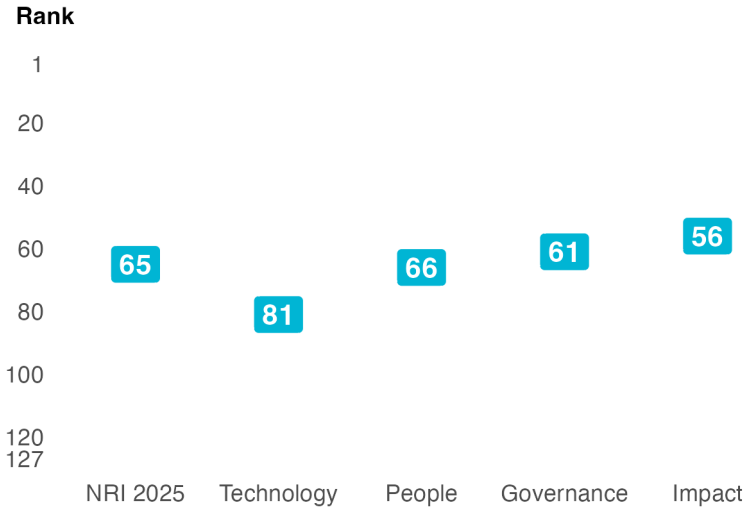
Figure 1: The NRI 2025 model



Global NRI position of Kazakhstan

Kazakhstan ranks 65 out of the 127 economies included in the NRI 2025 (Figure 2). Its main strength relates to Impact. The greatest scope for improvement, meanwhile, concerns Technology.

Figure 2: Kazakhstan global ranking, overall and by pillar



Performance at sub-pillar level

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

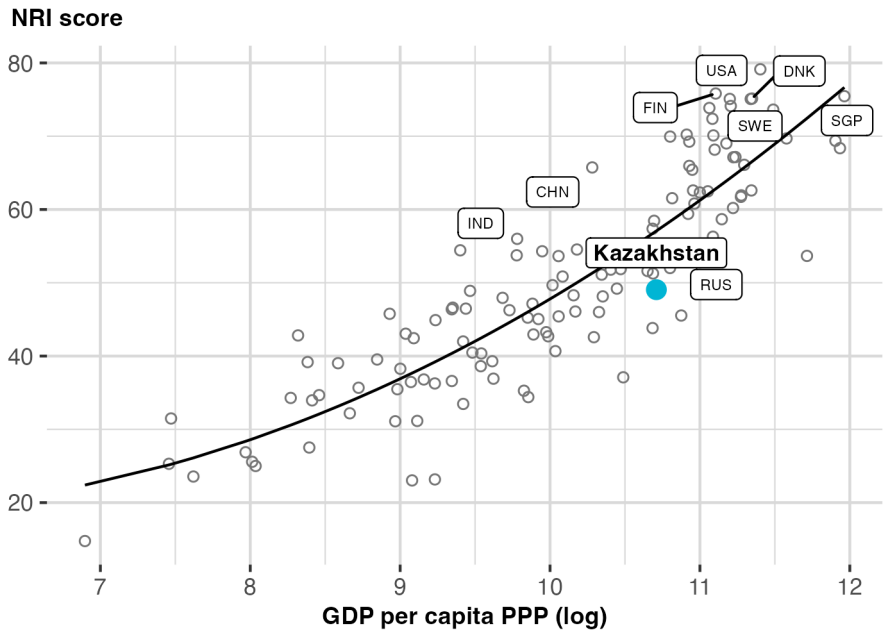
Table 1: Kazakhstan rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Inclusion	32	Economy	78
Quality of Life	35	SDG Contribution	82
Governments	38	Content	83
Individuals	41	Future Technologies	94
Trust	49	Businesses	113
Access	58	Regulation	115

NRI score and income

Figure 3 shows the position of Kazakhstan 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, Kazakhstan 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 of America (rank: 1), FIN =Finland (rank: 2), SGP = Singapore (3), DNK =Denmark (4), SWE = Sweden (5), CHN =China (24), and IND = India (45).

Performance against its income group and region

Upper-middle-income countries

Kazakhstan is ranked 14th in the group of upper-middle-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: People, Governance and Impact. At the sub-pillar level, it outperforms upper-middle-income countries in six of the twelve sub-pillars: Access, Individuals, Governments, Trust, Inclusion and Quality of Life.

CIS

Kazakhstan is ranked 3rd within CIS (Figure 4, right panel). It has a score above the regional average in three of the four pillars: People, Governance and Impact. With regard to sub-pillars, it outperforms the average in CIS in five of the twelve sub-pillars: Access, Governments, Trust, Inclusion and Quality of Life.

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

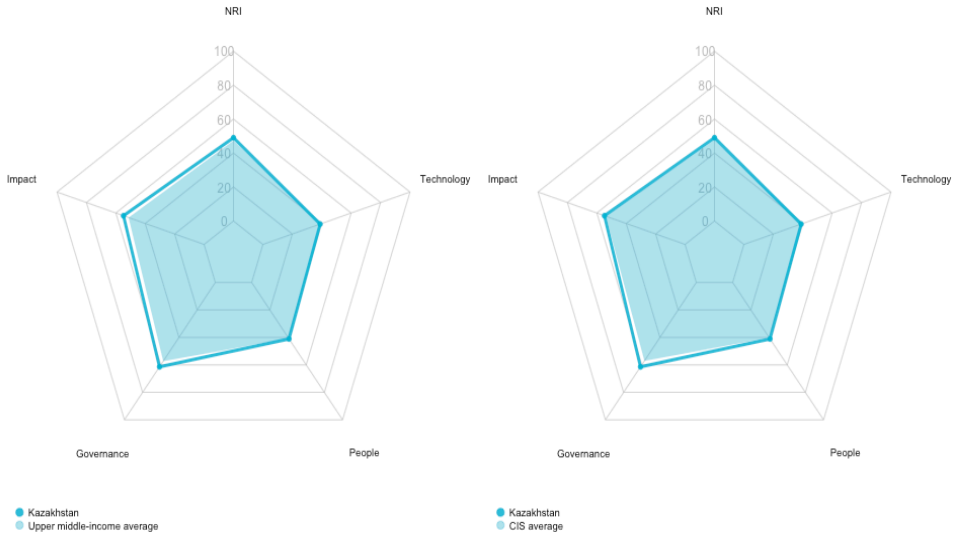


Table 2: Kazakhstan scores vs. averages of its income group and region, overall and by pillar

Dimension	Kazakhstan	Upper-middle-income countries	CIS
NRI	49.06	47.32	47.82
Technology	38.93	39.95	40.20
People	41.08	40.75	40.18
Governance	61.40	57.29	57.07
Impact	54.81	51.31	53.83

NRI 2025 At-A-Glance: Kazakhstan

Network Readiness Index — Rank: 65 (out of 127) — Score: 49.06

Pillar/sub-pillar	Rank	Score
A. Technology pillar	81	38.93
1st sub-pillar: Access	58	70.70
2nd sub-pillar: Content	83	19.69
3rd sub-pillar: Future Technologies	94	26.41
B. People pillar	66	41.08
1st sub-pillar: Individuals	41	55.94
2nd sub-pillar: Businesses	113	18.59
3rd sub-pillar: Governments	38	48.72

Pillar/sub-pillar	Rank	Score
C. Governance pillar	61	61.40
1st sub-pillar: Trust	49	69.66
2nd sub-pillar: Regulation	115	37.07
3rd sub-pillar: Inclusion	32	77.47
D. Impact pillar	56	54.81
1st sub-pillar: Economy	78	29.44
2nd sub-pillar: Quality of Life	35	74.83
3rd sub-pillar: SDG Contribution	82	60.16

The Network Readiness Index in detail

Indicator	Rank	Score	
A. Technology pillar	81	38.93	
1st sub-pillar: Access	58	70.70	
1.1.1 Mobile tariffs	20	86.38	●
1.1.2 Handset prices	64	64.40	
1.1.3 FTTH/building Internet subscriptions	47	37.36	
1.1.4 Population covered by at least a 3G mobile network	108	58.95	
1.1.5 International Internet bandwidth	34	77.11	●
1.1.6 Internet access in schools	1	100.00	●
2nd sub-pillar: Content	83	19.69	
1.2.1 GitHub commits	72	5.38	
1.2.2 Internet domain registrations	74	2.59	
1.2.3 Mobile apps development	65	64.51	
1.2.4 AI scientific publications	60	6.27	
3rd sub-pillar: Future Technologies	94	26.41	
1.3.1 Adoption of emerging technologies	91	41.78	
1.3.2 Investment in emerging technologies	72	37.00	
1.3.3 Robot density	n/a	n/a	
1.3.4 Computer software spending	125	0.46	○
B. People pillar	66	41.08	
1st sub-pillar: Individuals	41	55.94	
2.1.1 Mobile broadband internet traffic within the country	29	33.09	●
2.1.2 ICT skills in the education system	107	22.16	○
2.1.3 Use of virtual social networks	65	68.76	
2.1.4 Adult literacy rate	8	99.77	●
2.1.5 AI talent concentration	n/a	n/a	
2nd sub-pillar: Businesses	113	18.59	

Indicator	Rank	Score	
C. Governance pillar	61	61.40	
1st sub-pillar: Trust	49	69.66	
3.1.1 Secure Internet servers	51	71.20	
3.1.2 Cybersecurity	49	92.86	
3.1.3 Online access to financial account	11	65.52	●
3.1.4 Internet shopping	46	49.06	
2nd sub-pillar: Regulation	115	37.07	
3.2.1 Regulatory quality	70	43.88	
3.2.2 ICT regulatory environment	125	2.50	○
3.2.3 Regulation of emerging technologies	72	41.43	
3.2.4 E-commerce legislation	72	75.00	
3.2.5 Privacy protection by law content	118	22.56	○
3rd sub-pillar: Inclusion	32	77.47	
3.3.1 E-Participation	27	84.06	●
3.3.2 Socioeconomic gap in use of digital payments	36	87.29	
3.3.3 Gender gap in Internet use	56	64.77	
3.3.4 Rural gap in use of digital payments	23	73.76	●
D. Impact pillar	56	54.81	
1st sub-pillar: Economy	78	29.44	
4.1.1 ICT patent applications	60	0.49	
4.1.2 Domestic market scale	38	63.84	
4.1.3 Technology-Enabled Work Flexibility	52	46.79	
4.1.4 ICT services exports	87	6.64	
2nd sub-pillar: Quality of Life	35	74.83	
4.2.1 Happiness	40	69.66	
4.2.2 Freedom to make life choices	37	82.55	

Network Readiness Index 2025

Indicator	Rank	Score	
2.2.1 Firms with website	100	24.89	
2.2.2 Number of venture capital deals invested in AI	89	0.81	○
2.2.3 Annual investment in telecommunication services	51	45.10	
2.2.4 Public cloud computing market scale	71	3.55	
3rd sub-pillar: Governments	38	48.72	
2.3.1 Government online services	10	92.66	●
2.3.2 Data Capabilities	25	54.05	●
2.3.3 Government promotion of emerging technologies	41	45.98	
2.3.4 Gross expenditure on R&D	90	2.20	

NOTE: ● indicates a strength and ○ indicates a weakness.

Indicator	Rank	Score	
4.2.3 Income inequality	18	86.22	●
4.2.4 Healthy life expectancy at birth	84	58.32	
3rd sub-pillar: SDG Contribution	82	60.16	
4.3.1 SDG 3: Good Health and Well-Being	1	100.00	●
4.3.2 SDG 4: Quality Education	52	30.71	
4.3.3 SDG 5: Women's economic opportunity	97	64.55	
4.3.4 SDG 7: Affordable and Clean Energy	99	61.57	
4.3.5 SDG 11: Sustainable Cities and Communities	55	67.62	

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