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Kyrgyzstan

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.
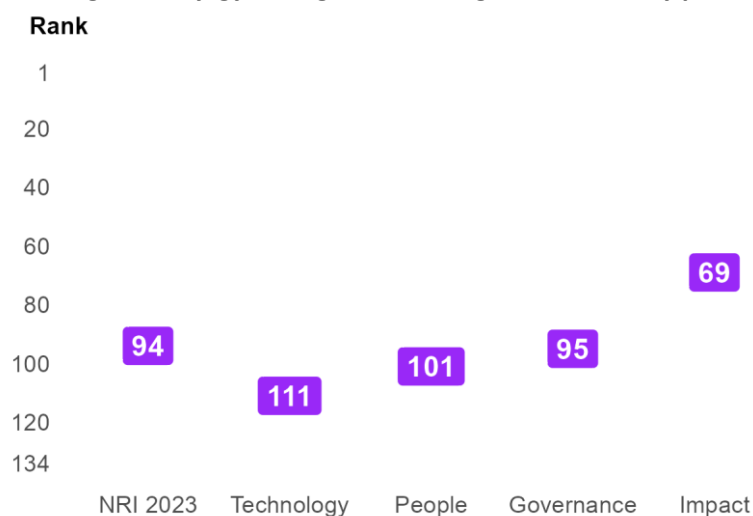
Figure 1: The NRI 2023 model
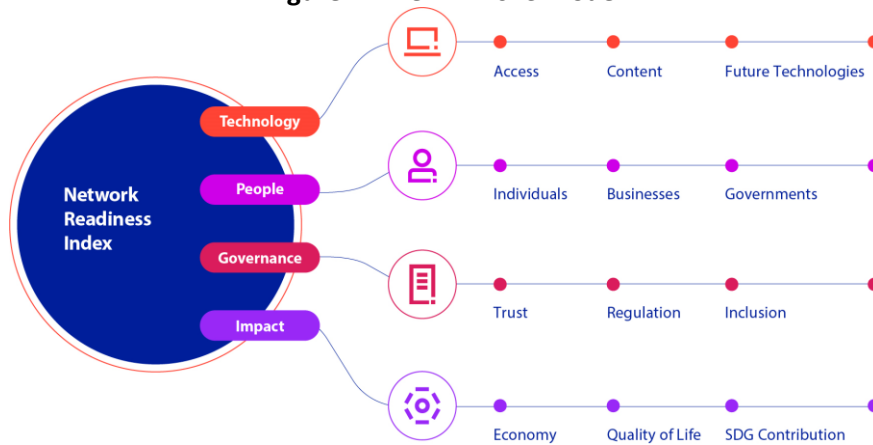
Global NRI position of Kyrgyzstan

Kyrgyzstan ranks 94th 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 Technology.

Figure 2: Kyrgyzstan global ranking, overall and by pillar

Performance at sub-pillar level

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

Table 1: Kyrgyzstan rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Quality of Life	33	Trust	101
Inclusion	58	Businesses	102
SDG Contribution	64	Governments	107
Individuals	88	Economy	112
Content	89	Regulation	115
Access	100	Future Technologies	129

NRI score and income

Figure 3 shows the position of Kyrgyzstan 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, Kyrgyzstan is well above the trend line, which suggests that it has a greater network readiness than would be expected given its income level.

Figure 3: NRI score and GDP per capita PPP (log)
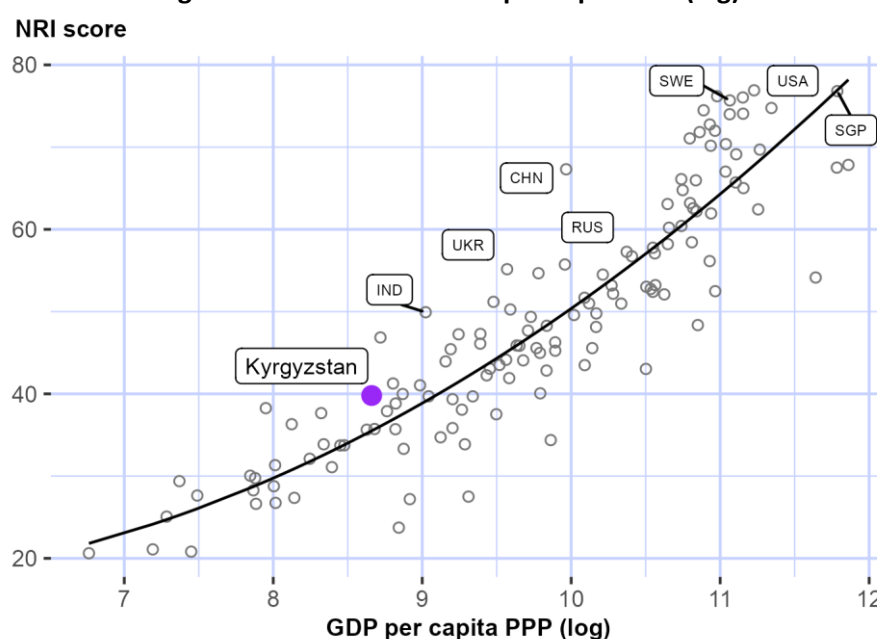
Note: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Kyrgyzstan belongs to the group of lower-middle-income countries, where the best performer is Ukraine (UKR). The top performer of its region-CIS-is Russian Federation (RUS).

Performance against its income group and region

Lower-middle-income countries
Kyrgyzstan is ranked 16th 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, Governance and Impact. At the sub-pillar level, it outperforms lower-middle-income countries in five of the twelve sub-pillars: Content, Individuals, Inclusion, Quality of Life and SDG Contribution.

CIS
Kyrgyzstan is ranked 6th within CIS (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 CIS in three of the twelve sub-pillars: Inclusion, Quality of Life and SDG Contribution.

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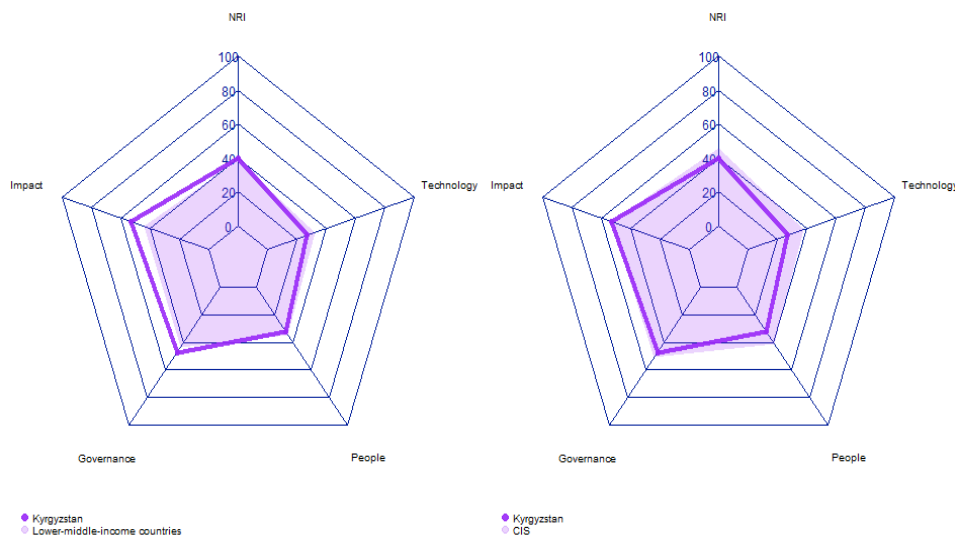

Table 2: Kyrgyzstan scores vs. averages of its income group and region, overall and by pillar

Dimension	Kyrgyzstan	Lower-middle-income countries	CIS
NRI	39.80	38.41	45.81
Technology	27.07	32.12	38.11
People	31.90	34.38	41.35
Governance	47.22	43.27	51.08
Impact	53.00	43.89	52.69

Strongest and weakest indicators

The indicators where Kyrgyzstan performs particularly well include 4.2.2 Freedom to make life choices, 2.1.5 Adult literacy rate, and 4.2.3 Income inequality (Table 3). By contrast, the economy's weakest indicators include 1.3.1 Adoption of emerging technologies, 1.3.2 Investment in emerging technologies, and 4.1.1 High-tech and medium-high-tech manufacturing.

Table 3: Highlight of Strengths and Opportunities for Kyrgyzstan

Strongest indicators	Rank	Weakest indicators	Rank
4.2.2 Freedom to make life choices	4	4.1.3 PCT patent applications	99
2.1.5 Adult literacy rate	12	2.3.4 R&D expenditure by governments and higher education	107
4.2.3 Income inequality	17	4.1.1 High-tech and medium-high-tech manufacturing	108
3.3.2 Socioeconomic gap in use of digital payments	30	1.3.2 Investment in emerging technologies	120
4.1.2 High-tech exports	32	1.3.1 Adoption of emerging technologies	122
3.3.5 Rural gap in use of digital payments	40		
2.2.1 Firms with website	56		
2.1.4 Tertiary enrollment	64		
4.3.1 SDG 3: Good Health and Well-Being	66		
1.2.1 GitHub commits	67		

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

NRI 2023 At-A-Glance: Kyrgyzstan

Network Readiness Index   Rank: 94 (out of 134)   Score: 39.80

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	111	27.07	C. Governance pillar	95	47.22
1st sub-pillar: Access	100	49.37	1st sub-pillar: Trust	101	29.61
2nd sub-pillar: Content	89	18.16	2nd sub-pillar: Regulation	115	48.47
3rd sub-pillar: Future Technologies	129	13.69	3rd sub-pillar: Inclusion	58	63.59
B. People pillar	101	31.90	D. Impact pillar	69	53.00
1st sub-pillar: Individuals	88	41.23	1st sub-pillar: Economy	112	15.64
2nd sub-pillar: Businesses	102	32.10	2nd sub-pillar: Quality of Life	33	78.68
3rd sub-pillar: Governments	107	22.36	3rd sub-pillar: SDG Contribution	64	64.67

The Network Readiness Index in detail

Indicator	Rank	Score		Indicator	Rank	Score	
A. Technology pillar	111	27.07		**C. Governance pillar**	95	47.22	
1st sub-pillar: Access	100	49.37		*1st sub-pillar: Trust*	101	29.61	
1.1.1 Mobile tariffs	100	42.77		3.1.1 Secure Internet servers	76	48.21	
1.1.2 Handset prices	113	26.94		3.1.2 Cybersecurity	96	48.75	
1.1.3 FTTH/building Internet subscriptions	81	23.89		3.1.3 Online access to financial account	105	10.62	
1.1.4 Population covered by at least a 3G mobile network	105	96.86		3.1.4 Internet shopping	87	10.86	
1.1.5 International Internet bandwidth	101	64.40		*2nd sub-pillar: Regulation*	115	48.47	
1.1.6 Internet access in schools	56	41.37		3.2.1 Regulatory quality	101	36.55	
2nd sub-pillar: Content	89	18.16		3.2.2 ICT regulatory environment	106	65.88	
1.2.1 GitHub commits	67	6.86	●	3.2.3 Regulation of emerging technologies	92	27.53	
1.2.2 Internet domain registrations	106	0.59		3.2.4 E-commerce legislation	87	66.67	
1.2.3 Mobile apps development	74	63.85		3.2.5 Privacy protection by law content	106	45.70	
1.2.4 AI scientific publications	98	1.33		*3rd sub-pillar: Inclusion*	58	63.59	
3rd sub-pillar: Future Technologies	129	13.69		3.3.1 E-Participation	78	48.84	
1.3.1 Adoption of emerging technologies	122	15.66	○	3.3.2 Socioeconomic gap in use of digital payments	30	92.28	●
1.3.2 Investment in emerging technologies	120	19.25	○	3.3.3 Availability of local online content	98	41.35	

Network Readiness Index 2023

Indicator		Rank	Score	
1.3.3	Robot density	NA	NA	
1.3.4	Computer software spending	95	6.16	
B. People pillar		101	31.90	
1st sub-pillar: Individuals		88	41.23	
2.1.1	Mobile broadband internet traffic within the country	71	8.06	
2.1.2	ICT skills in the education system	93	26.85	
2.1.3	Use of virtual social networks	98	37.54	
2.1.4	Tertiary enrollment	64	34.25	●
2.1.5	Adult literacy rate	12	99.45	●
2.1.6	AI talent concentration	NA	NA	
2nd sub-pillar: Businesses		102	32.10	
2.2.1	Firms with website	56	55.11	●
2.2.2	GERD financed by business enterprise	79	8.58	
2.2.3	Knowledge intensive employment	78	24.94	
2.2.4	Annual investment in telecommunication services	111	71.20	
2.2.5	GERD performed by business enterprise	77	0.69	
3rd sub-pillar: Governments		107	22.36	
2.3.1	Government online services	80	57.74	
2.3.2	Publication and use of open data	82	13.24	
2.3.3	Government promotion of investment in emerging tech	111	17.05	
2.3.4	R&D expenditure by governments and higher education	107	1.42	○

Indicator		Rank	Score	
3.3.4	Gender gap in Internet use	NA	NA	
3.3.5	Rural gap in use of digital payments	40	71.88	●
D. Impact pillar		69	53.00	
1st sub-pillar: Economy		112	15.64	
4.1.1	High-tech and medium-high-tech manufacturing	108	0.00	○
4.1.2	High-tech exports	32	28.29	●
4.1.3	PCT patent applications	99	0.00	○
4.1.4	Domestic market size	119	34.59	
4.1.5	Prevalence of gig economy	95	28.49	
4.1.6	ICT services exports	112	2.47	
2nd sub-pillar: Quality of Life		33	78.68	
4.2.1	Happiness	75	61.66	
4.2.2	Freedom to make life choices	4	95.50	●
4.2.3	Income inequality	17	85.43	●
4.2.4	Healthy life expectancy at birth	69	72.13	
3rd sub-pillar: SDG Contribution		64	64.67	
4.3.1	SDG 3: Good Health and Well-Being	66	68.88	●
4.3.2	SDG 4: Quality Education	NA	NA	
4.3.3	SDG 5: Women's economic opportunity	96	67.26	
4.3.4	SDG 7: Affordable and Clean Energy	106	57.51	
4.3.5	SDG 11: Sustainable Cities and Communities	69	65.02	

NOTE: ● a strength and ○ a weakness.

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