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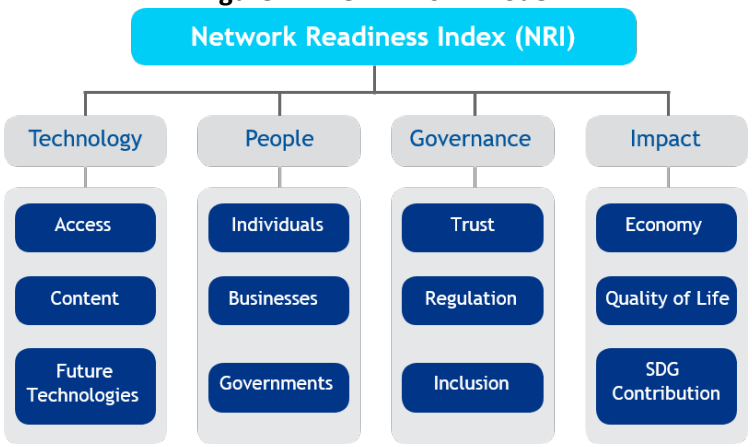
Network Readiness Index 2021 Tajikistan

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 2021 the NRI Report maps the network-based readiness landscape of 130 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 60 variables.

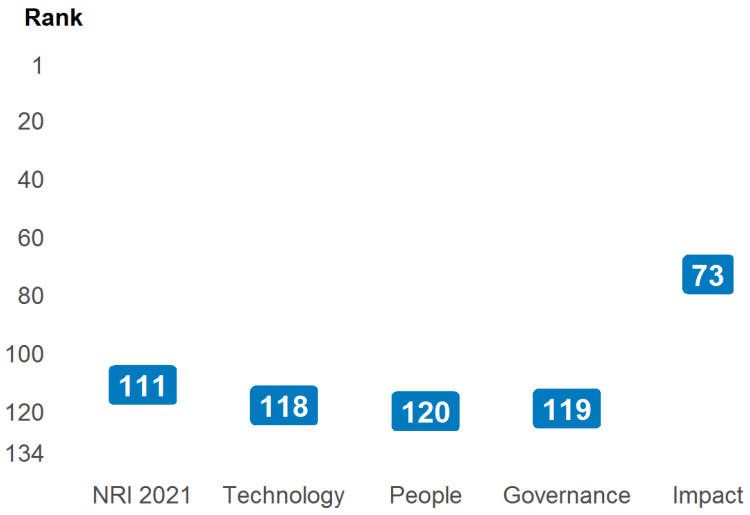
Figure 1: The NRI 2021 model



Global NRI position of Tajikistan

Tajikistan ranks 111th out of the 130 economies included in the NRI 2021 (Figure 2). Its main strength relates to Impact. The greatest scope for improvement, meanwhile, concerns People.

Figure 2: Tajikistan global ranking, overall and by pillar



Performance at sub-pillar level

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

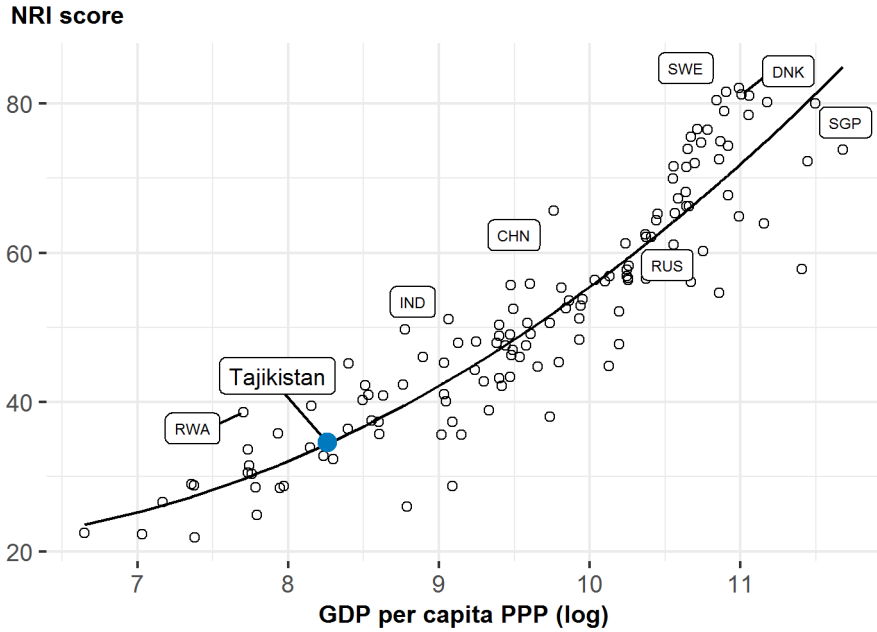
Table 1: Tajikistan rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
SDG Contribution	38	Content	110
Quality of Life	70	Trust	114
Inclusion	80	Governments	121
Future Technologies	90	Businesses	127
Economy	105	Regulation	127
Individuals	106	Access	129

NRI score and income

Figure 3 shows the position of Tajikistan 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, Tajikistan is slightly above the trend line, which suggests that its network readiness is more or less in line with what would be expected given its income level.

Figure 3: NRI score and GDP per capita PPP (log)



Note: NLD = Netherlands (rank: 1), SWE = Sweden (2), DNK = Denmark (3), CHN = China (29), IND = India (67). USA is ranked 4th. Tajikistan belongs to the group of low-income countries, where the best performer is Rwanda (RWA). The top performer of its region-CIS-is Russia (RUS).

Performance against its income group and region

Low-income countries

Tajikistan is ranked 2nd in the group of low-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in each of the four pillars. At the sub-pillar level, it outperforms low-income countries in seven of the twelve sub-pillars: Content, Future Technologies, Individuals, Trust, Inclusion, Quality of Life and SDG Contribution.

CIS

Tajikistan is ranked 6th within CIS (Figure 4, right panel). It lags behind its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in CIS in one of the twelve sub-pillars: SDG Contribution.

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

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

Dimension	Tajikistan	Low-income countries	CIS
NRI	34.55	28.84	47.79
Technology	23.43	21.78	40.33
People	26.48	25.42	46.01
Governance	35.05	32.91	49.65
Impact	53.25	35.24	55.19

Strongest and weakest indicators

The indicators where Tajikistan performs particularly well include 2.1.5 Adult literacy rate, 4.1.4 Growth rate of GDP per person engaged, and 3.3.5 Rural gap in use of digital payments (Table 3). By contrast, the economy's weakest indicators include 3.2.2 ICT regulatory environment, 1.2.5 AI scientific publications, and 3.2.1 Regulatory quality.

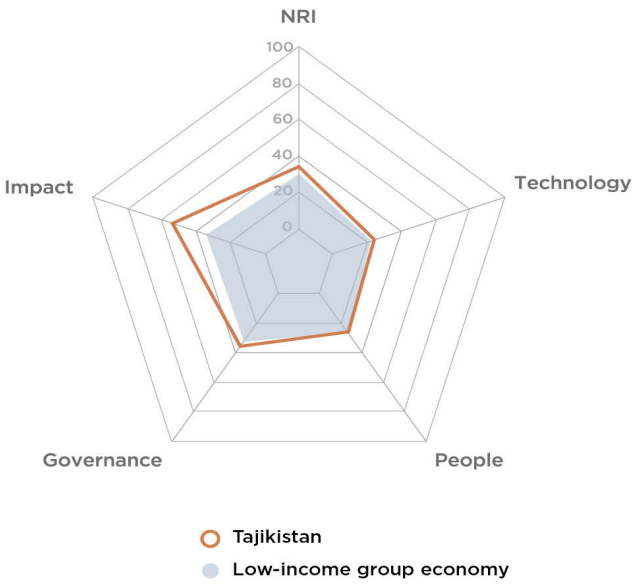
Table 3: Strongest and weakest indicators of Tajikistan

Strongest indicators	Rank	Weakest indicators	Rank
2.1.5 Adult literacy rate	5	4.1.3 PCT patent applications	96
4.1.4 Growth rate of GDP per person engaged	6	4.1.1 High-tech and medium-high-tech manufacturing	105
3.3.5 Rural gap in use of digital payments	44	1.2.5 AI scientific publications	125
4.2.3 Income inequality	46	3.2.1 Regulatory quality	125
1.3.2 Investment in emerging technologies	58	3.2.2 ICT regulatory environment	130
3.3.2 Socioeconomic gap in use of digital payments	63		
4.2.2 Freedom to make life choices	63		
3.1.4 Internet shopping	73		
2.3.3 Government promotion of investment in emerging technologies	74		
4.3.5 SDG 11: Sustainable Cities and Communities	75		

Tajikistan

	Rank (out of 130)	Score
Network Readiness Index	**111**	**34.55**

Pillar/sub-pillar	Rank	Score
A. Technology pillar	**118**	**23.43**
1st sub-pillar: Access	129	23.61
2nd sub-pillar: Content	110	20.08
3rd sub-pillar: Future Technologies	90	26.60
B. People pillar	**120**	**26.48**
1st sub-pillar: Individuals	106	43.03
2nd sub-pillar: Businesses	127	16.42
3rd sub-pillar: Governments	121	19.98
C. Governance pillar	**119**	**35.05**
1st sub-pillar: Trust	114	20.19
2nd sub-pillar: Regulation	127	29.94
3rd sub-pillar: Inclusion	80	55.02
D. Impact pillar	**73**	**53.25**
1st sub-pillar: Economy	105	23.78
2nd sub-pillar: Quality of Life	70	64.84
3rd sub-pillar: SDG Contribution	38	71.12



Network Readiness Index in detail

Indicator	Rank	Score	
A. Technology pillar	118	23.43	
1st sub-pillar: Access	129	23.61	
1.1.1 Mobile tariffs	120	18.40	
1.1.2 Handset prices	114	25.91	
1.1.3 Households with internet access	102	26.53	
1.1.4 SMS sent by population 15-69	NA	NA	
1.1.5 Population covered by at least a 3G mobile network	NA	NA	
1.1.6 International Internet bandwidth	NA	NA	
1.1.7 Internet access in schools	NA	NA	
2nd sub-pillar: Content	110	20.08	
1.2.1 GitHub commits	123	0.07	
1.2.2 Wikipedia edits	83	41.15	
1.2.3 Internet domain registrations	*	*	
1.2.4 Mobile apps development	104	56.58	
1.2.5 AI scientific publications	125	2.38	○
3rd sub-pillar: Future Technologies	90	26.60	
1.3.1 Adoption of emerging technologies	99	31.62	
1.3.2 Investment in emerging technologies	58	41.88	●
1.3.3 Robot density	NA	NA	
1.3.4 Computer software spending	94	6.29	
B. People pillar	120	26.48	
1st sub-pillar: Individuals	106	43.03	
2.1.1 Active mobile broadband subscriptions	NA	NA	
2.1.2 ICT skills	NA	NA	
2.1.3 Use of virtual social networks	117	7.90	
2.1.4 Tertiary enrollment	83	21.43	
2.1.5 Adult literacy rate	5	99.78	●
2nd sub-pillar: Businesses	127	16.42	
2.2.1 Firms with website	102	21.64	
2.2.2 GERD financed by business enterprise	90	1.99	
2.2.3 Professionals	90	17.78	
2.2.4 Technicians and associate professionals	80	24.29	
2.2.5 Annual investment in telecommunication services	NA	NA	
2.2.6 GERD performed by business enterprise	NA	NA	
3rd sub-pillar: Governments	121	19.98	
2.3.1 Government online services	121	29.69	
2.3.2 Publication and use of open data	92	9.45	
2.3.3 Government promotion of investment in emerging tech	74	33.95	
2.3.4 R&D expenditure by governments and higher education	95	6.84	

Indicator	Rank	Score	
C. Governance pillar	119	35.05	
1st sub-pillar: Trust	114	20.19	
3.1.1 Secure Internet servers	103	36.08	
3.1.2 Cybersecurity	119	15.64	
3.1.3 Online access to financial account	78	19.40	
3.1.4 Internet shopping	73	9.65	●
2nd sub-pillar: Regulation	127	29.94	
3.2.1 Regulatory quality	125	13.58	○
3.2.2 ICT regulatory environment	130	0.00	○
3.2.3 Legal framework's adaptability to emerging technologies	87	29.97	
3.2.4 E-commerce legislation	76	75.00	
3.2.5 Privacy protection by law content	122	31.16	
3rd sub-pillar: Inclusion	80	55.02	
3.3.1 E-Participation	115	32.10	
3.3.2 Socioeconomic gap in use of digital payments	63	61.22	●
3.3.3 Availability of local online content	79	53.71	
3.3.4 Gender gap in Internet use	NA	NA	
3.3.5 Rural gap in use of digital payments	44	73.04	●
D. Impact pillar	73	53.25	
1st sub-pillar: Economy	105	23.78	
4.1.1 High-tech and medium-high-tech manufacturing	105	0.53	○
4.1.2 High-tech exports	NA	NA	
4.1.3 PCT patent applications	96	0.00	○
4.1.4 Growth rate of GDP per person engaged	6	86.72	●
4.1.5 Prevalence of gig economy	104	24.36	
4.1.6 ICT services exports	108	7.27	
2nd sub-pillar: Quality of Life	70	64.84	
4.2.1 Happiness	79	46.80	
4.2.2 Freedom to make life choices	63	77.53	●
4.2.3 Income inequality	46	75.52	●
4.2.4 Healthy life expectancy at birth	94	59.51	
3rd sub-pillar: SDG Contribution	38	71.12	
4.3.1 SDG 3: Good Health and Well-Being	77	65.57	
4.3.2 SDG 4: Quality Education	NA	NA	
4.3.3 Females employed with advanced degrees	NA	NA	
4.3.4 SDG 7: Affordable and Clean Energy	86	69.57	
4.3.5 SDG 11: Sustainable Cities and Communities	75	78.22	●

NOTE: * Indicates confidential data; ● a strength and ○ a weakness.

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