



Uzbekistan

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.

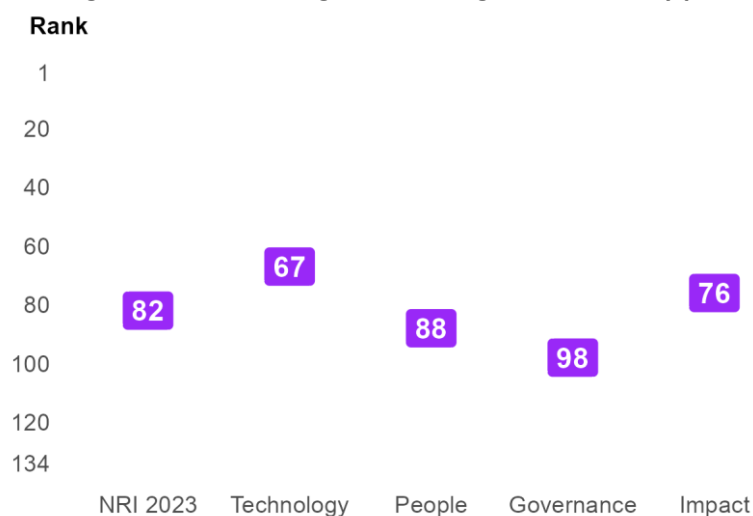
Figure 1: The NRI 2023 model



Global NRI position of Uzbekistan

Uzbekistan ranks 82nd out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Technology. The greatest scope for improvement, meanwhile, concerns Governance.

Figure 2: Uzbekistan global ranking, overall and by pillar



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Performance at sub-pillar level

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

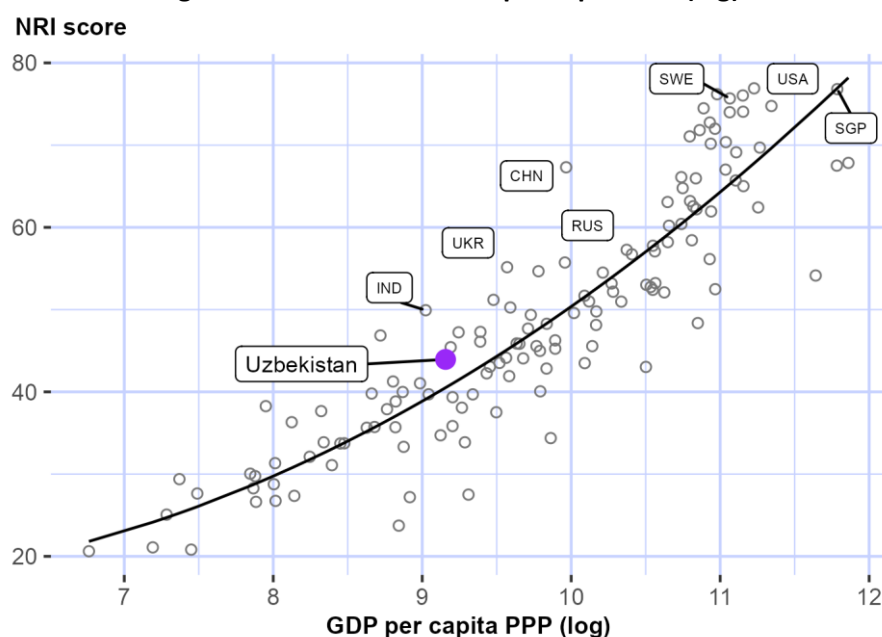
Table 1: Uzbekistan rankings by sub-pillar

| Sub-pillar | Rank | Sub-pillar | Rank |
|---------------------|------|------------------|------|
| Quality of Life | 34 | SDG Contribution | 84 |
| Access | 44 | Businesses | 85 |
| Inclusion | 54 | Content | 88 |
| Governments | 72 | Economy | 99 |
| Future Technologies | 73 | Individuals | 102 |
| Trust | 77 | Regulation | 127 |

NRI score and income

Figure 3 shows the position of Uzbekistan 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, Uzbekistan 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). Uzbekistan 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).

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Performance against its income group and region

Lower-middle-income countries

Uzbekistan is ranked 10th 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 each of the four pillars. At the sub-pillar level, it outperforms lower-middle-income countries in nine of the twelve sub-pillars: Access, Content, Future Technologies, Businesses, Governments, Trust, Inclusion, Quality of Life and SDG Contribution.

CIS

Uzbekistan is ranked 5th within CIS (Figure 4, right panel). It has a score above the regional average in one of the four pillars: Technology. With regard to sub-pillars, it outperforms the average in CIS in four of the twelve sub-pillars: Access, Future Technologies, Inclusion and Quality of Life.

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

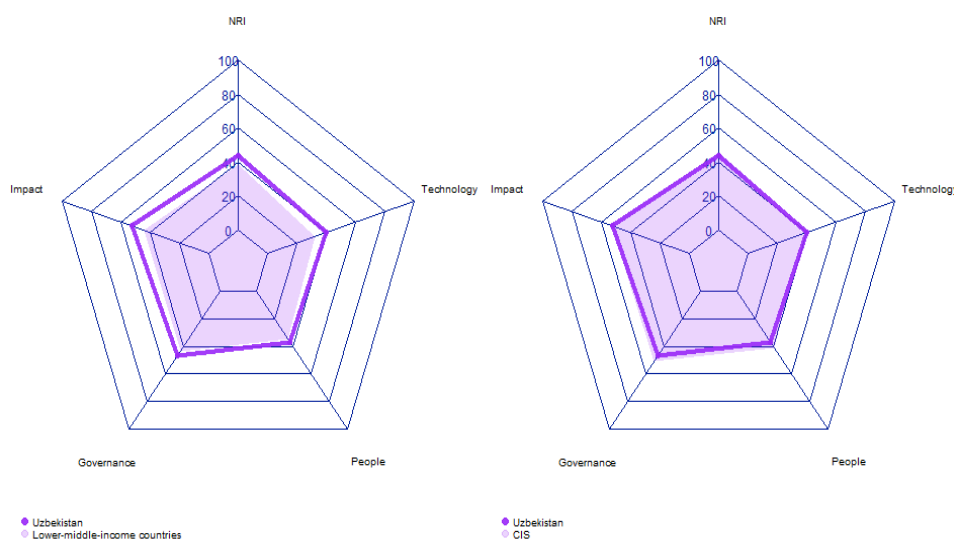


Table 2: Uzbekistan scores vs. averages of its income group and region, overall and by pillar

| Dimension | Uzbekistan | Lower-middle-income countries | CIS |
|------------|------------|-------------------------------|-------|
| NRI | 43.94 | 38.41 | 45.81 |
| Technology | 40.16 | 32.12 | 38.11 |
| People | 36.95 | 34.38 | 41.35 |
| Governance | 46.56 | 43.27 | 51.08 |
| Impact | 52.10 | 43.89 | 52.69 |

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Strongest and weakest indicators

The indicators where Uzbekistan performs particularly well include 2.1.5 Adult literacy rate, 4.2.2 Freedom to make life choices, and 1.1.3 FTTH/building Internet subscriptions (Table 3). By contrast, the economy's weakest indicators include 3.2.2 ICT regulatory environment, 4.3.4 SDG 7: Affordable and Clean Energy, and 4.1.2 High-tech exports.

Table 3: Highlight of Strengths and Opportunities for Uzbekistan

| Strongest indicators | Rank | Weakest indicators | Rank |
|--|------|--|------|
| 2.1.5 Adult literacy rate | 2 | 3.2.4 E-commerce legislation | 87 |
| 4.2.2 Freedom to make life choices | 2 | 3.2.5 Privacy protection by law content | 118 |
| 1.1.3 FTTH/building Internet subscriptions | 10 | 4.1.2 High-tech exports | 126 |
| 1.1.5 International Internet bandwidth | 32 | 4.3.4 SDG 7: Affordable and Clean Energy | 128 |
| 2.1.1 Mobile broadband internet traffic within the country | 39 | 3.2.2 ICT regulatory environment | 133 |
| 2.2.2 GERD financed by business enterprise | 39 | | |
| 3.3.2 Socioeconomic gap in use of digital payments | 46 | | |
| 3.3.5 Rural gap in use of digital payments | 46 | | |
| 4.2.1 Happiness | 51 | | |
| 4.3.5 SDG 11: Sustainable Cities and Communities | 51 | | |

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

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NRI 2023 At-A-Glance: Uzbekistan

Network Readiness Index

Rank: 82 (out of 134)

Score: 43.94

| Pillar/sub-pillar | Rank | Score | Pillar/sub-pillar | Rank | Score |
|-------------------------------------|------|-------|----------------------------------|------|-------|
| A. Technology pillar | 67 | 40.16 | C. Governance pillar | 98 | 46.56 |
| 1st sub-pillar: Access | 44 | 71.57 | 1st sub-pillar: Trust | 77 | 36.48 |
| 2nd sub-pillar: Content | 88 | 18.26 | 2nd sub-pillar: Regulation | 127 | 35.37 |
| 3rd sub-pillar: Future Technologies | 73 | 30.65 | 3rd sub-pillar: Inclusion | 54 | 67.85 |
| B. People pillar | 88 | 36.95 | D. Impact pillar | 76 | 52.10 |
| 1st sub-pillar: Individuals | 102 | 36.00 | 1st sub-pillar: Economy | 99 | 18.62 |
| 2nd sub-pillar: Businesses | 85 | 37.90 | 2nd sub-pillar: Quality of Life | 34 | 77.96 |
| 3rd sub-pillar: Governments | 72 | 36.95 | 3rd sub-pillar: SDG Contribution | 84 | 59.71 |

The Network Readiness Index in detail

| Indicator | Rank | Score | Indicator | Rank | Score |
|--|------|-------|--|------|-------|
| A. Technology pillar | 67 | 40.16 | C. Governance pillar | 98 | 46.56 |
| 1st sub-pillar: Access | 44 | 71.57 | 1st sub-pillar: Trust | 77 | 36.48 |
| 1.1.1 Mobile tariffs | 63 | 62.27 | 3.1.1 Secure Internet servers | 71 | 49.07 |
| 1.1.2 Handset prices | 96 | 33.89 | 3.1.2 Cybersecurity | 77 | 70.60 |
| 1.1.3 FTTH/building Internet subscriptions | 10 | 61.17 | 3.1.3 Online access to financial account | 78 | 20.16 |
| 1.1.4 Population covered by at least a 3G mobile network | 87 | 98.66 | 3.1.4 Internet shopping | 106 | 6.09 |
| 1.1.5 International Internet bandwidth | 32 | 77.28 | 2nd sub-pillar: Regulation | 127 | 35.37 |
| 1.1.6 Internet access in schools | 35 | 96.15 | 3.2.1 Regulatory quality | 102 | 36.47 |
| 2nd sub-pillar: Content | 88 | 18.26 | 3.2.2 ICT regulatory environment | 133 | 3.29 |
| 1.2.1 GitHub commits | 95 | 2.65 | 3.2.3 Regulation of emerging technologies | NA | NA |
| 1.2.2 Internet domain registrations | 101 | 0.82 | 3.2.4 E-commerce legislation | 87 | 66.67 |
| 1.2.3 Mobile apps development | 70 | 64.51 | 3.2.5 Privacy protection by law content | 118 | 35.04 |
| 1.2.4 AI scientific publications | 70 | 5.09 | 3rd sub-pillar: Inclusion | 54 | 67.85 |
| 3rd sub-pillar: Future Technologies | 73 | 30.65 | 3.3.1 E-Participation | 55 | 60.46 |
| 1.3.1 Adoption of emerging technologies | 68 | 46.04 | 3.3.2 Socioeconomic gap in use of digital payments | 46 | 84.97 |
| 1.3.2 Investment in emerging technologies | NA | NA | 3.3.3 Availability of local online content | NA | NA |

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| Indicator | Rank | Score | Indicator | Rank | Score |
|--|------|----------|--|------|---------|
| 1.3.3 Robot density | NA | NA | 3.3.4 Gender gap in Internet use | 92 | 55.16 |
| 1.3.4 Computer software spending | 80 | 15.27 | 3.3.5 Rural gap in use of digital payments | 46 | 70.79 ● |
| B. People pillar | | | D. Impact pillar | | |
| <i>1st sub-pillar: Individuals</i> | 88 | 36.95 | <i>1st sub-pillar: Economy</i> | 76 | 52.10 |
| 2.1.1 Mobile broadband internet traffic within the country | 102 | 36.00 | 4.1.1 High-tech and medium-high-tech manufacturing | 99 | 18.62 |
| 2.1.2 ICT skills in the education system | 39 | 19.19 ● | 4.1.2 High-tech exports | 50 | 29.88 |
| 2.1.3 Use of virtual social networks | NA | NA | 4.1.3 PCT patent applications | 126 | 0.31 ○ |
| 2.1.4 Tertiary enrollment | 113 | 12.32 | 4.1.4 Domestic market size | 97 | 0.12 |
| 2.1.5 Adult literacy rate | 98 | 12.50 | 4.1.5 Prevalence of gig economy | 56 | 56.26 |
| 2.1.6 AI talent concentration | 2 | 100.00 ● | 4.1.6 ICT services exports | NA | NA |
| <i>2nd sub-pillar: Businesses</i> | NA | NA | <i>2nd sub-pillar: Quality of Life</i> | 92 | 6.52 |
| 2.2.1 Firms with website | 85 | 37.90 | 4.2.1 Happiness | 34 | 77.96 |
| 2.2.2 GERD financed by business enterprise | 96 | 19.29 | 4.2.2 Freedom to make life choices | 51 | 68.14 ● |
| 2.2.3 Knowledge intensive employment | 39 | 52.48 ● | 4.2.3 Income inequality | 2 | 97.27 ● |
| 2.2.4 Annual investment in telecommunication services | NA | NA | 4.2.4 Healthy life expectancy at birth | NA | NA |
| 2.2.5 GERD performed by business enterprise | 60 | 78.48 | <i>3rd sub-pillar: SDG Contribution</i> | 78 | 68.46 |
| <i>3rd sub-pillar: Governments</i> | 68 | 1.32 | 4.3.1 SDG 3: Good Health and Well-Being | 84 | 59.71 |
| 2.3.1 Government online services | 72 | 36.95 | 4.3.2 SDG 4: Quality Education | 64 | 69.75 |
| 2.3.2 Publication and use of open data | NA | NA | 4.3.3 SDG 5: Women's economic opportunity | NA | NA |
| 2.3.3 Government promotion of investment in emerging tech | NA | NA | 4.3.4 SDG 7: Affordable and Clean Energy | 110 | 58.41 |
| 2.3.4 R&D expenditure by governments and higher education | NA | NA | 4.3.5 SDG 11: Sustainable Cities and Communities | 128 | 36.99 ○ |
| | 100 | 2.20 | | 51 | 73.71 ● |

NOTE: ● a strength and ○ a weakness.

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