

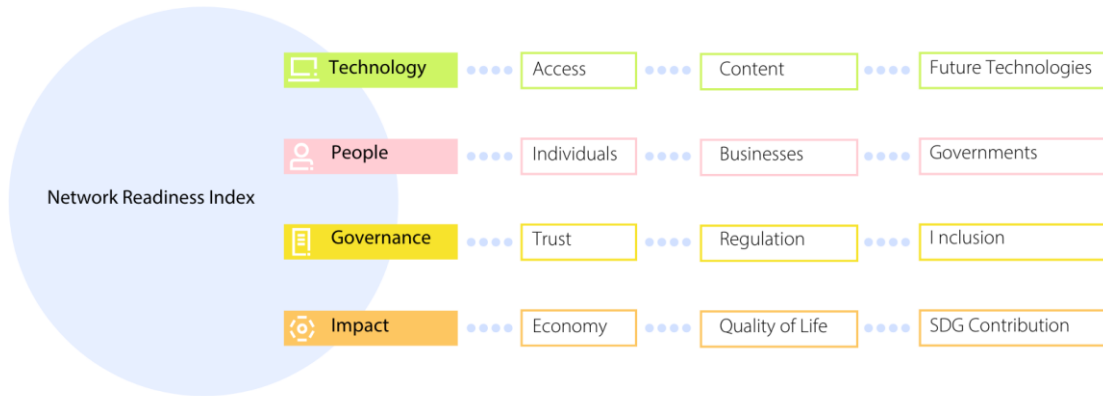
Network Readiness Index 2024



Mongolia

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 2024 the NRI Report maps the network-based readiness landscape of 133 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 54 variables.

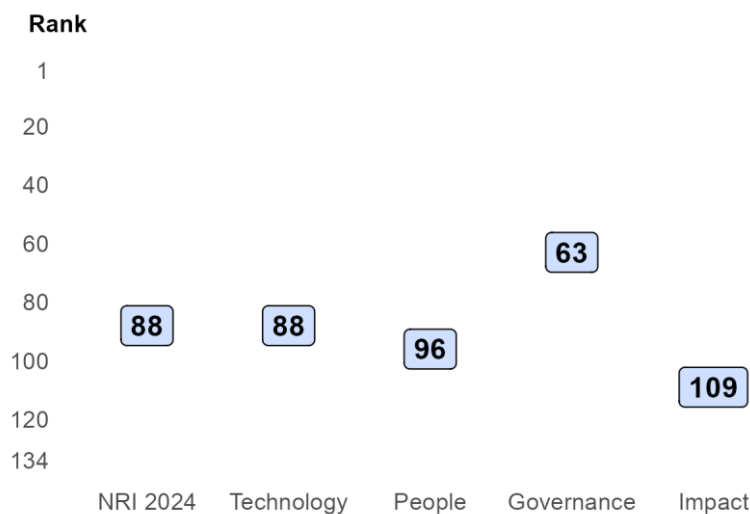
Figure 1: The NRI 2024 model



Global NRI position of Mongolia

Mongolia ranks 88th out of the 133 economies included in the NRI 2024 (Figure 2). Its main strength relates to Governance. The greatest scope for improvement, meanwhile, concerns Impact.

Figure 2: Mongolia global ranking, overall and by pillar



Network Readiness Index 2024



Performance at sub-pillar level

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

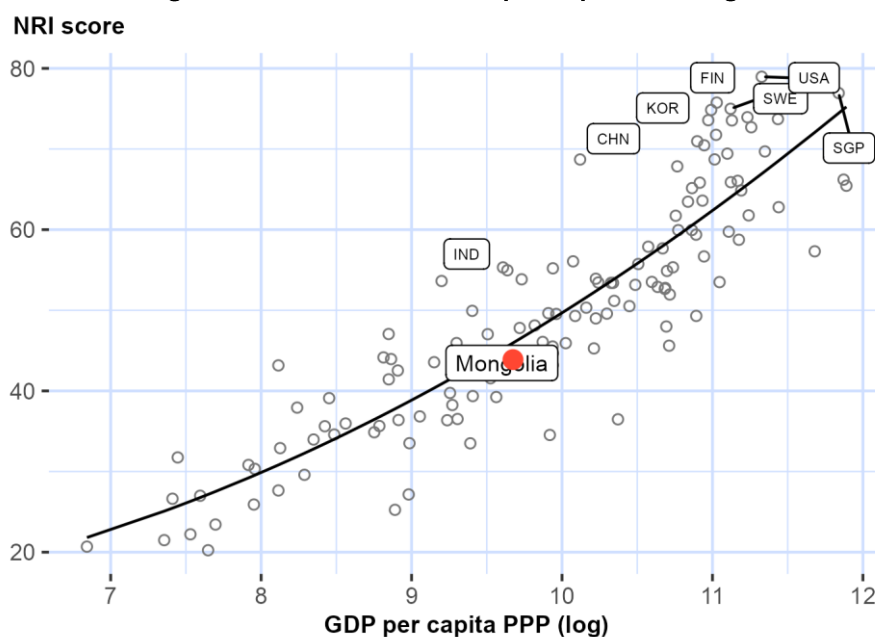
Table 1: Mongolia rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Individuals	52	Future Technologies	95
Inclusion	54	Regulation	96
Trust	61	Content	100
Access	73	SDG Contribution	100
Governments	93	Businesses	109
Quality of Life	93	Economy	120

NRI score and income

Figure 3 shows the position of Mongolia 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, Mongolia 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), FIN = Finland (3), SWE = Sweden (4), KOR = Republic of Korea (5), CHN = China (17), and IND = India (49). Mongolia belongs to the group of upper-middle-income countries, where the best performer is China (CHN). The top performer of its region-Asia & Pacific-is Singapore (SGP).

Network Readiness Index 2024



Performance against its income group and region

Upper-middle-income countries

Mongolia is ranked 27th 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 one of the four pillars: Governance. At the sub-pillar level, it outperforms upper-middle-income countries in four of the twelve sub-pillars: Access, Individuals, Trust and Inclusion.

Asia & Pacific

Mongolia is ranked 15th within Asia & Pacific (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 Asia & Pacific in one of the twelve sub-pillars: Inclusion.

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

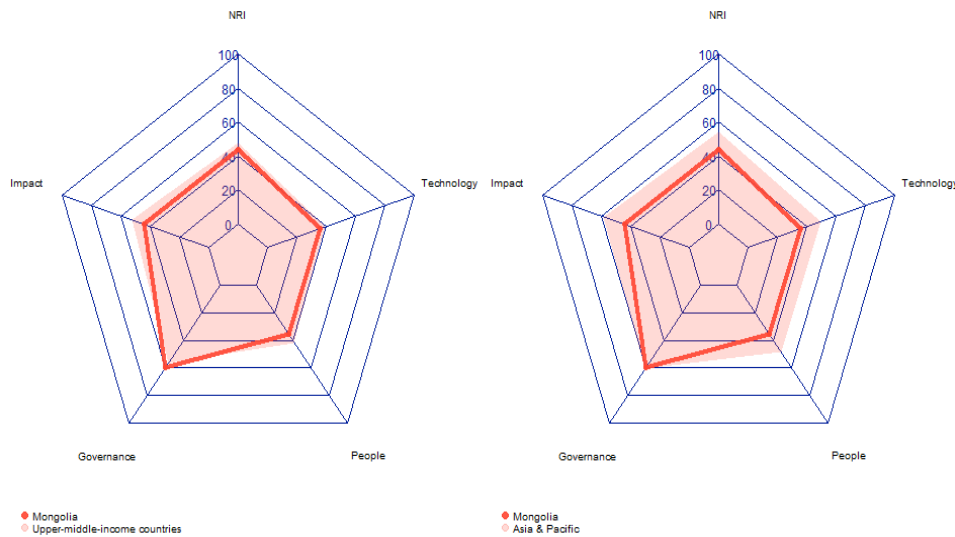


Table 2: Mongolia scores vs. averages of its income group and region, overall and by pillar

Dimension	Mongolia	Upper-middle-income countries	Asia & Pacific
NRI	43.88	47.52	54.25
Technology	35.81	39.51	49.31
People	35.78	41.65	48.55
Governance	59.69	56.74	60.88
Impact	44.25	52.19	58.26

Network

Readiness Index

2024



Strongest and weakest indicators

The indicators where Mongolia performs particularly well include 1.1.4 Population covered by at least a 3G mobile network, 3.3.2 Socioeconomic gap in use of digital payments, and 2.1.4 Adult literacy rate (Table 3). By contrast, the economy's weakest indicators include 4.3.4 SDG 7: Affordable and Clean Energy, 1.1.2 Handset prices, 3.1.2 Cybersecurity, and 4.2.2 Freedom to make life choices.

Table 3: Highlight of Strengths and Opportunities for Mongolia

Strongest indicators	Rank	Weakest indicators	Rank
1.1.4 Population covered by at least a 3G mobile network	1	4.1.1 ICT patent applications	79
3.3.2 Socioeconomic gap in use of digital payments	6	3.2.4 E-commerce legislation	87
2.1.4 Adult literacy rate	18	1.3.1 Adoption of emerging technologies	95
3.1.3 Online access to financial account	20	2.3.4 R&D expenditure by governments and higher education	99
4.2.3 Income inequality	27	2.1.2 ICT skills in the education system	101
3.3.5 Rural gap in use of digital payments	32	4.1.2 Domestic market scale	110
4.3.3 SDG 5: Women's economic opportunity	41	1.1.2 Handset prices	111
3.1.4 Internet shopping	44	3.1.2 Cybersecurity	111
1.1.1 Mobile tariffs	47	4.2.2 Freedom to make life choices	111
2.1.3 Use of virtual social networks	47	4.3.4 SDG 7: Affordable and Clean Energy	114

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

Network Readiness Index 2024



NRI 2024 At-A-Glance: Mongolia

Network Readiness Index

Rank: 88 (out of 133)

Score: 43.88

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	88	35.81	C. Governance pillar	63	59.69
1st sub-pillar: Access	73	63.40	1st sub-pillar: Trust	61	52.19
2nd sub-pillar: Content	100	16.59	2nd sub-pillar: Regulation	96	58.81
3rd sub-pillar: Future Technologies	95	27.43	3rd sub-pillar: Inclusion	54	68.07
B. People pillar	96	35.78	D. Impact pillar	109	44.25
1st sub-pillar: Individuals	52	51.28	1st sub-pillar: Economy	120	17.72
2nd sub-pillar: Businesses	109	25.15	2nd sub-pillar: Quality of Life	93	58.96
3rd sub-pillar: Governments	93	30.92	3rd sub-pillar: SDG Contribution	100	56.06

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	88	35.81	C. Governance pillar	63	59.69
<i>1st sub-pillar: Access</i>	73	63.40	<i>1st sub-pillar: Trust</i>	61	52.19
1.1.1 Mobile tariffs	47	73.16	• 3.1.1 Secure Internet servers	60	59.48
1.1.2 Handset prices	111	36.11	○ 3.1.2 Cybersecurity	111	26.17
1.1.3 FTTH/building Internet subscriptions	56	33.60	3.1.3 Online access to financial account	20	74.52
1.1.4 Population covered by at least a 3G mobile network	1	100.00	• 3.1.4 Internet shopping	44	48.61
1.1.5 International Internet bandwidth	91	66.85	<i>2nd sub-pillar: Regulation</i>	96	58.81
1.1.6 Internet access in schools	54	70.66	3.2.1 Regulatory quality	86	41.66
<i>2nd sub-pillar: Content</i>	100	16.59	3.2.2 ICT regulatory environment	77	79.17
1.2.1 GitHub commits	68	7.04	3.2.3 Regulation of emerging technologies	88	35.36
1.2.2 Internet domain registrations	82	1.77	3.2.4 E-commerce legislation	87	75.00
1.2.3 Mobile apps development	92	56.37	3.2.5 Privacy protection by law content	82	62.85
1.2.4 AI scientific publications	103	1.21	<i>3rd sub-pillar: Inclusion</i>	54	68.07
<i>3rd sub-pillar: Future Technologies</i>	95	27.43	3.3.1 E-Participation	57	59.31
1.3.1 Adoption of emerging technologies	95	37.26	○ 3.3.2 Socioeconomic gap in use of digital payments	6	99.34
1.3.2 Investment in emerging technologies	89	33.00	3.3.3 Availability of local online content	97	42.55
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	72	64.97

Network

Readiness Index

2024



Indicator	Rank	Score	Indicator	Rank	Score
1.3.4 Computer software spending	86	12.02	3.3.5 Rural gap in use of digital payments	32	74.19 ●
B. People pillar	96	35.78	D. Impact pillar	109	44.25
<i>1st sub-pillar: Individuals</i>	52	51.28	<i>1st sub-pillar: Economy</i>	120	17.72
2.1.1 Mobile broadband internet traffic within the country	79	8.98	4.1.1 ICT patent applications	79	0.00 ○
2.1.2 ICT skills in the education system	101	34.81 ○	4.1.2 Domestic market scale	110	37.58 ○
2.1.3 Use of virtual social networks	47	62.55 ●	4.1.3 Prevalence of gig economy	90	29.65
2.1.4 Adult literacy rate	18	98.80 ●	4.1.4 ICT services exports	104	3.67
2.1.5 AI talent concentration	NA	NA	<i>2nd sub-pillar: Quality of Life</i>	93	58.96
<i>2nd sub-pillar: Businesses</i>	109	25.15	4.2.1 Happiness	83	53.04
2.2.1 Firms with website	103	26.49	4.2.2 Freedom to make life choices	111	55.00 ○
2.2.2 Number of venture capital deals invested in AI	NA	NA	4.2.3 Income inequality	27	81.23 ●
2.2.3 Annual investment in telecommunication services	98	42.47	4.2.4 Healthy life expectancy at birth	89	56.46
2.2.4 Public cloud computing market scale	96	6.47	<i>3rd sub-pillar: SDG Contribution</i>	100	56.06
<i>3rd sub-pillar: Governments</i>	93	30.92	4.3.1 SDG 3: Good Health and Well-Being	90	58.06
2.3.1 Government online services	78	58.70	4.3.2 SDG 4: Quality Education	54	28.02
2.3.2 Data Capabilities	67	24.69	4.3.3 SDG 5: Women's economic opportunity	41	87.18 ●
2.3.3 Government promotion of investment in emerging technologies	61	38.06	4.3.4 SDG 7: Affordable and Clean Energy	114	57.09 ○
2.3.4 R&D expenditure by governments and higher education	99	2.21 ○	4.3.5 SDG 11: Sustainable Cities and Communities	101	45.81

NOTE: ● a strength and ○ a weakness.

Network

Readiness Index

2024



Sources

Dutta, S., & Lanvin, B. (eds.) (2024). *The Network Readiness Index 2024*. Oxford, UK; Washington DC, USA.

Dutta, S., & Lanvin, B. (eds.) (2023). *The Network Readiness Index 2023: Trust in Network Society: A Crisis of the Digital Age*. Oxford, UK; Washington DC, USA.

Dutta, S., & Lanvin, B. (eds.) (2022). *The Network Readiness Index 2022: Benchmarking the Future of the Network Economy*. Washington DC: Portulans Institute.

Berry, B. (2019). *berryFunctions: Function Collection Related to Plotting and Hydrology*. R package version 1.18.2. URL: <https://CRAN.R-project.org/package=berryFunctions>

Dutta, S., & Lanvin, B. (eds.) (2019). *The Network Readiness Index 2019: Towards a Future-Ready Society*. Washington DC: Portulans Institute.

Dutta, S., & Lanvin, B. (eds.) (2020). *The Network Readiness Index 2020: Fostering Digital Transformation in a post-COVID Global Economy*. Washington DC: Portulans Institute.

Dutta, S., & Lanvin, B. (eds.) (2021). *The Network Readiness Index 2021: Shaping the Global Recovery. How digital technologies can make the post-COVID world more equal*. Washington DC: Portulans Institute.

Gohel, D. (2019). *officer: Manipulation of Microsoft Word and PowerPoint Documents*. R package version 0.3.6. URL: <https://CRAN.R-project.org/package=officer>

Gohel, D. (2019). *flextable: Functions for Tabular Reporting*. R package version 0.5.6. URL: <https://CRAN.R-project.org/package=flextable>

Milton Bache, S. & Wickham, H. (2014). *magrittr: A Forward-Pipe Operator for R*. R package version 1.5. URL: <https://CRAN.R-project.org/package=magrittr>

Nakazawa, M. (2019). *fmsb: Functions for Medical Statistics Book with some Demographic Data*. R package version 0.7.0. URL: <https://CRAN.R-project.org/package=fmsb>

R Core Team (2018). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria. URL: <https://www.R-project.org/>.

Slowikowski, K. (2019). *ggrepel: Automatically Position Non-Overlapping Text Labels with 'ggplot2'*. R package version 0.8.1. URL: <https://CRAN.R-project.org/package=ggrepel>

Wickham, H. (2007). Reshaping Data with the reshape Package. *Journal of Statistical Software*, 21(12), 1-20. URL: <http://www.jstatsoft.org/v21/i12/>.

Wickham, H. (2016). *ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag. New York.

Wickham et al., (2019). Welcome to the tidyverse. *Journal of Open Source Software*, 4(43), 1686, URL: <https://doi.org/10.21105/joss.01686>