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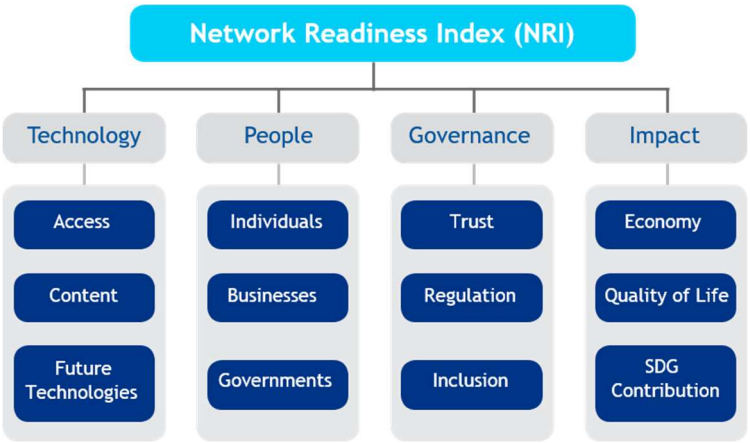
Network Readiness Index 2019 Mongolia

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 2019 the NRI Report maps the network-based readiness landscape of 121 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 62 variables.

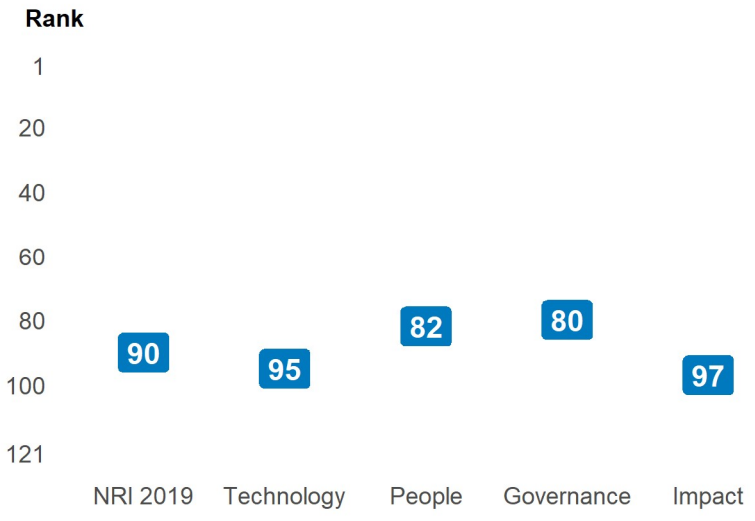
Figure 1: The NRI 2019 model



Global NRI position of Mongolia

Mongolia ranks 90th out of the 121 economies included in the NRI 2019 (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



Performance at sub-pillar level

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

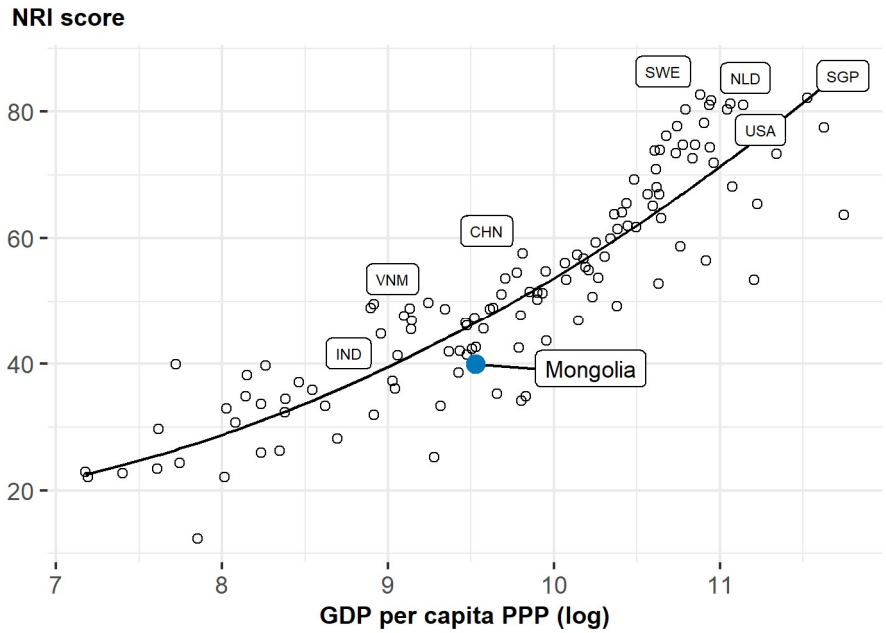
Table 1: Mongolia rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Inclusion	33	SDG Contribution	94
Individuals	71	Access	96
Content	79	Businesses	98
Quality of Life	86	Future Technologies	100
Trust	89	Regulation	105
Governments	91	Economy	114

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: SWE = Sweden (rank: 1), SGP = Singapore (2), NLD = Netherlands (3), CHN = China (41), IND = India (79). USA is ranked 8th. Mongolia belongs to the group of lower-middle-income countries, where the best performer is Vietnam (VNM). The top performer of its region—Asia & Pacific—is Singapore (SGP).

Performance against its income group and region

Lower-middle-income countries

Mongolia is ranked 9th 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: Score, People and Governance. At the sub-pillar level, it outperforms lower-middle-income countries in seven of the twelve sub-pillars: Content, Individuals, Governments, Trust, Inclusion, Quality of Life and SDG Contribution.

Asia & Pacific

Mongolia is ranked 16th 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 two of the twelve sub-pillars: Individuals and 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	Lower-middle-income countries	Asia & Pacific
NRI	39.91	37.18	52.44
Technology	31.90	32.15	48.56
People	35.79	30.04	44.85
Governance	53.78	46.17	61.84
Impact	38.18	40.35	54.50

Strongest and weakest indicators

The indicators where Mongolia performs particularly well include Gender gap in internet use, Rural gap in use of digital payments, and Adult literacy rate (Table 3). By contrast, the economy's weakest indicators include Fixed-broadband subscriptions, E-commerce legislation, and Medium and high-tech industry.

Table 3: Top-ranked and bottom-ranked indicators of Mongolia

Strongest indicators	Rank	Weakest indicators	Rank
Gender gap in internet use	1	Freedom to make life choices	102
Rural gap in use of digital payments	12	Access to basic services	102
Adult literacy rate	25	Internet access	103
Socioeconomic gap in use of digital payments	26	Legal framework's adaptability to digital business models	103
Use of virtual social networks	27	Pollution	104
Income inequality	29	Technicians and associate professionals	105
Internet access in schools	36	Internet users	108
Tertiary enrolment	38	Fixed-broadband subscriptions	110
Professionals	38	E-commerce legislation	110
Active mobile-broadband subscriptions	54	Medium and high-tech industry	110

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NRI 2019 At-A-Glance: Mongolia

Network Readiness Index Rank: 90 (out of 121) Score: 39.91

Pillar/sub-pillar	Rank	Score
A. Technology pillar	95	31.90
1st sub-pillar: Access	96	39.67
2nd sub-pillar: Content	79	34.86
3rd sub-pillar: Future Technologies	100	21.16
B. People pillar	82	35.79
1st sub-pillar: Individuals	71	52.50
2nd sub-pillar: Businesses	98	19.49
3rd sub-pillar: Governments	91	35.38

Pillar/sub-pillar	Rank	Score
C. Governance pillar	80	53.78
1st sub-pillar: Trust	89	42.63
2nd sub-pillar: Regulation	105	44.67
3rd sub-pillar: Inclusion	33	74.05
D. Impact pillar	97	38.18
1st sub-pillar: Economy	114	5.41
2nd sub-pillar: Quality of Life	86	54.30
3rd sub-pillar: SDG Contribution	94	54.83

The Network Readiness Index in detail

Indicator	Rank	Score
A. Technology pillar		
1st sub-pillar: Access		
1.1.1 Mobile tariffs	86	50.51
1.1.2 Handset prices	97	30.61
1.1.3 Internet access	103	17.84
1.1.4 4G mobile network coverage	101	45.00
1.1.5 Fixed-broadband subscriptions	110	0.58
1.1.6 International Internet bandwidth	92	62.59
1.1.7 Internet access in schools	36	70.54
2nd sub-pillar: Content		
1.2.1 Digital participation and content creation	*	*
1.2.2 Mobile apps development	62	62.55
1.2.3 Intellectual property receipts	78	0.12
3rd sub-pillar: Future Technologies		
1.3.1 Availability of latest technologies	89	40.66
1.3.2 Company investment in emerging technology	85	27.26
1.3.3 Government procurement of advanced technology products	97	27.35
1.3.4 ICT PCT patent applications	70	1.45
1.3.5 Computer software spending	77	9.09
1.3.6 Robot density	NA	NA
B. People pillar		
1st sub-pillar: Individuals		
2.1.1 Internet users	108	15.49
2.1.2 Active mobile-broadband subscriptions	54	31.85
2.1.3 Use of virtual social networks	27	69.85
2.1.4 Tertiary enrolment	38	47.70
2.1.5 Adult literacy rate	25	97.60
2.1.6 ICT skills	NA	NA
2nd sub-pillar: Businesses		
2.2.1 Firms with website	86	24.53
2.2.2 Internet shopping	76	9.46
2.2.3 Professionals	38	41.92
2.2.4 Technicians and associate professionals	105	10.10
2.2.5 Extent of staff training	86	30.82
2.2.6 R&D expenditure by businesses	86	0.10
3rd sub-pillar: Governments		
2.3.1 Government online services	89	55.38
2.3.2 Publication and use of open data	NA	NA
2.3.3 ICT use and government efficiency	73	40.04
2.3.4 R&D expenditure by governments and higher education	88	10.71

Indicator	Rank	Score
C. Governance pillar		
1st sub-pillar: Trust		
3.1.1 Rule of law	75	47.26
3.1.2 Software piracy rate	NA	NA
3.1.3 Secure Internet servers	57	63.41
3.1.4 Cybersecurity	83	48.90
3.1.5 Online trust and safety	87	10.96
2nd sub-pillar: Regulation		
3.2.1 Regulatory quality	68	50.76
3.2.2 Ease of doing business	74	66.40
3.2.3 Legal framework's adaptability to digital business models	103	26.15
3.2.4 E-commerce legislation	110	25.00
3.2.5 Social safety net protection	83	31.77
3.2.6 ICT regulatory environment	97	67.96
3rd sub-pillar: Inclusion		
3.3.1 E-Participation	62	70.07
3.3.2 Socioeconomic gap in use of digital payments	26	89.54
3.3.3 Availability of local online content	96	32.41
3.3.4 Gender gap in internet use	1	100.00
3.3.5 Rural gap in use of digital payments	12	78.22
D. Impact pillar		
1st sub-pillar: Economy		
4.1.1 Medium and high-tech industry	110	6.79
4.1.2 High-tech exports	78	9.40
4.1.3 PCT patent applications	83	0.03
4.1.4 Labour productivity per employee	NA	NA
2nd sub-pillar: Quality of Life		
4.2.1 Happiness	71	50.14
4.2.2 Freedom to make life choices	102	38.66
4.2.3 Income inequality	29	80.79
4.2.4 Healthy life expectancy at birth	92	47.62
3rd sub-pillar: SDG Contribution		
4.3.1 Access to basic services	102	61.61
4.3.2 Pollution	104	60.85
4.3.3 Road safety	70	56.88
4.3.4 Reading proficiency in schools	NA	NA
4.3.5 Maths proficiency in schools	NA	NA
4.3.6 Use of clean fuels and technology	99	40.00

* Confidential data

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