Bolivia

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.
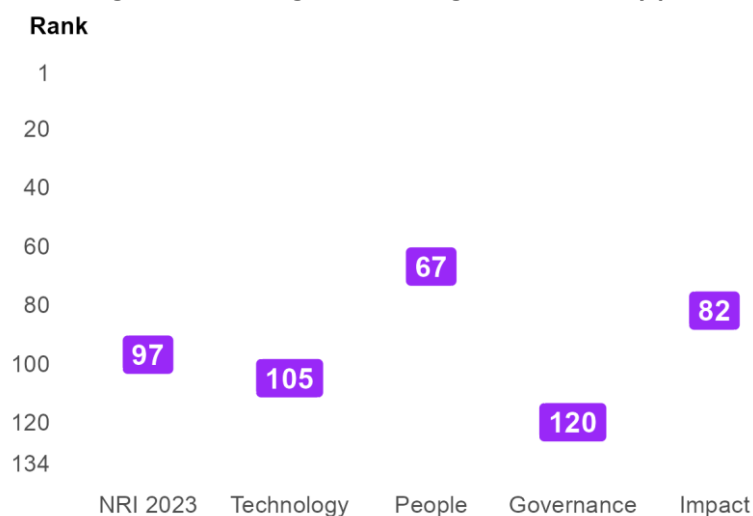
Figure 1: The NRI 2023 model

Global NRI position of Bolivia

Bolivia ranks 97th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to People. The greatest scope for improvement, meanwhile, concerns Governance.

Figure 2: Bolivia global ranking, overall and by pillar

Performance at sub-pillar level

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

Table 1: Bolivia rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Individuals	24	Governments	99
SDG Contribution	52	Future Technologies	105
Businesses	59	Content	114
Quality of Life	72	Trust	116
Inclusion	95	Economy	117
Access	99	Regulation	122

NRI score and income

Figure 3 shows the position of Bolivia 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, Bolivia is slightly below 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)
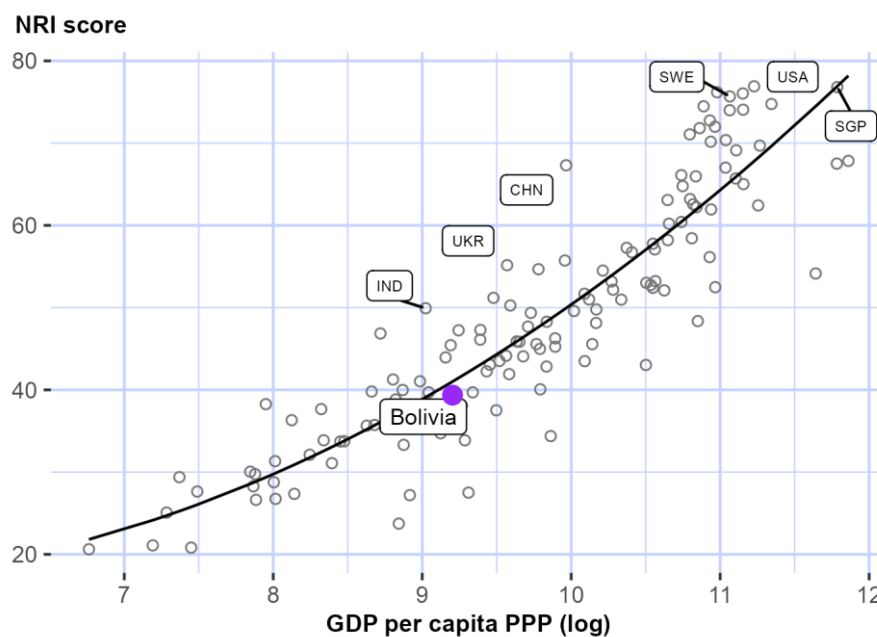
Note: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Bolivia belongs to the group of lower-middle-income countries, where the best performer is Ukraine (UKR). The top performer of its region-The Americas-is United States of America (USA).

Performance against its income group and region

Lower-middle-income countries
Bolivia is ranked 19th 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, People and Impact. At the sub-pillar level, it outperforms lower-middle-income countries in five of the twelve sub-pillars: Individuals, Businesses, Inclusion, Quality of Life and SDG Contribution.

The Americas
Bolivia is ranked 17th within The Americas (Figure 4, right panel). It has a score above the regional average in one of the four pillars: People. With regard to sub-pillars, it outperforms the average in The Americas in two of the twelve sub-pillars: Individuals and Businesses.

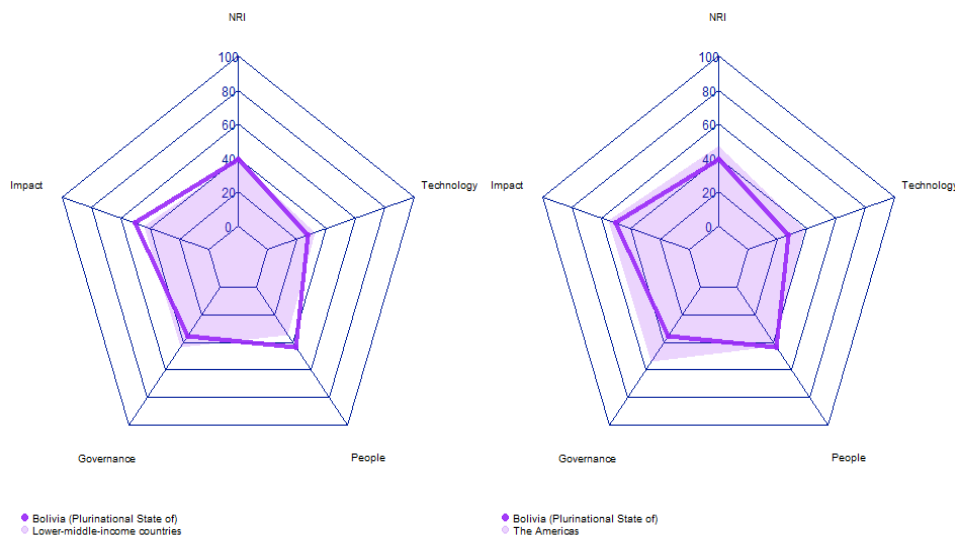**Figure 4: Performance of Bolivia against its income group and region, overall and by pillar**

- Bolivia (Plurinational State of)
- Lower-middle-income countries

- Bolivia (Plurinational State of)
- The Americas

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

Dimension	Bolivia	Lower-middle-income countries	The Americas
NRI	39.35	38.41	47.41
Technology	27.60	32.12	38.24
People	43.53	34.38	42.35
Governance	35.73	43.27	54.12
Impact	50.54	43.89	54.93

Strongest and weakest indicators

The indicators where Bolivia performs particularly well include 1.1.3 FTTH/building Internet subscriptions, 3.3.5 Rural gap in use of digital payments, and 4.2.2 Freedom to make life choices (Table 3). By contrast, the economy's weakest indicators include 1.3.2 Investment in emerging technologies, 3.2.1 Regulatory quality, and 4.1.5 Prevalence of gig economy.

Table 3: Highlight of Strengths and Opportunities for Bolivia

Strongest indicators	Rank	Weakest indicators	Rank
1.1.3 FTTH/building Internet subscriptions	24	3.2.3 Regulation of emerging technologies	115
3.3.5 Rural gap in use of digital payments	37	3.2.4 E-commerce legislation	121
4.2.2 Freedom to make life choices	42	2.3.3 Government promotion of investment in emerging technologies	122
4.3.3 SDG 5: Women's economic opportunity	44	4.1.5 Prevalence of gig economy	123
1.3.4 Computer software spending	50	3.2.1 Regulatory quality	128
2.1.5 Adult literacy rate	58	1.3.2 Investment in emerging technologies	129
4.2.1 Happiness	61		
3.2.5 Privacy protection by law content	64		
4.3.4 SDG 7: Affordable and Clean Energy	71		
4.3.5 SDG 11: Sustainable Cities and Communities	75		

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

NRI 2023 At-A-Glance: Bolivia

Network Readiness Index   Rank: 97 (out of 134)   Score: 39.35

Pillar/sub-pillar	Rank	Score
A. Technology pillar	105	27.60
1st sub-pillar: Access	99	49.42
2nd sub-pillar: Content	114	11.43
3rd sub-pillar: Future Technologies	105	21.93
B. People pillar	67	43.53
1st sub-pillar: Individuals	24	56.74
2nd sub-pillar: Businesses	59	47.18
3rd sub-pillar: Governments	99	26.66

Pillar/sub-pillar	Rank	Score
C. Governance pillar	120	35.73
1st sub-pillar: Trust	116	20.60
2nd sub-pillar: Regulation	122	38.11
3rd sub-pillar: Inclusion	95	48.47
D. Impact pillar	82	50.54
1st sub-pillar: Economy	117	14.91
2nd sub-pillar: Quality of Life	72	66.85
3rd sub-pillar: SDG Contribution	52	69.87

The Network Readiness Index in detail

Indicator	Rank	Score	
A. Technology pillar	105	27.60	
1st sub-pillar: Access	99	49.42	
1.1.1 Mobile tariffs	91	47.23	
1.1.2 Handset prices	105	30.40	
1.1.3 FTTH/building Internet subscriptions	24	46.20	●
1.1.4 Population covered by at least a 3G mobile network	109	95.60	
1.1.5 International Internet bandwidth	76	69.60	
1.1.6 Internet access in schools	75	7.52	
2nd sub-pillar: Content	114	11.43	
1.2.1 GitHub commits	88	3.20	
1.2.2 Internet domain registrations	95	1.09	
1.2.3 Mobile apps development	112	40.40	
1.2.4 AI scientific publications	103	1.04	
3rd sub-pillar: Future Technologies	105	21.93	
1.3.1 Adoption of emerging technologies	106	27.75	
1.3.2 Investment in emerging technologies	129	12.00	○

Indicator	Rank	Score	
C. Governance pillar	120	35.73	
1st sub-pillar: Trust	116	20.60	
3.1.1 Secure Internet servers	91	42.48	
3.1.2 Cybersecurity	123	14.66	
3.1.3 Online access to financial account	102	12.41	
3.1.4 Internet shopping	83	12.86	
2nd sub-pillar: Regulation	122	38.11	
3.2.1 Regulatory quality	128	23.53	○
3.2.2 ICT regulatory environment	111	64.12	
3.2.3 Regulation of emerging technologies	115	3.38	○
3.2.4 E-commerce legislation	121	33.33	○
3.2.5 Privacy protection by law content	64	66.21	●
3rd sub-pillar: Inclusion	95	48.47	
3.3.1 E-Participation	102	30.24	
3.3.2 Socioeconomic gap in use of digital payments	106	49.89	
3.3.3 Availability of local online content	115	28.37	

Indicator	Rank	Score	
1.3.3 Robot density	NA	NA	
1.3.4 Computer software spending	50	26.05	●
B. People pillar	67	43.53	
1st sub-pillar: Individuals	24	56.74	
2.1.1 Mobile broadband internet traffic within the country	NA	NA	
2.1.2 ICT skills in the education system	99	21.63	
2.1.3 Use of virtual social networks	77	56.99	
2.1.4 Tertiary enrollment	NA	NA	
2.1.5 Adult literacy rate	58	91.61	●
2.1.6 AI talent concentration	NA	NA	
2nd sub-pillar: Businesses	59	47.18	
2.2.1 Firms with website	65	46.10	
2.2.2 GERD financed by business enterprise	NA	NA	
2.2.3 Knowledge intensive employment	89	18.21	
2.2.4 Annual investment in telecommunication services	70	77.25	
2.2.5 GERD performed by business enterprise	NA	NA	
3rd sub-pillar: Governments	99	26.66	
2.3.1 Government online services	95	46.87	
2.3.2 Publication and use of open data	61	26.47	
2.3.3 Government promotion of investment in emerging tech	122	6.64	○
2.3.4 R&D expenditure by governments and higher education	NA	NA	

Indicator	Rank	Score	
3.3.4 Gender gap in Internet use	83	60.43	
3.3.5 Rural gap in use of digital payments	37	73.42	●
D. Impact pillar	82	50.54	
1st sub-pillar: Economy	117	14.91	
4.1.1 High-tech and medium-high-tech manufacturing	85	11.38	
4.1.2 High-tech exports	79	8.00	
4.1.3 PCT patent applications	NA	NA	
4.1.4 Domestic market size	86	46.02	
4.1.5 Prevalence of gig economy	123	4.94	○
4.1.6 ICT services exports	101	4.20	
2nd sub-pillar: Quality of Life	72	66.85	
4.2.1 Happiness	61	66.52	●
4.2.2 Freedom to make life choices	42	81.63	●
4.2.3 Income inequality	84	55.53	
4.2.4 Healthy life expectancy at birth	91	63.74	
3rd sub-pillar: SDG Contribution	52	69.87	
4.3.1 SDG 3: Good Health and Well-Being	84	63.05	
4.3.2 SDG 4: Quality Education	NA	NA	
4.3.3 SDG 5: Women's economic opportunity	44	84.07	●
4.3.4 SDG 7: Affordable and Clean Energy	71	71.10	●
4.3.5 SDG 11: Sustainable Cities and Communities	75	61.26	●

NOTE: ● a strength and ○ a weakness.

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