



Guatemala

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.

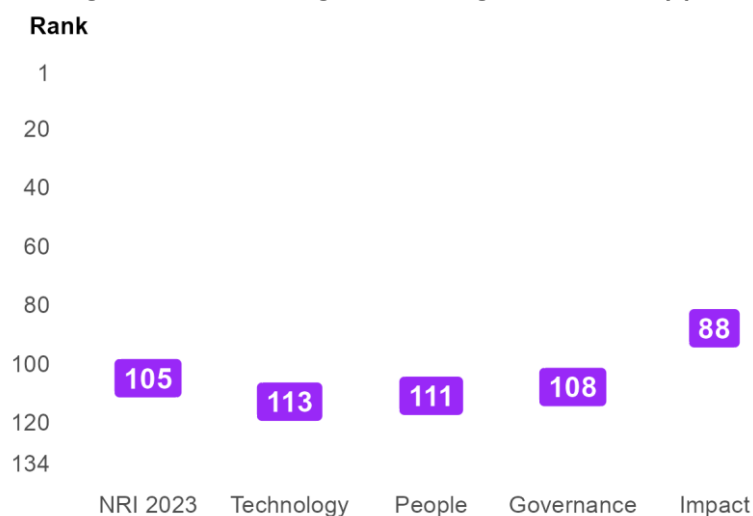
Figure 1: The NRI 2023 model



Global NRI position of Guatemala

Guatemala ranks 105th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Impact. The greatest scope for improvement, meanwhile, concerns Technology.

Figure 2: Guatemala 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 Guatemala relate to SDG Contribution, Individuals and Quality of Life, among others (Table 1). More could be done, though, to improve the economy's performances in the Access, Trust and Businesses sub-pillars.

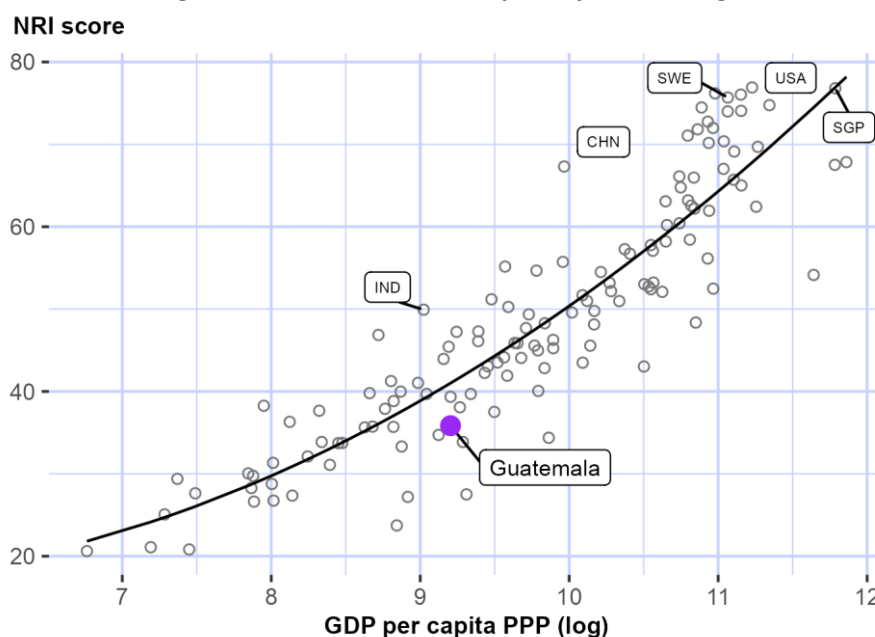
Table 1: Guatemala rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
SDG Contribution	81	Regulation	100
Individuals	84	Content	112
Quality of Life	86	Governments	112
Future Technologies	93	Access	115
Inclusion	93	Trust	124
Economy	93	Businesses	127

NRI score and income

Figure 3 shows the position of Guatemala 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, Guatemala 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), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Guatemala belongs to the group of upper-middle-income countries, where the best performer is China (CHN). The top performer of its region-The Americas-is United States of America (USA).

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Performance against its income group and region

Upper-middle-income countries

Guatemala is ranked 32nd in the group of upper-middle-income countries (Figure 4, left panel). In terms of pillar performance, it has a score below the income group average in each of the four pillars. At the sub-pillar level, it trails upper-middle-income countries in all of them.

The Americas

Guatemala is ranked 19th within The Americas (Figure 4, right panel). It lags behind its region in each of the four pillars. With regard to sub-pillars, it trails the regional average in each of them.

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

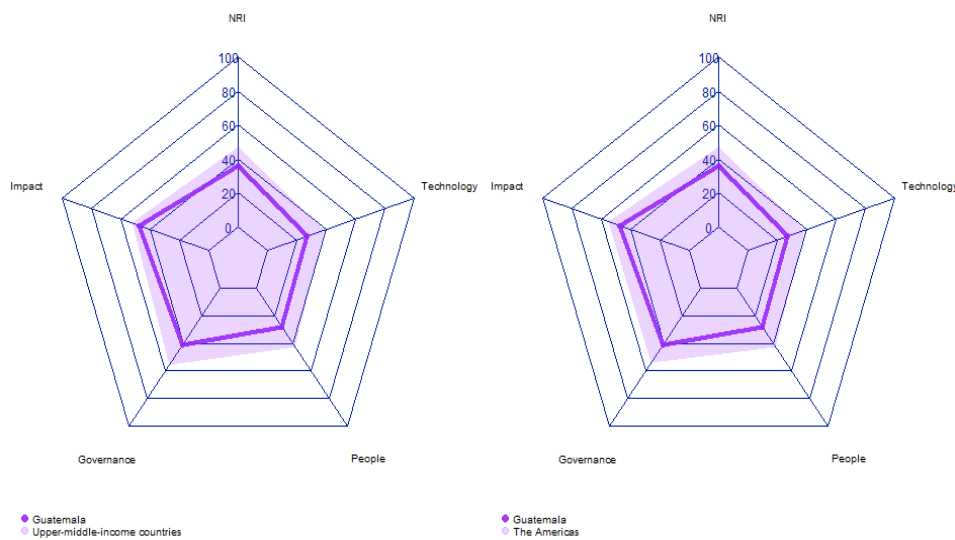


Table 2: Guatemala scores vs. averages of its income group and region, overall and by pillar

Dimension	Guatemala	Upper-middle-income countries	The Americas
NRI	35.84	47.35	47.41
Technology	26.66	38.48	38.24
People	28.15	42.59	42.35
Governance	40.84	55.90	54.12
Impact	47.72	52.43	54.93

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Strongest and weakest indicators

The indicators where Guatemala performs particularly well include 3.2.4 E-commerce legislation, 4.1.6 ICT services exports, and 4.2.1 Happiness (Table 3). By contrast, the economy's weakest indicators include 3.1.2 Cybersecurity, 1.3.4 Computer software spending, and 2.3.3 Government promotion of investment in emerging technologies.

Table 3: Highlight of Strengths and Opportunities for Guatemala

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	2.2.5 GERD performed by business enterprise	88
4.1.6 ICT services exports	39	2.3.4 R&D expenditure by governments and higher education	111
4.2.1 Happiness	46	2.3.3 Government promotion of investment in emerging technologies	118
4.2.2 Freedom to make life choices	46	1.3.4 Computer software spending	123
2.2.1 Firms with website	54	3.1.2 Cybersecurity	125
3.3.5 Rural gap in use of digital payments	65		
4.1.4 Domestic market size	72		
1.3.2 Investment in emerging technologies	73		
4.1.2 High-tech exports	75		
4.3.4 SDG 7: Affordable and Clean Energy	75		
4.3.5 SDG 11: Sustainable Cities and Communities	76		

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

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NRI 2023 At-A-Glance: Guatemala

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Rank: 105 (out of 134)

Score: 35.84

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	113	26.66	C. Governance pillar	108	40.84
1st sub-pillar: Access	115	41.72	1st sub-pillar: Trust	124	16.43
2nd sub-pillar: Content	112	11.71	2nd sub-pillar: Regulation	100	56.30
3rd sub-pillar: Future Technologies	93	26.53	3rd sub-pillar: Inclusion	93	49.79
B. People pillar	111	28.15	D. Impact pillar	88	47.72
1st sub-pillar: Individuals	84	42.96	1st sub-pillar: Economy	93	20.99
2nd sub-pillar: Businesses	127	20.13	2nd sub-pillar: Quality of Life	86	62.06
3rd sub-pillar: Governments	112	21.37	3rd sub-pillar: SDG Contribution	81	60.12

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	113	26.66	C. Governance pillar	108	40.84
1st sub-pillar: Access	115	41.72	1st sub-pillar: Trust	124	16.43
1.1.1 Mobile tariffs	113	28.58	3.1.1 Secure Internet servers	102	37.24
1.1.2 Handset prices	77	42.21	3.1.2 Cybersecurity	125	11.60
1.1.3 FTTH/building Internet subscriptions	106	10.18	3.1.3 Online access to financial account	116	7.65
1.1.4 Population covered by at least a 3G mobile network	93	98.31	3.1.4 Internet shopping	95	9.22
1.1.5 International Internet bandwidth	111	61.93	2nd sub-pillar: Regulation	100	56.30
1.1.6 Internet access in schools	72	9.12	3.2.1 Regulatory quality	88	42.48
2nd sub-pillar: Content	112	11.71	3.2.2 ICT regulatory environment	121	57.29
1.2.1 GitHub commits	98	2.18	3.2.3 Regulation of emerging technologies	103	21.30
1.2.2 Internet domain registrations	77	2.31	3.2.4 E-commerce legislation	1	100.00
1.2.3 Mobile apps development	111	41.95	3.2.5 Privacy protection by law content	79	60.42
1.2.4 AI scientific publications	117	0.40	3rd sub-pillar: Inclusion	93	49.79
3rd sub-pillar: Future Technologies	93	26.53	3.3.1 E-Participation	101	31.39
1.3.1 Adoption of emerging technologies	79	41.14	3.3.2 Socioeconomic gap in use of digital payments	90	58.29
1.3.2 Investment in emerging technologies	73	37.50	3.3.3 Availability of local online content	101	38.70

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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	89	56.71
1.3.4 Computer software spending	123	0.96	3.3.5 Rural gap in use of digital payments	65	63.86
B. People pillar	111	28.15	D. Impact pillar	88	47.72
<i>1st sub-pillar: Individuals</i>	84	42.96	<i>1st sub-pillar: Economy</i>	93	20.99
2.1.1 Mobile broadband internet traffic within the country	NA	NA	4.1.1 High-tech and medium-high-tech manufacturing	NA	NA
2.1.2 ICT skills in the education system	82	36.81	4.1.2 High-tech exports	75	9.13
2.1.3 Use of virtual social networks	91	44.67	4.1.3 PCT patent applications	95	0.22
2.1.4 Tertiary enrollment	97	13.11	4.1.4 Domestic market size	72	50.47
2.1.5 Adult literacy rate	74	77.27	4.1.5 Prevalence of gig economy	110	19.77
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	39	25.37
<i>2nd sub-pillar: Businesses</i>	127	20.13	<i>2nd sub-pillar: Quality of Life</i>	86	62.06
2.2.1 Firms with website	54	56.03	4.2.1 Happiness	46	70.64
2.2.2 GERD financed by business enterprise	74	13.72	4.2.2 Freedom to make life choices	46	80.15
2.2.3 Knowledge intensive employment	109	10.71	4.2.3 Income inequality	104	36.93
2.2.4 Annual investment in telecommunication services	NA	NA	4.2.4 Healthy life expectancy at birth	95	60.50
2.2.5 GERD performed by business enterprise	88	0.05	<i>3rd sub-pillar: SDG Contribution</i>	81	60.12
<i>3rd sub-pillar: Governments</i>	112	21.37	4.3.1 SDG 3: Good Health and Well-Being	101	47.29
2.3.1 Government online services	91	49.26	4.3.2 SDG 4: Quality Education	NA	NA
2.3.2 Publication and use of open data	61	26.47	4.3.3 SDG 5: Women's economic opportunity	105	62.83
2.3.3 Government promotion of investment in emerging tech	118	8.88	4.3.4 SDG 7: Affordable and Clean Energy	75	69.29
2.3.4 R&D expenditure by governments and higher education	111	0.87	4.3.5 SDG 11: Sustainable Cities and Communities	76	61.06

NOTE: ● a strength and ○ a weakness.

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