



Dominican Republic

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.

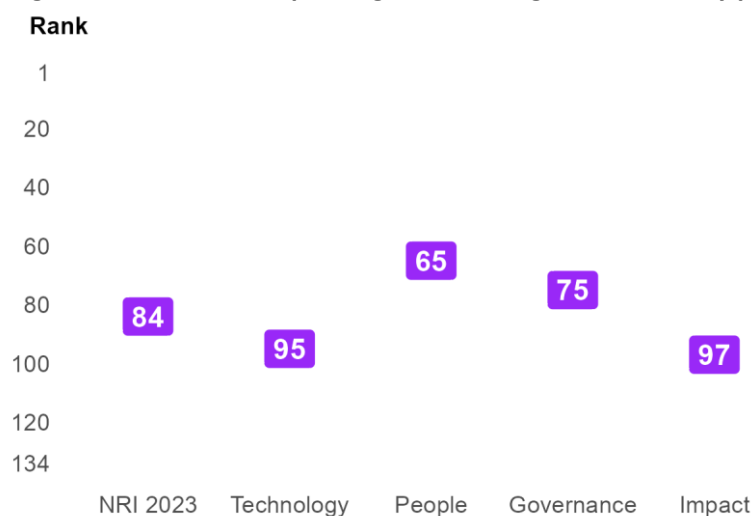
Figure 1: The NRI 2023 model



Global NRI position of Dominican Republic

Dominican Republic ranks 84th 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 Impact.

Figure 2: Dominican Republic global ranking, overall and by pillar



Network Readiness Index 2023



Performance at sub-pillar level

When it comes to sub-pillars, the strongest showings of Dominican Republic relate to Regulation, Governments and Businesses, among others (Table 1). More could be done, though, to improve the economy's performances in the Future Technologies, Content and SDG Contribution sub-pillars.

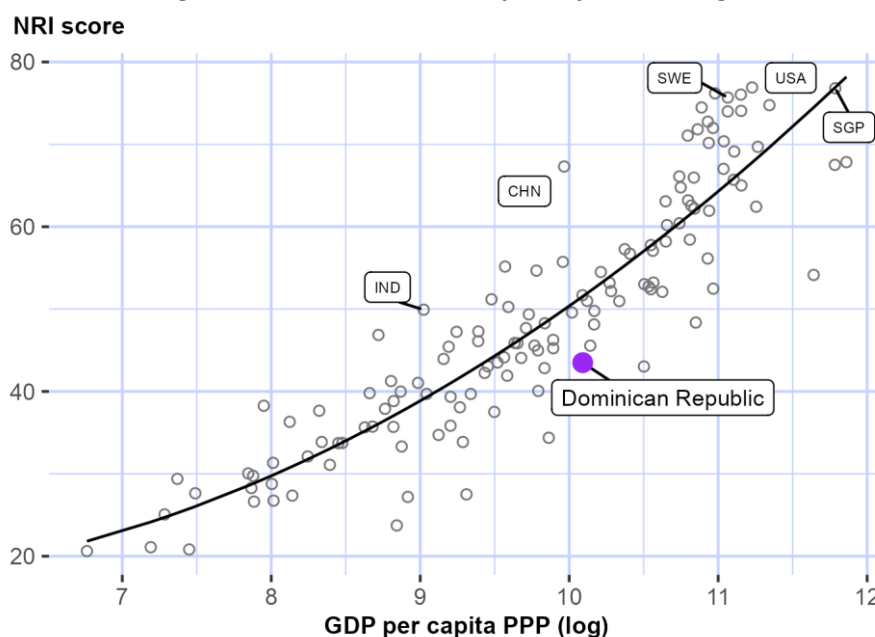
Table 1: Dominican Republic rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Regulation	42	Economy	89
Governments	62	Trust	91
Businesses	64	Access	94
Individuals	75	Future Technologies	96
Quality of Life	75	Content	104
Inclusion	89	SDG Contribution	116

NRI score and income

Figure 3 shows the position of Dominican Republic 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, Dominican Republic 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). Dominican Republic 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).

Network Readiness Index 2023



PORTULANS
INSTITUTE



Performance against its income group and region

Upper-middle-income countries

Dominican Republic is ranked 26th 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: People. At the sub-pillar level, it outperforms upper-middle-income countries in four of the twelve sub-pillars: Businesses, Governments, Regulation and Quality of Life.

The Americas

Dominican Republic is ranked 12th 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 three of the twelve sub-pillars: Businesses, Governments and Regulation.

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

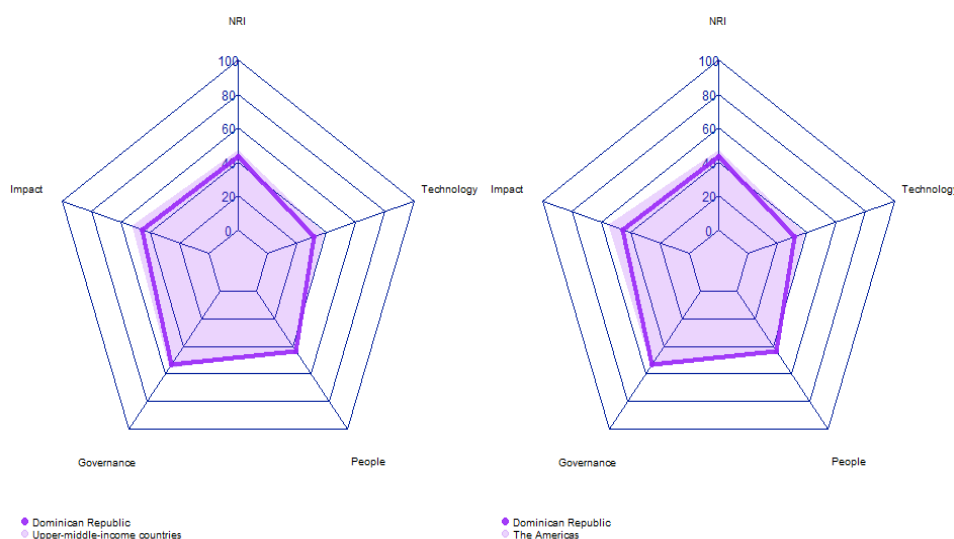


Table 2: Dominican Republic scores vs. averages of its income group and region, overall and by pillar

Dimension	Dominican Republic	Upper-middle-income countries	The Americas
NRI	43.49	47.35	47.41
Technology	31.58	38.48	38.24
People	43.73	42.59	42.35
Governance	53.39	55.90	54.12
Impact	45.27	52.43	54.93

Network Readiness Index 2023



Strongest and weakest indicators

The indicators where Dominican Republic performs particularly well include 3.2.4 E-commerce legislation, 3.2.2 ICT regulatory environment, and 4.3.4 SDG 7: Affordable and Clean Energy (Table 3). By contrast, the economy's weakest indicators include 4.3.5 SDG 11: Sustainable Cities and Communities, 1.2.4 AI scientific publications, and 1.3.4 Computer software spending.

Table 3: Highlight of Strengths and Opportunities for Dominican Republic

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	4.3.2 SDG 4: Quality Education	76
3.2.2 ICT regulatory environment	3	2.1.2 ICT skills in the education system	91
4.3.4 SDG 7: Affordable and Clean Energy	8	1.3.4 Computer software spending	120
3.2.5 Privacy protection by law content	10	1.2.4 AI scientific publications	128
3.3.4 Gender gap in Internet use	15	4.3.5 SDG 11: Sustainable Cities and Communities	132
1.1.4 Population covered by at least a 3G mobile network	50		
4.2.2 Freedom to make life choices	51		
2.1.4 Tertiary enrollment	52		
4.3.3 SDG 5: Women's economic opportunity	56		
4.1.2 High-tech exports	57		
1.1.5 International Internet bandwidth	60		

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

Network Readiness Index 2023



PORTULANS
INSTITUTE



NRI 2023 At-A-Glance: Dominican Republic

Network Readiness Index

Rank: 84 (out of 134)

Score: 43.49

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	95	31.58	C. Governance pillar	75	53.39
1st sub-pillar: Access	94	54.13	1st sub-pillar: Trust	91	33.57
2nd sub-pillar: Content	104	14.48	2nd sub-pillar: Regulation	42	73.43
3rd sub-pillar: Future Technologies	96	26.13	3rd sub-pillar: Inclusion	89	53.17
B. People pillar	65	43.73	D. Impact pillar	97	45.27
1st sub-pillar: Individuals	75	45.21	1st sub-pillar: Economy	89	21.48
2nd sub-pillar: Businesses	64	45.43	2nd sub-pillar: Quality of Life	75	66.56
3rd sub-pillar: Governments	62	40.54	3rd sub-pillar: SDG Contribution	116	47.77

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	95	31.58	C. Governance pillar	75	53.39
1st sub-pillar: Access	94	54.13	1st sub-pillar: Trust	91	33.57
1.1.1 Mobile tariffs	81	52.94	3.1.1 Secure Internet servers	99	38.51
1.1.2 Handset prices	65	46.97	3.1.2 Cybersecurity	74	74.61
1.1.3 FTTH/building Internet subscriptions	64	29.20	3.1.3 Online access to financial account	100	12.98
1.1.4 Population covered by at least a 3G mobile network	50	99.84	3.1.4 Internet shopping	100	8.19
1.1.5 International Internet bandwidth	60	72.66	2nd sub-pillar: Regulation	42	73.43
1.1.6 Internet access in schools	66	23.16	3.2.1 Regulatory quality	66	51.61
2nd sub-pillar: Content	104	14.48	3.2.2 ICT regulatory environment	3	97.65
1.2.1 GitHub commits	87	3.25	3.2.3 Regulation of emerging technologies	92	27.53
1.2.2 Internet domain registrations	81	2.00	3.2.4 E-commerce legislation	1	100.00
1.2.3 Mobile apps development	101	52.59	3.2.5 Privacy protection by law content	10	90.37
1.2.4 AI scientific publications	128	0.09	3rd sub-pillar: Inclusion	89	53.17
3rd sub-pillar: Future Technologies	96	26.13	3.3.1 E-Participation	82	44.18
1.3.1 Adoption of emerging technologies	62	48.00	3.3.2 Socioeconomic gap in use of digital payments	112	43.97
1.3.2 Investment in emerging technologies	99	29.00	3.3.3 Availability of local online content	68	60.10

Network Readiness Index 2023



PORTULANS
INSTITUTE



Indicator	Rank	Score	Indicator	Rank	Score
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	15	74.08 ●
1.3.4 Computer software spending	120	1.38 ○	3.3.5 Rural gap in use of digital payments	98	43.53
B. People pillar			D. Impact pillar		
<i>1st sub-pillar: Individuals</i>	65	43.73	<i>1st sub-pillar: Economy</i>	97	45.27
2.1.1 Mobile broadband internet traffic within the country	75	45.21	4.1.1 High-tech and medium-high-tech manufacturing	89	21.48
2.1.2 ICT skills in the education system	87	4.59	4.1.2 High-tech exports	NA	NA
2.1.3 Use of virtual social networks	91	28.07 ○	4.1.3 PCT patent applications	57	15.14 ●
2.1.4 Tertiary enrollment	72	61.39	4.1.4 Domestic market size	82	0.96
2.1.5 Adult literacy rate	52	38.60 ●	4.1.5 Prevalence of gig economy	62	53.65
2.1.6 AI talent concentration	50	93.41	4.1.6 ICT services exports	79	35.47
<i>2nd sub-pillar: Businesses</i>			<i>2nd sub-pillar: Quality of Life</i>		
2.2.1 Firms with website	64	45.43	4.2.1 Happiness	114	2.20
2.2.2 GERD financed by business enterprise	80	37.55	4.2.2 Freedom to make life choices	75	66.56
2.2.3 Knowledge intensive employment	79	57.81	4.2.3 Income inequality	79	58.88
2.2.4 Annual investment in telecommunication services	NA	NA	4.2.4 Healthy life expectancy at birth	51	79.68 ●
2.2.5 GERD performed by business enterprise	86	20.26	<i>3rd sub-pillar: SDG Contribution</i>		
<i>3rd sub-pillar: Governments</i>			4.3.1 SDG 3: Good Health and Well-Being	69	61.56
2.3.1 Government online services	61	78.48	4.3.2 SDG 4: Quality Education	87	66.11
2.3.2 Publication and use of open data	NA	NA	4.3.3 SDG 5: Women's economic opportunity	116	47.77
2.3.3 Government promotion of investment in emerging tech	86	20.26	4.3.4 SDG 7: Affordable and Clean Energy	86	61.36
2.3.4 R&D expenditure by governments and higher education	62	40.54	4.3.5 SDG 11: Sustainable Cities and Communities	76	0.00 ○
	79	57.81	4.3.3 SDG 5: Women's economic opportunity	56	80.53 ●
	55	32.35	4.3.4 SDG 7: Affordable and Clean Energy	8	85.19 ●
	85	31.46	4.3.5 SDG 11: Sustainable Cities and Communities	132	11.76 ○
	NA	NA			

NOTE: ● a strength and ○ a weakness.

Network Readiness Index 2023



Sources

- 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>