

### **Mexico**

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 Future Technologies Access Content Network Individuals Businesses Governments Readiness Index 囯 Trust Regulation Inclusion Impact (<u>o</u>) Quality of Life **SDG** Contribution

Global NRI position of Mexico

Mexico ranks 62nd 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.

Rank 1 20 40 43 60 62 63 68 70 80 100 120 134 NRI 2023 Technology Impact People Governance

Figure 2: Mexico global ranking, overall and by pillar



#### Performance at sub-pillar level

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

Table 1: Mexico rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Governments	28	Access	63
Economy	42	Trust	71
Regulation	46	Future Technologies	75
SDG Contribution	50	Individuals	76
Quality of Life	57	Inclusion	91
Content	62	Businesses	95

#### NRI score and income

Figure 3 shows the position of Mexico 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, Mexico 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.

NRI score 80 -SGP CHN 60 0 IND Mexico 0 40 . 0 0 0 0 11 12 GDP per capita PPP (log)

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). Mexico 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).







### Performance against its income group and region

#### Upper-middle-income countries

Mexico is ranked 13th 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 three of the four pillars: NRI, Technology, People and Impact. At the sub-pillar level, it outperforms upper-middle-income countries in eight of the twelve subpillars: Access, Content, Future Technologies, Governments, Regulation, Economy, Quality of Life and SDG Contribution.

#### The Americas

Mexico is ranked 8th within The Americas (Figure 4, right panel). It outperforms its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in The Americas in six of the twelve sub-pillars: Access, Governments, Trust, Regulation, Economy and Quality of Life.

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

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

Mexico
The America

Dimension	Mexico	Upper-middle- income countries	The Americas
NRI	49.59	47.35	47.41
Technology	39.64	38.48	38.24
People	44.44	42.59	42.35
Governance	55.15	55.90	54.12
Impact	59.11	52.43	54.93



### Strongest and weakest indicators

The indicators where Mexico performs particularly well include 3.2.4 E-commerce legislation, 2.3.2 Publication and use of open data, and 4.2.1 Happiness (Table 3). By contrast, the economy's weakest indicators include 4.1.6 ICT services exports, 3.3.2 Socioeconomic gap in use of digital payments, and 3.3.5 Rural gap in use of digital payments.

Table 3: Highlight of Strengths and Opportunities for Mexico

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	2.1.6 Al talent concentration	40
2.3.2 Publication and use of open data	6	4.2.3 Income inequality	98
4.2.1 Happiness	10	3.3.5 Rural gap in use of digital payments	115
1.1.3 FTTH/building Internet subscriptions	13	3.3.2 Socioeconomic gap in use of digital payments	126
4.1.4 Domestic market size	13	4.1.6 ICT services exports	133
3.2.2 ICT regulatory environment	14		
2.2.4 Annual investment in telecommunication services	16		
4.1.1 High-tech and medium-high-tech manufacturing	16		
1.2.4 Al scientific publications	22		
2.1.1 Mobile broadband internet traffic within the country	24		
4.1.2 High-tech exports	25		

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







### NRI 2023 At-A-Glance: Mexico

Network Readiness Index Rank: 62 (out of 134) Score: 49.59

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	70	39.64	C. Governance pillar	68	55.15
1st sub-pillar: Access	63	65.26	1st sub-pillar: Trust	71	42.14
2nd sub-pillar: Content	62	23.83	2nd sub-pillar: Regulation	46	72.21
3rd sub-pillar: Future Technologies	75	29.83	3rd sub-pillar: Inclusion	91	51.10
B. People pillar	63	44.44	D. Impact pillar	43	59.11
1st sub-pillar: Individuals	76	44.87	1st sub-pillar: Economy	42	36.09
2nd sub-pillar: Businesses	95	35.39	2nd sub-pillar: Quality of Life	57	71.10
3rd sub-pillar: Governments	28	53.07	3rd sub-pillar: SDG Contribution	50	70.15

### The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	70	39.64	C. Governance pillar	68	55.15
1st sub-pillar: Access	63	65.26	1st sub-pillar: Trust	71	42.14
1.1.1 Mobile tariffs	93	45.92	3.1.1 Secure Internet servers	81	46.27
1.1.2 Handset prices	30	70.63	3.1.2 Cybersecurity	60	81.36
1.1.3 FTTH/building Internet subscriptions	13	58.82 •	3.1.3 Online access to financial account	91	16.28
1.1.4 Population covered by at least a 3G mobile network	86	98.68	3.1.4 Internet shopping	63	24.64
1.1.5 International Internet bandwidth	28	78.66	2nd sub-pillar: Regulation	46	72.21
1.1.6 Internet access in schools	57	38.88	3.2.1 Regulatory quality	83	44.39
2nd sub-pillar: Content	62	23.83	3.2.2 ICT regulatory environment	14	94.12 •
1.2.1 GitHub commits	82	3.93	3.2.3 Regulation of emerging technologies	73	41.30
1.2.2 Internet domain registrations	66	3.89	3.2.4 E-commerce legislation	1	100.00 •
1.2.3 Mobile apps development	72	64.45	3.2.5 Privacy protection by law content	29	81.25
1.2.4 Al scientific publications	22	23.04	3rd sub-pillar: Inclusion	91	51.10
3rd sub-pillar: Future Technologies	75	29.83	3.3.1 E-Participation	32	72.10
1.3.1 Adoption of emerging technologies	47	55.16	3.3.2 Socioeconomic gap in use of digital payments	126	31.18 o
1.3.2 Investment in emerging technologies	66	39.75	3.3.3 Availability of local online content	65	60.34







Indicator	Rank	Score	Indicator	Rank	Score	
1.3.3 Robot density	34	7.45	3.3.4 Gender gap in Internet use	58	67.88	
1.3.4 Computer software spending	76	16.96	3.3.5 Rural gap in use of digital payments	115	24.03	0
B. People pillar	63	44.44	D. Impact pillar	43	59.11	
1st sub-pillar: Individuals	76	44.87	1st sub-pillar: Economy	42	36.09	
2.1.1 Mobile broadband internet traffic within the country	24	34.20 •	4.1.1 High-tech and medium-high-tech manufacturing	16	57.97	•
2.1.2 ICT skills in the education system	81	37.11	4.1.2 High-tech exports	25	35.68	•
2.1.3 Use of virtual social networks	50	69.11	4.1.3 PCT patent applications	65	2.76	
2.1.4 Tertiary enrollment	70	28.41	4.1.4 Domestic market size	13	77.37	•
2.1.5 Adult literacy rate	49	93.51	4.1.5 Prevalence of gig economy	61	42.73	
2.1.6 Al talent concentration	40	6.87 o	4.1.6 ICT services exports	133	0.01	0
2nd sub-pillar: Businesses	95	35.39	2nd sub-pillar: Quality of Life	57	71.10	
2.2.1 Firms with website	81	36.91	4.2.1 Happiness	10	87.15	•
2.2.2 GERD financed by business enterprise	69	22.01	4.2.2 Freedom to make life choices	44	80.94	
2.2.3 Knowledge intensive employment	72	28.14	4.2.3 Income inequality	98	44.22	0
2.2.4 Annual investment in telecommunication services	16	88.29 •	4.2.4 Healthy life expectancy at birth	70	72.07	
2.2.5 GERD performed by business enterprise	65	1.61	3rd sub-pillar: SDG Contribution	50	70.15	
3rd sub-pillar: Governments	28	53.07	4.3.1 SDG 3: Good Health and Well-Being	53	74.70	
2.3.1 Government online services	31	80.60	4.3.2 SDG 4: Quality Education	54	33.50	
2.3.2 Publication and use of open data	6	89.71 •	4.3.3 SDG 5: Women's economic opportunity	44	84.07	
2.3.3 Government promotion of investment in emerging tech	68	36.80	4.3.4 SDG 7: Affordable and Clean Energy	35	78.32	
2.3.4 R&D expenditure by governments and higher education	77	5.16	4.3.5 SDG 11: Sustainable Cities and Communities	36	80.15	

NOTE: • a strength and o a weakness.



#### **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