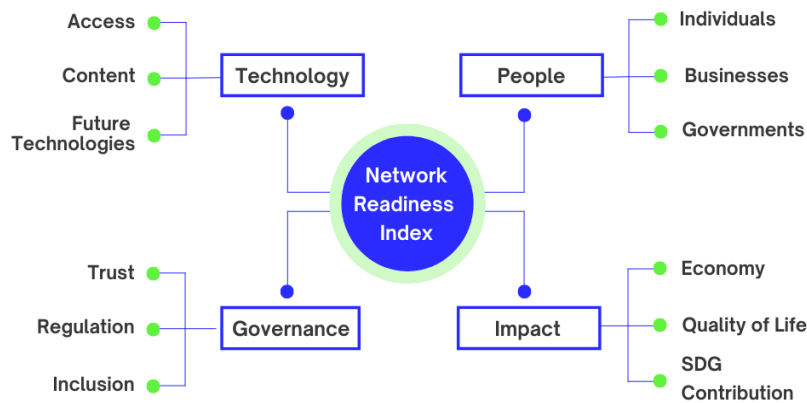


# Network Readiness Index 2022

## Uruguay

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 2022 the NRI Report maps the network-based readiness landscape of 131 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.

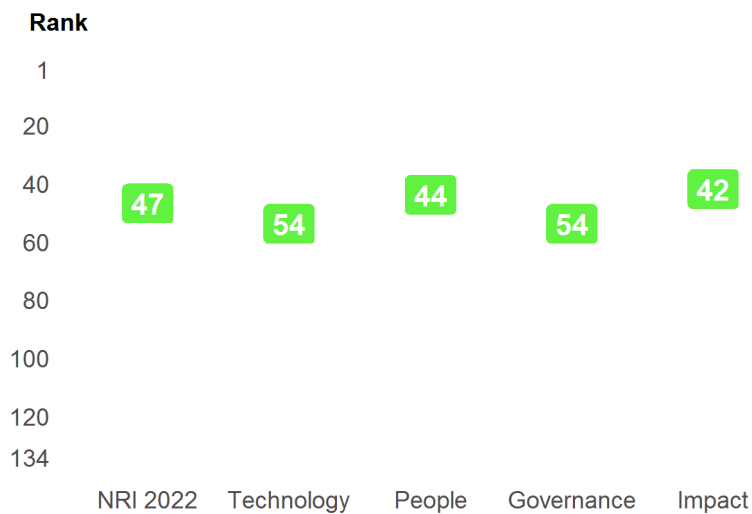
**Figure 1: The NRI 2022 model**



### Global NRI position of Uruguay

Uruguay ranks 47th out of the 131 economies included in the NRI 2022 (Figure 2). Its main strength relates to Impact. The greatest scope for improvement, meanwhile, concerns Technology and Governance.

**Figure 2: Uruguay global ranking, overall and by pillar**



### Performance at sub-pillar level

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

**Table 1: Uruguay rankings by sub-pillar**

Sub-pillar	Rank	Sub-pillar	Rank
Individuals	19	Inclusion	55
Access	33	Content	56
Governments	38	Trust	58
Regulation	41	Future Technologies	63
SDG Contribution	41	Economy	66
Quality of Life	42	Businesses	74

### NRI score and income

Figure 3 shows the position of Uruguay 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, Uruguay is slightly above 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), SWE = Sweden (3), CHN = China (23), IND = India (61). Netherlands (NLD) is ranked 4th. Uruguay belongs to the group of high-income countries, where the best performer is United States of America (USA). The top performer of its region-The Americas-is also United States of America (USA).

## Performance against its income group and region

### High-income countries

Uruguay is ranked 42nd in the group of high-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 outperforms high-income countries in two of the twelve sub-pillars: Access and Individuals.

### The Americas

Uruguay is ranked 5th 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 ten of the twelve sub-pillars: Access, Content, Individuals, Governments, Trust, Regulation, Inclusion, Economy, Quality of Life and SDG Contribution.

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



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

Dimension	Uruguay	High-income countries	The Americas
NRI	56.12	66.21	50.09
Technology	48.63	60.28	44.16
People	51.11	58.83	43.67
Governance	64.07	76.89	56.24
Impact	60.66	68.86	56.30

### Strongest and weakest indicators

The indicators where Uruguay performs particularly well include 1.1.6 Internet access in schools, 3.2.4 E-commerce legislation, and 2.1.3 Use of virtual social networks (Table 3). By contrast, the economy's weakest indicators include 1.3.2 Investment in emerging technologies, 3.2.2 ICT regulatory environment, and 1.1.4 Population covered by at least a 3G mobile network.

**Table 3: Strongest and weakest indicators of Uruguay**

Strongest indicators	Rank	Weakest indicators	Rank
1.1.6 Internet access in schools	1	2.2.2 GERD financed by business enterprise	84
3.2.4 E-commerce legislation	1	4.1.5 Prevalence of gig economy	97
2.1.3 Use of virtual social networks	12	1.1.4 Population covered by at least a 3G mobile network	98
2.3.2 Publication and use of open data	14	1.3.2 Investment in emerging technologies	105
4.1.6 ICT services exports	15	3.2.2 ICT regulatory environment	105
3.3.4 Gender gap in Internet use	17		
2.1.5 Adult literacy rate	22		
4.2.2 Freedom to make life choices	22		
3.2.5 Privacy protection by law content	28		
4.2.1 Happiness	28		
4.3.4 SDG 7: Affordable and Clean Energy	29		
4.3.1 SDG 3: Good Health and Well-Being	32		

# NRI 2022 At-A-Glance: Uruguay

Network Readiness Index

Rank: 47 (out of 131)

Score: 56.12

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	54	48.63	C. Governance pillar	54	64.07
1st sub-pillar: Access	33	74.07	1st sub-pillar: Trust	58	49.87
2nd sub-pillar: Content	56	39.16	2nd sub-pillar: Regulation	41	73.19
3rd sub-pillar: Future Technologies	63	32.66	3rd sub-pillar: Inclusion	55	69.15
B. People pillar	44	51.11	D. Impact pillar	42	60.66
1st sub-pillar: Individuals	19	59.07	1st sub-pillar: Economy	66	32.25
2nd sub-pillar: Businesses	74	37.92	2nd sub-pillar: Quality of Life	42	75.24
3rd sub-pillar: Governments	38	56.34	3rd sub-pillar: SDG Contribution	41	74.48

## The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
<b>A. Technology pillar</b>	54	48.63	<b>C. Governance pillar</b>	54	64.07
1st sub-pillar: Access	33	74.07	1st sub-pillar: Trust	58	49.87
1.1.1 Mobile tariffs	35	73.69	3.1.1 Secure Internet servers	56	60.33
1.1.2 Handset prices	34	71.54	3.1.2 Cybersecurity	72	74.71
1.1.3 FTTH/building Internet subscriptions	40	35.71	3.1.3 Online access to financial account	66	27.88
1.1.4 Population covered by at least a 3G mobile network	98	97.51	3.1.4 Internet shopping	50	36.55
1.1.5 International Internet bandwidth	90	65.97	2nd sub-pillar: Regulation	41	73.19
1.1.6 Internet access in schools	1	100.00	3.2.1 Regulatory quality	42	56.53
2nd sub-pillar: Content	56	39.16	3.2.2 ICT regulatory environment	105	62.94
1.2.1 GitHub commits	43	14.45	3.2.3 Regulation of emerging technologies	30	65.00
1.2.2 Internet domain registrations	45	9.68	3.2.4 E-commerce legislation	1	100.00
1.2.3 Mobile apps development	48	83.67	3.2.5 Privacy protection by law content	28	81.46
1.2.4 AI scientific publications	56	48.85	3rd sub-pillar: Inclusion	55	69.15
3rd sub-pillar: Future Technologies	63	32.66	3.3.1 E-Participation	29	85.18
1.3.1 Adoption of emerging technologies	54	51.47	3.3.2 Socioeconomic gap in use of digital payments	70	69.00
1.3.2 Investment in emerging technologies	105	27.00	3.3.3 Availability of local online content	62	61.78
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	17	75.41
1.3.4 Computer software spending	66	19.50	3.3.5 Rural gap in use of digital payments	82	54.37

Indicator	Rank	Score	Indicator	Rank	Score	
<b>B. People pillar</b>	44	51.11	<b>D. Impact pillar</b>	42	60.66	
<i>1st sub-pillar: Individuals</i>	19	59.07	<i>1st sub-pillar: Economy</i>	66	32.25	
2.1.1 Mobile broadband internet traffic within the country	78	5.49	4.1.1 High-tech and medium-high-tech manufacturing	73	17.72	
2.1.2 ICT skills in the education system	34	63.61	4.1.2 High-tech exports	72	16.63	
2.1.3 Use of virtual social networks	12	84.62	• 4.1.3 PCT patent applications	NA	NA	
2.1.4 Tertiary enrollment	44	43.21	4.1.4 Domestic market size	87	43.15	
2.1.5 Adult literacy rate	22	98.45	• 4.1.5 Prevalence of gig economy	97	27.62	○
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	15	56.15	•
<i>2nd sub-pillar: Businesses</i>	74	37.92	<i>2nd sub-pillar: Quality of Life</i>	42	75.24	
2.2.1 Firms with website	40	68.85	4.2.1 Happiness	28	76.98	•
2.2.2 GERD financed by business enterprise	84	5.63	○ 4.2.2 Freedom to make life choices	22	88.76	•
2.2.3 Knowledge intensive employment	63	35.53	4.2.3 Income inequality	79	57.29	
2.2.4 Annual investment in telecommunication services	63	76.98	4.2.4 Healthy life expectancy at birth	46	77.94	
2.2.5 GERD performed by business enterprise	61	2.62	<i>3rd sub-pillar: SDG Contribution</i>	41	74.48	
<i>3rd sub-pillar: Governments</i>	38	56.34	4.3.1 SDG 3: Good Health and Well-Being	32	83.62	•
2.3.1 Government online services	31	83.64	4.3.2 SDG 4: Quality Education	51	38.81	
2.3.2 Publication and use of open data	14	70.59	• 4.3.3 SDG 5: Women's economic opportunity	40	84.21	
2.3.3 Government promotion of investment in emerging tech	52	43.51	4.3.4 SDG 7: Affordable and Clean Energy	29	87.89	•
2.3.4 R&D expenditure by governments and higher education	60	27.63	4.3.5 SDG 11: Sustainable Cities and Communities	41	77.85	

NOTE: • a strength and ○ a weakness.

## Sources

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>