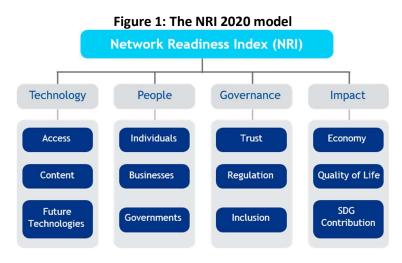


Network Readiness Index 2020 Costa Rica

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 2020 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 60 variables.



Global NRI position of Costa Rica

Costa Rica ranks 54th out of the 134 economies included in the NRI 2020 (Figure 2). Its main strength relates to Impact. The greatest scope for improvement, meanwhile, concerns Governance.

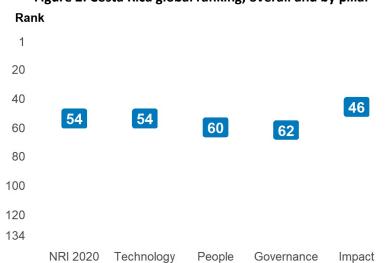


Figure 2: Costa Rica global ranking, overall and by pillar

1



Performance at sub-pillar level

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

Sub-pillar	Rank	Sub-pillar	Rank
Individuals	30	Businesses	59
Quality of Life	37	Economy	61
Regulation	42	Access	67
Future Technologies	43	Inclusion	67
SDG Contribution	49	Trust	78
Content	50	Governments	85

Table 1: Costa Rica rankings by sub-pillar

NRI score and income

Figure 3 shows the position of Costa Rica 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, Costa Rica 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.

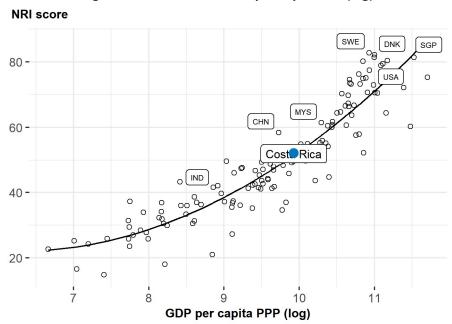


Figure 3: NRI score and GDP per capita PPP (log)

Note: SWE = Sweden (rank: 1), DNK = Denmark (2), SGP = Singapore (3), CHN = China (40), IND = India (88). USA is ranked 8th. Costa Rica belongs to the group of upper-middle-income countries, where the best performer is Malaysia (MYS). The top performer of its region-The Americas-is United States (USA).



Performance against its income group and region

Upper-middle-income countries

Costa Rica is ranked 7th 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 each of the four pillars. At the sub-pillar level, it outperforms upper-middle-income countries in ten of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Businesses, Regulation, Inclusion, Economy, Quality of Life and SDG Contribution.

The Americas

Costa Rica 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, Future Technologies, Individuals, Businesses, Regulation, Inclusion, Economy, Quality of Life and SDG Contribution.

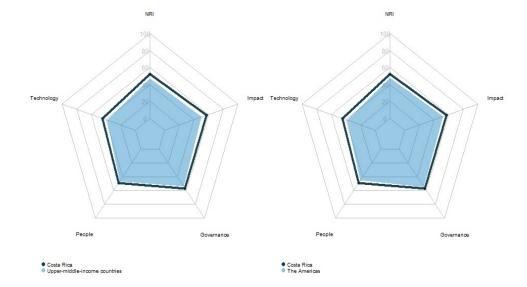


Figure 4: Performance of Costa Rica against its income group and region, overall and by pillar

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

Dimension	Costa Rica	Upper-middle-income countries	The Americas
NRI	52.15	47.39	47.67
Technology	44.64	38.42	38.26
People	49.59	46.66	45.24
Governance	57.13	54.31	54.59
Impact	57.24	50.17	52.61



Strongest and weakest indicators

The indicators where Costa Rica performs particularly well include e-commerce legislation, Gender gap in Internet use, and Freedom to make life choices (Table 3). By contrast, the economy's weakest indicators include Cybersecurity, Income inequality, and Rural gap in use of digital payments.

Table 3: Top-ranked and bottom-ranked indicators of Costa Rica

Strongest indicators	Rank	Weakest indicators	Rank
e-commerce legislation	1	Ease of doing business	69
Gender gap in Internet use	10	Publication and use of open data	70
Freedom to make life choices	12	Government online services	71
SDG 7: Affordable and Clean Energy	16	Government promotion of investment in emerging technologies	73
Use of virtual social networks	17	E-Participation	76
Happiness	17	Medium and high-tech industry	77
Privacy protection by law content	20	Fixed-broadband subscriptions	88
High-tech exports	24	Rural gap in use of digital payments	98
Healthy life expectancy at birth	28	Income inequality	109
International Internet bandwidth	32	Cybersecurity	111



NRI 2020 At-A-Glance: Costa Rica

Network Readiness Index			Rank: 54 (out of 134)	
Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	
A. Technology pillar	54	44.64	C. Governance pillar	
1st sub-pillar: Access	67	63.69	1st sub-pillar: Trust	
2nd sub-pillar: Content	50	35.98	2nd sub-pillar: Regulation	
3rd sub-pillar: Future Technologies	43	34.25	3rd sub-pillar: Inclusion	
B. People pillar	60	49.59	D. Impact pillar	
1st sub-pillar: Individuals	30	65.70	1st sub-pillar: Economy	
2nd sub-pillar: Businesses	59	46.34	2nd sub-pillar: Quality of Life	
3rd sub-pillar: Governments	85	36.75	3rd sub-pillar: SDG Contribution	

Score: 52.15

Score

57.13

33.24 74.88

63.28

57.24

28.01

74.78

68.94

Rank

62

78

42

67 46

61

37

49

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	54	44.64	C. Governance pillar	62	57.13
1st sub-pillar: Access	67	63.69	1st sub-pillar: Trust	78	33.24
1.1.1 Mobile tariffs	35	74.54	3.1.1 Secure Internet servers	62	57.28
1.1.2 Handset prices	51	52.49	3.1.2 Cybersecurity	111	23.08
1.1.3 Internet access	57	73.01	3.1.3 Online access to financial account	65	29.47
1.1.4 4G mobile network coverage	69	89.90	3.1.4 Internet shopping	55	23.13
1.1.5 Fixed-broadband subscriptions	88	23.71	2nd sub-pillar: Regulation	42	74.88
1.1.6 International Internet bandwidth	32	72.96	3.2.1 Regulatory quality	47	61.97
1.1.7 Internet access in schools	39	59.24	3.2.2 ICT regulatory environment	61	85.72
2nd sub-pillar: Content	50	35.98	3.2.3 Legal framework's adaptability to emerging technologies	60	43.34
1.2.1 GitHub commits	47	10.05	3.2.4 e-commerce legislation	1	100.00
1.2.2 Wikipedia edits	52	57.36	3.2.5 Privacy protection by law content	20	83.34
1.2.3 Internet domain registrations	*	*	3rd sub-pillar: Inclusion	67	63.28
1.2.4 Mobile apps development	50	69.46	3.3.1 E-Participation	76	64.20
3rd sub-pillar: Future Technologies	43	34.25	3.3.2 Socioeconomic gap in use of digital payments	59	70.91
1.3.1 Adoption of emerging technologies	43	57.76	3.3.3 Availability of local online content	67	60.19
1.3.2 Investment in emerging technologies	48	48.38	3.3.4 Gender gap in Internet use	10	68.61
1.3.3 ICT PCT patent applications	52	6.78	3.3.5 Rural gap in use of digital payments	98	52.52
1.3.4 Computer software spending	47	24.10	D. Impact pillar	46	57.24
1.3.5 Robot density	NA	NA	1st sub-pillar: Economy	61	28.01
3. People pillar	60	49.59	4.1.1 Medium and high-tech industry	77	26.40
1st sub-pillar: Individuals	30	65.70	4.1.2 High-tech exports	24	35.00
2.1.1 Internet users	55	73.64	4.1.3 PCT patent applications	48	1.08
2.1.2 Active mobile-broadband subscriptions	32	37.89	4.1.4 Labor productivity per employee	56	29.51
2.1.3 Use of virtual social networks	17	73.20	4.1.5 Prevalence of gig economy	51	48.05
2.1.4 Tertiary enrollment	52	40.05	2nd sub-pillar: Quality of Life	37	74.78
2.1.5 Adult literacy rate	32	97.28	4.2.1 Happiness	17	84.61
2.1.6 ICT skills	32	72.12	4.2.2 Freedom to make life choices	12	93.80
2nd sub-pillar: Businesses	59	46.34	4.2.3 Income inequality	109	38.66
2.2.1 Firms with website	62	51.66	4.2.4 Healthy life expectancy at birth	28	82.05
2.2.2 Ease of doing business	69	69.00	3rd sub-pillar: SDG Contribution	49	68.94
2.2.3 Professionals	64	25.53	4.3.1 SDG 3: Good Health and Well-Being	34	80.33
2.2.4 Technicians and associate professionals	34	55.11	4.3.2 SDG 4: Quality Education	63	29.00
2.2.5 Business use of digital tools	37	73.40	4.3.3 SDG 5: Gender Equality	51	77.66
2.2.6 R&D expenditure by businesses	59	3.33	4.3.4 SDG 7: Affordable and Clean Energy	16	90.10
3rd sub-pillar: Governments	85	36.75			
2.3.1 Government online services	71	67.28			
2.3.2 Publication and use of open data	70	19.87			
2.3.3 Government promotion of investment in emerging tech	73	34.44			
2.3.4 R&D expenditure by governments and higher education	65	25.40			
Confidential data					

5



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.

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