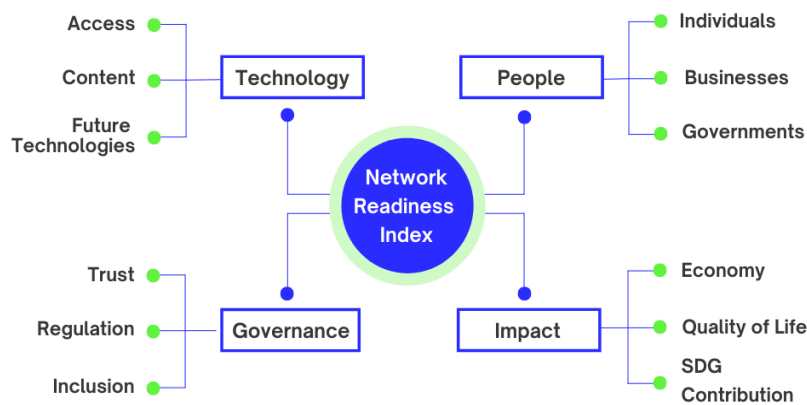


Network Readiness Index 2022

Albania

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.

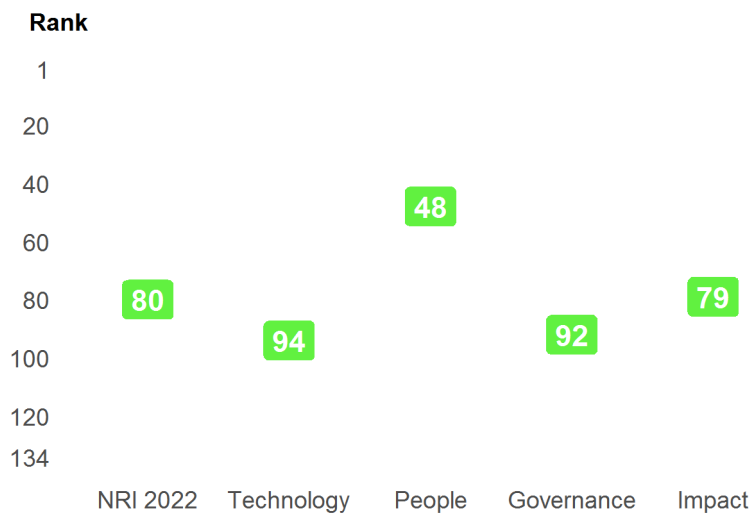
Figure 1: The NRI 2022 model



Global NRI position of Albania

Albania ranks 80th out of the 131 economies included in the NRI 2022 (Figure 2). Its main strength relates to People. The greatest scope for improvement, meanwhile, concerns Technology.

Figure 2: Albania global ranking, overall and by pillar



Performance at sub-pillar level

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

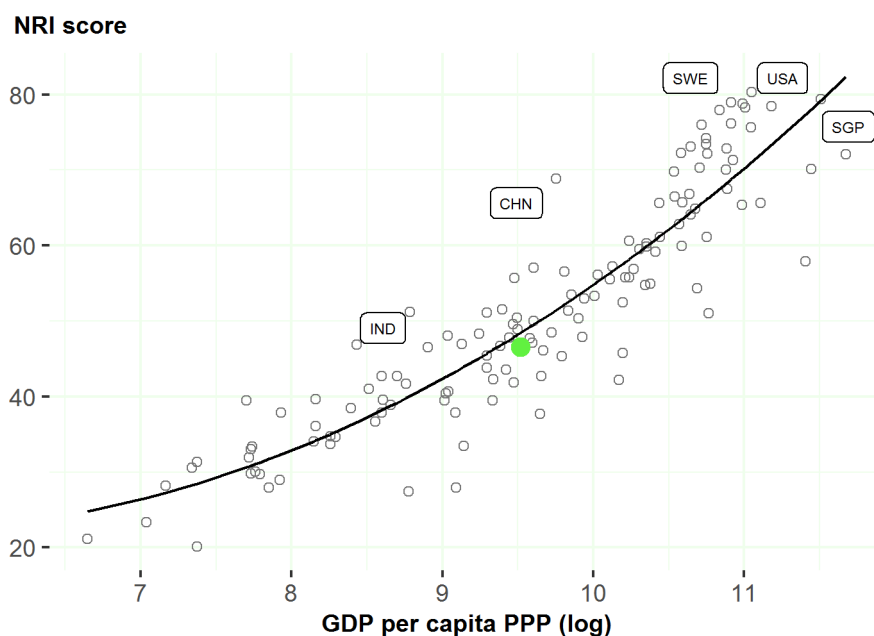
Table 1: Albania rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Businesses	43	Trust	79
Governments	46	Content	84
Quality of Life	47	Access	86
Regulation	63	Inclusion	107
SDG Contribution	65	Economy	111
Individuals	69	Future Technologies	122

NRI score and income

Figure 3 shows the position of Albania 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, Albania 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.

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. Albania belongs to the group of upper-middle-income countries, where the best performer is China (CHN). The top performer of its region-Europe-is Sweden (SWE).

Performance against its income group and region

Upper-middle-income countries

Albania is ranked 25th 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 five of the twelve sub-pillars: Businesses, Governments, Regulation, Quality of Life and SDG Contribution.

Europe

Albania is ranked 40th within Europe (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 Albania against its income group and region, overall and by pillar

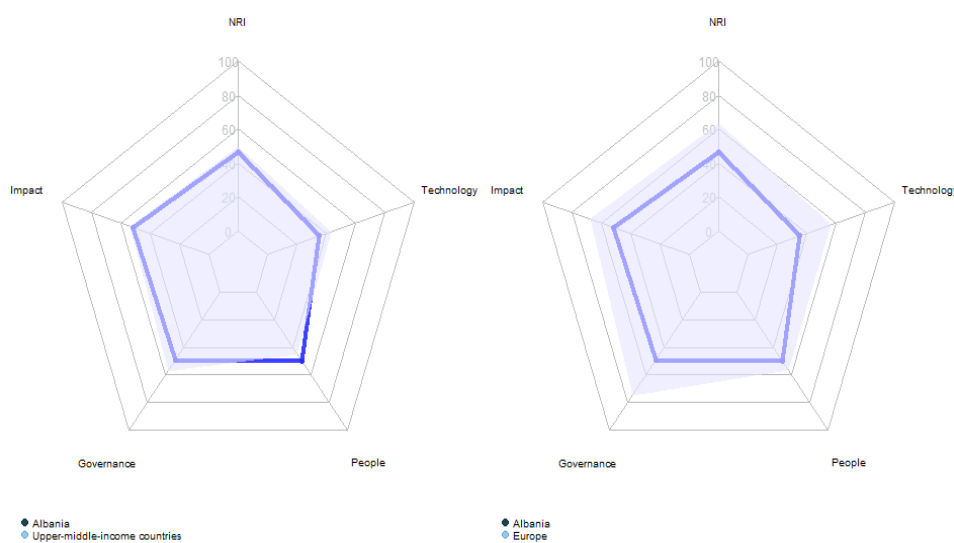


Table 2: Albania scores vs. averages of its income group and region, overall and by pillar

Dimension	Albania	Upper-middle-income countries	Europe
NRI	46.50	49.66	63.72
Technology	35.30	43.11	56.43
People	49.80	44.94	56.35
Governance	49.12	57.08	74.79
Impact	51.79	53.50	67.30

Strongest and weakest indicators

The indicators where Albania performs particularly well include 4.3.4 SDG 7: Affordable and Clean Energy, 4.2.3 Income inequality, and 2.1.5 Adult literacy rate (Table 3). By contrast, the economy's weakest indicators include 3.3.2 Socioeconomic gap in use of digital payments, 3.3.5 Rural gap in use of digital payments, and 1.3.1 Adoption of emerging technologies.

Table 3: Strongest and weakest indicators of Albania

Strongest indicators	Rank	Weakest indicators	Rank
4.3.4 SDG 7: Affordable and Clean Energy	16	4.1.3 PCT patent applications	99
4.2.3 Income inequality	25	4.1.1 High-tech and medium-high-tech manufacturing	100
2.1.5 Adult literacy rate	28	1.3.1 Adoption of emerging technologies	116
2.3.1 Government online services	31	3.3.5 Rural gap in use of digital payments	117
4.3.3 SDG 5: Women's economic opportunity	32	3.3.2 Socioeconomic gap in use of digital payments	121
4.2.4 Healthy life expectancy at birth	34		
3.3.1 E-Participation	36		
3.2.2 ICT regulatory environment	45		
3.2.5 Privacy protection by law content	47		
1.1.4 Population covered by at least a 3G mobile network	53		

NRI 2022 At-A-Glance: Albania

Network Readiness Index

Rank: 80 (out of 131)

Score: 46.50

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	94	35.30	C. Governance pillar	92	49.12
1st sub-pillar: Access	86	57.11	1st sub-pillar: Trust	79	36.60
2nd sub-pillar: Content	84	31.73	2nd sub-pillar: Regulation	63	64.40
3rd sub-pillar: Future Technologies	122	17.06	3rd sub-pillar: Inclusion	107	46.37
B. People pillar	48	49.80	D. Impact pillar	79	51.79
1st sub-pillar: Individuals	69	47.55	1st sub-pillar: Economy	111	16.34
2nd sub-pillar: Businesses	43	51.91	2nd sub-pillar: Quality of Life	47	73.89
3rd sub-pillar: Governments	46	49.96	3rd sub-pillar: SDG Contribution	65	65.12

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	94	35.30	C. Governance pillar	92	49.12
1st sub-pillar: Access	86	57.11	1st sub-pillar: Trust	79	36.60
1.1.1 Mobile tariffs	84	48.10	3.1.1 Secure Internet servers	66	54.15
1.1.2 Handset prices	77	47.01	3.1.2 Cybersecurity	86	63.69
1.1.3 FTTH/building Internet subscriptions	54	27.96	3.1.3 Online access to financial account	112	8.62
1.1.4 Population covered by at least a 3G mobile network	53	99.74	3.1.4 Internet shopping	62	19.93
1.1.5 International Internet bandwidth	101	63.05	2nd sub-pillar: Regulation	63	64.40
1.1.6 Internet access in schools	47	56.81	3.2.1 Regulatory quality	60	47.47
2nd sub-pillar: Content	84	31.73	3.2.2 ICT regulatory environment	45	87.06
1.2.1 GitHub commits	58	7.07	3.2.3 Regulation of emerging technologies	53	48.42
1.2.2 Internet domain registrations	62	4.85	3.2.4 E-commerce legislation	87	66.67
1.2.3 Mobile apps development	63	80.49	3.2.5 Privacy protection by law content	47	72.40
1.2.4 AI scientific publications	74	34.49	3rd sub-pillar: Inclusion	107	46.37
3rd sub-pillar: Future Technologies	122	17.06	3.3.1 E-Participation	36	83.95
1.3.1 Adoption of emerging technologies	116	19.18	3.3.2 Socioeconomic gap in use of digital payments	121	32.57
1.3.2 Investment in emerging technologies	117	21.75	3.3.3 Availability of local online content	118	26.20
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	57	69.33
1.3.4 Computer software spending	87	10.25	3.3.5 Rural gap in use of digital payments	117	19.80

Indicator	Rank	Score	Indicator	Rank	Score
B. People pillar	48	49.80	D. Impact pillar	79	51.79
<i>1st sub-pillar: Individuals</i>	69	47.55	<i>1st sub-pillar: Economy</i>	111	16.34
2.1.1 Mobile broadband internet traffic within the country	89	2.56	4.1.1 High-tech and medium-high-tech manufacturing	100	2.60 ○
2.1.2 ICT skills in the education system	78	39.05	4.1.2 High-tech exports	108	2.62
2.1.3 Use of virtual social networks	78	60.27	4.1.3 PCT patent applications	99	0.00 ○
2.1.4 Tertiary enrollment	54	38.21	4.1.4 Domestic market size	105	36.55
2.1.5 Adult literacy rate	28	97.64 ●	4.1.5 Prevalence of gig economy	100	26.74
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	66	29.52
<i>2nd sub-pillar: Businesses</i>	43	51.91	<i>2nd sub-pillar: Quality of Life</i>	47	73.89
2.2.1 Firms with website	54	58.11	4.2.1 Happiness	85	54.79
2.2.2 GERD financed by business enterprise	NA	NA	4.2.2 Freedom to make life choices	56	76.69
2.2.3 Knowledge intensive employment	81	26.18	4.2.3 Income inequality	25	80.90 ●
2.2.4 Annual investment in telecommunication services	94	71.44	4.2.4 Healthy life expectancy at birth	34	83.19 ●
2.2.5 GERD performed by business enterprise	NA	NA	<i>3rd sub-pillar: SDG Contribution</i>	65	65.12
<i>3rd sub-pillar: Governments</i>	46	49.96	4.3.1 SDG 3: Good Health and Well-Being	91	55.55
2.3.1 Government online services	31	83.64 ●	4.3.2 SDG 4: Quality Education	54	37.34
2.3.2 Publication and use of open data	49	33.82	4.3.3 SDG 5: Women's economic opportunity	32	87.72 ●
2.3.3 Government promotion of investment in emerging tech	82	32.40	4.3.4 SDG 7: Affordable and Clean Energy	16	90.14 ●
2.3.4 R&D expenditure by governments and higher education	NA	NA	4.3.5 SDG 11: Sustainable Cities and Communities	82	54.88

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>