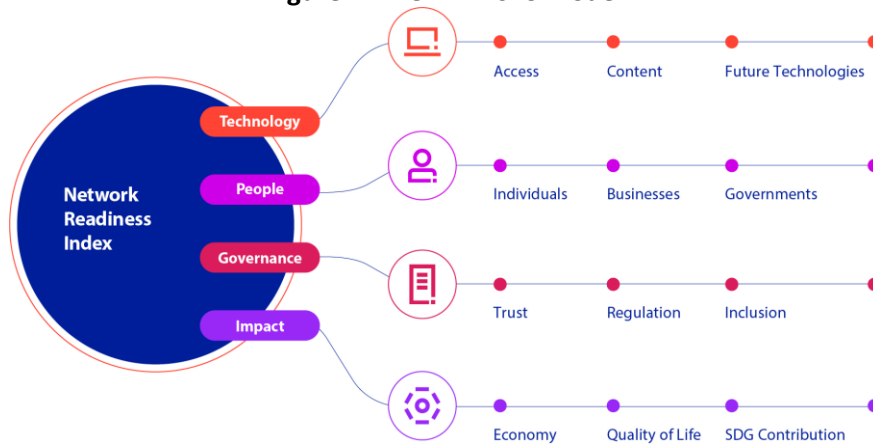




Slovakia

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.

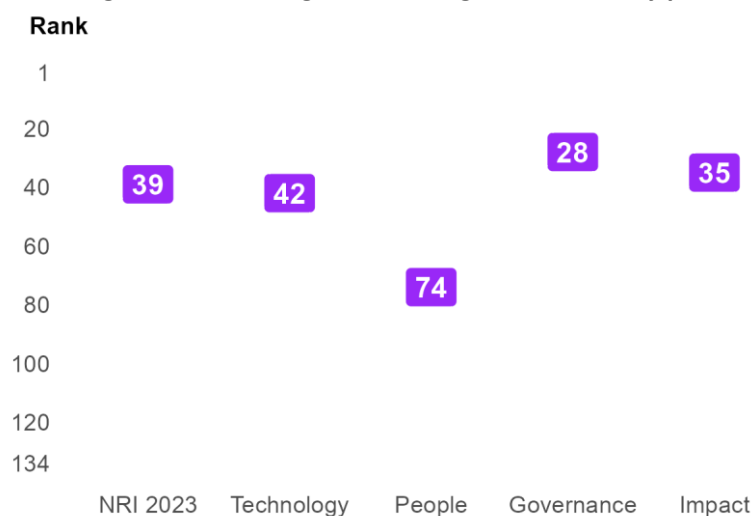
Figure 1: The NRI 2023 model



Global NRI position of Slovakia

Slovakia ranks 39th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Governance. The greatest scope for improvement, meanwhile, concerns People.

Figure 2: Slovakia global ranking, overall and by pillar



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Performance at sub-pillar level

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

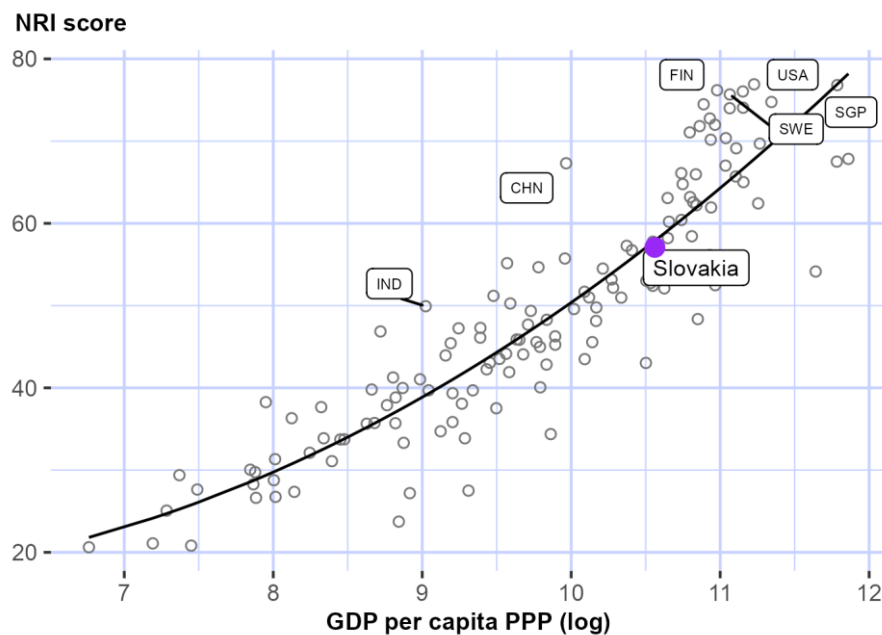
Table 1: Slovakia rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Access	21	SDG Contribution	44
Trust	22	Inclusion	45
Quality of Life	28	Future Technologies	47
Regulation	32	Economy	51
Businesses	39	Governments	58
Content	44	Individuals	112

NRI score and income

Figure 3 shows the position of Slovakia 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, Slovakia 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), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Slovakia belongs to the group of high-income countries, where the best performer is United States of America (USA). The top performer of its region-Europe-is Finland (FIN).

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Performance against its income group and region

High-income countries

Slovakia is ranked 37th 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 Trust.

Europe

Slovakia is ranked 28th within Europe (Figure 4, right panel). It has a score above the regional average in one of the four pillars: Governance. With regard to sub-pillars, it outperforms the average in Europe in three of the twelve sub-pillars: Access, Trust and Quality of Life.

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

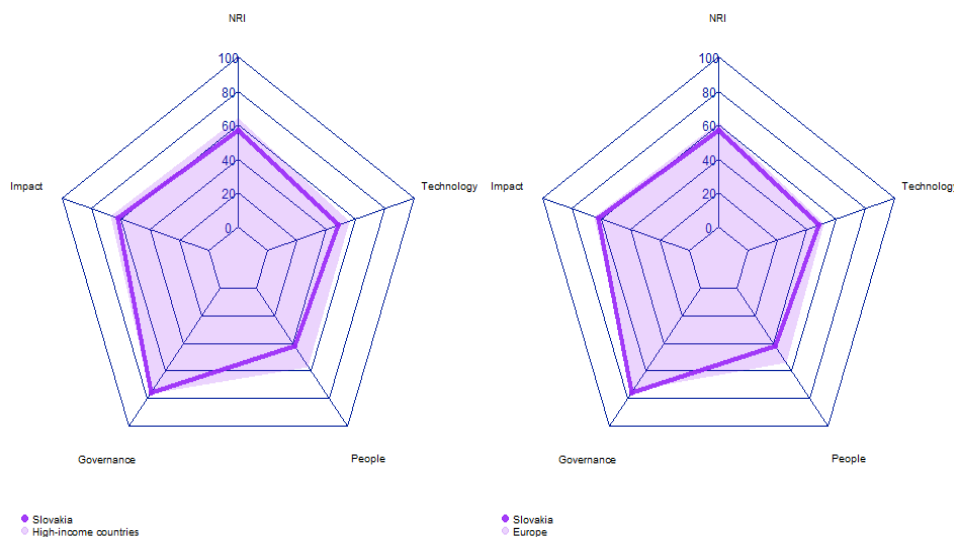


Table 2: Slovakia scores vs. averages of its income group and region, overall and by pillar

Dimension	Slovakia	High-income countries	Europe
NRI	57.08	64.07	61.25
Technology	48.42	55.76	51.90
People	41.84	56.99	54.16
Governance	76.06	76.81	74.33
Impact	62.01	66.73	64.61

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Strongest and weakest indicators

The indicators where Slovakia performs particularly well include 3.2.4 E-commerce legislation, 4.2.3 Income inequality, and 4.1.1 High-tech and medium-high-tech manufacturing (Table 3). By contrast, the economy's weakest indicators include 4.2.2 Freedom to make life choices, 2.3.3 Government promotion of investment in emerging technologies, and 4.1.5 Prevalence of gig economy.

Table 3: Highlight of Strengths and Opportunities for Slovakia

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	2.1.6 AI talent concentration	36
4.2.3 Income inequality	1	4.1.5 Prevalence of gig economy	77
4.1.1 High-tech and medium-high-tech manufacturing	3	2.3.3 Government promotion of investment in emerging technologies	89
1.1.1 Mobile tariffs	12	4.2.2 Freedom to make life choices	93
3.1.4 Internet shopping	17		
3.1.3 Online access to financial account	24		
3.3.5 Rural gap in use of digital payments	24		
3.1.1 Secure Internet servers	25		
2.2.1 Firms with website	26		
3.2.5 Privacy protection by law content	27		
3.3.3 Availability of local online content	29		

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

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NRI 2023 At-A-Glance: Slovakia

Network Readiness Index

Rank: 39 (out of 134)

Score: 57.08

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	42	48.42	C. Governance pillar	28	76.06
1st sub-pillar: Access	21	76.09	1st sub-pillar: Trust	22	77.60
2nd sub-pillar: Content	44	30.03	2nd sub-pillar: Regulation	32	78.75
3rd sub-pillar: Future Technologies	47	39.13	3rd sub-pillar: Inclusion	45	71.82
B. People pillar	74	41.84	D. Impact pillar	35	62.01
1st sub-pillar: Individuals	112	28.41	1st sub-pillar: Economy	51	34.09
2nd sub-pillar: Businesses	39	56.25	2nd sub-pillar: Quality of Life	28	79.52
3rd sub-pillar: Governments	58	40.85	3rd sub-pillar: SDG Contribution	44	72.41

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	42	48.42	C. Governance pillar	28	76.06
1st sub-pillar: Access	21	76.09	1st sub-pillar: Trust	22	77.60
1.1.1 Mobile tariffs	12	89.35	3.1.1 Secure Internet servers	25	81.09
1.1.2 Handset prices	33	69.12	3.1.2 Cybersecurity	42	92.23
1.1.3 FTTH/building Internet subscriptions	61	29.80	3.1.3 Online access to financial account	24	58.94
1.1.4 Population covered by at least a 3G mobile network	57	99.67	3.1.4 Internet shopping	17	78.15
1.1.5 International Internet bandwidth	81	68.88	2nd sub-pillar: Regulation	32	78.75
1.1.6 Internet access in schools	28	99.70	3.2.1 Regulatory quality	32	69.35
2nd sub-pillar: Content	44	30.03	3.2.2 ICT regulatory environment	42	87.65
1.2.1 GitHub commits	42	22.00	3.2.3 Regulation of emerging technologies	48	54.29
1.2.2 Internet domain registrations	32	20.43	3.2.4 E-commerce legislation	1	100.00
1.2.3 Mobile apps development	43	72.06	3.2.5 Privacy protection by law content	27	82.47
1.2.4 AI scientific publications	67	5.65	3rd sub-pillar: Inclusion	45	71.82
3rd sub-pillar: Future Technologies	47	39.13	3.3.1 E-Participation	80	45.35
1.3.1 Adoption of emerging technologies	40	59.51	3.3.2 Socioeconomic gap in use of digital payments	45	85.89
1.3.2 Investment in emerging technologies	44	49.25	3.3.3 Availability of local online content	29	82.93

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Indicator	Rank	Score	Indicator	Rank	Score
1.3.3 Robot density	21	21.49	3.3.4 Gender gap in Internet use	44	69.52
1.3.4 Computer software spending	49	26.26	3.3.5 Rural gap in use of digital payments	24	75.42 ●
B. People pillar			D. Impact pillar		
<i>1st sub-pillar: Individuals</i>	74	41.84	<i>1st sub-pillar: Economy</i>	35	62.01
2.1.1 Mobile broadband internet traffic within the country	112	28.41	4.1.1 High-tech and medium-high-tech manufacturing	51	34.09
2.1.2 ICT skills in the education system	73	7.45	4.1.2 High-tech exports	3	77.71 ●
2.1.3 Use of virtual social networks	NA	NA	4.1.3 PCT patent applications	54	16.08
2.1.4 Tertiary enrollment	62	66.86	4.1.4 Domestic market size	46	7.97
2.1.5 Adult literacy rate	67	30.31	4.1.5 Prevalence of gig economy	67	51.73
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	77	36.05 ○
<i>2nd sub-pillar: Businesses</i>	36	9.01 ○	<i>2nd sub-pillar: Quality of Life</i>	62	15.02
2.2.1 Firms with website	39	56.25	4.2.1 Happiness	28	79.52
2.2.2 GERD financed by business enterprise	26	76.53 ●	4.2.2 Freedom to make life choices	31	75.63
2.2.3 Knowledge intensive employment	37	54.04	4.2.3 Income inequality	93	61.08 ○
2.2.4 Annual investment in telecommunication services	33	57.93	4.2.4 Healthy life expectancy at birth	1	100.00 ●
2.2.5 GERD performed by business enterprise	54	79.35	<i>3rd sub-pillar: SDG Contribution</i>	44	72.41
<i>3rd sub-pillar: Governments</i>	38	13.37	4.3.1 SDG 3: Good Health and Well-Being	44	79.06
2.3.1 Government online services	58	40.85	4.3.2 SDG 4: Quality Education	37	55.24
2.3.2 Publication and use of open data	62	69.72	4.3.3 SDG 5: Women's economic opportunity	60	78.76
2.3.3 Government promotion of investment in emerging tech	31	47.06	4.3.4 SDG 7: Affordable and Clean Energy	73	69.94
2.3.4 R&D expenditure by governments and higher education	89	30.02 ○	4.3.5 SDG 11: Sustainable Cities and Communities	39	79.04

NOTE: ● a strength and ○ a weakness.

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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>