

United Kingdom

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.

Readiness Index

Governance

| Impact | Economy | Quality of Life | SDG Contribution | SD

Global NRI position of United Kingdom

United Kingdom ranks 10th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Technology. The greatest scope for improvement, meanwhile, concerns Governance.

Figure 2: United Kingdom global ranking, overall and by pillar

Rank 1 8 9 10 10 16 20 40 60 80 100 120 134 NRI 2023 Technology People Impact Governance

1







Performance at sub-pillar level

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

Table 1: United Kingdom rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
SDG Contribution	2	Businesses	13
Inclusion	4	Access	15
Governments	5	Trust	18
Content	6	Quality of Life	21
Future Technologies	11	Regulation	26
Economy	11	Individuals	48

NRI score and income

Figure 3 shows the position of United Kingdom 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, United Kingdom is well above the trend line, which suggests that it has a greater network readiness than would be expected given its income level.

NRI score 80 -SGP United Kingdom CHN 60 -IND 0 40 -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). United Kingdom 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).







Performance against its income group and region

High-income countries

United Kingdom is ranked 10th in the group of high-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 high-income countries in eleven of the twelve sub-pillars: Access, Content, Future Technologies, Businesses, Governments, Trust, Regulation, Inclusion, Economy, Quality of Life and SDG Contribution.

Europe

United Kingdom is ranked 7th within Europe (Figure 4, right panel). It outperforms its region in each of the four pillars. With regard to sub-pillars, it has a higher score than the regional average in each of the twelve sub-pillars.

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

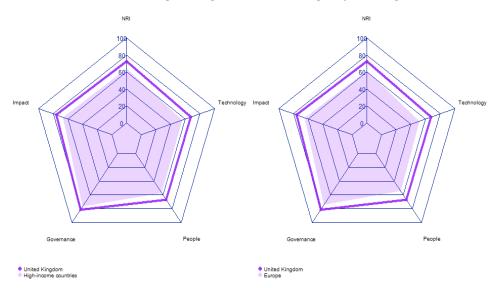


Table 2: United Kingdom scores vs. averages of its income group and region, overall and by pillar

Dimension	United Kingdom	High-income countries	Europe
NRI	72.75	64.07	61.25
Technology	67.25	55.76	51.90
People	66.63	56.99	54.16
Governance	81.63	76.81	74.33
Impact	75.50	66.73	64.61



Rank

24

26

45

85

Strongest and weakest indicators

The indicators where United Kingdom performs particularly well include 2.3.2 Publication and use of open data, 3.2.4 E-commerce legislation, and 1.3.4 Computer software spending (Table 3). By contrast, the economy's weakest indicators include 3.2.5 Privacy protection by law content, 1.1.3 FTTH/building Internet subscriptions, and 2.1.6 AI talent concentration.

Table 3: Highlight of Strengths and Opportunities for United Kingdom

Table 3. Highlight of Street	Opportunities for Officea Kingaom	
Strongest indicators	Rank	Weakest indicators
2.3.2 Publication and use of open data	1	1.3.3 Robot density
3.2.4 E-commerce legislation	1	2.1.6 AI talent concentration
1.3.4 Computer software spending	2	1.1.3 FTTH/building Internet subscriptions
3.1.2 Cybersecurity	2	3.2.5 Privacy protection by law content
4.3.1 SDG 3: Good Health and Well-Being	2	
4.1.5 Prevalence of gig economy	4	
3.3.2 Socioeconomic gap in use of digital payments	5	
3.3.1 E-Participation	6	
1.1.5 International Internet bandwidth	7	
1.2.4 Al scientific publications	7	
3.2.2 ICT regulatory environment	7	

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



Rank: 10 (out of 134) Score: 72.75





NRI 2023 At-A-Glance: United Kingdom

Network Readiness Index

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	8	67.25	C. Governance pillar	16	81.63
1st sub-pillar: Access	15	78.11	1st sub-pillar: Trust	18	78.34
2nd sub-pillar: Content	6	61.41	2nd sub-pillar: Regulation	26	80.19
3rd sub-pillar: Future Technologies	11	62.24	3rd sub-pillar: Inclusion	4	86.37
B. People pillar	10	66.63	D. Impact pillar	9	75.50
1st sub-pillar: Individuals	48	51.45	1st sub-pillar: Economy	11	57.62
2nd sub-pillar: Businesses	13	71.84	2nd sub-pillar: Quality of Life	21	81.17
3rd sub-pillar: Governments	5	76.61	3rd sub-pillar: SDG Contribution	2	87.70

The Network Readiness Index in detail

Indicator	Rank	Score	ator	Rank	Score
A. Technology pillar	8	67.25	vernance pillar	16	81.63
1st sub-pillar: Access	15	78.11	b-pillar: Trust	18	78.34
1.1.1 Mobile tariffs	22	82.60	Secure Internet servers	20	83.82
1.1.2 Handset prices	11	81.60	Cybersecurity	2	99.53 •
1.1.3 FTTH/building Internet subscriptions	45	36.22	Online access to financial account	27	55.84
1.1.4 Population covered by at least a 3G mobile network	28	99.97	Internet shopping	19	74.18
1.1.5 International Internet bandwidth	7	90.14	ub-pillar: Regulation	26	80.19
1.1.6 Internet access in schools	NA	NA	Regulatory quality	17	82.71
2nd sub-pillar: Content	6	61.41	ICT regulatory environment	7	95.88 •
1.2.1 GitHub commits	20	54.39	Regulation of emerging technologies	29	66.75
1.2.2 Internet domain registrations	9	72.26	E-commerce legislation	1	100.00 •
1.2.3 Mobile apps development	24	75.51	Privacy protection by law content	85	55.60 0
1.2.4 Al scientific publications	7	43.46	rb-pillar: Inclusion	4	86.37
3rd sub-pillar: Future Technologies	11	62.24	E-Participation	6	95.34 •
1.3.1 Adoption of emerging technologies	12	84.23	Socioeconomic gap in use of digital payment	s 5	99.42 •
1.3.2 Investment in emerging technologies	8	82.25	Availability of local online content	12	90.87







Indicator	Rank	Score		Indicator	Rank	Score	
1.3.3 Robot density	24	13.33	0	3.3.4 Gender gap in Internet use	38	70.16	
1.3.4 Computer software spending	2	69.12	•	3.3.5 Rural gap in use of digital payments	19	76.06	
B. People pillar	10	66.63		D. Impact pillar	9	75.50	
1st sub-pillar: Individuals	48	51.45		1st sub-pillar: Economy	11	57.62	
2.1.1 Mobile broadband internet traffic within the country	NA	NA		4.1.1 High-tech and medium-high-tech manufacturing	22	53.52	
2.1.2 ICT skills in the education system	36	64.56		4.1.2 High-tech exports	15	43.03	
2.1.3 Use of virtual social networks	16	79.86		4.1.3 PCT patent applications	20	40.22	
2.1.4 Tertiary enrollment	37	45.06		4.1.4 Domestic market size	9	79.87	
2.1.5 Adult literacy rate	NA	NA		4.1.5 Prevalence of gig economy	4	89.24	•
2.1.6 Al talent concentration	26	16.31	0	4.1.6 ICT services exports	19	39.84	
2nd sub-pillar: Businesses	13	71.84		2nd sub-pillar: Quality of Life	21	81.17	
2.2.1 Firms with website	10	85.36		4.2.1 Happiness	22	81.27	
2.2.2 GERD financed by business enterprise	17	71.11		4.2.2 Freedom to make life choices	45	80.30	
2.2.3 Knowledge intensive employment	11	77.88		4.2.3 Income inequality	34	76.38	
2.2.4 Annual investment in telecommunication services	NA	NA		4.2.4 Healthy life expectancy at birth	28	86.74	
2.2.5 GERD performed by business enterprise	10	52.98		3rd sub-pillar: SDG Contribution	2	87.70	
3rd sub-pillar: Governments	5	76.61		4.3.1 SDG 3: Good Health and Well-Being	2	97.31	•
2.3.1 Government online services	17	87.39		4.3.2 SDG 4: Quality Education	12	69.14	
2.3.2 Publication and use of open data	1	100.00	•	4.3.3 SDG 5: Women's economic opportunity	15	96.46	
2.3.3 Government promotion of investment in emerging tech	22	66.45		4.3.4 SDG 7: Affordable and Clean Energy	14	82.80	
2.3.4 R&D expenditure by governments and higher education	11	52.61		4.3.5 SDG 11: Sustainable Cities and Communities	16	92.78	

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