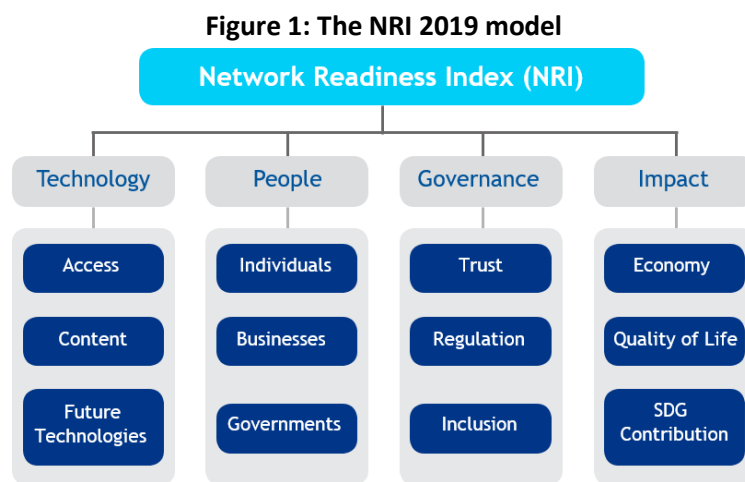


Network Readiness Index 2019

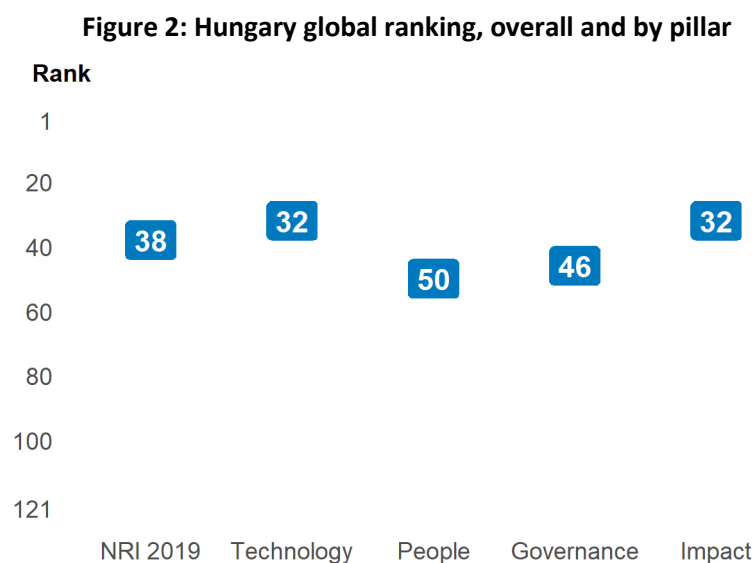
Hungary

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 2019 the NRI Report maps the network-based readiness landscape of 121 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 62 variables.



Global NRI position of Hungary

Hungary ranks 38th out of the 121 economies included in the NRI 2019 (Figure 2). Its main strength relates to Technology and Impact. The greatest scope for improvement, meanwhile, concerns People.



Performance at sub-pillar level

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

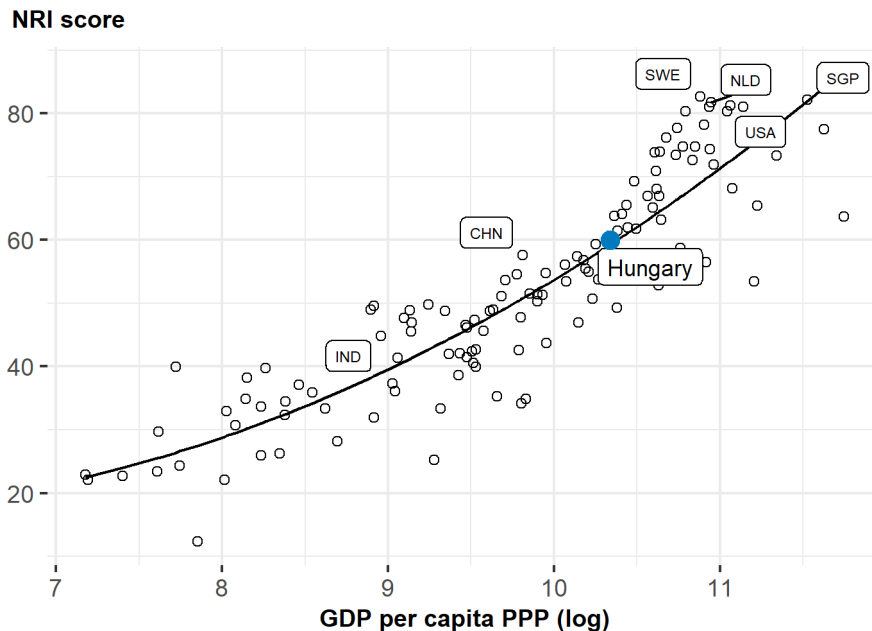
Table 1: Hungary rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Access	21	Individuals	48
SDG Contribution	22	Future Technologies	50
Economy	26	Regulation	56
Content	29	Inclusion	57
Businesses	39	Quality of Life	65
Trust	39	Governments	72

NRI score and income

Figure 3 shows the position of Hungary 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, Hungary 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), SGP = Singapore (2), NLD = Netherlands (3), CHN = China (41), IND = India (79). USA is ranked 8th. Hungary belongs to the group of high-income countries, where the best performer is Sweden (SWE). The top performer of its region—Europe—is also Sweden (SWE).

Performance against its income group and region

High-income countries

Hungary 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 SDG Contribution.

Europe

Hungary is ranked 27th within Europe (Figure 4, right panel). It lags behind its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in Europe in three of the twelve sub-pillars: Access, Economy and SDG Contribution.

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



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

Dimension	Hungary	High-income countries	Europe
NRI	59.95	68.12	65.20
Technology	61.42	66.07	63.08
People	47.39	61.07	57.50
Governance	66.67	77.07	73.99
Impact	64.32	68.29	66.24

Strongest and weakest indicators

The indicators where Hungary performs particularly well include Internet access in schools, E-commerce legislation, and Use of clean fuels and technology (Table 3). By contrast, the economy's weakest indicators include Freedom to make life choices, Social safety net protection, and Government procurement of advanced technology products.

Table 3: Top-ranked and bottom-ranked indicators of Hungary

Strongest indicators	Rank	Weakest indicators	Rank
Internet access in schools	1	ICT use and government efficiency	75
E-commerce legislation	1	Active mobile-broadband subscriptions	76
Use of clean fuels and technology	1	Online trust and safety	82
ICT regulatory environment	2	Rural gap in use of digital payments	82
Medium and high-tech industry	5	Legal framework's adaptability to digital business models	83
Intellectual property receipts	16	Extent of staff training	91
Adult literacy rate	17	Company investment in emerging technology	94
Income inequality	19	Government procurement of advanced technology products	95
Technicians and associate professionals	21	Social safety net protection	102
4G mobile network coverage	22	Freedom to make life choices	106

NRI 2019 At-A-Glance: Hungary

Network Readiness Index

Rank: 38 (out of 121)

Score: 59.95

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	32	61.42	C. Governance pillar	46	66.67
1st sub-pillar: Access	21	84.02	1st sub-pillar: Trust	39	69.06
2nd sub-pillar: Content	29	65.73	2nd sub-pillar: Regulation	56	66.40
3rd sub-pillar: Future Technologies	50	34.52	3rd sub-pillar: Inclusion	57	64.56
B. People pillar	50	47.39	D. Impact pillar	32	64.32
1st sub-pillar: Individuals	48	58.48	1st sub-pillar: Economy	26	38.90
2nd sub-pillar: Businesses	39	42.57	2nd sub-pillar: Quality of Life	65	61.18
3rd sub-pillar: Governments	72	41.11	3rd sub-pillar: SDG Contribution	22	92.90

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar			C. Governance pillar		
<i>1st sub-pillar: Access</i>			<i>1st sub-pillar: Trust</i>		
1.1.1 Mobile tariffs	23	81.93	3.1.1 Rule of law	39	66.00
1.1.2 Handset prices	35	62.46	3.1.2 Software piracy rate	26	71.62
1.1.3 Internet access	38	82.19	3.1.3 Secure Internet servers	22	84.17
1.1.4 4G mobile network coverage	22	99.20	3.1.4 Cybersecurity	33	86.95
1.1.5 Fixed-broadband subscriptions	24	93.29	3.1.5 Online trust and safety	82	36.53
1.1.6 International Internet bandwidth	58	69.04	<i>2nd sub-pillar: Regulation</i>		
1.1.7 Internet access in schools	1	100.00	3.2.1 Regulatory quality	41	64.68
<i>2nd sub-pillar: Content</i>			3.2.2 Ease of doing business	50	76.39
1.2.1 Digital participation and content creation	*	*	3.2.3 Legal framework's adaptability to digital business models	83	35.09
1.2.2 Mobile apps development	38	74.00	3.2.4 E-commerce legislation	1	100.00
1.2.3 Intellectual property receipts	16	8.35	3.2.5 Social safety net protection	102	22.61
<i>3rd sub-pillar: Future Technologies</i>			3.2.6 ICT regulatory environment	2	99.62
1.3.1 Availability of latest technologies	42	64.54	<i>3rd sub-pillar: Inclusion</i>		
1.3.2 Company investment in emerging technology	94	22.27	3.3.1 E-Participation	66	66.88
1.3.3 Government procurement of advanced technology products	95	28.13	3.3.2 Socioeconomic gap in use of digital payments	41	79.36
1.3.4 ICT PCT patent applications	23	39.93	3.3.3 Availability of local online content	48	60.28
1.3.5 Computer software spending	30	27.27	3.3.4 Gender gap in internet use	45	60.87
1.3.6 Robot density	23	24.95	3.3.5 Rural gap in use of digital payments	82	55.43
B. People pillar			D. Impact pillar		
<i>1st sub-pillar: Individuals</i>			<i>1st sub-pillar: Economy</i>		
2.1.1 Internet users	50	73.76	4.1.1 Medium and high-tech industry	5	76.36
2.1.2 Active mobile-broadband subscriptions	76	25.33	4.1.2 High-tech exports	26	32.02
2.1.3 Use of virtual social networks	45	61.54	4.1.3 PCT patent applications	29	7.81
2.1.4 Tertiary enrolment	61	35.11	4.1.4 Labour productivity per employee	42	39.43
2.1.5 Adult literacy rate	17	98.64	<i>2nd sub-pillar: Quality of Life</i>		
2.1.6 ICT skills	27	56.52	4.2.1 Happiness	48	62.65
<i>2nd sub-pillar: Businesses</i>			4.2.2 Freedom to make life choices	106	30.69
2.2.1 Firms with website	47	61.16	4.2.3 Income inequality	19	85.79
2.2.2 Internet shopping	39	36.86	4.2.4 Healthy life expectancy at birth	53	65.57
2.2.3 Professionals	41	39.19	<i>3rd sub-pillar: SDG Contribution</i>		
2.2.4 Technicians and associate professionals	21	63.78	4.3.1 Access to basic services	36	98.67
2.2.5 Extent of staff training	91	29.28	4.3.2 Pollution	43	88.84
2.2.6 R&D expenditure by businesses	22	25.14	4.3.3 Road safety	31	84.06
<i>3rd sub-pillar: Governments</i>			4.3.4 Reading proficiency in schools	NA	NA
2.3.1 Government online services	57	70.77	4.3.5 Maths proficiency in schools	NA	NA
2.3.2 Publication and use of open data	63	23.30	4.3.6 Use of clean fuels and technology	1	100.00
2.3.3 ICT use and government efficiency	75	39.24			
2.3.4 R&D expenditure by governments and higher education	53	31.14			

* Confidential data

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