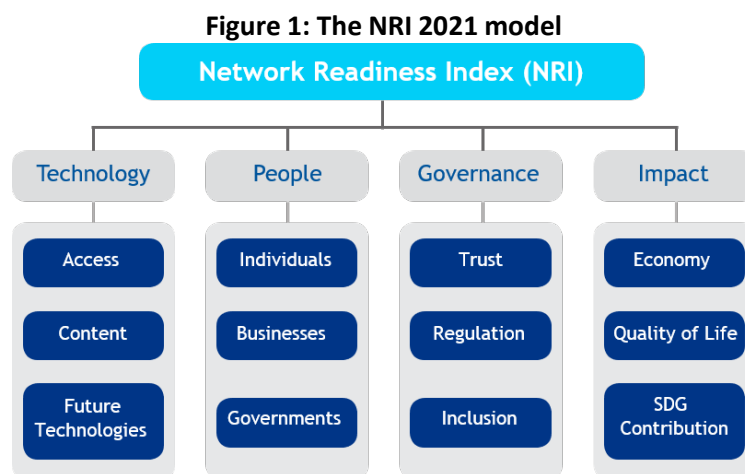


Network Readiness Index 2021

Latvia

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 2021 the NRI Report maps the network-based readiness landscape of 130 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 Latvia

Latvia ranks 36th out of the 130 economies included in the NRI 2021 (Figure 2). Its main strength relates to Governance. The greatest scope for improvement, meanwhile, concerns People.



Performance at sub-pillar level

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

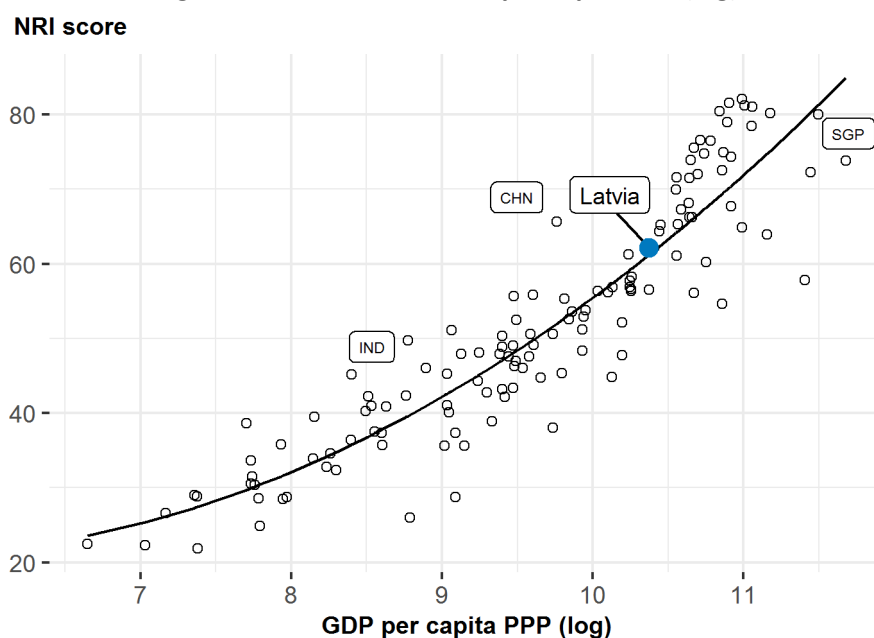
Table 1: Latvia rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Regulation	20	Content	37
Individuals	22	Inclusion	40
Trust	25	Businesses	54
SDG Contribution	25	Quality of Life	55
Economy	26	Future Technologies	76
Access	36	Governments	79

NRI score and income

Figure 3 shows the position of Latvia 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, Latvia 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: NLD = Netherlands (rank: 1), SWE = Sweden (2), DNK = Denmark (3), CHN = China (29), IND = India (67). USA is ranked 4th. Latvia belongs to the group of high-income countries, where the best performer is Netherlands (NLD). The top performer of its region-Europe-is also Netherlands (NLD).

Performance against its income group and region

High-income countries

Latvia is ranked 35th 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 one of the four pillars: governance. At the sub-pillar level, it outperforms high-income countries in five of the twelve sub-pillars: Individuals, Trust, Regulation, Economy and SDG Contribution.

Europe

Latvia is ranked 26th 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 six of the twelve sub-pillars: Access, Individuals, Trust, Regulation, Economy and SDG Contribution.

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

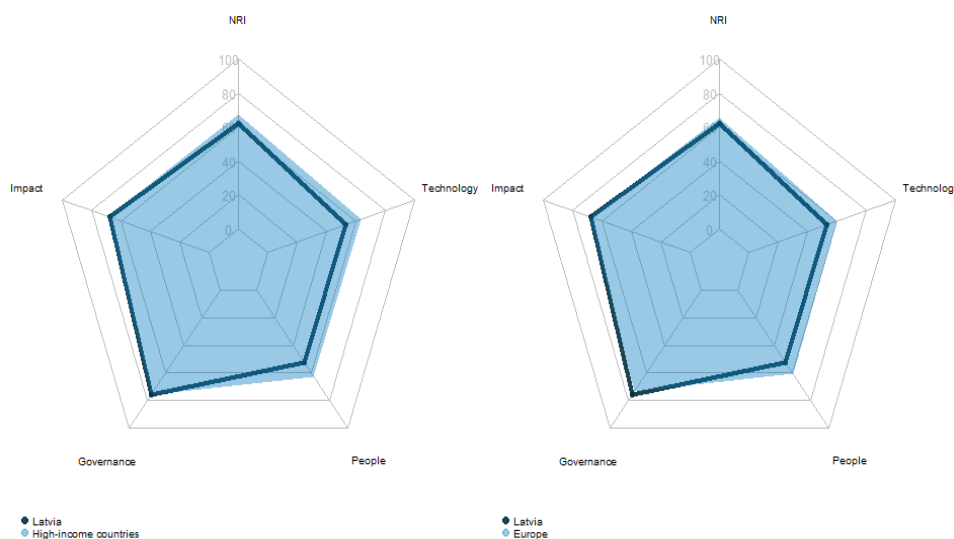


Table 2: Latvia scores vs. averages of its income group and region, overall and by pillar

Dimension	Latvia	High-income countries	Europe
NRI	62.16	67.45	65.45
Technology	52.66	62.99	59.78
People	52.57	62.65	60.83
Governance	76.13	75.52	73.31
Impact	67.28	68.63	67.86

Strongest and weakest indicators

The indicators where Latvia performs particularly well include 1.1.7 Internet access in schools, 3.2.4 E-commerce legislation, and 2.1.5 Adult literacy rate (Table 3). By contrast, the economy's weakest indicators include 2.1.1 Active mobile broadband subscriptions, 2.2.5 Annual investment in telecommunication services, and 2.3.1 Government online services.

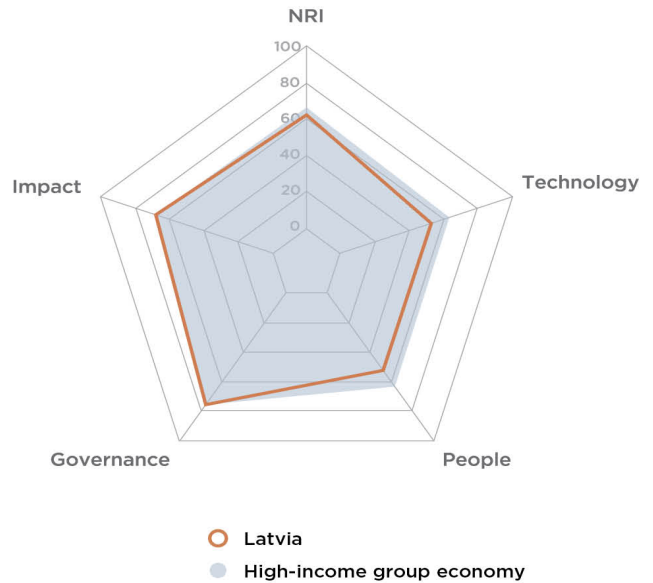
Table 3: Strongest and weakest indicators of Latvia

Strongest indicators	Rank	Weakest indicators	Rank
1.1.7 Internet access in schools	1	1.3.3 Robot density	46
3.2.4 E-commerce legislation	1	1.3.4 Computer software spending	84
2.1.5 Adult literacy rate	2	2.3.1 Government online services	87
3.2.5 Privacy protection by law content	2	2.2.5 Annual investment in telecommunication services	95
2.1.4 Tertiary enrollment	5	2.1.1 Active mobile broadband subscriptions	100
3.3.4 Gender gap in Internet use	11		
4.3.3 Females employed with advanced degrees	14		
3.1.3 Online access to financial account	16		
4.1.6 ICT services exports	16		
3.1.2 Cybersecurity	21		
2.2.4 Technicians and associate professionals	22		
4.1.2 High-tech exports	23		

Latvia

Network Readiness Index Rank (out of 130) **36** Score **62.16**

Pillar/sub-pillar	Rank	Score
A. Technology pillar	41	52.66
1st sub-pillar: Access	36	78.24
2nd sub-pillar: Content	37	50.36
3rd sub-pillar: Future Technologies	76	29.39
B. People pillar	52	52.57
1st sub-pillar: Individuals	22	73.92
2nd sub-pillar: Businesses	54	45.01
3rd sub-pillar: Governments	79	38.77
C. Governance pillar	27	76.13
1st sub-pillar: Trust	25	72.50
2nd sub-pillar: Regulation	20	82.90
3rd sub-pillar: Inclusion	40	72.99
D. Impact pillar	32	67.28
1st sub-pillar: Economy	26	52.54
2nd sub-pillar: Quality of Life	55	71.70
3rd sub-pillar: SDG Contribution	25	77.61



Network Readiness Index in detail

Indicator	Rank	Score
A. Technology pillar	41	52.66
1st sub-pillar: Access	36	78.24
1.1.1 Mobile tariffs	60	61.44
1.1.2 Handset prices	47	65.66
1.1.3 Households with internet access	35	89.88
1.1.4 SMS sent by population 15-69	81	74.23
1.1.5 Population covered by at least a 3G mobile network	NA	NA
1.1.6 International Internet bandwidth	NA	NA
1.1.7 Internet access in schools	1	100.00 ●
2nd sub-pillar: Content	37	50.36
1.2.1 GitHub commits	27	28.50
1.2.2 Wikipedia edits	24	77.27
1.2.3 Internet domain registrations	*	*
1.2.4 Mobile apps development	33	88.65
1.2.5 AI scientific publications	73	36.67
3rd sub-pillar: Future Technologies	76	29.39
1.3.1 Adoption of emerging technologies	38	61.35
1.3.2 Investment in emerging technologies	54	44.86
1.3.3 Robot density	46	1.58 ○
1.3.4 Computer software spending	84	9.76 ○
B. People pillar	52	52.57
1st sub-pillar: Individuals	22	73.92
2.1.1 Active mobile broadband subscriptions	100	69.48 ○
2.1.2 ICT skills	25	61.84
2.1.3 Use of virtual social networks	49	73.49
2.1.4 Tertiary enrollment	5	64.92 ●
2.1.5 Adult literacy rate	2	99.89 ●
2nd sub-pillar: Businesses	54	45.01
2.2.1 Firms with website	51	61.46
2.2.2 GERD financed by business enterprise	63	27.55
2.2.3 Professionals	34	42.37
2.2.4 Technicians and associate professionals	22	62.93 ●
2.2.5 Annual investment in telecommunication services	95	72.06 ○
2.2.6 GERD performed by business enterprise	55	3.70
3rd sub-pillar: Governments	79	38.77
2.3.1 Government online services	87	56.98 ○
2.3.2 Publication and use of open data	55	27.69
2.3.3 Government promotion of investment in emerging tech	66	37.45
2.3.4 R&D expenditure by governments and higher education	55	32.96

Indicator	Rank	Score
C. Governance pillar	27	76.13
1st sub-pillar: Trust	25	72.50
3.1.1 Secure Internet servers	36	79.15
3.1.2 Cybersecurity	21	97.23 ●
3.1.3 Online access to financial account	16	69.36 ●
3.1.4 Internet shopping	34	44.25
2nd sub-pillar: Regulation	20	82.90
3.2.1 Regulatory quality	26	73.61
3.2.2 ICT regulatory environment	45	87.06
3.2.3 Legal framework's adaptability to emerging technologies	35	55.58
3.2.4 E-commerce legislation	1	100.00 ●
3.2.5 Privacy protection by law content	2	98.23 ●
3rd sub-pillar: Inclusion	40	72.99
3.3.1 E-Participation	87	56.79
3.3.2 Socioeconomic gap in use of digital payments	27	84.78
3.3.3 Availability of local online content	30	81.19
3.3.4 Gender gap in Internet use	11	70.86 ●
3.3.5 Rural gap in use of digital payments	51	71.31
D. Impact pillar	32	67.28
1st sub-pillar: Economy	26	52.54
4.1.1 High-tech and medium-high-tech manufacturing	59	24.62
4.1.2 High-tech exports	23	56.99 ●
4.1.3 PCT patent applications	34	57.54
4.1.4 Growth rate of GDP per person engaged	39	65.65
4.1.5 Prevalence of gig economy	39	59.25
4.1.6 ICT services exports	16	51.18 ●
2nd sub-pillar: Quality of Life	55	71.70
4.2.1 Happiness	39	64.89
4.2.2 Freedom to make life choices	72	75.52
4.2.3 Income inequality	51	72.66
4.2.4 Healthy life expectancy at birth	62	73.72
3rd sub-pillar: SDG Contribution	25	77.61
4.3.1 SDG 3: Good Health and Well-Being	65	70.49
4.3.2 SDG 4: Quality Education	29	62.57
4.3.3 Females employed with advanced degrees	14	83.51 ●
4.3.4 SDG 7: Affordable and Clean Energy	50	81.07
4.3.5 SDG 11: Sustainable Cities and Communities	38	90.40

NOTE: * Indicates confidential data; ● a strength and ○ a weakness.

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