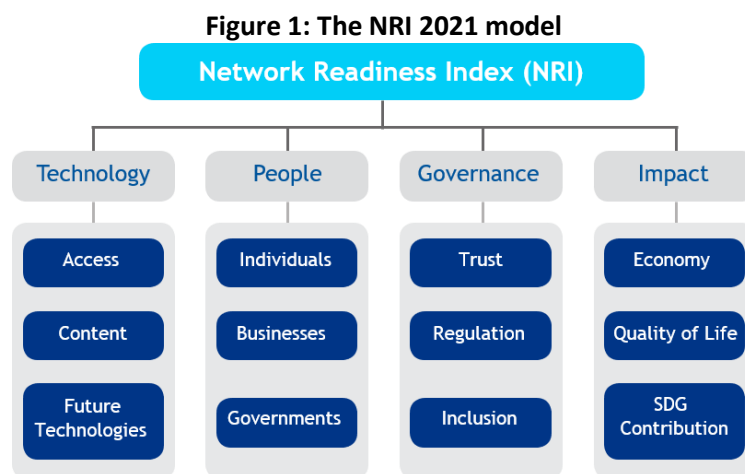


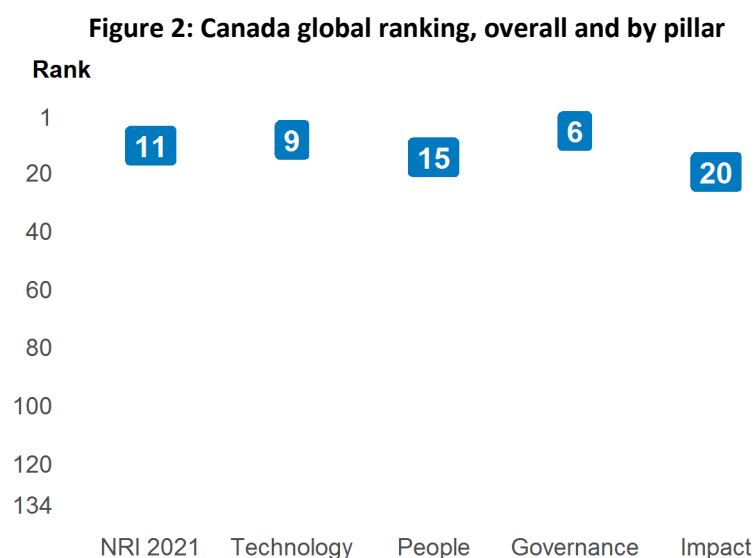
Network Readiness Index 2021 Canada

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 Canada

Canada ranks 11th 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 Impact.



Performance at sub-pillar level

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

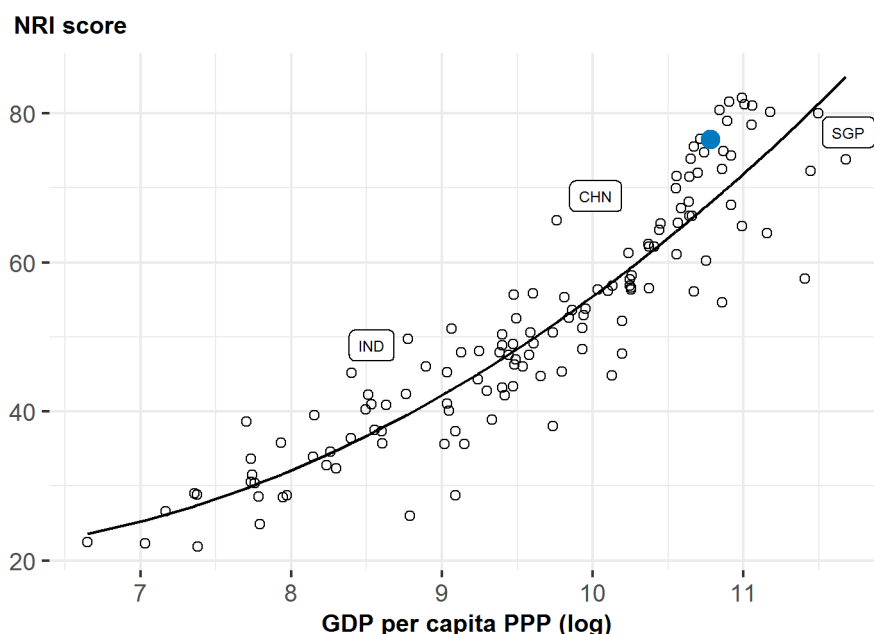
Table 1: Canada rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Inclusion	2	Regulation	16
Governments	7	Quality of Life	19
Trust	7	Economy	20
Content	10	Businesses	22
Future Technologies	10	Individuals	31
Access	11	SDG Contribution	32

NRI score and income

Figure 3 shows the position of Canada 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, Canada is well above the trend line, which suggests that it has a greater network readiness than 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. Canada belongs to the group of high-income countries, where the best performer is Netherlands (NLD). The top performer of its region-The Americas-is United States (USA).

Performance against its income group and region

High-income countries

Canada is ranked 11th 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 has a higher score than the average of high-income countries in all of them.

The Americas

Canada is ranked 2nd within The Americas (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 Canada against its income group and region, overall and by pillar

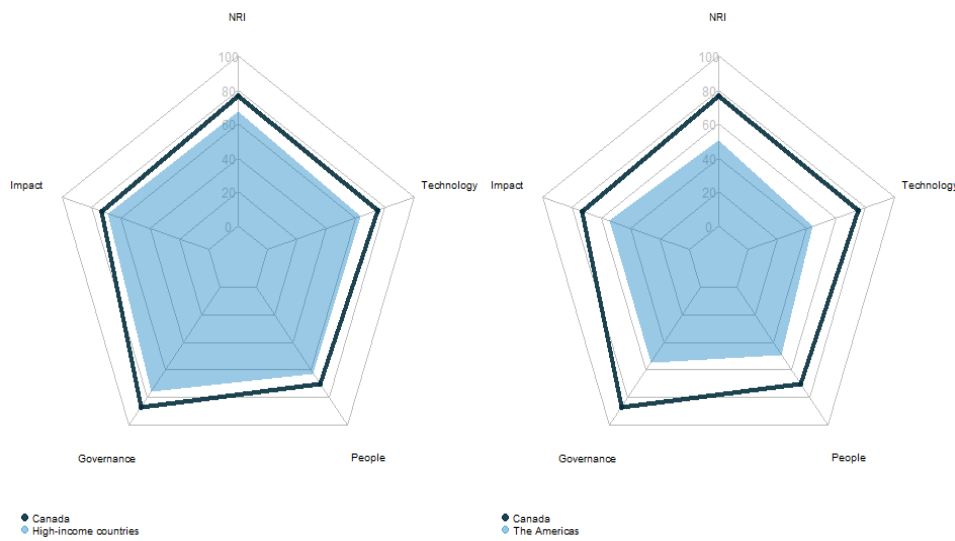


Table 2: Canada scores vs. averages of its income group and region, overall and by pillar

Dimension	Canada	High-income countries	The Americas
NRI	76.48	67.45	50.62
Technology	75.30	62.99	44.08
People	70.35	62.65	49.00
Governance	87.27	75.52	54.95
Impact	73.00	68.63	54.45

Strongest and weakest indicators

The indicators where Canada performs particularly well include 3.2.4 E-commerce legislation, 4.3.1 SDG 3: Good Health and Well-Being, and 2.3.2 Publication and use of open data (Table 3). By contrast, the economy's weakest indicators include 4.3.4 SDG 7: Affordable and Clean Energy, 4.1.6 ICT services exports, and 3.2.2 ICT regulatory environment.

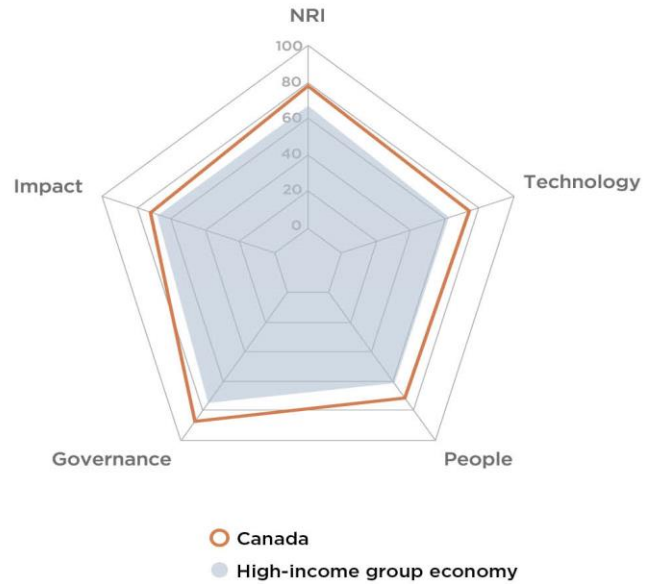
Table 3: Strongest and weakest indicators of Canada

Strongest indicators	Rank	Weakest indicators	Rank
3.2.4 E-commerce legislation	1	4.1.4 Growth rate of GDP per person engaged	58
4.3.1 SDG 3: Good Health and Well-Being	1	3.2.2 ICT regulatory environment	60
2.3.2 Publication and use of open data	2	4.1.6 ICT services exports	66
3.3.2 Socioeconomic gap in use of digital payments	3	4.3.4 SDG 7: Affordable and Clean Energy	111
1.3.4 Computer software spending	5		
2.2.5 Annual investment in telecommunication services	7		
4.1.5 Prevalence of gig economy	8		
1.2.1 GitHub commits	9		
1.2.5 AI scientific publications	9		
3.1.4 Internet shopping	9		
2.1.3 Use of virtual social networks	10		

Canada

Network Readiness Index Rank (out of 130) **11** Score **76.48**

Pillar/sub-pillar	Rank	Score
A. Technology pillar	9	75.30
1st sub-pillar: Access	11	88.48
2nd sub-pillar: Content	10	73.63
3rd sub-pillar: Future Technologies	10	63.80
B. People pillar	15	70.35
1st sub-pillar: Individuals	31	72.04
2nd sub-pillar: Businesses	22	60.14
3rd sub-pillar: Governments	7	78.87
C. Governance pillar	6	87.27
1st sub-pillar: Trust	7	87.91
2nd sub-pillar: Regulation	16	84.19
3rd sub-pillar: Inclusion	2	89.71
D. Impact pillar	20	73.00
1st sub-pillar: Economy	20	58.24
2nd sub-pillar: Quality of Life	19	84.10
3rd sub-pillar: SDG Contribution	32	76.65



Network Readiness Index in detail

Indicator	Rank	Score
A. Technology pillar	9	75.30
1st sub-pillar: Access	11	88.48
1.1.1 Mobile tariffs	28	78.55
1.1.2 Handset prices	12	84.30
1.1.3 Households with internet access	27	91.15
1.1.4 SMS sent by population 15-69	NA	NA
1.1.5 Population covered by at least a 3G mobile network	40	99.92
1.1.6 International internet bandwidth	NA	NA
1.1.7 Internet access in schools	NA	NA
2nd sub-pillar: Content	10	73.63
1.2.1 GitHub commits	9	65.06 ●
1.2.2 Wikipedia edits	28	76.44
1.2.3 Internet domain registrations	*	*
1.2.4 Mobile apps development	23	93.94
1.2.5 AI scientific publications	9	75.11 ●
3rd sub-pillar: Future Technologies	10	63.80
1.3.1 Adoption of emerging technologies	11	85.04
1.3.2 Investment in emerging technologies	20	68.25
1.3.3 Robot density	17	45.26
1.3.4 Computer software spending	5	56.65 ●
B. People pillar	15	70.35
1st sub-pillar: Individuals	31	72.04
2.1.1 Active mobile broadband subscriptions	30	82.00
2.1.2 ICT skills	NA	NA
2.1.3 Use of virtual social networks	10	85.34 ●
2.1.4 Tertiary enrollment	33	48.79
2.1.5 Adult literacy rate	NA	NA
2nd sub-pillar: Businesses	22	60.14
2.2.1 Firms with website	16	83.66
2.2.2 GERD financed by business enterprise	40	50.70
2.2.3 Professionals	28	45.28
2.2.4 Technicians and associate professionals	16	72.81
2.2.5 Annual investment in telecommunication services	7	90.50 ●
2.2.6 GERD performed by business enterprise	30	17.89
3rd sub-pillar: Governments	7	78.87
2.3.1 Government online services	31	83.64
2.3.2 Publication and use of open data	2	89.51 ●
2.3.3 Government promotion of investment in emerging tech	12	74.41
2.3.4 R&D expenditure by governments and higher education	14	67.91

Indicator	Rank	Score
C. Governance pillar	6	87.27
1st sub-pillar: Trust	7	87.91
3.1.1 Secure Internet servers	17	84.53
3.1.2 Cybersecurity	13	97.63
3.1.3 Online access to financial account	10	81.53
3.1.4 Internet shopping	9	87.95 ●
2nd sub-pillar: Regulation	16	84.19
3.2.1 Regulatory quality	10	87.87
3.2.2 ICT regulatory environment	60	84.12 ○
3.2.3 Legal framework's adaptability to emerging technologies	10	77.69
3.2.4 E-commerce legislation	1	100.00 ●
3.2.5 Privacy protection by law content	53	71.28
3rd sub-pillar: Inclusion	2	89.71
3.3.1 E-Participation	16	93.83
3.3.2 Socioeconomic gap in use of digital payments	3	99.38 ●
3.3.3 Availability of local online content	14	88.53
3.3.4 Gender gap in Internet use	NA	NA
3.3.5 Rural gap in use of digital payments	15	77.09
D. Impact pillar	20	73.00
1st sub-pillar: Economy	20	58.24
4.1.1 High-tech and medium-high-tech manufacturing	31	47.65
4.1.2 High-tech exports	27	55.00
4.1.3 PCT patent applications	23	72.51
4.1.4 Growth rate of GDP per person engaged	58	60.36 ○
4.1.5 Prevalence of gig economy	8	86.07 ●
4.1.6 ICT services exports	66	27.85 ○
2nd sub-pillar: Quality of Life	19	84.10
4.2.1 Happiness	16	81.72
4.2.2 Freedom to make life choices	35	86.84
4.2.3 Income inequality	42	77.34
4.2.4 Healthy life expectancy at birth	16	90.48
3rd sub-pillar: SDG Contribution	32	76.65
4.3.1 SDG 3: Good Health and Well-Being	1	100.00 ●
4.3.2 SDG 4: Quality Education	7	74.55
4.3.3 Females employed with advanced degrees	32	62.92
4.3.4 SDG 7: Affordable and Clean Energy	111	51.04 ○
4.3.5 SDG 11: Sustainable Cities and Communities	25	94.74

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

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