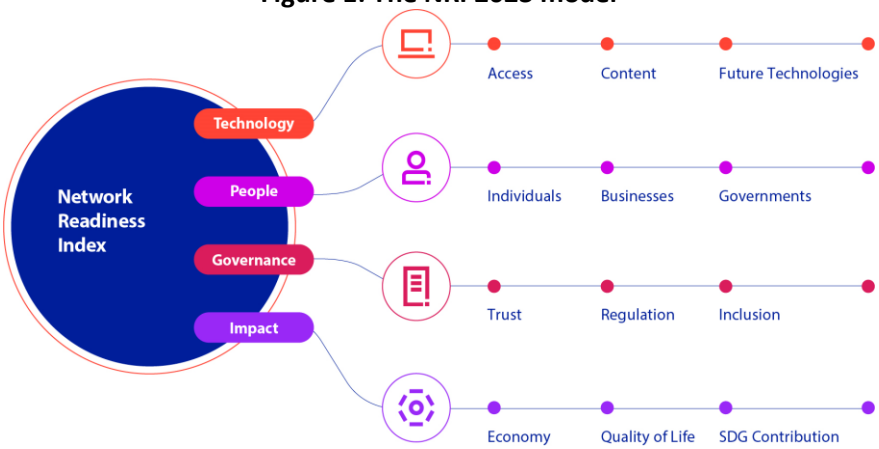
Switzerland

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.

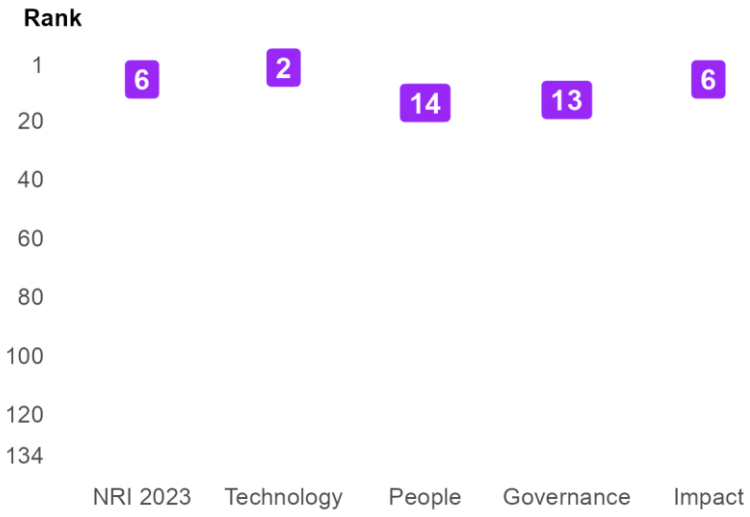
Figure 1: The NRI 2023 model



Global NRI position of Switzerland

Switzerland ranks 6th 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 People.

Figure 2: Switzerland global ranking, overall and by pillar



Performance at sub-pillar level

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

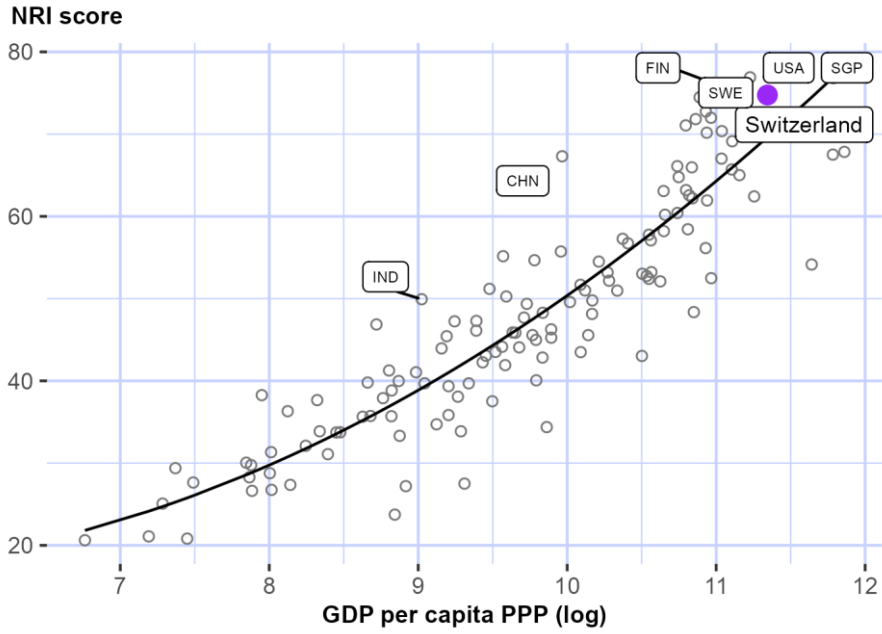
Table 1: Switzerland rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Content	3	SDG Contribution	9
Regulation	4	Inclusion	14
Future Technologies	5	Quality of Life	16
Access	6	Governments	20
Businesses	7	Trust	25
Economy	9	Individuals	26

NRI score and income

Figure 3 shows the position of Switzerland 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, Switzerland 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: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Switzerland 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

Switzerland is ranked 6th 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.

Europe

Switzerland is ranked 4th 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 Switzerland against its income group and region, overall and by pillar

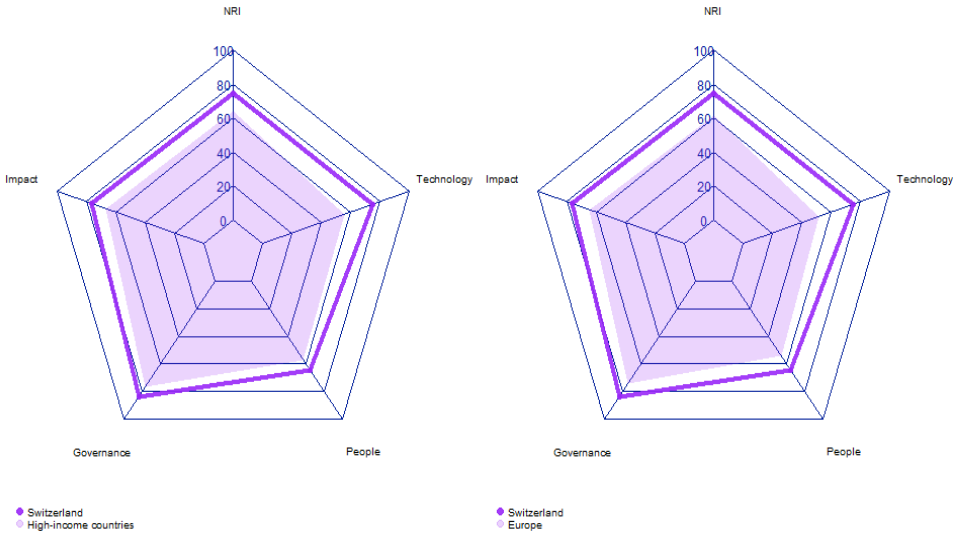


Table 2: Switzerland scores vs. averages of its income group and region, overall and by pillar

Dimension	Switzerland	High-income countries	Europe
NRI	74.76	64.07	61.25
Technology	74.90	55.76	51.90
People	64.26	56.99	54.16
Governance	83.75	76.81	74.33
Impact	76.12	66.73	64.61

Strongest and weakest indicators

The indicators where Switzerland performs particularly well include 1.1.1 Mobile tariffs, 1.1.4 Population covered by at least a 3G mobile network, and 1.1.6 Internet access in schools (Table 3). By contrast, the economy's weakest indicators include 1.1.3 FTTH/building Internet subscriptions, 1.1.5 International Internet bandwidth, and 4.2.2 Freedom to make life choices.

Table 3: Highlight of Strengths and Opportunities for Switzerland

Strongest indicators	Rank	Weakest indicators	Rank
1.1.1 Mobile tariffs	1	3.3.4 Gender gap in Internet use	50
1.1.4 Population covered by at least a 3G mobile network	1	4.2.2 Freedom to make life choices	54
1.1.6 Internet access in schools	1	1.1.3 FTTH/building Internet subscriptions	70
1.2.1 GitHub commits	1	1.1.5 International Internet bandwidth	70
3.2.4 E-commerce legislation	1		
3.3.2 Socioeconomic gap in use of digital payments	1		
2.1.2 ICT skills in the education system	2		
4.1.1 High-tech and medium-high-tech manufacturing	2		
3.2.5 Privacy protection by law content	3		
4.1.3 PCT patent applications	3		
1.2.2 Internet domain registrations	4		
1.3.2 Investment in emerging technologies	4		
4.2.4 Healthy life expectancy at birth	4		

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

NRI 2023 At-A-Glance: Switzerland

Network Readiness Index — Rank: 6 (out of 134) — Score: 74.76

Pillar/sub-pillar	Rank	Score
A. Technology pillar	2	74.90
1st sub-pillar: Access	6	81.24
2nd sub-pillar: Content	3	71.90
3rd sub-pillar: Future Technologies	5	71.55
B. People pillar	14	64.26
1st sub-pillar: Individuals	26	56.05
2nd sub-pillar: Businesses	7	75.16
3rd sub-pillar: Governments	20	61.59

Pillar/sub-pillar	Rank	Score
C. Governance pillar	13	83.75
1st sub-pillar: Trust	25	76.10
2nd sub-pillar: Regulation	4	93.16
3rd sub-pillar: Inclusion	14	81.97
D. Impact pillar	6	76.12
1st sub-pillar: Economy	9	58.94
2nd sub-pillar: Quality of Life	16	83.25
3rd sub-pillar: SDG Contribution	9	86.16

The Network Readiness Index in detail

Indicator	Rank	Score	
A. Technology pillar	2	74.90	
1st sub-pillar: Access	6	81.24	
1.1.1 Mobile tariffs	1	100.00	●
1.1.2 Handset prices	7	90.46	
1.1.3 FTTH/building Internet subscriptions	70	26.46	○
1.1.4 Population covered by at least a 3G mobile network	1	100.00	●
1.1.5 International Internet bandwidth	70	70.50	○
1.1.6 Internet access in schools	1	100.00	●
2nd sub-pillar: Content	3	71.90	
1.2.1 GitHub commits	1	100.00	●
1.2.2 Internet domain registrations	4	99.77	●
1.2.3 Mobile apps development	18	76.18	
1.2.4 AI scientific publications	42	11.65	
3rd sub-pillar: Future Technologies	5	71.55	
1.3.1 Adoption of emerging technologies	6	93.09	
1.3.2 Investment in emerging technologies	4	89.25	●

Indicator	Rank	Score	
C. Governance pillar	13	83.75	
1st sub-pillar: Trust	25	76.10	
3.1.1 Secure Internet servers	5	93.32	
3.1.2 Cybersecurity	50	86.74	
3.1.3 Online access to financial account	19	66.23	
3.1.4 Internet shopping	38	58.12	
2nd sub-pillar: Regulation	4	93.16	
3.2.1 Regulatory quality	9	88.75	
3.2.2 ICT regulatory environment	21	93.53	
3.2.3 Regulation of emerging technologies	5	89.61	
3.2.4 E-commerce legislation	1	100.00	●
3.2.5 Privacy protection by law content	3	93.93	●
3rd sub-pillar: Inclusion	14	81.97	
3.3.1 E-Participation	41	69.76	
3.3.2 Socioeconomic gap in use of digital payments	1	100.00	●
3.3.3 Availability of local online content	6	95.43	

Indicator	Rank	Score	
1.3.3 Robot density	8	40.53	
1.3.4 Computer software spending	9	63.34	
B. People pillar	14	64.26	
1st sub-pillar: Individuals	26	56.05	
2.1.1 Mobile broadband internet traffic within the country	41	18.41	
2.1.2 ICT skills in the education system	2	96.97	●
2.1.3 Use of virtual social networks	21	78.59	
2.1.4 Tertiary enrollment	46	42.26	
2.1.5 Adult literacy rate	NA	NA	
2.1.6 AI talent concentration	6	43.99	
2nd sub-pillar: Businesses	7	75.16	
2.2.1 Firms with website	NA	NA	
2.2.2 GERD financed by business enterprise	7	80.00	
2.2.3 Knowledge intensive employment	10	78.49	
2.2.4 Annual investment in telecommunication services	17	86.88	
2.2.5 GERD performed by business enterprise	8	55.26	
3rd sub-pillar: Governments	20	61.59	
2.3.1 Government online services	49	74.33	
2.3.2 Publication and use of open data	23	57.35	
2.3.3 Government promotion of investment in emerging tech	28	57.30	
2.3.4 R&D expenditure by governments and higher education	7	57.37	

Indicator	Rank	Score	
3.3.4 Gender gap in Internet use	50	69.15	○
3.3.5 Rural gap in use of digital payments	23	75.53	
D. Impact pillar	6	76.12	
1st sub-pillar: Economy	9	58.94	
4.1.1 High-tech and medium-high-tech manufacturing	2	85.30	●
4.1.2 High-tech exports	36	25.58	
4.1.3 PCT patent applications	3	94.85	●
4.1.4 Domestic market size	34	63.99	
4.1.5 Prevalence of gig economy	28	62.79	
4.1.6 ICT services exports	49	21.15	
2nd sub-pillar: Quality of Life	16	83.25	
4.2.1 Happiness	16	84.28	
4.2.2 Freedom to make life choices	54	78.86	○
4.2.3 Income inequality	39	75.13	
4.2.4 Healthy life expectancy at birth	4	94.74	●
3rd sub-pillar: SDG Contribution	9	86.16	
4.3.1 SDG 3: Good Health and Well-Being	5	96.38	
4.3.2 SDG 4: Quality Education	21	66.99	
4.3.3 SDG 5: Women's economic opportunity	48	83.19	
4.3.4 SDG 7: Affordable and Clean Energy	6	87.64	
4.3.5 SDG 11: Sustainable Cities and Communities	6	96.62	

NOTE: ● a strength and ○ a weakness.

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