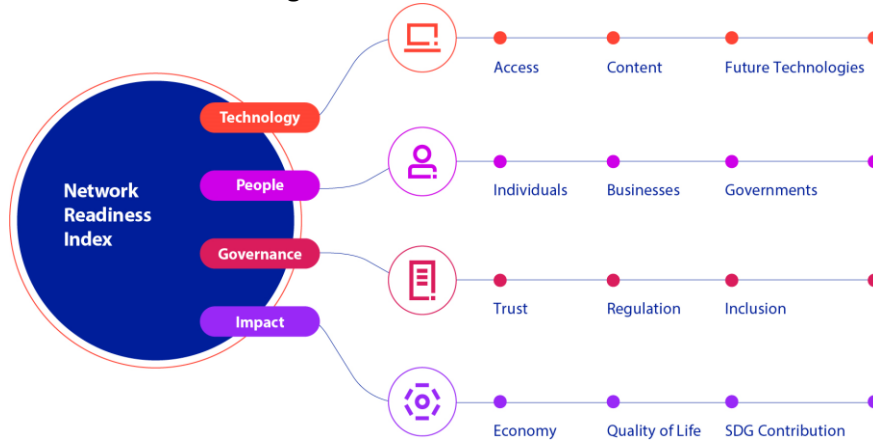




## Spain

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.

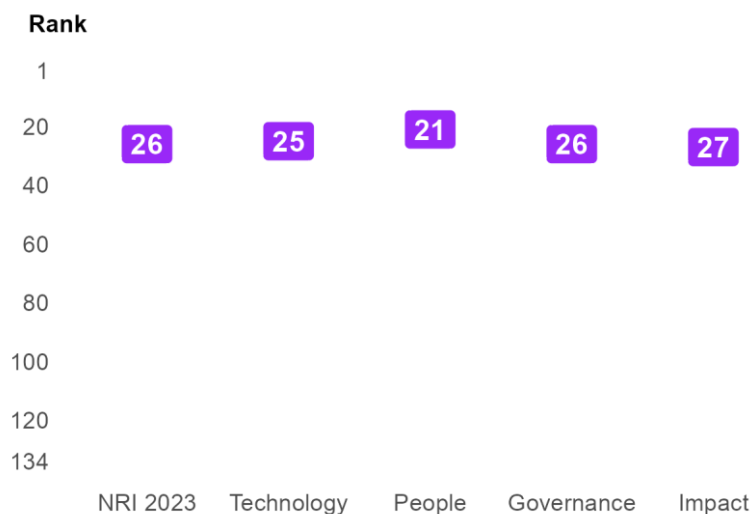
Figure 1: The NRI 2023 model



### Global NRI position of Spain

Spain ranks 26th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to People. The greatest scope for improvement, meanwhile, concerns Impact.

Figure 2: Spain global ranking, overall and by pillar



# Network Readiness Index 2023

## Performance at sub-pillar level

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

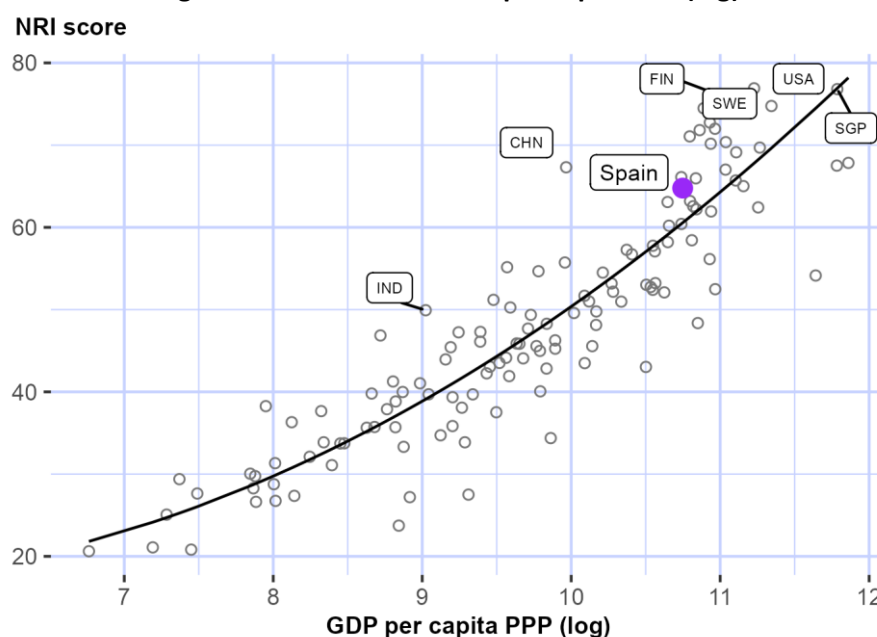
**Table 1: Spain rankings by sub-pillar**

Sub-pillar	Rank	Sub-pillar	Rank
Access	12	Governments	27
SDG Contribution	12	Content	28
Inclusion	16	Businesses	31
Individuals	18	Trust	32
Future Technologies	25	Economy	32
Regulation	25	Quality of Life	37

## NRI score and income

Figure 3 shows the position of Spain 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, Spain 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). Spain 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).

# Network Readiness Index 2023



## Performance against its income group and region

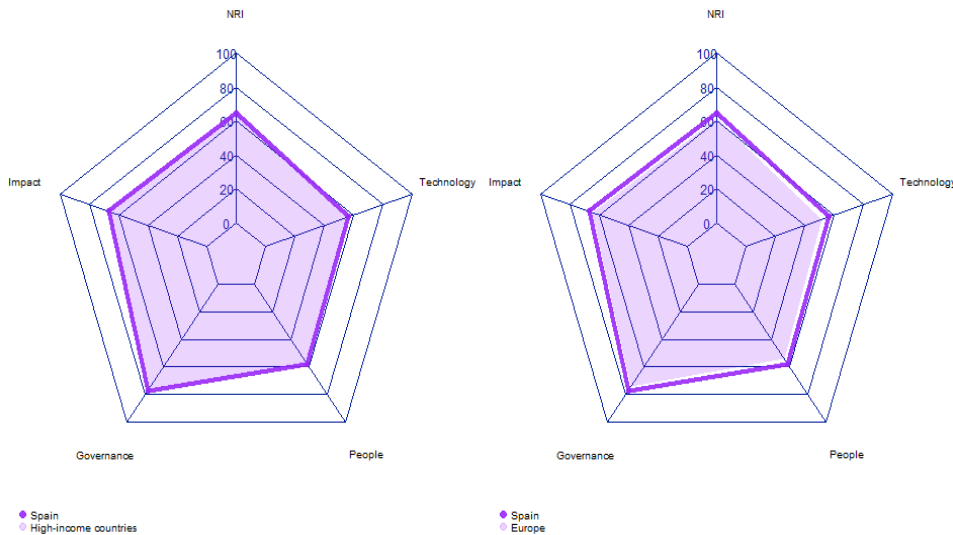
### High-income countries

Spain is ranked 25th 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 five of the twelve sub-pillars: Access, Individuals, Regulation, Inclusion and SDG Contribution.

### Europe

Spain is ranked 17th within Europe (Figure 4, right panel). It outperforms its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in Europe in nine of the twelve sub-pillars: Access, Future Technologies, Individuals, Businesses, Governments, Trust, Regulation, Inclusion and SDG Contribution.

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



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

Dimension	Spain	High-income countries	Europe
NRI	64.77	64.07	61.25
Technology	56.34	55.76	51.90
People	58.31	56.99	54.16
Governance	77.39	76.81	74.33
Impact	67.05	66.73	64.61

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## Strongest and weakest indicators

The indicators where Spain performs particularly well include 1.1.6 Internet access in schools, 3.2.4 E-commerce legislation, and 4.3.3 SDG 5: Women's economic opportunity (Table 3). By contrast, the economy's weakest indicators include 4.2.2 Freedom to make life choices, 3.2.2 ICT regulatory environment, and 2.3.3 Government promotion of investment in emerging technologies.

**Table 3: Highlight of Strengths and Opportunities for Spain**

Strongest indicators	Rank	Weakest indicators	Rank
1.1.6 Internet access in schools	1	2.1.2 ICT skills in the education system	53
3.2.4 E-commerce legislation	1	2.3.3 Government promotion of investment in emerging technologies	63
4.3.3 SDG 5: Women's economic opportunity	1	3.2.2 ICT regulatory environment	70
3.3.2 Socioeconomic gap in use of digital payments	3	4.2.2 Freedom to make life choices	80
3.1.2 Cybersecurity	5		
2.1.4 Tertiary enrollment	6		
4.2.4 Healthy life expectancy at birth	7		
2.2.4 Annual investment in telecommunication services	11		
3.3.5 Rural gap in use of digital payments	11		
1.3.4 Computer software spending	12		
2.1.3 Use of virtual social networks	12		
4.3.1 SDG 3: Good Health and Well-Being	13		
4.3.5 SDG 11: Sustainable Cities and Communities	13		

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

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## NRI 2023 At-A-Glance: Spain

Network Readiness Index

Rank: 26 (out of 134)

Score: 64.77

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	25	56.34	C. Governance pillar	26	77.39
1st sub-pillar: Access	12	79.04	1st sub-pillar: Trust	32	70.23
2nd sub-pillar: Content	28	40.76	2nd sub-pillar: Regulation	25	80.27
3rd sub-pillar: Future Technologies	25	49.23	3rd sub-pillar: Inclusion	16	81.68
B. People pillar	21	58.31	D. Impact pillar	27	67.05
1st sub-pillar: Individuals	18	59.00	1st sub-pillar: Economy	32	39.11
2nd sub-pillar: Businesses	31	60.60	2nd sub-pillar: Quality of Life	37	76.43
3rd sub-pillar: Governments	27	55.32	3rd sub-pillar: SDG Contribution	12	85.61

### The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
<b>A. Technology pillar</b>	25	56.34	<b>C. Governance pillar</b>	26	77.39
1st sub-pillar: Access	12	79.04	1st sub-pillar: Trust	32	70.23
1.1.1 Mobile tariffs	42	73.18	3.1.1 Secure Internet servers	32	79.63
1.1.2 Handset prices	26	71.34	3.1.2 Cybersecurity	5	98.49 ●
1.1.3 FTTH/building Internet subscriptions	15	56.58	3.1.3 Online access to financial account	49	36.31
1.1.4 Population covered by at least a 3G mobile network	40	99.93	3.1.4 Internet shopping	26	66.48
1.1.5 International Internet bandwidth	57	73.17	2nd sub-pillar: Regulation	25	80.27
1.1.6 Internet access in schools	1	100.00 ●	3.2.1 Regulatory quality	39	67.92
2nd sub-pillar: Content	28	40.76	3.2.2 ICT regulatory environment	70	83.53 ○
1.2.1 GitHub commits	32	33.74	3.2.3 Regulation of emerging technologies	30	65.45
1.2.2 Internet domain registrations	30	24.38	3.2.4 E-commerce legislation	1	100.00 ●
1.2.3 Mobile apps development	32	73.78	3.2.5 Privacy protection by law content	21	84.42
1.2.4 AI scientific publications	15	31.15	3rd sub-pillar: Inclusion	16	81.68
3rd sub-pillar: Future Technologies	25	49.23	3.3.1 E-Participation	25	74.42
1.3.1 Adoption of emerging technologies	29	68.80	3.3.2 Socioeconomic gap in use of digital payments	3	99.47 ●
1.3.2 Investment in emerging technologies	56	43.00	3.3.3 Availability of local online content	22	85.58

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Indicator	Rank	Score	Indicator	Rank	Score
1.3.3 Robot density	19	23.04	3.3.4 Gender gap in Internet use	26	71.55
1.3.4 Computer software spending	12	62.09	3.3.5 Rural gap in use of digital payments	11	77.36
<b>B. People pillar</b>	21	58.31	<b>D. Impact pillar</b>	27	67.05
<i>1st sub-pillar: Individuals</i>	18	59.00	<i>1st sub-pillar: Economy</i>	32	39.11
2.1.1 Mobile broadband internet traffic within the country	22	35.58	4.1.1 High-tech and medium-high-tech manufacturing	31	45.91
2.1.2 ICT skills in the education system	53	54.77	4.1.2 High-tech exports	53	16.79
2.1.3 Use of virtual social networks	12	80.55	4.1.3 PCT patent applications	28	21.66
2.1.4 Tertiary enrollment	6	62.94	4.1.4 Domestic market size	16	74.69
2.1.5 Adult literacy rate	25	98.08	4.1.5 Prevalence of gig economy	48	51.16
2.1.6 AI talent concentration	22	22.10	4.1.6 ICT services exports	43	24.48
<i>2nd sub-pillar: Businesses</i>	31	60.60	<i>2nd sub-pillar: Quality of Life</i>	37	76.43
2.2.1 Firms with website	25	77.72	4.2.1 Happiness	37	74.11
2.2.2 GERD financed by business enterprise	33	60.84	4.2.2 Freedom to make life choices	80	67.71
2.2.3 Knowledge intensive employment	38	53.70	4.2.3 Income inequality	48	70.60
2.2.4 Annual investment in telecommunication services	11	90.17	4.2.4 Healthy life expectancy at birth	7	93.28
2.2.5 GERD performed by business enterprise	30	20.58	<i>3rd sub-pillar: SDG Contribution</i>	12	85.61
<i>3rd sub-pillar: Governments</i>	27	55.32	4.3.1 SDG 3: Good Health and Well-Being	13	93.79
2.3.1 Government online services	25	84.07	4.3.2 SDG 4: Quality Education	29	60.51
2.3.2 Publication and use of open data	11	73.53	4.3.3 SDG 5: Women's economic opportunity	1	100.00
2.3.3 Government promotion of investment in emerging tech	63	38.10	4.3.4 SDG 7: Affordable and Clean Energy	25	79.99
2.3.4 R&D expenditure by governments and higher education	30	25.59	4.3.5 SDG 11: Sustainable Cities and Communities	13	93.74

NOTE: ● a strength and ○ a weakness.

# Network Readiness Index 2023



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