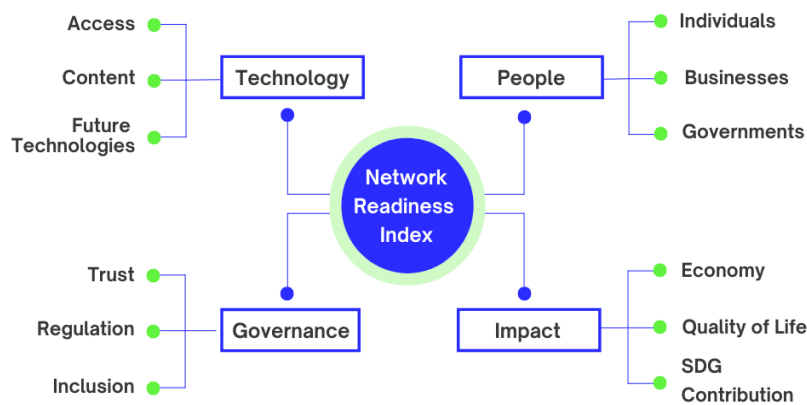


# Network Readiness Index 2022

## 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 2022 the NRI Report maps the network-based readiness landscape of 131 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.

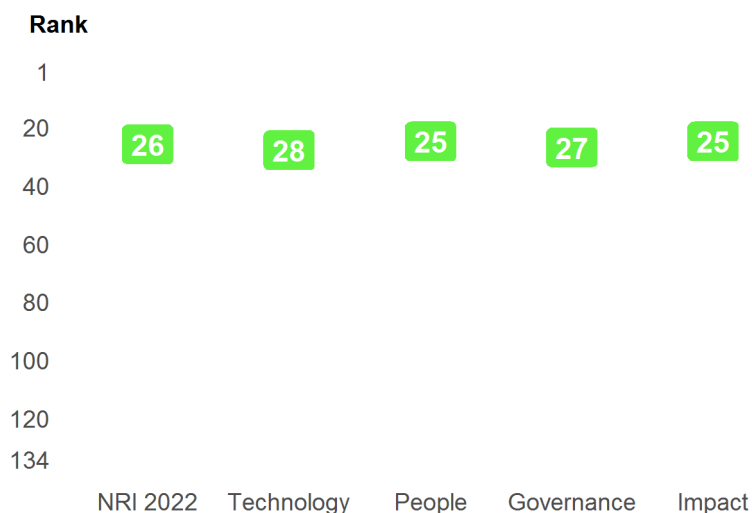
**Figure 1: The NRI 2022 model**



### Global NRI position of Spain

Spain ranks 26th out of the 131 economies included in the NRI 2022 (Figure 2). Its main strength relates to People and Impact. The greatest scope for improvement, meanwhile, concerns Technology.

**Figure 2: Spain global ranking, overall and by pillar**



### Performance at sub-pillar level

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

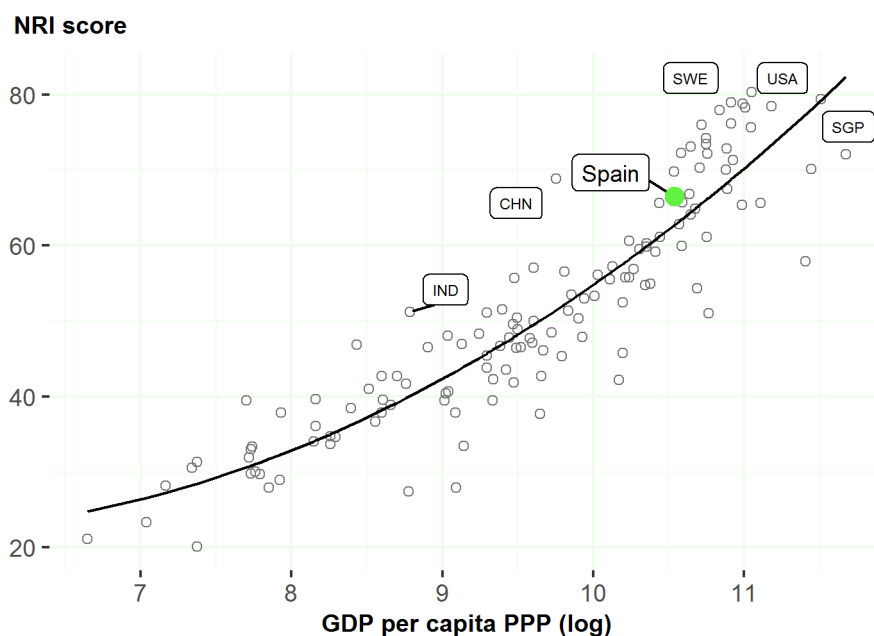
**Table 1: Spain rankings by sub-pillar**

Sub-pillar	Rank	Sub-pillar	Rank
SDG Contribution	12	Regulation	27
Access	15	Individuals	29
Inclusion	16	Businesses	32
Governments	23	Trust	33
Future Technologies	24	Quality of Life	33
Economy	26	Content	35

### 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), SWE = Sweden (3), CHN = China (23), IND = India (61). Netherlands (NLD) is ranked 4th. 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 Sweden (SWE).

## Performance against its income group and region

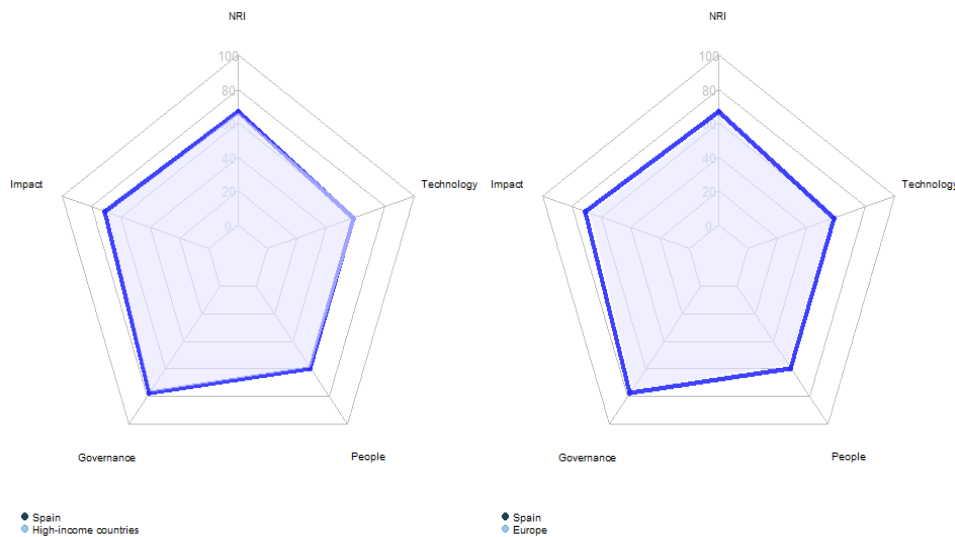
### High-income countries

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 three of the four pillars: nri.score, people, governance and impact. At the sub-pillar level, it outperforms high-income countries in five of the twelve sub-pillars: Access, Individuals, Governments, Inclusion and SDG Contribution.

### Europe

Spain is ranked 18th 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 ten of the twelve sub-pillars: Access, Future Technologies, Individuals, Businesses, Governments, Trust, Regulation, Inclusion, Economy 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	66.51	66.21	63.72
Technology	58.34	60.28	56.43
People	59.56	58.83	56.35
Governance	77.56	76.89	74.79
Impact	70.57	68.86	67.30

### 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 3.3.2 Socioeconomic gap in use of digital payments (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 2.1.2 ICT skills in the education system.

**Table 3: Strongest and weakest indicators of Spain**

Strongest indicators	Rank	Weakest indicators	Rank
1.1.6 Internet access in schools	1	2.1.6 AI talent concentration	23
3.2.4 E-commerce legislation	1	2.1.2 ICT skills in the education system	67
3.3.2 Socioeconomic gap in use of digital payments	3	3.2.2 ICT regulatory environment	71
1.3.4 Computer software spending	5	4.2.2 Freedom to make life choices	75
3.1.2 Cybersecurity	5		
4.2.4 Healthy life expectancy at birth	7		
2.1.4 Tertiary enrollment	9		
2.3.2 Publication and use of open data	11		
3.3.5 Rural gap in use of digital payments	11		
2.2.4 Annual investment in telecommunication services	13		
4.3.1 SDG 3: Good Health and Well-Being	13		
4.3.5 SDG 11: Sustainable Cities and Communities	13		

# NRI 2022 At-A-Glance: Spain

Network Readiness Index

Rank: 26 (out of 131)

Score: 66.51

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	28	58.34	C. Governance pillar	27	77.56
1st sub-pillar: Access	15	78.63	1st sub-pillar: Trust	33	70.29
2nd sub-pillar: Content	35	47.88	2nd sub-pillar: Regulation	27	78.44
3rd sub-pillar: Future Technologies	24	48.50	3rd sub-pillar: Inclusion	16	83.96
B. People pillar	25	59.56	D. Impact pillar	25	70.57
1st sub-pillar: Individuals	29	56.08	1st sub-pillar: Economy	26	47.05
2nd sub-pillar: Businesses	32	60.39	2nd sub-pillar: Quality of Life	33	77.69
3rd sub-pillar: Governments	23	62.22	3rd sub-pillar: SDG Contribution	12	86.99

## The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
<b>A. Technology pillar</b>	28	58.34	<b>C. Governance pillar</b>	27	77.56
1st sub-pillar: Access	15	78.63	1st sub-pillar: Trust	33	70.29
1.1.1 Mobile tariffs	59	64.49	3.1.1 Secure Internet servers	32	79.63
1.1.2 Handset prices	20	77.04	3.1.2 Cybersecurity	5	98.49 ●
1.1.3 FTTH/building Internet subscriptions	14	56.21	3.1.3 Online access to financial account	48	36.31
1.1.4 Population covered by at least a 3G mobile network	40	99.94	3.1.4 Internet shopping	23	66.71
1.1.5 International Internet bandwidth	46	74.12	2nd sub-pillar: Regulation	27	78.44
1.1.6 Internet access in schools	1	100.00 ●	3.2.1 Regulatory quality	39	61.60
2nd sub-pillar: Content	35	47.88	3.2.2 ICT regulatory environment	71	81.18 ○
1.2.1 GitHub commits	31	30.19	3.2.3 Regulation of emerging technologies	30	65.00
1.2.2 Internet domain registrations	33	20.29	3.2.4 E-commerce legislation	1	100.00 ●
1.2.3 Mobile apps development	26	93.15	3.2.5 Privacy protection by law content	21	84.42
1.2.4 AI scientific publications	NA	NA	3rd sub-pillar: Inclusion	16	83.96
3rd sub-pillar: Future Technologies	24	48.50	3.3.1 E-Participation	36	83.95
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
1.3.3 Robot density	18	24.79	3.3.4 Gender gap in Internet use	34	73.45
1.3.4 Computer software spending	5	57.40 ●	3.3.5 Rural gap in use of digital payments	11	77.36 ●

Indicator	Rank	Score	Indicator	Rank	Score	
<b>B. People pillar</b>	25	59.56	<b>D. Impact pillar</b>	25	70.57	
<i>1st sub-pillar: Individuals</i>	29	56.08	<i>1st sub-pillar: Economy</i>	26	47.05	
2.1.1 Mobile broadband internet traffic within the country	23	30.96	4.1.1 High-tech and medium-high-tech manufacturing	30	49.49	
2.1.2 ICT skills in the education system	67	44.67	○ 4.1.2 High-tech exports	39	43.41	
2.1.3 Use of virtual social networks	17	81.60	4.1.3 PCT patent applications	29	24.37	
2.1.4 Tertiary enrollment	9	62.09	● 4.1.4 Domestic market size	16	74.38	
2.1.5 Adult literacy rate	25	98.22	4.1.5 Prevalence of gig economy	48	51.16	
2.1.6 AI talent concentration	23	18.91	○ 4.1.6 ICT services exports	39	39.46	
<i>2nd sub-pillar: Businesses</i>	32	60.39	<i>2nd sub-pillar: Quality of Life</i>	33	77.69	
2.2.1 Firms with website	28	77.72	4.2.1 Happiness	29	76.41	
2.2.2 GERD financed by business enterprise	33	60.72	4.2.2 Freedom to make life choices	75	68.96	○
2.2.3 Knowledge intensive employment	43	54.18	4.2.3 Income inequality	46	72.11	
2.2.4 Annual investment in telecommunication services	13	88.82	● 4.2.4 Healthy life expectancy at birth	7	93.28	●
2.2.5 GERD performed by business enterprise	32	20.52	<i>3rd sub-pillar: SDG Contribution</i>	12	86.99	
<i>3rd sub-pillar: Governments</i>	23	62.22	4.3.1 SDG 3: Good Health and Well-Being	13	93.79	●
2.3.1 Government online services	17	88.48	4.3.2 SDG 4: Quality Education	29	61.95	
2.3.2 Publication and use of open data	11	73.53	● 4.3.3 SDG 5: Women's economic opportunity	11	96.49	
2.3.3 Government promotion of investment in emerging tech	63	38.08	4.3.4 SDG 7: Affordable and Clean Energy	24	88.97	
2.3.4 R&D expenditure by governments and higher education	32	48.78	4.3.5 SDG 11: Sustainable Cities and Communities	13	93.74	●

NOTE: ● a strength and ○ a weakness.

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