



## Japan

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.

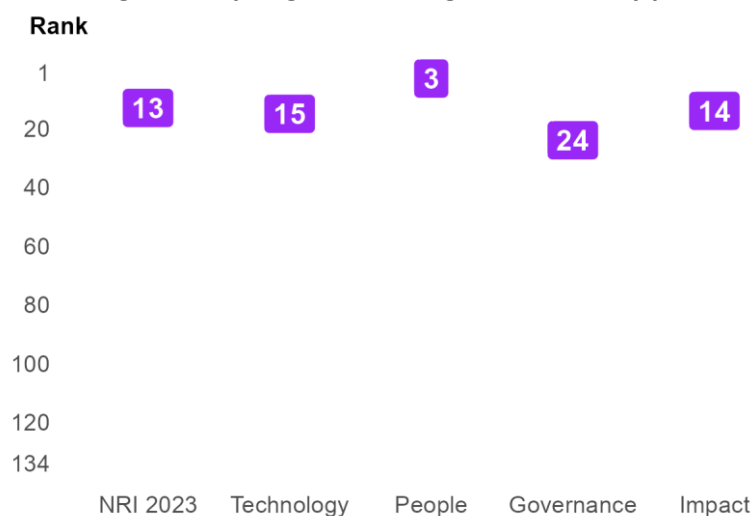
Figure 1: The NRI 2023 model



### Global NRI position of Japan

Japan ranks 13th 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 Governance.

Figure 2: Japan global ranking, overall and by pillar



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## Performance at sub-pillar level

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

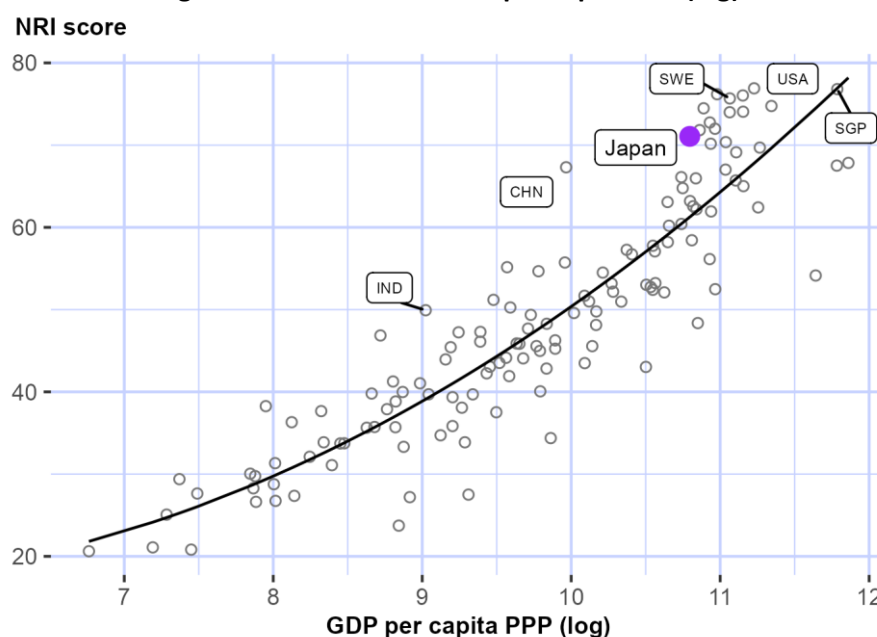
**Table 1: Japan rankings by sub-pillar**

Sub-pillar	Rank	Sub-pillar	Rank
Governments	4	Businesses	14
Access	5	Regulation	23
Individuals	5	SDG Contribution	25
Inclusion	8	Quality of Life	31
Future Technologies	12	Content	33
Economy	12	Trust	35

## NRI score and income

Figure 3 shows the position of Japan 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, Japan 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). Japan belongs to the group of high-income countries, where the best performer is United States of America (USA). The top performer of its region-Asia & Pacific-is Singapore (SGP).

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## Performance against its income group and region

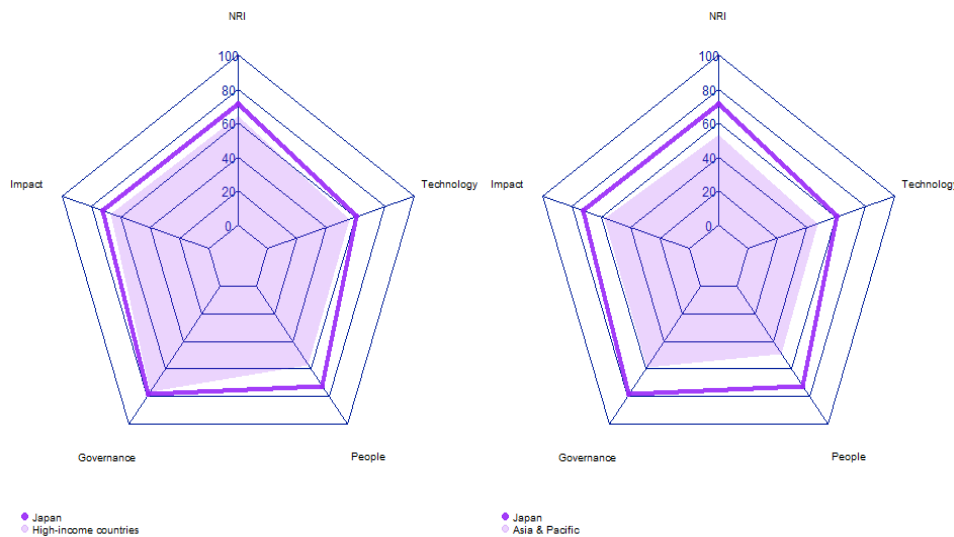
### High-income countries

Japan is ranked 13th 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 nine of the twelve sub-pillars: Access, Future Technologies, Individuals, Businesses, Governments, Regulation, Inclusion, Economy and SDG Contribution.

### Asia & Pacific

Japan is ranked 3rd within Asia & Pacific (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 Japan against its income group and region, overall and by pillar**



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

Dimension	Japan	High-income countries	Asia & Pacific
NRI	71.06	64.07	53.28
Technology	60.62	55.76	47.34
People	72.59	56.99	48.95
Governance	78.73	76.81	59.22
Impact	72.30	66.73	57.62

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## Strongest and weakest indicators

The indicators where Japan performs particularly well include 2.1.6 AI talent concentration, 3.2.4 E-commerce legislation, and 3.3.1 E-Participation (Table 3). By contrast, the economy's weakest indicators include 3.2.2 ICT regulatory environment, 4.3.3 SDG 5: Women's economic opportunity, and 3.3.4 Gender gap in Internet use.

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

Strongest indicators	Rank	Weakest indicators	Rank
2.1.6 AI talent concentration	1	4.1.6 ICT services exports	82
3.2.4 E-commerce legislation	1	3.3.4 Gender gap in Internet use	86
3.3.1 E-Participation	1	4.3.3 SDG 5: Women's economic opportunity	88
4.1.3 PCT patent applications	1	3.2.2 ICT regulatory environment	92
4.2.4 Healthy life expectancy at birth	1		
2.2.2 GERD financed by business enterprise	2		
3.3.3 Availability of local online content	2		
2.2.4 Annual investment in telecommunication services	4		
2.2.5 GERD performed by business enterprise	4		
4.1.4 Domestic market size	4		
2.3.4 R&D expenditure by governments and higher education	5		
1.2.4 AI scientific publications	6		

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

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## NRI 2023 At-A-Glance: Japan

Network Readiness Index

Rank: 13 (out of 134)

Score: 71.06

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	15	60.62	C. Governance pillar	24	78.73
1st sub-pillar: Access	5	81.46	1st sub-pillar: Trust	35	69.26
2nd sub-pillar: Content	33	38.34	2nd sub-pillar: Regulation	23	82.02
3rd sub-pillar: Future Technologies	12	62.07	3rd sub-pillar: Inclusion	8	84.92
B. People pillar	3	72.59	D. Impact pillar	14	72.30
1st sub-pillar: Individuals	5	69.15	1st sub-pillar: Economy	12	57.55
2nd sub-pillar: Businesses	14	71.36	2nd sub-pillar: Quality of Life	31	78.93
3rd sub-pillar: Governments	4	77.28	3rd sub-pillar: SDG Contribution	25	80.41

### The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
<b>A. Technology pillar</b>	15	60.62	<b>C. Governance pillar</b>	24	78.73
1st sub-pillar: Access	5	81.46	1st sub-pillar: Trust	35	69.26
1.1.1 Mobile tariffs	23	82.44	3.1.1 Secure Internet servers	29	80.09
1.1.2 Handset prices	13	80.46	3.1.2 Cybersecurity	12	97.78
1.1.3 FTTH/building Internet subscriptions	8	65.96	3.1.3 Online access to financial account	48	38.84
1.1.4 Population covered by at least a 3G mobile network	28	99.97	3.1.4 Internet shopping	32	60.33
1.1.5 International Internet bandwidth	29	78.49	2nd sub-pillar: Regulation	23	82.02
1.1.6 Internet access in schools	NA	NA	3.2.1 Regulatory quality	19	80.68
2nd sub-pillar: Content	33	38.34	3.2.2 ICT regulatory environment	92	70.00 ○
1.2.1 GitHub commits	40	24.59	3.2.3 Regulation of emerging technologies	26	72.99
1.2.2 Internet domain registrations	41	12.18	3.2.4 E-commerce legislation	1	100.00 ●
1.2.3 Mobile apps development	40	72.48	3.2.5 Privacy protection by law content	17	86.44
1.2.4 AI scientific publications	6	44.11 ●	3rd sub-pillar: Inclusion	8	84.92
3rd sub-pillar: Future Technologies	12	62.07	3.3.1 E-Participation	1	100.00 ●
1.3.1 Adoption of emerging technologies	10	85.26	3.3.2 Socioeconomic gap in use of digital payments	21	96.17
1.3.2 Investment in emerging technologies	9	80.00	3.3.3 Availability of local online content	2	97.60 ●



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Indicator	Rank	Score	Indicator	Rank	Score
1.3.3 Robot density	4	54.29	3.3.4 Gender gap in Internet use	86	59.11 ○
1.3.4 Computer software spending	42	28.74	3.3.5 Rural gap in use of digital payments	41	71.73
<b>B. People pillar</b>			<b>D. Impact pillar</b>		
<i>1st sub-pillar: Individuals</i>	3	72.59	<i>1st sub-pillar: Economy</i>	14	72.30
2.1.1 Mobile broadband internet traffic within the country	5	69.15	4.1.1 High-tech and medium-high-tech manufacturing	12	57.55
2.1.2 ICT skills in the education system	7	58.24	4.1.2 High-tech exports	8	68.78
2.1.3 Use of virtual social networks	19	75.17	4.1.3 PCT patent applications	27	32.36
2.1.4 Tertiary enrollment	45	70.09	4.1.4 Domestic market size	1	100.00 ●
2.1.5 Adult literacy rate	47	42.23	4.1.5 Prevalence of gig economy	4	84.54 ●
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	50	50.29
<i>2nd sub-pillar: Businesses</i>			<i>2nd sub-pillar: Quality of Life</i>		
2.2.1 Firms with website	1	100.00 ●	4.2.1 Happiness	82	9.30 ○
2.2.2 GERD financed by business enterprise	14	71.36	4.2.2 Freedom to make life choices	31	78.93
2.2.3 Knowledge intensive employment	NA	NA	4.2.3 Income inequality	44	71.15
2.2.4 Annual investment in telecommunication services	2	96.58 ●	4.2.4 Healthy life expectancy at birth	78	68.95
2.2.5 GERD performed by business enterprise	70	29.47	<i>3rd sub-pillar: SDG Contribution</i>		
<i>3rd sub-pillar: Governments</i>			4.3.1 SDG 3: Good Health and Well-Being	25	80.41
2.3.1 Government online services	4	93.02 ●	4.3.2 SDG 4: Quality Education	16	92.78
2.3.2 Publication and use of open data	4	66.37 ●	4.3.3 SDG 5: Women's economic opportunity	5	75.89
2.3.3 Government promotion of investment in emerging tech	7	88.24	4.3.4 SDG 7: Affordable and Clean Energy	88	69.91 ○
2.3.4 R&D expenditure by governments and higher education	16	71.65	4.3.5 SDG 11: Sustainable Cities and Communities	51	75.22
	5	59.24 ●		22	88.26

NOTE: ● a strength and ○ a weakness.

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