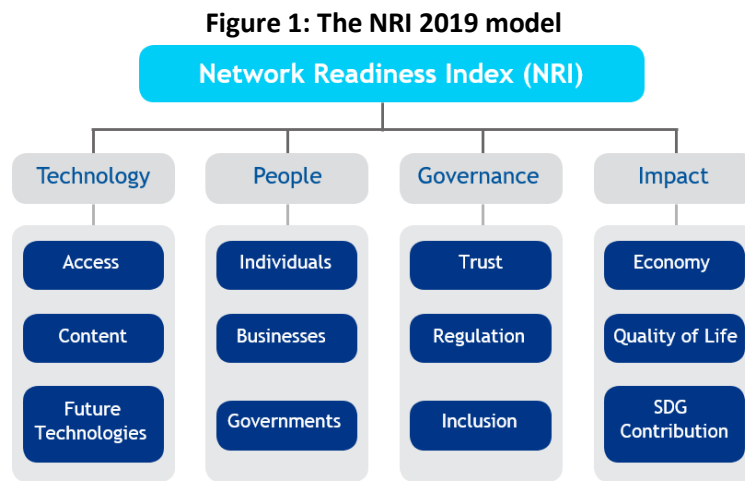


# Network Readiness Index 2019

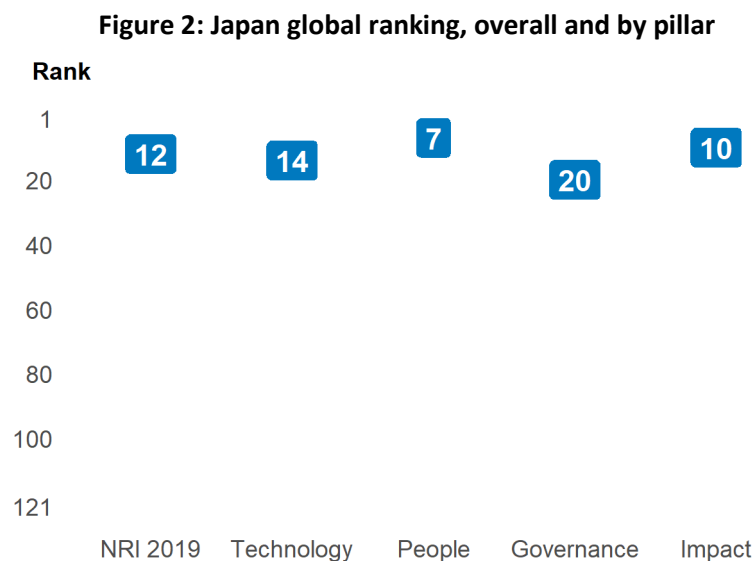
## Japan

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 2019 the NRI Report maps the network-based readiness landscape of 121 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 62 variables.



### Global NRI position of Japan

Japan ranks 12th out of the 121 economies included in the NRI 2019 (Figure 2). Its main strength relates to People. The greatest scope for improvement, meanwhile, concerns Governance.



### Performance at sub-pillar level

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

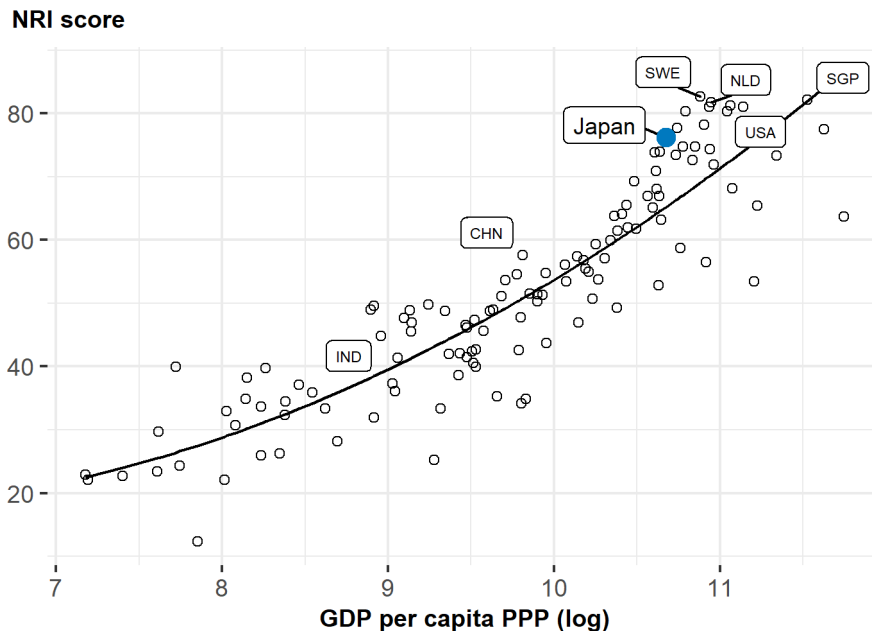
**Table 1: Japan rankings by sub-pillar**

Sub-pillar	Rank	Sub-pillar	Rank
Businesses	4	Trust	15
Economy	4	Governments	18
Future Technologies	5	Content	27
SDG Contribution	5	Quality of Life	31
Individuals	8	Access	35
Inclusion	12	Regulation	38

### 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: SWE = Sweden (rank: 1), SGP = Singapore (2), NLD = Netherlands (3), CHN = China (41), IND = India (79). USA is ranked 8th. Japan belongs to the group of high-income countries, where the best performer is Sweden (SWE). The top performer of its region—Asia & Pacific—is Singapore (SGP).

## Performance against its income group and region

### High-income countries

Japan is ranked 12th 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: Content, Future Technology, Individuals, Businesses, Governments, Trust, Inclusion, Economy and SDG Contribution.

### Asia & Pacific

Japan is ranked 2nd 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	76.17	68.12	52.44
Technology	72.87	66.07	48.56
People	74.24	61.07	44.85
Governance	80.05	77.07	61.84
Impact	77.54	68.29	54.50

### Strongest and weakest indicators

The indicators where Japan performs particularly well include Technicians and associate professionals, PCT patent applications, and Use of clean fuels and technology (Table 3). By contrast, the economy's weakest indicators include ICT regulatory environment, International Internet bandwidth, and Mobile tariffs.

**Table 3: Top-ranked and bottom-ranked indicators of Japan**

<b>Strongest indicators</b>	<b>Rank</b>	<b>Weakest indicators</b>	<b>Rank</b>
Technicians and associate professionals	1	Rural gap in use of digital payments	45
PCT patent applications	1	Use of virtual social networks	47
Use of clean fuels and technology	1	Gender gap in internet use	56
Active mobile-broadband subscriptions	2	Happiness	62
Software piracy rate	2	Online trust and safety	63
Healthy life expectancy at birth	2	E-commerce legislation	66
Internet access	3	Freedom to make life choices	80
R&D expenditure by businesses	3	Mobile tariffs	81
Maths proficiency in schools	3	International Internet bandwidth	82
Intellectual property receipts	4	ICT regulatory environment	90

# NRI 2019 At-A-Glance: Japan

Network Readiness Index

Rank: 12 (out of 121)

Score: 76.17

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
<b>A. Technology pillar</b>	<b>14</b>	<b>72.87</b>	<b>C. Governance pillar</b>	<b>20</b>	<b>80.05</b>
1st sub-pillar: Access	35	79.58	1st sub-pillar: Trust	15	82.76
2nd sub-pillar: Content	27	66.79	2nd sub-pillar: Regulation	38	74.75
3rd sub-pillar: Future Technologies	5	72.23	3rd sub-pillar: Inclusion	12	82.64
<b>B. People pillar</b>	<b>7</b>	<b>74.24</b>	<b>D. Impact pillar</b>	<b>10</b>	<b>77.54</b>
1st sub-pillar: Individuals	8	72.90	1st sub-pillar: Economy	4	63.03
2nd sub-pillar: Businesses	4	78.69	2nd sub-pillar: Quality of Life	31	72.47
3rd sub-pillar: Governments	18	71.14	3rd sub-pillar: SDG Contribution	5	97.12

## The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
<b>A. Technology pillar</b>			<b>C. Governance pillar</b>		
<i>1st sub-pillar: Access</i>			<i>1st sub-pillar: Trust</i>		
1.1.1 Mobile tariffs	81	53.59	3.1.1 Rule of law	17	88.32
1.1.2 Handset prices	13	71.50	3.1.2 Software piracy rate	2	98.65
1.1.3 Internet access	3	98.43	3.1.3 Secure Internet servers	36	79.90
1.1.4 4G mobile network coverage	24	99.00	3.1.4 Cybersecurity	15	94.41
1.1.5 Fixed-broadband subscriptions	32	91.19	3.1.5 Online trust and safety	63	52.51
1.1.6 International Internet bandwidth	82	63.79	<i>2nd sub-pillar: Regulation</i>		
1.1.7 Internet access in schools	NA	NA	3.2.1 Regulatory quality	22	80.69
<i>2nd sub-pillar: Content</i>			3.2.2 Ease of doing business	28	84.49
1.2.1 Digital participation and content creation	*	*	3.2.3 Legal framework's adaptability to digital business models	34	57.30
1.2.2 Mobile apps development	31	78.28	3.2.4 E-commerce legislation	66	75.00
1.2.3 Intellectual property receipts	4	53.61	3.2.5 Social safety net protection	18	79.77
<i>3rd sub-pillar: Future Technologies</i>			3.2.6 ICT regulatory environment	90	71.24
1.3.1 Availability of latest technologies	11	91.13	<i>3rd sub-pillar: Inclusion</i>		
1.3.2 Company investment in emerging technology	9	78.30	3.3.1 E-Participation	5	98.08
1.3.3 Government procurement of advanced technology products	22	59.11	3.3.2 Socioeconomic gap in use of digital payments	14	95.69
1.3.4 ICT PCT patent applications	6	80.79	3.3.3 Availability of local online content	10	88.78
1.3.5 Computer software spending	30	27.27	3.3.4 Gender gap in internet use	56	58.93
1.3.6 Robot density	4	96.78	3.3.5 Rural gap in use of digital payments	45	71.73
<b>B. People pillar</b>			<b>D. Impact pillar</b>		
<i>1st sub-pillar: Individuals</i>			<i>1st sub-pillar: Economy</i>		
2.1.1 Internet users	27	83.23	4.1.1 Medium and high-tech industry	6	71.85
2.1.2 Active mobile-broadband subscriptions	2	74.96	4.1.2 High-tech exports	24	32.72
2.1.3 Use of virtual social networks	47	60.50	4.1.3 PCT patent applications	1	100.00
2.1.4 Tertiary enrolment	NA	NA	4.1.4 Labour productivity per employee	28	47.55
2.1.5 Adult literacy rate	NA	NA	<i>2nd sub-pillar: Quality of Life</i>		
2.1.6 ICT skills	NA	NA	4.2.1 Happiness	62	56.99
<i>2nd sub-pillar: Businesses</i>			4.2.2 Freedom to make life choices	80	56.70
2.2.1 Firms with website	6	92.28	4.2.3 Income inequality	28	81.32
2.2.2 Internet shopping	26	58.85	4.2.4 Healthy life expectancy at birth	2	94.87
2.2.3 Professionals	NA	NA	<i>3rd sub-pillar: SDG Contribution</i>		
2.2.4 Technicians and associate professionals	1	100.00	4.3.1 Access to basic services	25	99.28
2.2.5 Extent of staff training	11	78.21	4.3.2 Pollution	21	93.55
2.2.6 R&D expenditure by businesses	3	64.09	4.3.3 Road safety	8	95.62
<i>3rd sub-pillar: Governments</i>			4.3.4 Reading proficiency in schools	NA	NA
2.3.1 Government online services	9	94.62	4.3.5 Maths proficiency in schools	3	97.17
2.3.2 Publication and use of open data	8	75.16	4.3.6 Use of clean fuels and technology	1	100.00
2.3.3 ICT use and government efficiency	39	57.17			
2.3.4 R&D expenditure by governments and higher education	21	57.60			

\* Confidential data

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