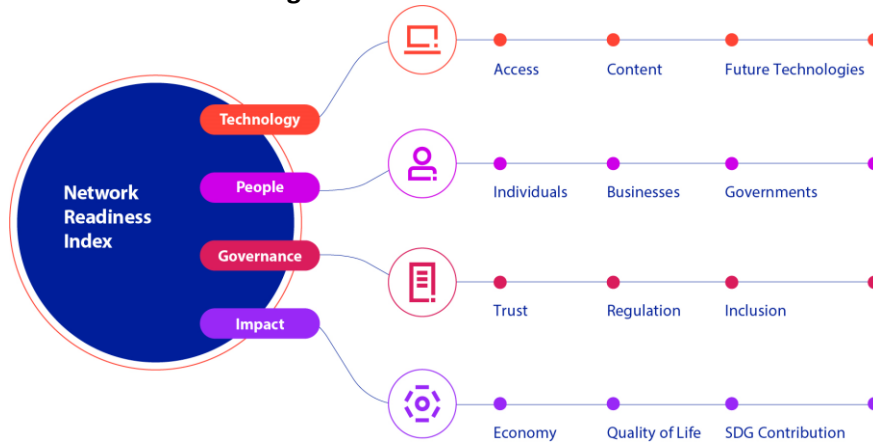




Hong Kong (China)

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.

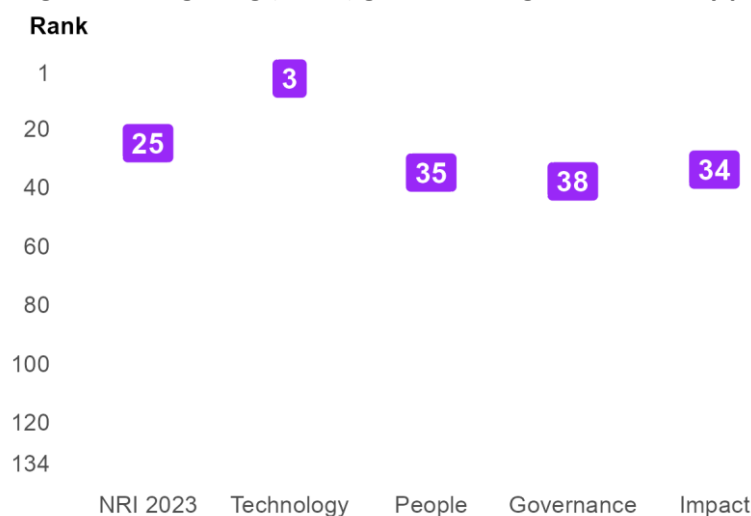
Figure 1: The NRI 2023 model



Global NRI position of Hong Kong (China)

Hong Kong (China) ranks 25th 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 Governance.

Figure 2: Hong Kong (China) 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 Hong Kong (China) relate to Content, Access and SDG Contribution, among others (Table 1). More could be done, though, to improve the economy's performances in the Governments, Regulation and Quality of Life sub-pillars.

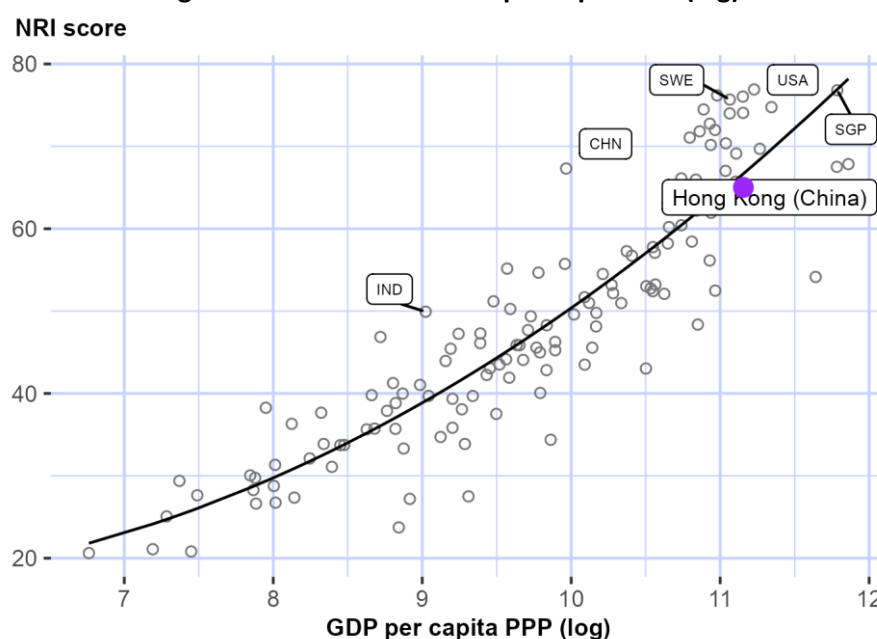
Table 1: Hong Kong (China) rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Content	1	Inclusion	22
Access	4	Trust	31
SDG Contribution	6	Businesses	41
Future Technologies	17	Governments	42
Individuals	17	Regulation	79
Economy	17	Quality of Life	105

NRI score and income

Figure 3 shows the position of Hong Kong (China) 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, Hong Kong (China) is slightly below the trend line, which suggests that its network readiness is more or less in line with what 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). Hong Kong (China) 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

Hong Kong (China) is ranked 24th 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 one of the four pillars: NRI and Technology. At the sub-pillar level, it outperforms high-income countries in seven of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Inclusion, Economy and SDG Contribution.

Asia & Pacific

Hong Kong (China) is ranked 7th within Asia & Pacific (Figure 4, right panel). It outperforms its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in Asia & Pacific in eleven of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Businesses, Governments, Trust, Regulation, Inclusion, Economy and SDG Contribution.

Figure 4: Performance of Hong Kong (China) against its income group and region, overall and by pillar

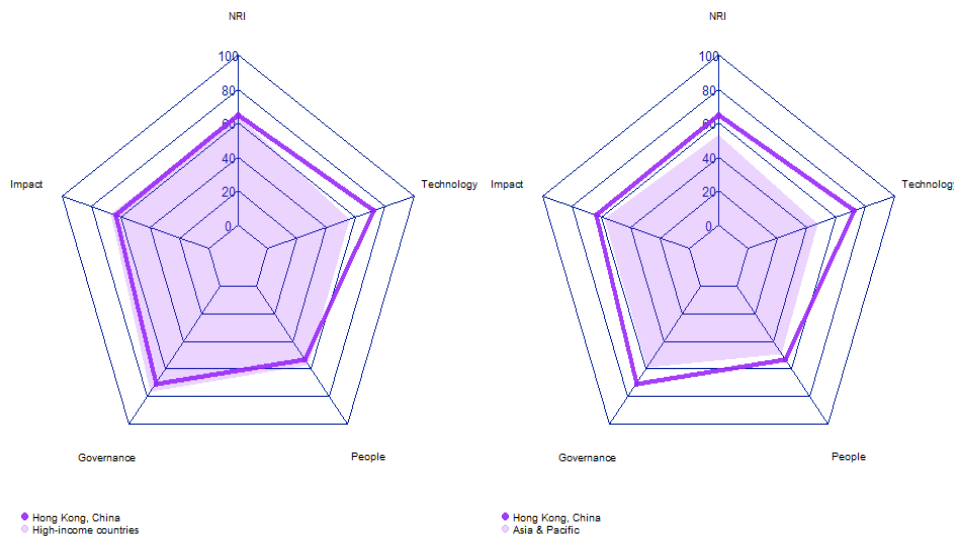


Table 2: Hong Kong (China) scores vs. averages of its income group and region, overall and by pillar

Dimension	Hong Kong (China)	High-income countries	Asia & Pacific
NRI	65.01	64.07	53.28
Technology	72.52	55.76	47.34
People	53.49	56.99	48.95
Governance	70.69	76.81	59.22
Impact	63.35	66.73	57.62

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Strongest and weakest indicators

The indicators where Hong Kong (China) performs particularly well include 1.1.5 International Internet bandwidth, 1.1.6 Internet access in schools, and 1.2.1 GitHub commits (Table 3). By contrast, the economy's weakest indicators include 3.2.5 Privacy protection by law content, 4.2.2 Freedom to make life choices, and 4.1.6 ICT services exports.

Table 3: Highlight of Strengths and Opportunities for Hong Kong (China)

Strongest indicators	Rank	Weakest indicators	Rank
1.1.5 International Internet bandwidth	1	4.1.1 High-tech and medium-high-tech manufacturing	62
1.1.6 Internet access in schools	1	4.2.1 Happiness	83
1.2.1 GitHub commits	1	4.1.6 ICT services exports	100
4.1.2 High-tech exports	1	4.2.2 Freedom to make life choices	115
4.3.4 SDG 7: Affordable and Clean Energy	2	3.2.5 Privacy protection by law content	133
1.2.3 Mobile apps development	3		
4.3.2 SDG 4: Quality Education	3		
2.1.3 Use of virtual social networks	7		
3.3.3 Availability of local online content	8		
2.3.3 Government promotion of investment in emerging technologies	9		
1.1.1 Mobile tariffs	11		

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

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NRI 2023 At-A-Glance: Hong Kong (China)

Network Readiness Index

Rank: 25 (out of 134)

Score: 65.01

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	3	72.52	C. Governance pillar	38	70.69
1st sub-pillar: Access	4	82.63	1st sub-pillar: Trust	31	70.55
2nd sub-pillar: Content	1	77.12	2nd sub-pillar: Regulation	79	62.09
3rd sub-pillar: Future Technologies	17	57.81	3rd sub-pillar: Inclusion	22	79.44
B. People pillar	35	53.49	D. Impact pillar	34	63.35
1st sub-pillar: Individuals	17	59.03	1st sub-pillar: Economy	17	51.52
2nd sub-pillar: Businesses	41	53.65	2nd sub-pillar: Quality of Life	105	52.08
3rd sub-pillar: Governments	42	47.80	3rd sub-pillar: SDG Contribution	6	86.46

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	3	72.52	C. Governance pillar	38	70.69
1st sub-pillar: Access	4	82.63	1st sub-pillar: Trust	31	70.55
1.1.1 Mobile tariffs	11	89.37	3.1.1 Secure Internet servers	11	89.09
1.1.2 Handset prices	27	70.93	3.1.2 Cybersecurity	NA	NA
1.1.3 FTTH/building Internet subscriptions	47	35.78	3.1.3 Online access to financial account	29	52.51
1.1.4 Population covered by at least a 3G mobile network	57	99.67	3.1.4 Internet shopping	23	70.06
1.1.5 International Internet bandwidth	1	100.00	2nd sub-pillar: Regulation	79	62.09
1.1.6 Internet access in schools	1	100.00	3.2.1 Regulatory quality	13	85.38
2nd sub-pillar: Content	1	77.12	3.2.2 ICT regulatory environment	64	84.12
1.2.1 GitHub commits	1	100.00	3.2.3 Regulation of emerging technologies	28	67.79
1.2.2 Internet domain registrations	19	45.28	3.2.4 E-commerce legislation	NA	NA
1.2.3 Mobile apps development	3	86.07	3.2.5 Privacy protection by law content	133	11.09
1.2.4 AI scientific publications	NA	NA	3rd sub-pillar: Inclusion	22	79.44
3rd sub-pillar: Future Technologies	17	57.81	3.3.1 E-Participation	NA	NA
1.3.1 Adoption of emerging technologies	19	76.65	3.3.2 Socioeconomic gap in use of digital payments	44	85.93
1.3.2 Investment in emerging technologies	15	74.75	3.3.3 Availability of local online content	8	93.27

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Indicator	Rank	Score	Indicator	Rank	Score
1.3.3 Robot density	7	45.49	3.3.4 Gender gap in Internet use	57	68.30
1.3.4 Computer software spending	26	34.36	3.3.5 Rural gap in use of digital payments	48	70.25
B. People pillar			D. Impact pillar		
<i>1st sub-pillar: Individuals</i>			<i>1st sub-pillar: Economy</i>		
2.1.1 Mobile broadband internet traffic within the country	45	17.47	4.1.1 High-tech and medium-high-tech manufacturing	62	23.70 ○
2.1.2 ICT skills in the education system	17	75.57	4.1.2 High-tech exports	1	100.00 ●
2.1.3 Use of virtual social networks	7	85.24 ●	4.1.3 PCT patent applications	NA	NA
2.1.4 Tertiary enrollment	13	57.86	4.1.4 Domestic market size	46	60.56
2.1.5 Adult literacy rate	NA	NA	4.1.5 Prevalence of gig economy	18	68.90
2.1.6 AI talent concentration	NA	NA	4.1.6 ICT services exports	100	4.44 ○
<i>2nd sub-pillar: Businesses</i>			<i>2nd sub-pillar: Quality of Life</i>		
2.2.1 Firms with website	NA	NA	4.2.1 Happiness	83	55.22 ○
2.2.2 GERD financed by business enterprise	32	60.91	4.2.2 Freedom to make life choices	115	48.94 ○
2.2.3 Knowledge intensive employment	28	61.82	4.2.3 Income inequality	NA	NA
2.2.4 Annual investment in telecommunication services	41	81.94	4.2.4 Healthy life expectancy at birth	NA	NA
2.2.5 GERD performed by business enterprise	45	9.92	<i>3rd sub-pillar: SDG Contribution</i>		
<i>3rd sub-pillar: Governments</i>			4.3.1 SDG 3: Good Health and Well-Being	NA	NA
2.3.1 Government online services	NA	NA	4.3.2 SDG 4: Quality Education	3	80.27 ●
2.3.2 Publication and use of open data	NA	NA	4.3.3 SDG 5: Women's economic opportunity	34	88.50
2.3.3 Government promotion of investment in emerging tech	9	78.30 ●	4.3.4 SDG 7: Affordable and Clean Energy	2	90.61 ●
2.3.4 R&D expenditure by governments and higher education	41	17.30	4.3.5 SDG 11: Sustainable Cities and Communities	NA	NA

NOTE: ● a strength and ○ a weakness.

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Sources

- Dutta, S., & Lanvin, B. (eds.) (2022). The Network Readiness Index 2022: Benchmarking the Future of the Network Economy. Washington DC: Portulans Institute.
- Berry, B. (2019). berryFunctions: Function Collection Related to Plotting and Hydrology. R package version 1.18.2. URL: <https://CRAN.R-project.org/package=berryFunctions>
- Dutta, S., & Lanvin, B. (eds.) (2019). The Network Readiness Index 2019: Towards a Future-Ready Society. Washington DC: Portulans Institute.
- Dutta, S., & Lanvin, B. (eds.) (2020). The Network Readiness Index 2020: Fostering Digital Transformation in a post-COVID Global Economy. Washington DC: Portulans Institute.
- Dutta, S., & Lanvin, B. (eds.) (2021). The Network Readiness Index 2021: Shaping the Global Recovery. How digital technologies can make the post-COVID world more equal. Washington DC: Portulans Institute.
- Gohel, D. (2019). officer: Manipulation of Microsoft Word and PowerPoint Documents. R package version 0.3.6. URL: <https://CRAN.R-project.org/package=officer>
- Gohel, D. (2019). flextable: Functions for Tabular Reporting. R package version 0.5.6. URL: <https://CRAN.R-project.org/package=flextable>
- Milton Bache, S. & Wickham, H. (2014). magrittr: A Forward-Pipe Operator for R. R package version 1.5. URL: <https://CRAN.R-project.org/package=magrittr>
- Nakazawa, M. (2019). fmsb: Functions for Medical Statistics Book with some Demographic Data. R package version 0.7.0. URL: <https://CRAN.R-project.org/package=fmsb>
- R Core Team (2018). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL: <https://www.R-project.org/>.
- Slowikowski, K. (2019). ggrepel: Automatically Position Non-Overlapping Text Labels with 'ggplot2'. R package version 0.8.1. URL: <https://CRAN.R-project.org/package=ggrepel>
- Wickham, H. (2007). Reshaping Data with the reshape Package. Journal of Statistical Software, 21(12), 1-20. URL: <http://www.jstatsoft.org/v21/i12/>.
- Wickham, H. (2016). ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag. New York.
- Wickham et al., (2019). Welcome to the tidyverse. Journal of Open Source Software, 4(43), 1686, URL: <https://doi.org/10.21105/joss.01686>