

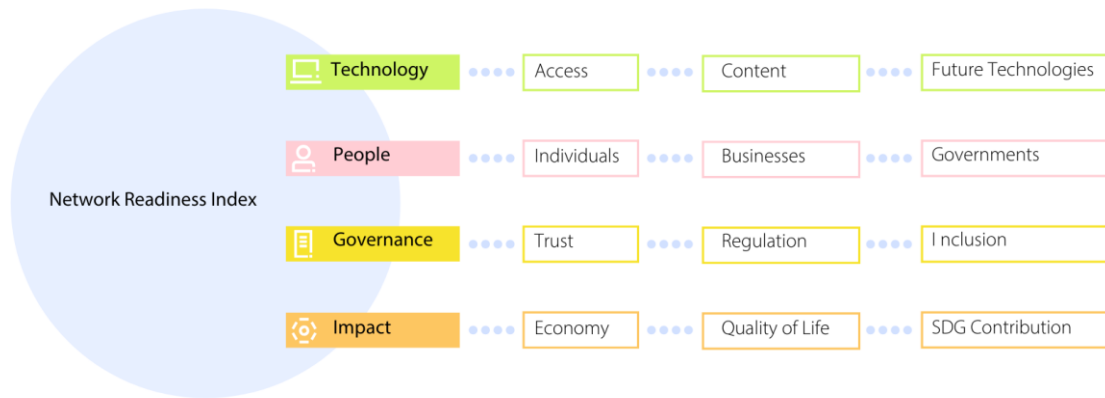
# Network Readiness Index 2024



## Panama

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 2024 the NRI Report maps the network-based readiness landscape of 133 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 54 variables.

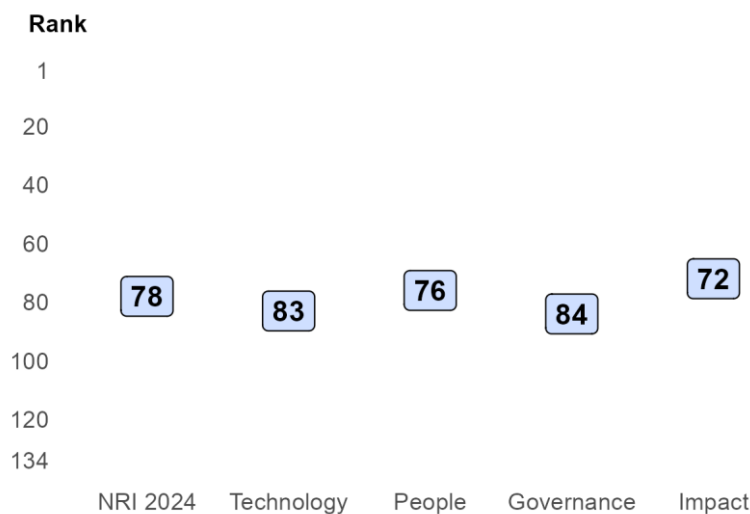
Figure 1: The NRI 2024 model



### Global NRI position of Panama

Panama ranks 78th out of the 133 economies included in the NRI 2024 (Figure 2). Its main strength relates to Impact. The greatest scope for improvement, meanwhile, concerns Governance.

Figure 2: Panama 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 Panama relate to Individuals, Quality of Life and SDG Contribution, among others (Table 1). More could be done, though, to improve the economy's performances in the Businesses, Governments and Economy sub-pillars.

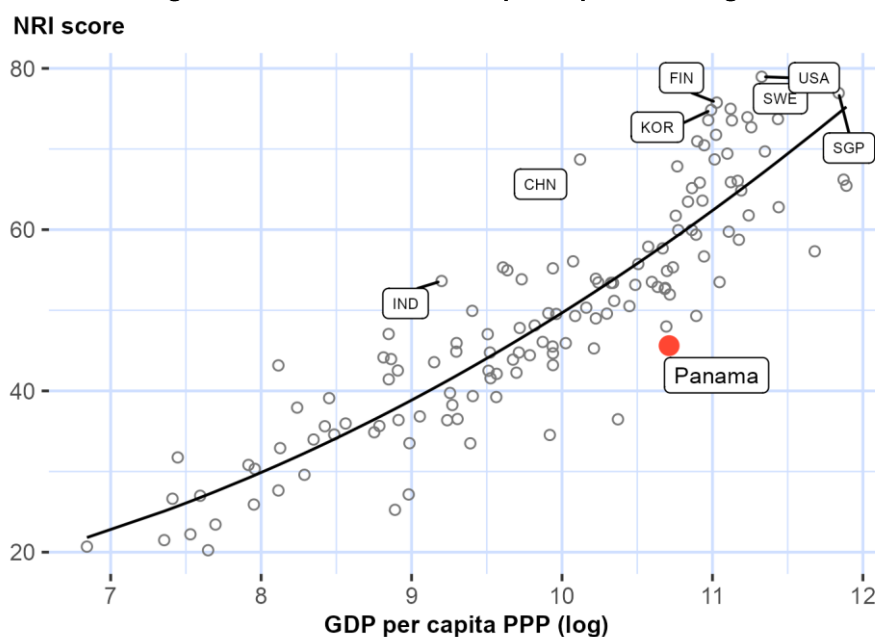
Table 1: Panama rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Individuals	31	Inclusion	85
Quality of Life	55	Access	91
SDG Contribution	64	Trust	91
Future Technologies	70	Businesses	92
Regulation	70	Governments	92
Content	76	Economy	105

### NRI score and income

Figure 3 shows the position of Panama 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, Panama is well below the trend line, which suggests that it is underachieving and that one would expect it could raise its network readiness in view of 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), SWE = Sweden (4), KOR = Republic of Korea (5), CHN = China (17), and IND = India (49). Panama belongs to the group of high-income countries, where the best performer is United States of America (USA). The top performer of its region-The Americas-is also United States of America (USA).

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## Performance against its income group and region

### High-income countries

Panama is ranked 51st in the group of high-income countries (Figure 4, left panel). In terms of pillar performance, it has a score below the income group average in each of the four pillars. At the sub-pillar level, it outperforms high-income countries in one of the twelve sub-pillars: Individuals.

### The Americas

Panama is ranked 10th within The Americas (Figure 4, right panel). It lags behind its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in The Americas in four of the twelve sub-pillars: Future Technologies, Individuals, Regulation and Quality of Life.

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

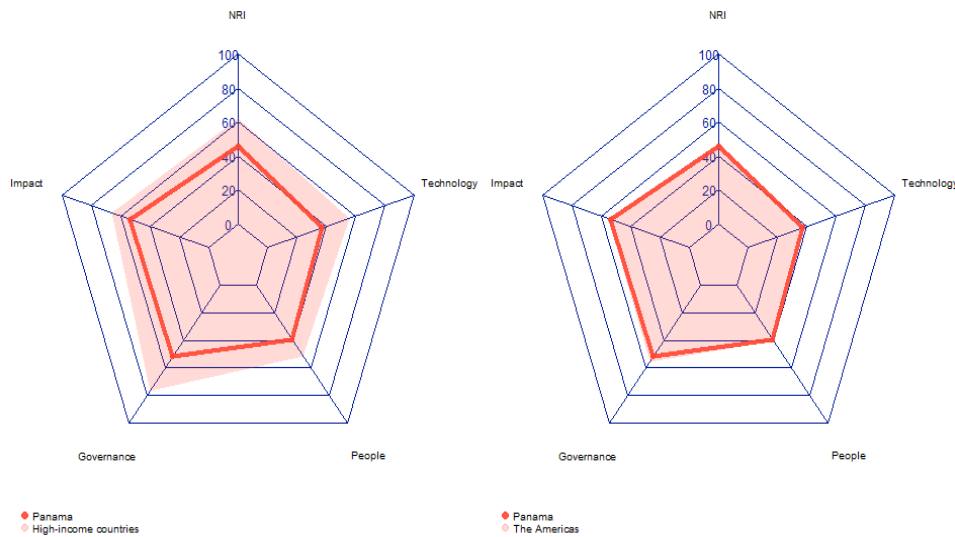


Table 2: Panama scores vs. averages of its income group and region, overall and by pillar

Dimension	Panama	High-income countries	The Americas
NRI	45.61	62.50	47.17
Technology	37.47	55.84	37.72
People	39.46	51.81	40.44
Governance	51.88	76.61	55.39
Impact	53.63	65.73	55.11

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#### Strongest and weakest indicators

The indicators where Panama performs particularly well include 4.3.4 SDG 7: Affordable and Clean Energy, 1.1.2 Handset prices, and 3.3.4 Gender gap in Internet use (Table 3). By contrast, the economy's weakest indicators include 1.2.4 AI scientific publications, 2.1.2 ICT skills in the education system, and 4.2.3 Income inequality.

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

Strongest indicators	Rank	Weakest indicators	Rank
4.3.4 SDG 7: Affordable and Clean Energy	4	4.3.2 SDG 4: Quality Education	69
1.1.2 Handset prices	22	3.2.4 E-commerce legislation	87
3.3.4 Gender gap in Internet use	23	2.3.4 R&D expenditure by governments and higher education	94
3.2.5 Privacy protection by law content	27	2.3.3 Government promotion of emerging technologies	104
4.2.1 Happiness	31	1.1.5 International Internet bandwidth	105
4.3.5 SDG 11: Sustainable Cities and Communities	33	3.3.2 Socioeconomic gap in use of digital payments	106
4.2.4 Healthy life expectancy at birth	34	1.1.3 FTTH/building Internet subscriptions	107
1.2.2 Internet domain registrations	38	4.2.3 Income inequality	109
4.3.1 SDG 3: Good Health and Well-Being	45	2.1.2 ICT skills in the education system	111
1.2.3 Mobile apps development	47	1.2.4 AI scientific publications	127

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

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## NRI 2024 At-A-Glance: Panama

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Rank: 78 (out of 133)

Score: 45.61

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	83	37.47	C. Governance pillar	84	51.88
1st sub-pillar: Access	91	55.11	1st sub-pillar: Trust	91	35.62
2nd sub-pillar: Content	76	22.45	2nd sub-pillar: Regulation	70	67.11
3rd sub-pillar: Future Technologies	70	34.83	3rd sub-pillar: Inclusion	85	52.92
B. People pillar	76	39.46	D. Impact pillar	72	53.63
1st sub-pillar: Individuals	31	56.76	1st sub-pillar: Economy	105	23.40
2nd sub-pillar: Businesses	92	30.59	2nd sub-pillar: Quality of Life	55	70.81
3rd sub-pillar: Governments	92	31.04	3rd sub-pillar: SDG Contribution	64	66.67

### The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score	
<b>A. Technology pillar</b>	83	37.47	<b>C. Governance pillar</b>	84	51.88	
<i>1st sub-pillar: Access</i>	91	55.11	<i>1st sub-pillar: Trust</i>	91	35.62	
1.1.1 Mobile tariffs	71	62.26	3.1.1 Secure Internet servers	62	58.27	
1.1.2 Handset prices	22	91.66	• 3.1.2 Cybersecurity	104	34.08	
1.1.3 FTTH/building Internet subscriptions	107	11.99	○ 3.1.3 Online access to financial account	72	34.86	
1.1.4 Population covered by at least a 3G mobile network	96	54.83	3.1.4 Internet shopping	81	15.26	
1.1.5 International Internet bandwidth	105	63.34	○ <i>2nd sub-pillar: Regulation</i>	70	67.11	
1.1.6 Internet access in schools	66	46.58	3.2.1 Regulatory quality	67	51.01	
<i>2nd sub-pillar: Content</i>	76	22.45	3.2.2 ICT regulatory environment	78	76.79	
1.2.1 GitHub commits	91	3.49	3.2.3 Regulation of emerging technologies	64	47.98	
1.2.2 Internet domain registrations	38	15.81	• 3.2.4 E-commerce legislation	87	75.00	○
1.2.3 Mobile apps development	47	70.33	• 3.2.5 Privacy protection by law content	27	84.76	•
1.2.4 AI scientific publications	127	0.19	○ <i>3rd sub-pillar: Inclusion</i>	85	52.92	
<i>3rd sub-pillar: Future Technologies</i>	70	34.83	3.3.1 E-Participation	75	50.01	
1.3.1 Adoption of emerging technologies	84	47.80	3.3.2 Socioeconomic gap in use of digital payments	106	44.45	○
1.3.2 Investment in emerging technologies	63	40.25	3.3.3 Availability of local online content	75	56.01	
1.3.3 Robot density	NA	NA	3.3.4 Gender gap in Internet use	23	71.25	•

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Indicator	Rank	Score	Indicator	Rank	Score
1.3.4 Computer software spending	77	16.45	3.3.5 Rural gap in use of digital payments	97	42.90
<b>B. People pillar</b>	76	39.46	<b>D. Impact pillar</b>	72	53.63
<i>1st sub-pillar: Individuals</i>	31	56.76	<i>1st sub-pillar: Economy</i>	105	23.40
2.1.1 Mobile broadband internet traffic within the country	NA	NA	4.1.1 ICT patent applications	61	0.28
2.1.2 ICT skills in the education system	111	27.89	4.1.2 Domestic market scale	75	50.30
2.1.3 Use of virtual social networks	76	48.50	4.1.3 Prevalence of gig economy	87	31.98
2.1.4 Adult literacy rate	47	93.87	4.1.4 ICT services exports	70	11.06
2.1.5 AI talent concentration	NA	NA	<i>2nd sub-pillar: Quality of Life</i>	55	70.81
<i>2nd sub-pillar: Businesses</i>	92	30.59	4.2.1 Happiness	31	74.39
2.2.1 Firms with website	97	30.12	4.2.2 Freedom to make life choices	54	80.87
2.2.2 Number of venture capital deals invested in AI	NA	NA	4.2.3 Income inequality	109	36.25
2.2.3 Annual investment in telecommunication services	68	49.54	4.2.4 Healthy life expectancy at birth	34	78.11
2.2.4 Public cloud computing market scale	76	12.12	<i>3rd sub-pillar: SDG Contribution</i>	64	66.67
<i>3rd sub-pillar: Governments</i>	92	31.04	4.3.1 SDG 3: Good Health and Well-Being	45	79.03
2.3.1 Government online services	71	63.98	4.3.2 SDG 4: Quality Education	69	17.10
2.3.2 Data Capabilities	42	42.41	4.3.3 SDG 5: Women's economic opportunity	90	71.79
2.3.3 Government promotion of investment in emerging technologies	104	14.97	4.3.4 SDG 7: Affordable and Clean Energy	4	97.66
2.3.4 R&D expenditure by governments and higher education	94	2.80	4.3.5 SDG 11: Sustainable Cities and Communities	33	81.21

NOTE: ● a strength and ○ a weakness.



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