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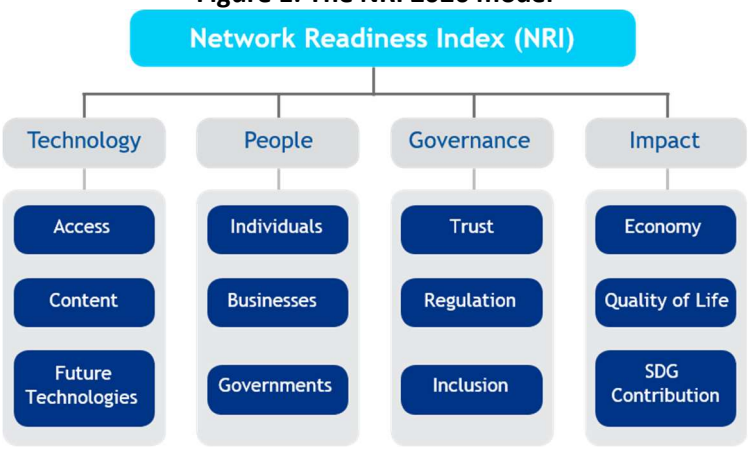
Network Readiness Index 2020 Panama

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 2020 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 60 variables.

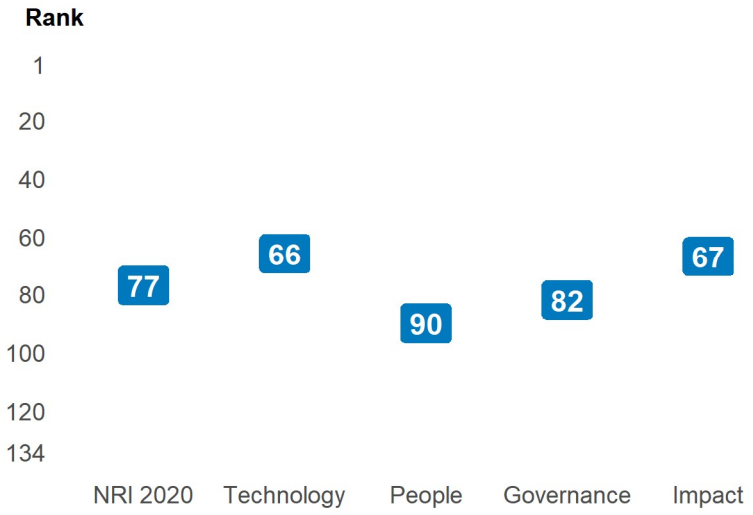
Figure 1: The NRI 2020 model



Global NRI position of Panama

Panama ranks 77th out of the 134 economies included in the NRI 2020 (Figure 2). Its main strength relates to Technology. The greatest scope for improvement, meanwhile, concerns People.

Figure 2: Panama global ranking, overall and by pillar



Performance at sub-pillar level

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

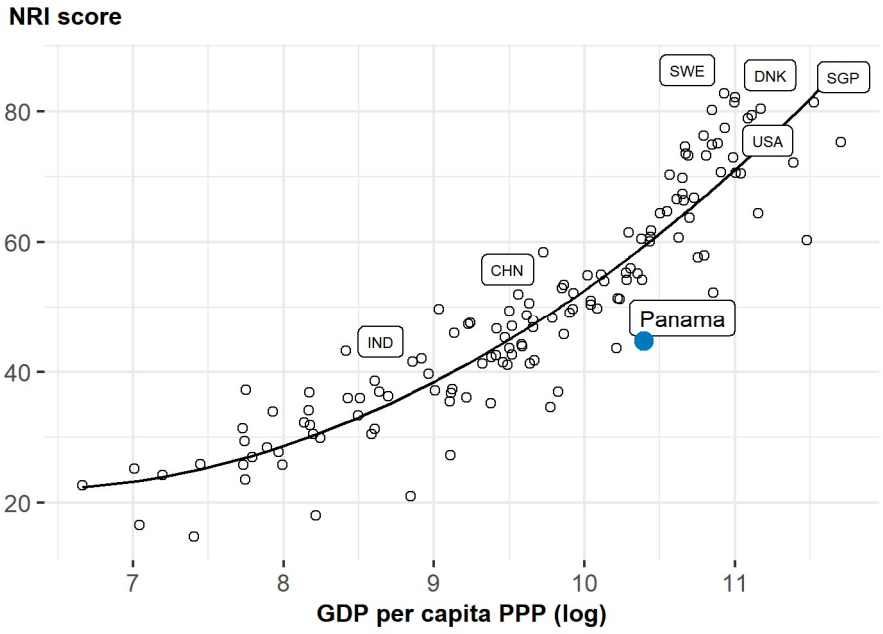
Table 1: Panama rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Content	47	Individuals	87
SDG Contribution	47	Businesses	88
Regulation	56	Trust	89
Quality of Life	62	Inclusion	93
Access	78	Governments	102
Future Technologies	80	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: SWE = Sweden (rank: 1), DNK = Denmark (2), SGP = Singapore (3), CHN = China (40), IND = India (88). USA is ranked 8th. Panama belongs to the group of high-income countries, where the best performer is Sweden (SWE). The top performer of its region-The Americas-is United States (USA).

Performance against its income group and region

High-income countries

Panama is ranked 49th 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 trails high-income countries in all of them.

The Americas

Panama is ranked 12th within The Americas (Figure 4, right panel). It has a score above the regional average in one of the four pillars: technology. With regard to sub-pillars, it outperforms the average in The Americas in three of the twelve sub-pillars: Content, Regulation and SDG Contribution.

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	44.74	66.82	47.67
Technology	39.99	62.51	38.26
People	37.75	62.72	45.24
Governance	50.65	75.41	54.59
Impact	50.57	66.63	52.61

Strongest and weakest indicators

The indicators where Panama performs particularly well include e-commerce legislation, Gender gap in Internet use, and SDG 7: Affordable and Clean Energy (Table 3). By contrast, the economy's weakest indicators include Rural gap in use of digital payments, 4G mobile network coverage, ICT skills, and Medium and high-tech industry.

Table 3: Top-ranked and bottom-ranked indicators of Panama

Strongest indicators	Rank	Weakest indicators	Rank
e-commerce legislation	1	R&D expenditure by businesses	93
Gender gap in Internet use	4	Online access to financial account	98
SDG 7: Affordable and Clean Energy	6	Cybersecurity	99
SDG 5: Gender Equality	14	R&D expenditure by governments and higher education	106
Internet domain registrations	23	Socioeconomic gap in use of digital payments	107
SDG 3: Good Health and Well-Being	25	Income inequality	111
Handset prices	28	ICT skills	112
Healthy life expectancy at birth	31	Medium and high-tech industry	112
Freedom to make life choices	38	4G mobile network coverage	114
International Internet bandwidth	42	Rural gap in use of digital payments	116

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NRI 2020 At-A-Glance: Panama

Network Readiness Index — Rank: 77 (out of 134) — Score: 44.74

Pillar/sub-pillar	Rank	Score	Pillar/sub-pillar	Rank	Score
A. Technology pillar	66	39.99	C. Governance pillar	82	50.65
1st sub-pillar: Access	78	54.75	1st sub-pillar: Trust	89	30.08
2nd sub-pillar: Content	47	39.34	2nd sub-pillar: Regulation	56	68.39
3rd sub-pillar: Future Technologies	80	25.88	3rd sub-pillar: Inclusion	93	53.47
B. People pillar	90	37.75	D. Impact pillar	67	50.57
1st sub-pillar: Individuals	87	50.01	1st sub-pillar: Economy	105	14.93
2nd sub-pillar: Businesses	88	35.42	2nd sub-pillar: Quality of Life	62	66.46
3rd sub-pillar: Governments	102	27.82	3rd sub-pillar: SDG Contribution	47	70.34

The Network Readiness Index in detail

Indicator	Rank	Score	Indicator	Rank	Score
A. Technology pillar	66	39.99	**C. Governance pillar**	82	50.65
1st sub-pillar: Access	78	54.75	*1st sub-pillar: Trust*	89	30.08
1.1.1 Mobile tariffs	76	57.36	3.1.1 Secure Internet servers	57	60.21
1.1.2 Handset prices	28	64.54	3.1.2 Cybersecurity	99	39.11
1.1.3 Internet access	75	60.61	3.1.3 Online access to financial account	98	13.18
1.1.4 4G mobile network coverage	114	33.00	3.1.4 Internet shopping	81	7.81
1.1.5 Fixed-broadband subscriptions	79	41.75	*2nd sub-pillar: Regulation*	56	68.39
1.1.6 International Internet bandwidth	42	71.22	3.2.1 Regulatory quality	52	60.26
1.1.7 Internet access in schools	NA	NA	3.2.2 ICT regulatory environment	51	86.88
2nd sub-pillar: Content	47	39.34	3.2.3 Legal framework's adaptability to emerging technologies	67	40.52
1.2.1 GitHub commits	54	7.48	3.2.4 e-commerce legislation	1	100.00
1.2.2 Wikipedia edits	60	46.77	3.2.5 Privacy protection by law content	54	54.30
1.2.3 Internet domain registrations	*	*	*3rd sub-pillar: Inclusion*	93	53.47
1.2.4 Mobile apps development	56	67.50	3.3.1 E-Participation	88	56.79
3rd sub-pillar: Future Technologies	80	25.88	3.3.2 Socioeconomic gap in use of digital payments	107	41.27
1.3.1 Adoption of emerging technologies	66	47.02	3.3.3 Availability of local online content	74	56.08
1.3.2 Investment in emerging technologies	64	40.39	3.3.4 Gender gap in Internet use	4	75.79
1.3.3 ICT PCT patent applications	73	0.95	3.3.5 Rural gap in use of digital payments	116	37.42
1.3.4 Computer software spending	72	15.15	**D. Impact pillar**	67	50.57
1.3.5 Robot density	NA	NA	*1st sub-pillar: Economy*	105	14.93
B. People pillar	90	37.75	4.1.1 Medium and high-tech industry	112	7.65
1st sub-pillar: Individuals	87	50.01	4.1.2 High-tech exports	52	17.41
2.1.1 Internet users	84	56.92	4.1.3 PCT patent applications	49	1.07
2.1.2 Active mobile-broadband subscriptions	74	26.98	4.1.4 Labor productivity per employee	NA	NA
2.1.3 Use of virtual social networks	63	55.67	4.1.5 Prevalence of gig economy	88	33.59
2.1.4 Tertiary enrollment	64	34.60	*2nd sub-pillar: Quality of Life*	62	66.46
2.1.5 Adult literacy rate	45	94.13	4.2.1 Happiness	49	66.69
2.1.6 ICT skills	112	31.78	4.2.2 Freedom to make life choices	38	86.35
2nd sub-pillar: Businesses	88	35.42	4.2.3 Income inequality	111	35.57
2.2.1 Firms with website	86	35.99	4.2.4 Healthy life expectancy at birth	31	77.21
2.2.2 Ease of doing business	81	64.26	*3rd sub-pillar: SDG Contribution*	47	70.34
2.2.3 Professionals	63	25.61	4.3.1 SDG 3: Good Health and Well-Being	25	83.61
2.2.4 Technicians and associate professionals	71	30.79	4.3.2 SDG 4: Quality Education	77	10.42
2.2.5 Business use of digital tools	77	55.83	4.3.3 SDG 5: Gender Equality	14	86.92
2.2.6 R&D expenditure by businesses	93	0.02	4.3.4 SDG 7: Affordable and Clean Energy	6	95.38
3rd sub-pillar: Governments	102	27.82	.	.	.
2.3.1 Government online services	81	61.21			
2.3.2 Publication and use of open data	77	17.90			
2.3.3 Government promotion of investment in emerging tech	92	28.98			
2.3.4 R&D expenditure by governments and higher education	106	3.21			

* Confidential data

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