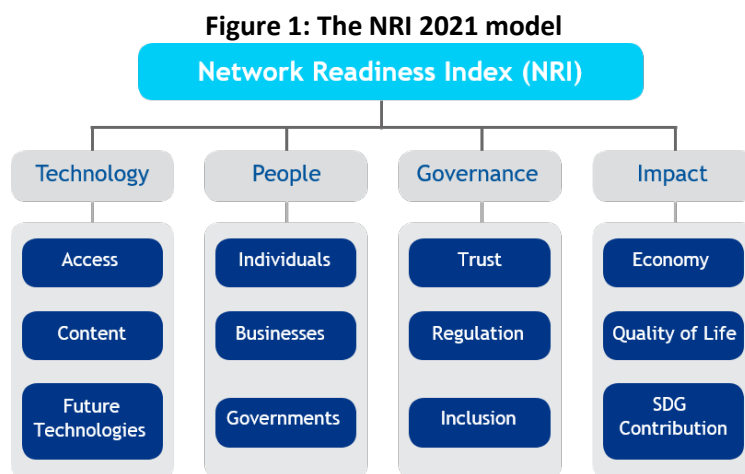


# Network Readiness Index 2021 Thailand

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 2021 the NRI Report maps the network-based readiness landscape of 130 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.



## Global NRI position of Thailand

Thailand ranks 54th out of the 130 economies included in the NRI 2021 (Figure 2). Its main strength relates to Technology. The greatest scope for improvement, meanwhile, concerns People.



### Performance at sub-pillar level

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

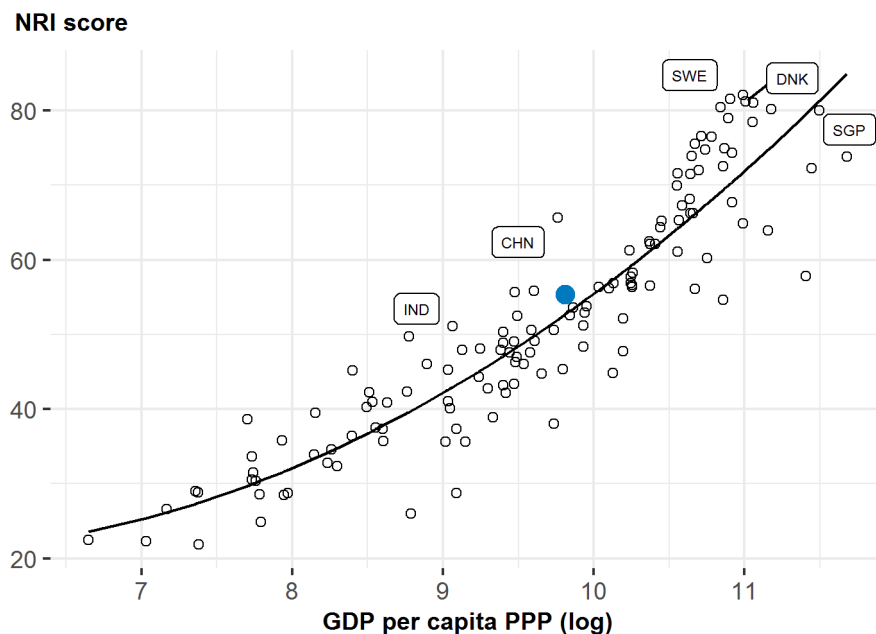
**Table 1: Thailand rankings by sub-pillar**

Sub-pillar	Rank	Sub-pillar	Rank
Access	34	Governments	55
Economy	37	Regulation	57
Inclusion	45	Trust	61
Future Technologies	48	Content	68
Businesses	51	Individuals	74
Quality of Life	51	SDG Contribution	88

### NRI score and income

Figure 3 shows the position of Thailand 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, Thailand 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: NLD = Netherlands (rank: 1), SWE = Sweden (2), DNK = Denmark (3), CHN = China (29), IND = India (67). USA is ranked 4th. Thailand belongs to the group of upper-middle-income countries, where the best performer is China (CHN). The top performer of its region-Asia & Pacific-is Singapore (SGP).

## Performance against its income group and region

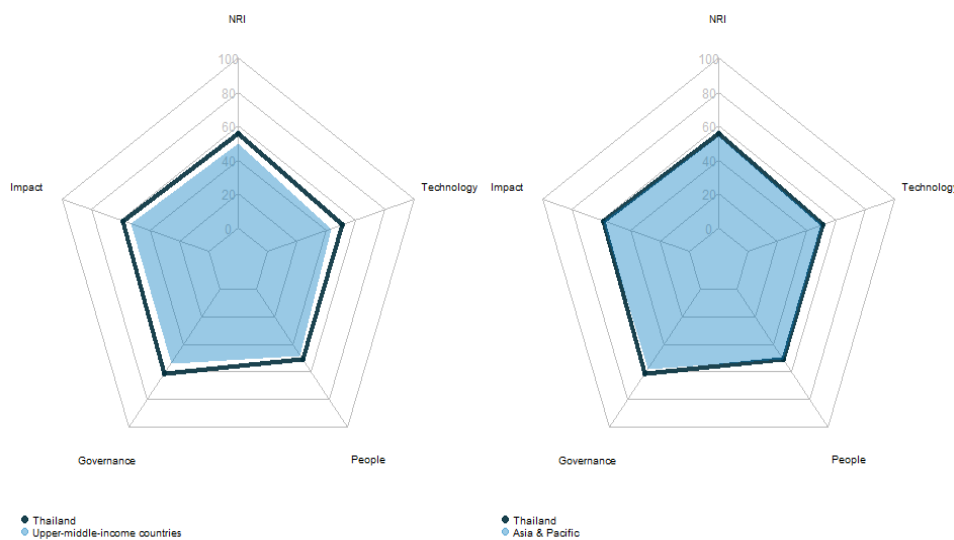
### Upper-middle-income countries

Thailand is ranked 7th in the group of upper-middle-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 upper-middle-income countries in nine of the twelve sub-pillars: Access, Future Technologies, Businesses, Governments, Trust, Regulation, Inclusion, Economy and Quality of Life.

### Asia & Pacific

Thailand is ranked 9th within Asia & Pacific (Figure 4, right panel). It has a score above the regional average in three of the four pillars: nri.score, technology, governance and impact. With regard to sub-pillars, it outperforms the average in Asia & Pacific in six of the twelve sub-pillars: Access, Businesses, Regulation, Inclusion, Economy and Quality of Life.

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



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

Dimension	Thailand	Upper-middle-income countries	Asia & Pacific
NRI	55.31	49.71	54.38
Technology	51.04	43.52	50.01
People	50.89	48.48	51.22
Governance	60.98	53.94	58.01
Impact	58.33	52.89	58.28

### Strongest and weakest indicators

The indicators where Thailand performs particularly well include 2.2.2 GERD financed by business enterprise, 3.2.4 E-commerce legislation, and 1.1.6 International Internet bandwidth (Table 3). By contrast, the economy's weakest indicators include 4.3.5 SDG 11: Sustainable Cities and Communities, 4.1.6 ICT services exports, and 2.2.3 Professionals.

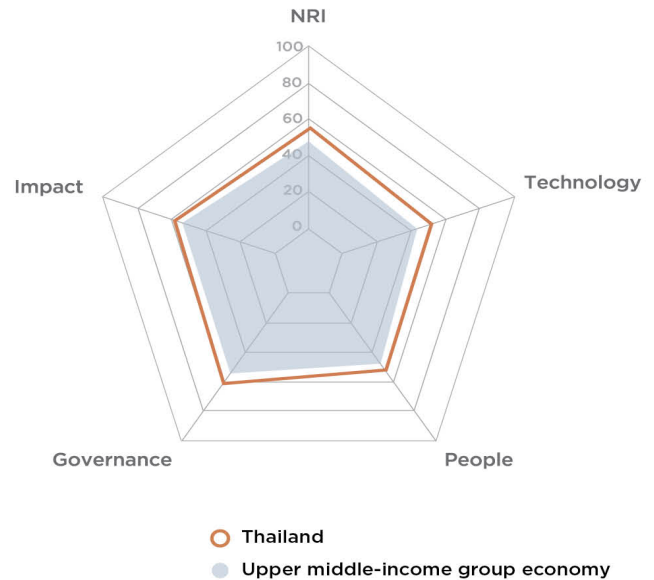
**Table 3: Strongest and weakest indicators of Thailand**

<b>Strongest indicators</b>	<b>Rank</b>	<b>Weakest indicators</b>	<b>Rank</b>
2.2.2 GERD financed by business enterprise	1	4.3.2 SDG 4: Quality Education	59
3.2.4 E-commerce legislation	1	2.1.2 ICT skills	65
1.1.6 International Internet bandwidth	9	2.2.3 Professionals	102
4.1.2 High-tech exports	11	4.1.6 ICT services exports	115
4.1.1 High-tech and medium-high-tech manufacturing	17	4.3.5 SDG 11: Sustainable Cities and Communities	120
2.2.5 Annual investment in telecommunication services	20		
2.1.1 Active mobile broadband subscriptions	21		
2.3.3 Government promotion of investment in emerging technologies	22		
4.3.1 SDG 3: Good Health and Well-Being	23		
1.1.4 SMS sent by population 15-69	26		
2.1.3 Use of virtual social networks	31		

# Thailand

**Network Readiness Index** Rank (out of 130) **54** Score **55.31**

Pillar/sub-pillar	Rank	Score
<b>A. Technology pillar</b>	<b>45</b>	<b>51.04</b>
1st sub-pillar: Access	34	79.69
2nd sub-pillar: Content	68	35.43
3rd sub-pillar: Future Technologies	48	37.99
<b>B. People pillar</b>	<b>58</b>	<b>50.89</b>
1st sub-pillar: Individuals	74	59.95
2nd sub-pillar: Businesses	51	46.03
3rd sub-pillar: Governments	55	46.68
<b>C. Governance pillar</b>	<b>52</b>	<b>60.98</b>
1st sub-pillar: Trust	61	47.65
2nd sub-pillar: Regulation	57	66.21
3rd sub-pillar: Inclusion	45	69.09
<b>D. Impact pillar</b>	<b>53</b>	<b>58.33</b>
1st sub-pillar: Economy	37	48.05
2nd sub-pillar: Quality of Life	51	72.55
3rd sub-pillar: SDG Contribution	88	54.39



## Network Readiness Index in detail

Indicator	Rank	Score
<b>A. Technology pillar</b>	<b>45</b>	<b>51.04</b>
<b>1st sub-pillar: Access</b>	<b>34</b>	<b>79.69</b>
1.1.1 Mobile tariffs	35	73.99
1.1.2 Handset prices	64	53.43
1.1.3 Households with internet access	43	85.33
1.1.4 SMS sent by population 15-69	26	82.79 ●
1.1.5 Population covered by at least a 3G mobile network	64	99.68
1.1.6 International Internet bandwidth	9	63.80 ●
1.1.7 Internet access in schools	26	98.80
<b>2nd sub-pillar: Content</b>	<b>68</b>	<b>35.43</b>
1.2.1 GitHub commits	72	2.70
1.2.2 Wikipedia edits	87	37.74
1.2.3 Internet domain registrations	*	*
1.2.4 Mobile apps development	68	74.71
1.2.5 AI scientific publications	35	58.94
<b>3rd sub-pillar: Future Technologies</b>	<b>48</b>	<b>37.99</b>
1.3.1 Adoption of emerging technologies	39	60.58
1.3.2 Investment in emerging technologies	37	54.44
1.3.3 Robot density	28	14.64
1.3.4 Computer software spending	55	22.32
<b>B. People pillar</b>	<b>58</b>	<b>50.89</b>
<b>1st sub-pillar: Individuals</b>	<b>74</b>	<b>59.95</b>
2.1.1 Active mobile broadband subscriptions	21	85.29 ●
2.1.2 ICT skills	65	9.42 ○
2.1.3 Use of virtual social networks	31	78.90 ●
2.1.4 Tertiary enrollment	63	34.12
2.1.5 Adult literacy rate	54	92.01
<b>2nd sub-pillar: Businesses</b>	<b>51</b>	<b>46.03</b>
2.2.1 Firms with website	75	41.66
2.2.2 GERD financed by business enterprise	1	100.00 ●
2.2.3 Professionals	102	12.97 ○
2.2.4 Technicians and associate professionals	92	18.68
2.2.5 Annual investment in telecommunication services	20	84.70 ●
2.2.6 GERD performed by business enterprise	27	18.15
<b>3rd sub-pillar: Governments</b>	<b>55</b>	<b>46.68</b>
2.3.1 Government online services	42	78.79
2.3.2 Publication and use of open data	57	27.35
2.3.3 Government promotion of investment in emerging tech	22	64.55
2.3.4 R&D expenditure by governments and higher education	81	16.04

Indicator	Rank	Score
<b>C. Governance pillar</b>	<b>52</b>	<b>60.98</b>
<b>1st sub-pillar: Trust</b>	<b>61</b>	<b>47.65</b>
3.1.1 Secure Internet servers	57	60.27
3.1.2 Cybersecurity	52	86.26
3.1.3 Online access to financial account	75	22.52
3.1.4 Internet shopping	56	21.54
<b>2nd sub-pillar: Regulation</b>	<b>57</b>	<b>66.21</b>
3.2.1 Regulatory quality	62	44.29
3.2.2 ICT regulatory environment	70	81.76
3.2.3 Legal framework's adaptability to emerging technologies	47	48.48
3.2.4 E-commerce legislation	1	100.00 ●
3.2.5 Privacy protection by law content	89	56.54
<b>3rd sub-pillar: Inclusion</b>	<b>45</b>	<b>69.09</b>
3.3.1 E-Participation	50	76.54
3.3.2 Socioeconomic gap in use of digital payments	41	74.87
3.3.3 Availability of local online content	59	64.00
3.3.4 Gender gap in Internet use	52	62.72
3.3.5 Rural gap in use of digital payments	62	67.30
<b>D. Impact pillar</b>	<b>53</b>	<b>58.33</b>
<b>1st sub-pillar: Economy</b>	<b>37</b>	<b>48.05</b>
4.1.1 High-tech and medium-high-tech manufacturing	17	57.88 ●
4.1.2 High-tech exports	11	72.33 ●
4.1.3 PCT patent applications	57	40.24
4.1.4 Growth rate of GDP per person engaged	63	58.50
4.1.5 Prevalence of gig economy	48	53.47
4.1.6 ICT services exports	115	5.89 ○
<b>2nd sub-pillar: Quality of Life</b>	<b>51</b>	<b>72.55</b>
4.2.1 Happiness	59	57.61
4.2.2 Freedom to make life choices	58	78.97
4.2.3 Income inequality	49	73.18
4.2.4 Healthy life expectancy at birth	44	80.45
<b>3rd sub-pillar: SDG Contribution</b>	<b>88</b>	<b>54.39</b>
4.3.1 SDG 3: Good Health and Well-Being	23	85.25 ●
4.3.2 SDG 4: Quality Education	59	31.97 ○
4.3.3 Females employed with advanced degrees	68	32.61
4.3.4 SDG 7: Affordable and Clean Energy	84	70.37
4.3.5 SDG 11: Sustainable Cities and Communities	120	51.78 ○

NOTE: \* Indicates confidential data; ● a strength and ○ a weakness.

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