

Thailand

Potential 2035 economic impact of the metaverse

US\$11-21 B per year



Thailand

Thailand is one to watch with multiple metaverse projects sprouting from its entrepreneurial business sector. Their willingness to take risks is due, in no small part, to their large market of ultra-connected Thai consumers, who top global rankings for weekly online purchases, cryptocurrency ownership and mobile banking app usage.¹

The Thai Government has been quick to follow suit, with its Digital Economy and Society Ministry laying out its plans to prepare for the technological sophistication and regulatory complexity of the metaverse.²

Digital growth is a vital engine to achieve the country's targets to realize economic prosperity under Thailand 4.0. Thailand has undertaken regulatory reforms in areas related to metaverse activities, including crypto-friendly tax rules, personal data protection and cybersecurity.³ The country already has a strong technological foundation, with one of the fastest fixed broadband speeds in the world.⁴

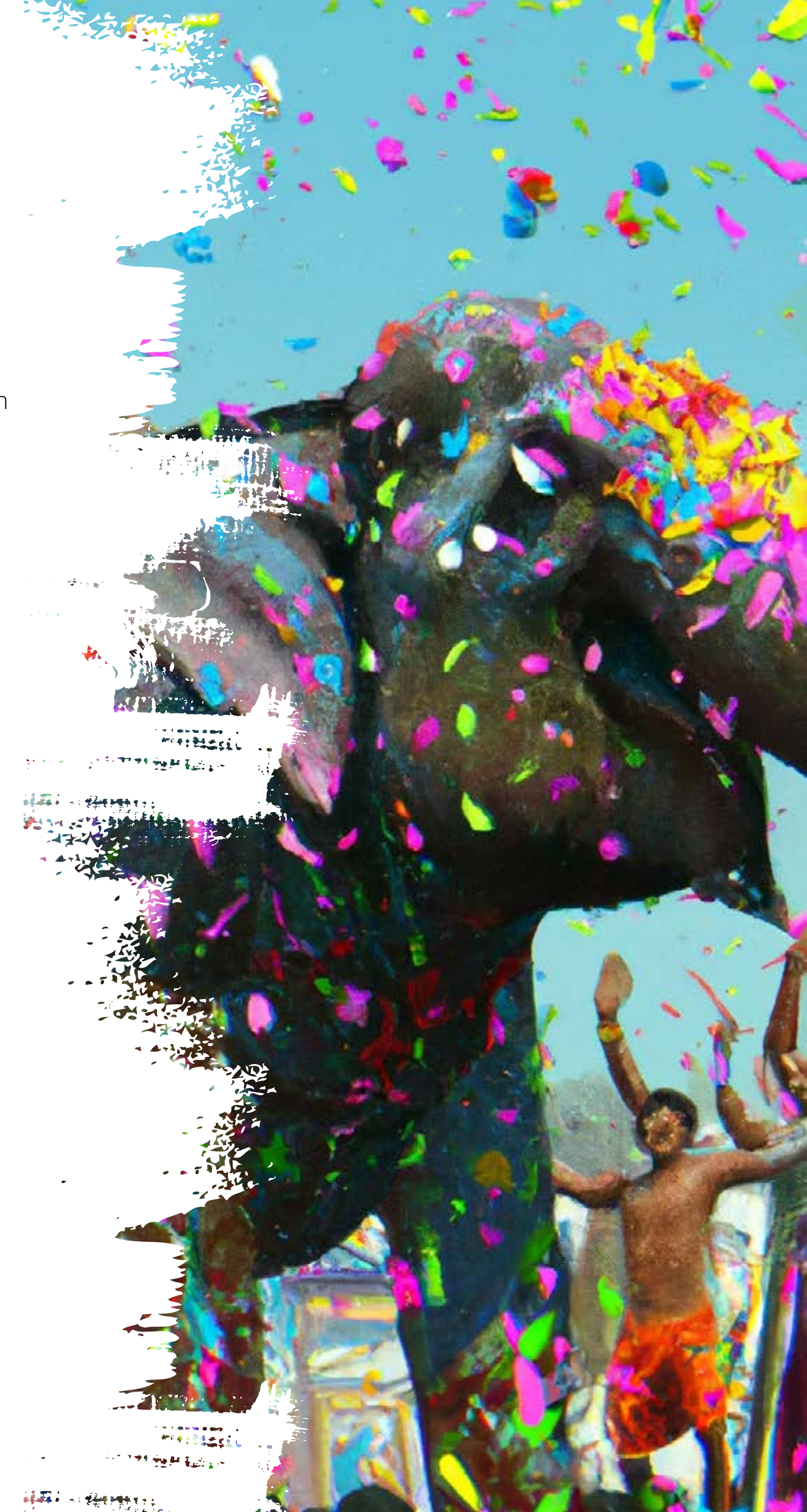
Thailand is also well-positioned to shape the opportunities that the metaverse will provide for the creator economy. Thailand's bustling creative sector is influenced by its multi-cultural heritage.

The creative sector contributed 10% of the GDP in 2021, far surpassing Asia's average of 3.5%.⁵ The metaverse presents a new platform to generate value from Thailand's combination of creative, entrepreneurial and technological talents.

“The government has developed wireless broadband to drive the country forward so it can benefit from the advent of virtual reality, metaverse technology and the next evolution of the digital economy.”

**Minister Chaiwut Thanakamanusorn, Ministry of Digital Economy and Society,
at the Bangkok Post Tech Conference 2022**

1. Bangkok Post, "[Thailand tops global digital rankings](#)," accessed October 19, 2022.
2. Komsan Tortermvasana, "[Thailand eyes metaverse gains](#)," Bangkok Post, June 30, 2022.
3. Tita Sanglee, "[Is Thailand Ready for the Metaverse?](#)," The Diplomat, December 10, 2021.
4. Bangkok Post, "[Thailand Tops Internet Speed Testing](#)," accessed October 3, 2022.
5. Royal Thai Embassy, "[Thailand's creative industries showing steady growth](#)," accessed October 19, 2022.



Macroeconomic Determinants

- Thailand overall is a service-based economy (58.3% of GVA). The three largest sectoral contributors to Thailand's economy are manufacturing (25.2% of GVA), followed by wholesale and retail trade (16.8%), and agriculture, forestry and fishing (8.6%).
- Thailand's GDP per capita stood at US\$17,253 in 2020, falling in the middle of the pack of the selected economies, suggesting that affordability of required immersive hardware on average may be a limiting factor on the economic impact of the metaverse.
- Thailand is ranked 43rd in the world and 5th among upper-middle income group economies based on the Global Innovation Index 2022. By harnessing its innovation potential, the metaverse could encourage a fresh spurt of growth for the country.

THAILAND IN NUMBERS

Potential 2035 economic impact of the metaverse:

US\$11-21B per year, 1.3-2.4% of GDP

2020 GDP:

US\$432B

Per capita
(Constant 2017 US\$):

US\$17,253
(upper middle income)

Key sectors:



ICT sector:



Population:

70M



Global innovation index:

#43/132

EIU business environment ranking:

#28/99

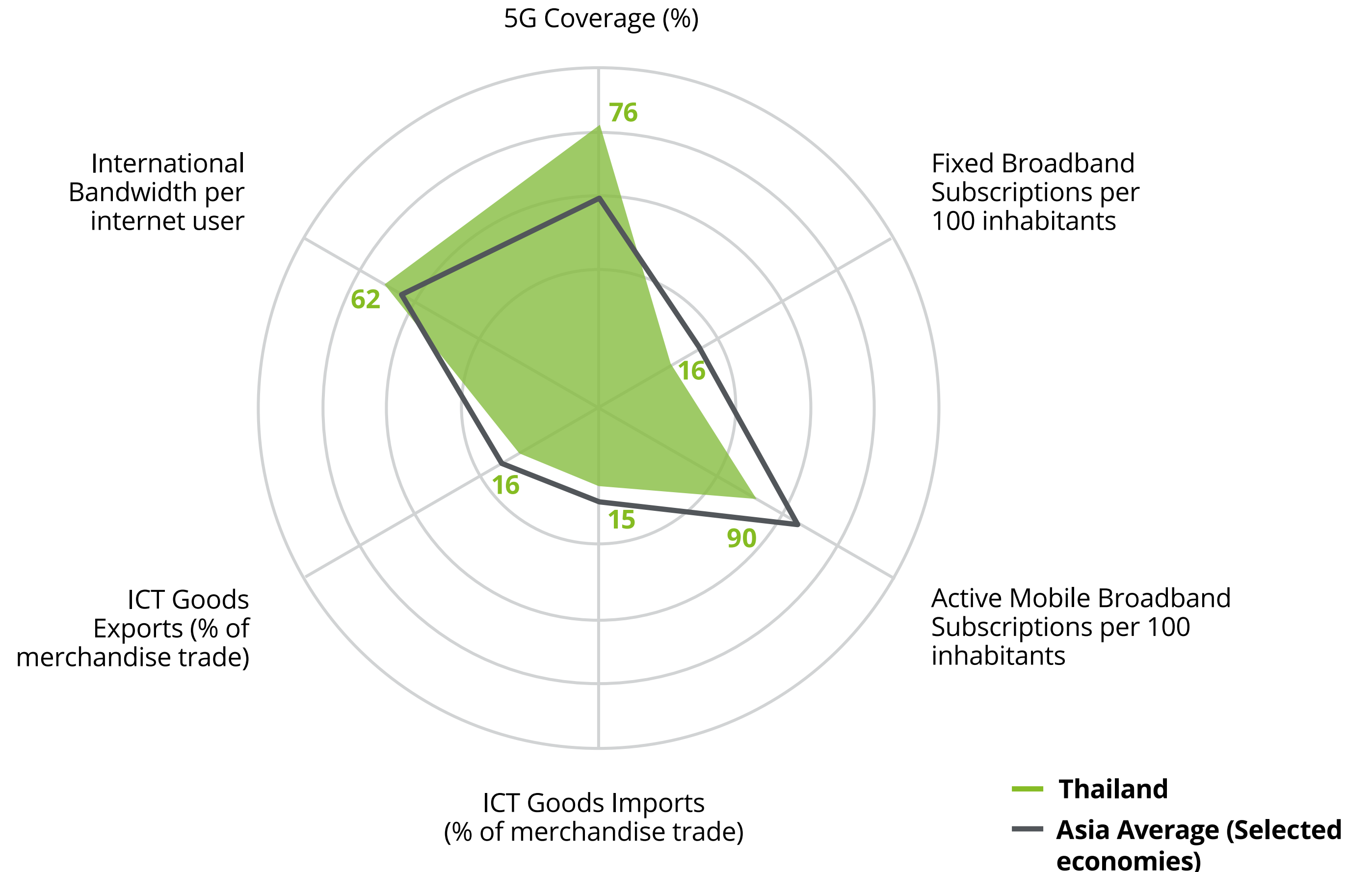
Digital readiness index:

#55/141

Sources: World Bank World Development Indicators 2020, Our World in Data 2017, ITU Digital Development Dataset 2019, World Bank Global Findex, UN Data

Technology Fundamentals

- The Thai population is a highly connected one with 80% of those aged above 15 having access to the internet, 100% owning mobile phones and 92% having made or received a digital payment.⁶
- Thailand has topped We Are Social/Hootsuite's Digital 2022 global rankings for weekly online and online grocery purchases, and ownership of cryptocurrency. The country was also first for mobile banking app usage in last year's ranking.⁷
- The speed of fixed broadband service ranks third globally with an average download speed of 188.75 megabits per second (Mbps).⁸ Thailand is set to maintain this lead as it quickly rolls out 5G.
- These impressive statistics mean Thai consumers are in a strong position to benefit from new applications in the metaverse economy.
- Thailand's export-driven economy (~60% of GDP)⁹ and large electronics manufacturing base could stand to gain in the near term as related electronic product demand increases. In particular, its emerging semiconductor industry may see accelerated growth. These hinge on the country's ability to maintain political stability.
- With all government data sets set to be stored on the cloud by 2025 as part of the Government Data Center and Cloud project, this unleashes opportunities for the use of big data.¹⁰ Through leading by example with the adoption of cloud technologies, this can increase trust amongst the general population and businesses in these technologies.



6. World Bank, "The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19," accessed October 19, 2022.

7. We Are Social, "Digital 2022: Another Year of Bumper Growth," accessed October 19, 2022.

8. Speedtest, "Thailand's Mobile and Fixed Broadband Internet Speeds," accessed October 3, 2022.

9. World Bank, "Export of goods and services (2017 – 2021)," accessed October 5, 2022.

10. Pattaya Mail, "Thai cabinet approves 6.2 billion baht for government cloud system," accessed October 19, 2022.

Sources: GSMA Mobile Connectivity Index 2021, ITU Digital Development Dashboard 2020, UNCTADStat 2019

Ecosystem Enablers

Competition within the metaverse

With a strong entrepreneurial culture, Thai companies have been quick to explore opportunities in the metaverse. The Metaverse Thailand project operates a virtual version of downtown Bangkok and enables businesses to operate on their virtual land plot replete with a Singapore business address.¹¹ Real estate company Magnolia Quality Development has teamed up with a Thai animation company T&B Media Global to sell digital structures in their virtual town Translucia.¹² Thai metaverse designer Brandverse is spearheading a collaboration with mall developer Central Pattana, 7-Eleven, and over 50 other companies and brands, on metaverse business opportunities such as selling digital assets and holding virtual events.¹³ Thailand's leading cryptocurrency exchange, Bitkub, has a registered capital of THB 290 million.¹⁴ Beyond serving as an exchange, Bitkub has also launched a metaverse platform where users can trade NFTs, as well as an academy that educates consumers on digital assets and blockchain technology.

Security and Privacy

Thailand has recently implemented data privacy laws,¹⁵ enabling Thai companies to better navigate digital opportunities and encouraging consumer participation through the peace-of-mind it confers. However, the legislation may need further strengthening to anticipate increasing amounts of personal data that the metaverse will collect, such as the tracking of eye movements within VR headsets.

Thailand's cybersecurity also bears concern, with the country lagging behind its Asian peers, coming 44th in GSMA Global Security Index 2020. In his comments at the 2022 Bangkok Post Tech Conference, Minister of Digital Economy and Society Chaiwut Thanakamanusorn recognized the importance of personal data privacy and cybersecurity, especially in the metaverse era.¹⁶ He emphasized his Ministry's commitment to improving cybersecurity through the office of the National Cyber Security Commission and cited plans to strengthen laws for personal data protection.

Accessibility

While Thailand boasts high levels of connectivity, this may not reflect the uneven distribution of accessibility to the internet across the country. Geographically, Northeastern (56.8%), North (59.6%) and Southern (65.2%) Thailand have some of the lowest levels of internet users within the country, far below the figures in Bangkok (83.5%).¹⁷

75% of households are connected to the internet via a 3G or higher mobile network.¹⁸ However, across income strata, only 59% of households in provinces in the bottom quartile of GDP per capita have an internet connection in the home, compared to 79 per cent in the top quartile.¹⁹ The country will need to rapidly increase the accessibility and affordability of the speedy internet connectivity to its populace, so that Thais can have more equitable access to the emerging opportunities of the metaverse.

11. Metaverse Thailand, "[What is Metaversethailand.io](#)," accessed October 19, 2022.

12. Bangkok Post, "[T&B Media launches 'Translucia' Metaverse, a Virtual World, partnering with MQDC in property -- a new world first](#)," accessed October 19, 2022.

13. Kosuke Inoue, "[Thai real estate firms hang their shingles in the metaverse](#)", Nikkei Asia, June 14, 2022.

14. World Economic Forum, "[Bitkub Group](#)," accessed October 19, 2022.

15. International Trade Administration, "[Thailand Personal Data Protection Act](#)," accessed October 19, 2022.

16. Bangkok Post, "[Thailand eyes metaverse gains](#)," accessed October 19, 2022.

17. Alexandra Dalferro, "[Thailand's Digital Divide: Leave No One Behind](#)", Fulcrum, June 27, 2022.

18. ITU, "[E-learning in Thailand: Mapping the Digital Divide](#)," accessed October 3, 2022.

19. Alexandra Dalferro, "[Thailand's Digital Divide: Leave No One Behind](#)," Fulcrum, June 27, 2022.

Sectors to Watch

Tourism

With a yearly contribution of around 18% to GDP prior to the pandemic,²⁰ tourism is a sector which could derive further value from the metaverse by leveraging on immersive experiences to further appeal to a greater number of international tourists. This will provide a significant boost to the Thai economy as international travelers outspend their local counterparts substantially, accounting for 60% of all tourism spending despite only making up 33% of overall travelers in Thailand in 2019.²¹

The Tourism Authority of Thailand has begun experimenting in the metaverse with the release of the “Amazing Thailand Metaverse: Amazing Durian” virtual travel experience, a collaboration with the provinces of Chanthaburi, Rayong, and Si Sa Ket. Through their smartphone or PC,²² tourists can create their own avatar to explore a virtual durian orchard. Users can do so without the need for a VR headset, which creates an accessible immersive experience.

Creative Services

Thailand ranks within the top ten creative goods exporters amongst developing countries.²³ The development of the creative and cultural services is one of the technological and industrial goals described in the “Thailand 4.0” strategy,²⁴ with the establishment of the Thailand Creative Economy Agency to turn the industry into a creative hub of ASEAN and the offering of both tax and non-tax incentives to the creative industry. Thai virtual influencer agency SIA Bangkok has also demonstrated the technological capabilities to develop realistic AI humans with ‘AI-Ailynn’, the country’s first AI influencer.²⁵

Thailand has inventively applied tokenization to attract new sources of funding for creative projects. Destiny tokens, Thailand’s first digital investment token in a movie BuppeSanNivas 2, was oversubscribed and sold-out, raising US\$7.5 million. The token was released by Kubix, under Kasikorn Bank, to democratize investment opportunities in films to the general public.²⁶ The movie was released in July 2022, and has been the highest grossing Thai film of 2022 so far.²⁷

20. Travel Daily, "[Tourism accounts for 18% of Thai GDP](#)," accessed October 19, 2022.
21. McKinsey & Company, "[Reimagining travel: Thailand tourism after the COVID-19 pandemic](#)," accessed October 3, 2022.
22. The Star, "Thailand offers virtual 'Amazing Durian' experience on metaverse; aims the tour for tourists to explore durian farms," accessed October 19, 2022.
23. United Nations Conference on Trade and Development, [Creative Economy Outlook: Trends in International Trade in Creative Industries](#), 2018.
24. Royal Thai Embassy, "[National strategy Thailand 4.0 officially launched](#)," accessed October 19, 2022.
25. Bangkok Post, "[First made-in-Thailand virtual influencer debuts](#)," accessed October 19, 2022.
26. Kasikorn Bank, "[KBTG establishes Kubix, a new company for the digital asset business](#)," press release, March 19, 2021.
27. The Nation Thailand, "[Popular TV drama spin-off sets new box-office record](#)," accessed October 19, 2022.

