Digital Nations 2025

Sustaining progress in Asia Pacific through investment

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Executive summary

Investment's role in sustaining progress on the journey to a digital nation

Across Asia Pacific, digitalisation continues to be a top priority for nations seeking to drive economic growth and foster inclusive, resilient societies. Governments increasingly rely on digitalisation to boost productivity, drive innovation and enhance national competitiveness amid shifting demographics and growing geopolitical uncertainties. Investment is a key enabler of digitalisation, supporting the development of the five key components of a digital nation – infrastructure, innovation, data governance, security and people.

A distinctive feature of the digital investment landscape in Asia Pacific is its diversity of funding sources. Asia Pacific benefits from a unique blend of strategic public and multilateral funding that complements private capital across different facets of the digital ecosystem. For example, governments act as catalysts to de-risk and complement private capital, while mobile operators have been at the forefront of efforts to deliver modern connectivity networks. Since 2015, mobile operators in the 21 countries covered as part of this research have collectively invested almost $440 billion in expanding mobile infrastructure and services.

Continued progress with digitalisation will require increased efforts to address the digital investment gap, as indicated by a mismatch between the demand and supply of digital services, which can limit the impact of digitalisation or lead to the exclusion of parts of the population. An initial step to address this is to review progress to date to understand the extent of the challenges, and determine which areas need the greatest focus. Here, the GSMA Digital Nations Index serves as a tool to evaluate performance and enable stakeholders to identify areas for improvement.

Drawing insights from the Digital Nations Index, this report highlights the investment gap in key areas across Asia Pacific. It identifies the following measures to accelerate digital investment in the region:

- **Set clear national goals for digital investment.** Such goals attract private capital by signalling to investors that a country is committed to its digital future.

- **Align government policies with digitalisation goals.** Using a whole-of-government approach helps ensure all departments work towards a shared set of objectives.

- **Use government investment to stimulate private capital.** Public funds act as a catalyst, providing essential seed funding to instil market confidence.

- **Avoid regulatory uncertainty**. A stable and predictable regulatory environment reduces risk for investors and enable long-term strategic planning.

- **Address regional disparities through collaboration.** This requires collaboration in areas such as policy harmonisation, best-practice sharing, cybersecurity and data governance, and the development of cross-border digital infrastructure.

01
Asia Pacific: focusing on digitalisation

1.1 Harnessing advances in digital technology

Digitalisation continues to be a priority for countries in Asia Pacific seeking to drive economic growth and foster inclusive, resilient societies. Bolstered by government ambitions and a rapidly expanding digital consumer base, the region has become a global leader in integrating digital technologies across the public and private sectors.

According to a recent report[1] by the Asian Development Bank (ADB), digitalisation serves as a powerful instrument for reducing economic inequality in the region. It helps to bridge income gaps, empowers small and medium-sized enterprises (SMEs) and vulnerable groups (such as women and young people), increases productivity, and enhances access to vital services including finance and education.

Previous research in this series has outlined the digitalisation initiatives undertaken by governments throughout Asia Pacific. However, recent announcements and updates to existing initiatives highlight a renewed determination to harness advances in digital technology – particularly the rise of artificial intelligence (AI) and other transformative innovations – to quicken the pace to becoming digital nations. Examples include the following:

- **Japan** - Upon taking office in October 2025, Prime Minister Sanae Takaichi prioritised a growth strategy as the core objective of her administration, with a commitment to increasing investments in digital technologies, including AI and semiconductors.[2] In June 2025, the Ministry of Internal Affairs and Communications (MIC) updated the Digital Lifeline Development Plan to the Digital Infrastructure Development Plan 2030. It aims to accelerate digitalisation and build robust digital infrastructure to support economic growth, regional revitalisation and disaster resilience.[3] The Cabinet also approved the Priority Plan for the Advancement of a Digital Society to create a user-centric digital nation through initiatives such as promoting the comprehensive use of AI, developing an AI-friendly environment, and enhancing government functions through digitalisation.[4]

- **Malaysia** - In August 2025, Malaysia's Ministry of Digital launched the National Cloud Computing Policy (NCCP) to accelerate secure, inclusive and sustainable digital transformation across the public and private sectors.[5] The NCCP is founded on a whole-of-nation approach, encouraging collaboration between government agencies, the private sector, cloud service providers, academia and the public to establish a cohesive digital ecosystem. In October 2025, Malaysia partnered with the World Economic Forum to promote AI governance and drive industrial innovation in the ASEAN region.

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1 "Harnessing Digital Transformation for Good: Asian Development Policy Report", ADB, 2025
2 "Japan to funnel investments in 17 strategic sectors to ignite growth", The Asahi Shimbum, November 2025
3 "Publication of Digital Infrastructure Development Plan for 2030", MIC, June 2025
4 "Priority Plan for the Advancement of a Digital Society", Japan Digital Agency, June 2025
5 "National Cloud Computing Policy (NCCP) Driving Malaysia's Digital Transformation In A Secure, Inclusive, And Sustainable Manner", Ministry of Digital, August 2025

- **Pakistan** - In January 2025, Pakistan's National Assembly passed the Digital Nations Pakistan Act,[6] designed to facilitate the digital transformation of the economy, governance and society by establishing a comprehensive framework for digital governance. The act took immediate effect with the creation of the Pakistan Digital Authority, which is responsible for implementing the National Digital Masterplan, overseeing digital transformation initiatives, and ensuring alignment with the country's strategic objectives across sectors. Additionally, the act establishes the National Digital Commission, chaired by the prime minister, to provide strategic direction and coordination.

- **Philippines** - In January 2025, the government launched a new initiative aimed at bridging the digital divide for 15,000 SMEs in underserved communities.[7] With a total budget of $5 million, the programme is being jointly implemented by the UNDP, ITC and ILO, in partnership with the government (led by the Department of Information and Communication Technology) and private sector collaborators. The initiative follows a three-pillar strategy: capacity building, support for the creation of Digital Transformation Hubs in at least 30 geographically remote and underserved areas, and advocacy for policies and regulations that foster digitalisation and encourage investment in an inclusive digital ecosystem. Meanwhile, the Philippines government is also following up on the recently passed Open Access in Data Transmission Act to design and implement telecoms regulatory reforms that aim to attract greater digital investment.

- **South Korea** - In September 2025, South Korea established the National AI Strategy Committee to coordinate AI strategy and policy across government and the private sector. Chaired by the president, the committee comprises representatives from the private sector spanning fields including AI, infrastructure, data, applications, social adaptation, global collaboration, science, skills development, and defence and security. Concurrently, as the host of the Asia-Pacific Economic Cooperation Summit 2025, South Korea has prioritised the convergence of data centres, AI and sustainability, spearheading discussions on harnessing digitalisation to pursue environmental objectives.[8]

- **Vietnam** - In November 2024, the government released an action plan for digital economy development covering 2024/2025, aiming to increase the digital economy's contribution to GDP to 20.5% by 2025, up from 18.3% in 2024.[9] The action plan prioritises mobile-led services and aims to deploy 5G in industrial parks, ports and airports. It also looks to enhance digital governance, develop the IT industry, facilitate sector-specific digitalisation and promote data utilisation. Furthermore, the government unveiled a roadmap for digital transformation through to 2030, introducing policies to support rural communities, improve digital skills and literacy, and foster the creation of an inclusive digital nation.[10]

Across the region, digitalisation is regarded as a vital tool to boost productivity, encourage innovation and enhance national competitiveness, particularly considering shifting demographics and growing geopolitical uncertainties. Investment in appropriate digital tools and services is a crucial enabler of these digitalisation initiatives.

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6 "Approval of The Digital Nation Pakistan Bill 2025", PID, January 2025
7 "New programme to close digital gap for 15,000 small businesses", ILO, February 2025
8 "South Korea launches AI strategy committee, boosts funding", Tech in Asia, September 2025
9 "Vietnam's digital economy targets 20.5% GDP contribution in 2025", Vietnam Economic Times, December 2024
10 "Vietnam Accelerates Digital Transformation: From Policy to Real Action", Mekong Link, October 2025

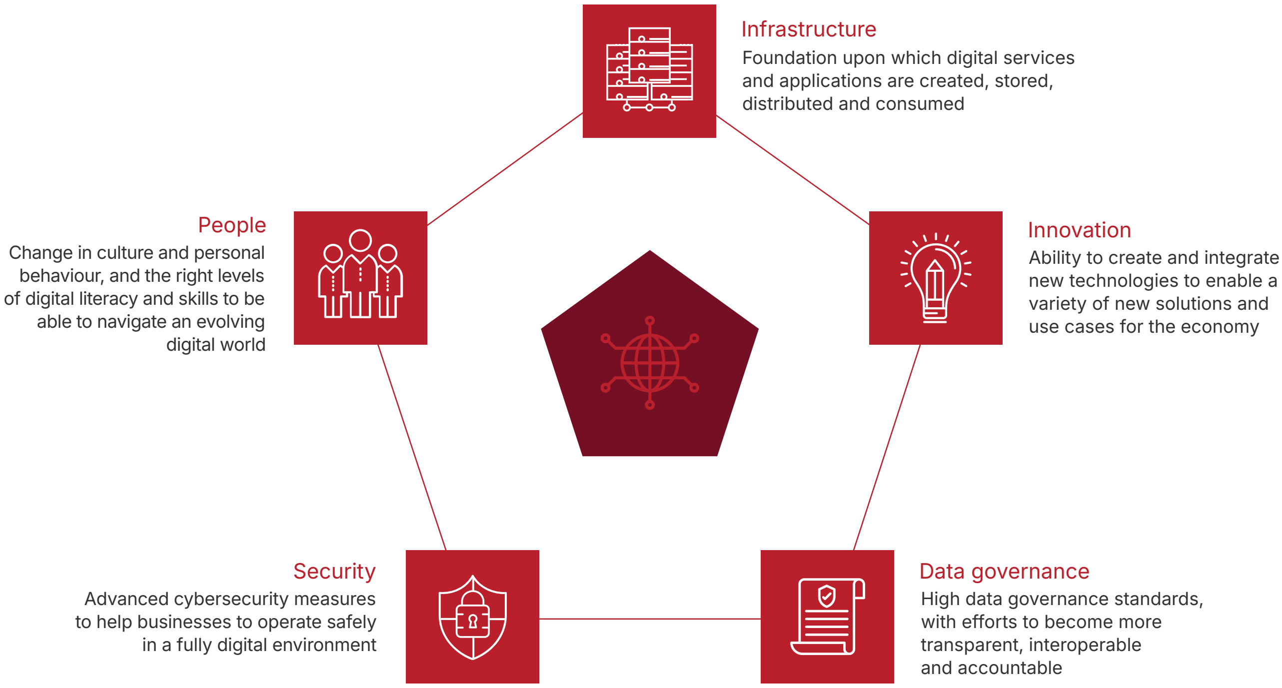
02
The impact of investments on digitalisation in Asia Pacific

2.1
Driving development of the key components of a digital nation

Investment acts as a fundamental catalyst for digitalisation, providing the necessary capital and resources to foster a digital nation. Throughout Asia Pacific, investment in digital initiatives has driven rapid development of the five key components that underpin a digital nation – infrastructure, innovation, data governance, security and people. As a result, the region has emerged as a global leader on the journey towards digital nations, marked by the development and widespread adoption of advanced digital technologies. However, each area requires a robust and well-targeted investment strategy to unlock the full potential of digitalisation and address pivotal challenges, such as uneven development and diverse online threats.[11]

Figure 1: The five components of a digital nation

Source: GSMA Intelligence



A particular feature of the digital investment landscape in Asia Pacific is the diversity of funding sources (see Figure 2). Asia Pacific benefits from a unique blend of strategic public and multilateral funding that complements private capital across different facets of the digital ecosystem. There is also significant intraregional investment, with countries such as Singapore and South Korea financing digital projects in neighbouring Asia Pacific economies. Additionally, the region has experienced an influx of global investment in digital infrastructure and services, including data centres, fintech and AI.

[11] Towards an inclusive digital nations: building trust in the digital age in Asia Pacific, GSMA Intelligence, 2024

Figure 2: Key investment sources in Asia Pacific's digital landscape
Source: GSMA Intelligence

National governments

Governments across Asia Pacific have been instrumental in driving digitalisation, acting as catalysts to de-risk and complement private capital, provide strategic direction and ensure inclusive outcomes. Through their vision, investment and regulatory frameworks, governments in Asia Pacific have accelerated digital transformation and ensured it contributes to national resilience and global competitiveness. Recent examples of government investments in digitalisation initiatives across the region include the following:

- **India** - For the 2025/2026 financial year, the Department of Telecommunications has announced a budget of INR81,005 crore ($9.2 billion), with INR22,000 crore ($2.5 billion) allocated to the BharatNet project under the Digital India initiative, and INR20,000 crore ($2.3 billion) designated for the universal service obligation (USO) fund to support connectivity in underserved areas.[12]
- **Philippines** - The government is significantly increasing its investment in digitalisation, with a proposed budget of more than PHP72 billion ($1.2 billion) for 2025, allocated to the National Broadband Plan, national government data centres and other digital transformation projects. This marks an 11.6% rise on the 2024 budget and represents 1.1% of the overall national budget for the 2025 fiscal year.[13]

[12] "Demand for Grants 2025-26 Analysis: Telecommunications", PRS India, 2025
[13] "Pangandaman highlights govt's digitalization efforts, reforms to transform PH into major digital hub in Asia", DBM, November 2024

- **South Korea -** The Ministry of Science and ICT (MSIT) has proposed a record budget of KRW23.7 trillion ($17.6 billion) for 2026, placing an emphasis on AI, strategic technologies and R&D.[14] This marks a 12.9% increase compared to the previous year's supplementary budget and reflects a move away from fiscal austerity towards robust, growth-oriented investment. There is a particular focus on the ICT and science & technology sectors, with the overarching ambition to establish a "super innovation economy" driven by cutting-edge technologies.

Mobile operators

Mobile operators in the 21 countries covered as part of this research have collectively invested almost $440 billion in expanding mobile infrastructure and services since 2015. A significant proportion of this investment has been aimed at the development of 5G networks, which now serve as a foundation for delivering innovative solutions to consumers and businesses. In addition to advanced mobile networks, operators are increasingly spearheading investments in other forms of digital infrastructure, such as data centres, and supporting projects that contribute to the broader digital nation. Examples include the following:

- **Singapore –** Singtel is expanding its data centre capacity to 250 MW by 2025 to meet growing demand from large-scale enterprise clients.[15] In addition, Singtel has made significant investments in Nvidia's graphics processing units (GPUs), supporting Singapore's national AI strategy. This initiative aims to establish a sovereign AI ecosystem in Southeast Asia and enables Singtel to offer GPU-as-a-service solutions, giving businesses access to powerful AI computing resources without the need to manage costly infrastructure.

- **South Korea -** SK Telecom has demonstrated its commitment to advancing AI and next-generation technologies through substantial investments. The company allocated $200 million to Smart Global Holdings to enhance AI factory and data centre solutions. Additional investments include a $100 million stake in AI research firm Anthropic and collaboration on the Ulsan AI data centre project with AWS. Guided by its AI Pyramid strategy, SK Telecom seeks to increase AI-focused investments, broaden infrastructure, drive business transformation and develop innovative AI services across sectors.

- **Vietnam -** Viettel, VNPT and MobiFone are making substantial investments in the rollout of 5G, underpinned by government-led initiatives. These efforts aim to fulfil the country's objective of achieving 99% 5G coverage by 2030. Investment priorities include expanding network infrastructure, conducting R&D into future technologies such as 6G, and promoting digital transformation across economic sectors.

[14] "Science ministry seeks record budget for 2026 to support R&D projects", The Korea Herald, September 2025
[15] "Singapore Telecommunications Ltd: Connectivity and Innovation", Blue Tech Wave, April 2025

Tech ecosystem players

Major technology companies are increasing their investments in Asia Pacific, with a focus on AI and cloud infrastructure, due to ongoing digital growth, the opportunity to expand into new markets, favourable government policies and the availability of skilled workers in locations such as Singapore, Malaysia, Indonesia, Thailand and India. Over the past two years, US firms such as Microsoft, Amazon, Google and Apple, along with Chinese companies including Alibaba and Tencent, have invested more than $50 billion in Southeast Asia and India, primarily targeting the growing cloud market, supporting the development of data centres, providing funding for workforce training programmes, and reshaping supply chain dynamics. Examples include the following:

- **India -** In October 2025, Google, Adani Enterprises and Bharti Airtel announced a strategic partnership to establish Google's AI hub in Visakhapatnam. This multi-faceted investment, totalling approximately $15 billion over five years (2026–2030), will include gigawatt-scale data centre operations, supported by a robust subsea network and clean energy solutions, designed to power the most demanding AI workloads in India.[16]

- **Singapore -** In July 2025, Microsoft inaugurated its first Southeast Asian research laboratory in Singapore, known as Microsoft Research Asia–Singapore. The facility is dedicated to advancing both fundamental and applied AI research, collaboratively developing AI solutions for major sectors such as finance and healthcare, and fostering regional AI talent. Microsoft intends to invest approximately $80 billion in 2025 to develop data centres for training AI models,[17] with Singapore poised to be one of the principal global beneficiaries.

- **Southeast Asia –** Apple has pledged to invest $320 million in Indonesia during 2023 – 2029 to establish manufacturing facilities, including a component plant in Bandung and an AirTags facility in Batam.[18] As part of this commitment, Apple will provide training for local Indonesians in R&D on its products, alongside the existing Apple academies. Additionally, Apple is increasing investments in local electronics suppliers in Vietnam and expanding its Singapore campus with an investment of SGD340 million ($263 million) to enhance its presence in hardware and AI.

[16] "Airtel partners with Google to establish India's first mega AI hub and data center in Visakhapatnam", Airtel, October 2025
[17] "Microsoft to spend $80B on AI data centres in fiscal 2025", Mobile World Live, January 2025
[18] "Indonesia secures deal with Apple in investment negotiations", Indonesia Business Post, February 2025

Venture capital

Venture capital (VC) has become a significant source of investment in the Asia Pacific digital landscape, particularly for technology start-ups, which are the driving force behind digital innovation. India and Southeast Asia have emerged as key destinations for VC funding, with AI, fintech and sustainability attracting the most interest from global and regional investors. India boasts the world's third-largest start-up ecosystem, comprising more than 150,000 start-ups.[19] In 2023, 71% of all VC deals in ASEAN were linked to the digital economy, 11% higher than the global average.[20]

Mobile operators are increasingly involved in the VC landscape across Asia Pacific. Many have established VC arms and formed partnerships to invest in emerging technologies. This enables them to remain at the forefront of market trends in key areas such as 5G, AI and digital services. Prominent examples are highlighted in Table 1.

Table 1: Examples of operators with VC arms in Asia Pacific

Source: GSMA Intelligence

Mobile operators	VC arm	Focus
Axiata	Axiata Digital Services	Invests in and scales digital businesses across its operating regions, with a focus on digital financial services, digital advertising and digital platforms.
Bharti Airtel	Airtel Startup Accelerator Programme	Supports early-stage companies and helps them scale by providing financial investment, mentorship and access to Airtel's market and customer base.
KDDI	KDDI Ventures Programme	Invests in a range of fields based on KDDI's expertise in business and technologies, including AI and deep tech.
KT Corp	KT Investment Inc.	Supports a range of start-ups in fields that align with KT Corp's strategic vision for digital transformation. Areas of interest include mobile platforms, AI and healthcare.
Globe Telecom	Kickstart Ventures	Supports startups pursuing innovations in key areas including data and analytics, machine learning, artificial intelligence, cloud computing, fintech, automation, real estate, retail, transport, energy, water, health and wellness, and food.
LG UPlus	LG Technology Ventures	Investment portfolio covers areas including AI, mobility, advanced materials, life sciences, next-generation displays and mobile.
NTT Docomo	NTT Docomo Ventures	Invests in mobile tech, IoT and telecoms innovations, including a Tokyo-based 6G R&D startup, Vietnamese edge computing firms, and robotics and health tech apps.
PLDT	PLDT Capital	Targets investments in mobile engagement platforms, content, e-commerce and digital services.
Singtel	Singtel Innov8	An evergreen fund that invests in startups with promising innovations relevant to the Singtel Group's business. Investments focus on technologies such as big data, AI, cloud and cybersecurity.
SK Telecom	SK Telecom Venture Capital	Invests in telecoms, semiconductors, consumer internet and IT-based companies.
SoftBank	Vision Fund	Focuses on technology investments globally. Its portfolio includes ride-hailing firm Grab, Indian food delivery firm Swiggy, and Japanese fintech company PayPay.
True Corp	True Incube	Invests in and incubates startups in the ASEAN region and beyond, with a focus on new technologies such as AI, cloud, IoT and other digital solutions.

19 "With 1.59 lakh startups, India is now world's 3rd largest startup ecosystem", PIB, January 2025

20 "ASEAN takes major step toward landmark digital economy pact", World Economic Forum, October 2025

Development and multilateral organisations

Despite Asia Pacific's global leadership in digitalisation, it faces significant inequalities in digital development and adoption, within individual countries and between nations. In this context, multilateral organisations play a crucial role in mobilising and directing digital investments by providing financing, developing supportive policies and fostering regional cooperation.

Key regional bodies are focusing their efforts on bridging the digital divide and ensuring digital transformation is inclusive and sustainable. These include the ADB and the Asian Infrastructure Investment Bank (AIIB), along with global multilateral organisations including the World Bank and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

For example, in October 2024, the World Bank approved $287 million in funding for the Philippines Digital Infrastructure Project. This investment supports the government's national fibre-optic backbone as well as middle- and last-mile connectivity infrastructure, while ensuring these facilities are safeguarded against cybersecurity threats and climate risks. More than 20 million Filipinos are expected to benefit from the project.[21]

AI leads digital investments in Asia Pacific

Several interconnected trends are reshaping the digital investment landscape in Asia Pacific. AI has emerged as the principal destination for new investments, with direct investment in AI-based solutions and related infrastructure (such as data centres and GPUs) accounting for an increasing share of funding from public and private sources. Several factors are driving this trend, notably government incentives and national AI strategies.

For example, as part of Malaysia's goal to become a leading AI hub in Southeast Asia by 2030, the country's national AI strategy includes initiatives such as the establishment of the National AI Office, the development of AI action plans for 2026–2030, and investments in digital infrastructure and talent development. The government is also encouraging AI adoption in key sectors including finance, smart manufacturing, healthcare and smart cities.

Aside from AI, established sectors such as fintech and e-commerce still attract considerable investment across the region, while more niche or strategic areas such as enterprise software, defence tech and climate tech are gaining increased attention from investors. Furthermore, investments are increasingly aimed at sustainable digital infrastructure. For instance, Singapore has secured green financing for a new AI-ready data centre, while Indonesia has used sustainability-linked financing for data centre expansion. Continued investment in these established sectors underlines the fundamental role of advanced connectivity networks, particularly 5G networks, which continue to underpin the way people and businesses access innovative digital solutions in modern society.

[21] "More Than 20 million Filipinos to Benefit from Improved Broadband Internet Connectivity", World Bank, October 2024

03
Measuring progress: the Digital Nations Index

3.1 Determining the areas in need of focus

The current state of digitalisation in Asia Pacific reflects investments made in the five components of a digital nation so far. Continued advancement will require increased efforts to address the digital investment gap in the region, as indicated by differences between the demand and supply of digital services, which can limit the impact of digitalisation or lead to the exclusion of parts of the population. An initial step in addressing this is to review progress to date to understand the extent of the challenges and determine which areas need the greatest focus.

GSMA Intelligence has developed the Digital Nations Index to track the progress of Asia Pacific countries in achieving their digitalisation objectives. The index incorporates quantitative data and qualitative assessments to evaluate performance, enabling stakeholders in each country to identify areas for improvement on their journey to becoming a digital nation. Figure 3 shows the performance of 21 Asia Pacific countries in the 2025 index, based on aggregated scores for each of the five components of a digital nation (refer to the Appendix for details on the methodology).

The countries have been grouped into two categories: leading and emerging digital nations. The leading digital nations are those with aggregate scores ranging from 50 to 100, while emerging digital nations have aggregate scores of less than 50. Although the aggregate scores rank countries according to overall performance, to achieve the most beneficial results from the index, countries should assess their own performance across the five components (see Figure 4) to identify the areas requiring the most attention, rather than comparing their aggregate score with those of their regional peers. This approach ensures governments and their partners focus their efforts where they are most needed, leading to improved aggregate scores and better digitalisation outcomes for citizens and businesses.

Singapore is ranked as the leading country in Asia Pacific on the 2025 index, achieving an overall score of 88 out of 100. Since the last update, two countries – India and Vietnam – have progressed from emerging to leading digital nations, reflecting significant improvements in their performance across several components of a digital nation. Meanwhile, Brunei Darussalam, a new addition to this year's index, is now the highest ranked emerging digital nation, with a total score of 49. Papua New Guinea and Nepal are positioned at the lower end of the ranking, each recording a joint aggregate score of 23.

Figure 3: Digital Nations Index: aggregate scores, 2025

Source: GSMA Intelligence

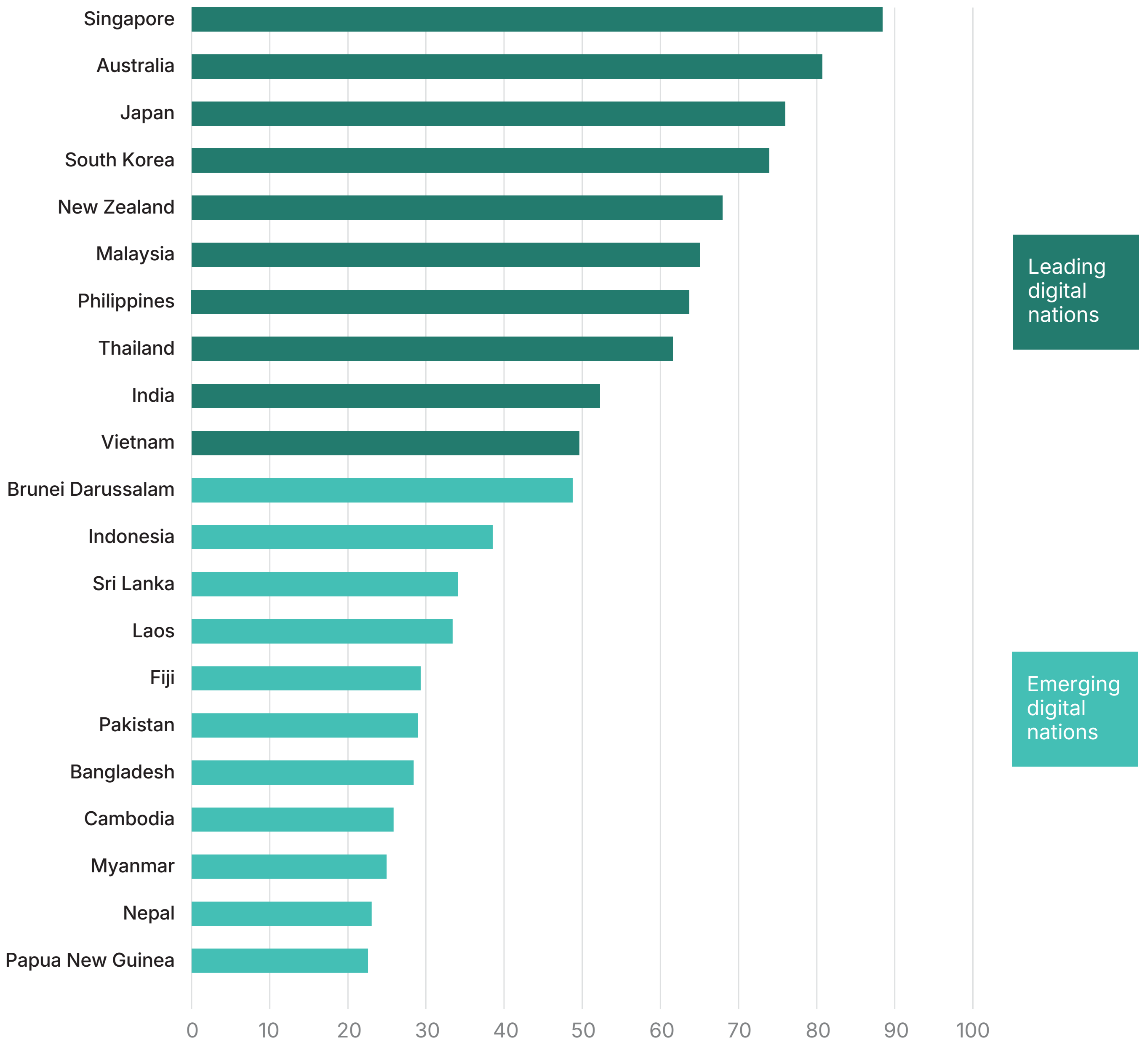


Figure 4 shows the performance of Asia Pacific countries across each component of the Digital Nations Index. With an average score of 61, countries in Asia Pacific performed most strongly in the People component. In contrast, the Innovation and Infrastructure components, with average scores of 27 and 38 respectively, showed comparatively weaker results, with significant disparities observed between the highest and lowest performing countries in the region.

Figure 4: Digital Nations Index: component scores, 2025

Source: GSMA Intelligence

0–24 25–49 50–75 76–100

	Infrastructure	Innovation	Data governance	Security	People
Singapore	76–100	76–100	76–100	76–100	76–100
Australia	50–75	50–75	76–100	76–100	76–100
Japan	50–75	50–75	76–100	50–75	76–100
South Korea	50–75	50–75	76–100	50–75	76–100
New Zealand	50–75	50–75	76–100	50–75	76–100
Malaysia	50–75	25–49	50–75	50–75	76–100
Philippines	25–49	25–49	76–100	50–75	50–75
Thailand	50–75	25–49	50–75	50–75	50–75
India	25–49	25–49	25–49	50–75	50–75
Vietnam	25–49	25–49	50–75	50–75	50–75
Brunei Darussalam	0–24	0–24	50–75	50–75	50–75
Indonesia	25–49	0–24	25–49	50–75	50–75
Sri Lanka	0–24	0–24	25–49	50–75	25–49
Laos	0–24	0–24	50–75	50–75	25–49
Fiji	0–24	0–24	25–49	50–75	25–49
Pakistan	0–24	0–24	25–49	50–75	25–49
Bangladesh	0–24	0–24	25–49	50–75	25–49
Cambodia	0–24	0–24	25–49	25–49	50–75
Myanmar	0–24	0–24	25–49	25–49	50–75
Nepal	0–24	0–24	25–49	25–49	25–49
Papua New Guinea	0–24	0–24	0–24	50–75	25–49

Infrastructure

A country's digitalisation ambitions heavily depend on the strength and accessibility of its digital infrastructure. Infrastructure encompasses reliable internet connectivity, including high-speed mobile networks, data centres, cloud computing facilities, and access to subsea cables and satellite connectivity. It forms the essential backbone enabling digital services and innovation. Targeted investment in digital infrastructure is a prerequisite for achieving meaningful and sustainable digitalisation goals.

Over the past five years, digital infrastructure in Asia Pacific has seen significant investment, particularly in the rollout of 5G networks and the shift towards 5G standalone (5G SA) and 5G-Advanced networks to deliver better connectivity experiences. Investment in data centres is becoming a major aspect of the overall digital investment landscape in Asia Pacific, driven by the expansion of cloud services and growing demand for AI-powered infrastructure.

Japan: scaling AI infrastructure investment

The Japanese government and major telecoms and technology companies have recently announced significant investment commitments in AI infrastructure over the period to 2030, as the country positions itself as a global leader in the development of AI technologies. In November 2024, the government set a target to invest JPY10 trillion ($65 billion) as part of its AI investment strategy, with funding allocated for next-generation chip and quantum computing research, support for domestic advanced chip production, and the expansion of domestic semiconductor manufacturing capacity.

In the private sector, SoftBank and NTT Data are among the key players to have announced major data centre investments. In July 2025, SoftBank announced the deployment of what it claims to be the world's largest Nvidia DGX B200 SuperPod cluster, comprising more than 4,000 Nvidia Blackwell GPUs.[22] NTT plans to spend around $3 billion in 2025, with land acquisitions for new data centres in Tochigi and Osaka Nishiai, and a joint venture with Tepco Power Grid to develop data centres in the Greater Tokyo area.[23]

Japan has also been attracting investments from global technology companies. In April 2024, Microsoft announced $2.9 billion over two years to 2026 to upgrade existing Azure regions with advanced AI semiconductors, launch Tokyo's first Microsoft Research Asia lab focusing on embodied AI and robotics, and train 3 million people in AI skills by 2027.[24] In January, Amazon Web Services (AWS) revealed plans to invest JPY2.26 trillion ($15.2 billion) to expand its cloud computing infrastructure in Japan by 2027, including plans to extend its data centre facilities in Tokyo and Osaka.[25]

These developments highlight both the scale of investment required to meet the demands of future AI workloads and the potential for an enabling regulatory environment to unlock much-needed investment in digital infrastructure. Japan is strategically positioning itself as the "most AI-friendly country in the world" by adopting an "innovation-first", light-touch regulatory approach that prioritises business growth and R&D over strict, prescriptive rules.[26] Meanwhile, the convergence of government funding, domestic corporate investment, and investment from international technology giants provides a good example model for investment in AI development.

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[22] "SoftBank Corp. Builds World's Largest NVIDIA DGX SuperPOD with NVIDIA Blackwell GPUs", SoftBank, July 2025

[23] "NTT Data grows global data centers with New Land deals", IT Business Today, May 2025

[24] "Microsoft to invest US$2.9 billion in AI and cloud infrastructure in Japan while boosting the nation's skills, research and cybersecurity", Microsoft, April 2024

[25] "AWS pumps $15B into Japan AI push", Mobile World Live, January 2025

[26] "Understanding Japan's AI Promotion Act: An "Innovation-First" Blueprint for AI Regulation", Future of Privacy Forum, July 2025

The investment gap in infrastructure

Despite progress, there remains an investment gap in digital infrastructure across Asia Pacific. This is evident across several areas:

- **Mobile internet coverage gap.** More than 100 million individuals – approximately 3% of the region's population – live in areas without access to mobile broadband networks. These communities are primarily located in rural and remote regions where traditional, commercially-driven infrastructure deployment is often not economically viable, highlighting the need for appropriate incentives to stimulate investments to expand network coverage.

- **5G investment gap.** The deployment of 5G technology remains inconsistent throughout Asia Pacific. Countries such as Cambodia, Nepal, Pakistan and Sri Lanka have yet to launch 5G services, while 5G adoption has reached mass-market levels in countries such as Australia, Singapore and South Korea. Moreover, mobile operators across the region face considerable financial challenges due to rising spectrum costs, substantial network upgrade expenses and stagnant revenue growth, all of which put pressure on budgets and constrain further investment.

- **AI infrastructure investment gap.** There is a marked deficiency in the supply of AI infrastructure, including data centres and computational resources such as GPUs needed to support the intensive requirements of AI model training and deployment. According to a CBRE report,[27] Asia Pacific[28] may experience a shortfall of 15–25 GW in data centre capacity by 2028, representing 25–42% of forecast demand, even with the anticipated doubling of supply over the coming years.

- **Fibre infrastructure investment gap.** Demand for high-capacity connectivity continues to rise, driven by cloud services, 5G backhaul requirements and growing AI applications. Existing infrastructure often requires upgrades or densification, while new builds are essential to reach rural locations. These demands necessitate substantial capital. For instance, Australia's National Broadband Network (NBN) is projected to exceed AUD70 billion ($46 billion) in initial construction and subsequent upgrades,[29] illustrating the scale of investment required for fibre infrastructure.

[27] "Global Data Centre Trends 2025", CBRE, 2025
[28] Includes China
[29] "The state of Australia's national broadband network", Computer Weekly, June 2022

Innovation

Innovation and digitalisation are interconnected. Innovation can support digitalisation by providing new solutions that help facilitate digital transformation. Meanwhile, digitalisation can advance innovation by offering platforms for the development, adoption and practical use of emerging technologies adapted to local contexts. Ultimately, a country's ambitions to become a digital nation heavily depend on its ability to foster and leverage a dynamic ecosystem of innovation – one that encompasses R&D, a supportive regulatory environment, a culture open to change and (crucially) investment in technological innovation.

According to the GSMA Intelligence Digital Nations Index, Asia Pacific's innovation landscape varies widely, with countries positioned across the spectrum. In some countries, government policies and strategic projects support local innovation. For instance, Singapore's Smart Nation initiative encourages innovation through public–private partnerships, infrastructure, governance and talent development. Meanwhile, in India, the Startup India initiative aims to develop entrepreneurship and innovation within a supporting framework. With an average score of just 27 in this component, there remains substantial scope for improvement across the board in delivering locally relevant and globally competitive innovations.

South Korea: demonstrating commitment to innovation

The South Korean government has consistently prioritised digital technology as a core national growth engine. Innovation is central to this strategy and has benefitted from the government's provision of a clear roadmap through initiatives such as Digital Korea, supportive policies and substantial investments to create new solutions that drive the country's digital transformation. Investments have been a critical success factor in driving innovation and, by extension, digitalisation in South Korea. For example, in 2021, the government committed investment of KRW58.2 trillion ($45 billion) by 2025 under the Digital New Deal to accelerate the transition towards a digital economy, with a focus on integrating data, network and AI technologies across the economy.[30]

South Korea consistently spends around 5% of its GDP on R&D – one of the highest rates in the world. For 2026, South Korea is increasing its R&D budget significantly, proposing a record KRW35.3 trillion ($25 billion) – a 19.3% increase on 2025. The new budget focuses on areas such as AI, digital innovation, basic research and attracting global talent, while also boosting R&D funding for SMEs.[31] Beyond R&D, South Korea is investing in strategic initiatives that leverage the country's innovative backbone. For example, in June 2025, the government a $735 billion investment to develop a sovereign AI – a homegrown AI system trained on Korean language and culture.[32]

A major component of South Korea's innovation strategy is fostering strong public–private partnerships. Global firms such as Nvidia, AWS and Microsoft are investing in South Korea's cloud and AI infrastructure, while domestic firms and a vibrant startup ecosystem are working closely with the government to drive R&D and commercialisation. In October 2025, AWS announced a $5 billion investment to 2031 to expand the company's cloud data centres and AI capabilities in South Korea, in addition to a $4 billion AI data centre project in Ulsan announced earlier in 2025.[33] In October 2025, the government announced it will secure more than 260,000 of Nvidia's latest GPUs to meet growing AI demand. Around 50,000 GPUs will support public initiatives, including the development of domestic AI foundation models and a national AI data centre. The remaining GPUs will go to domestic firms such as Samsung, SK Group, Hyundai Motor Group and Naver, to drive AI-based manufacturing innovation and industry-specific AI model development.[34]

Investments in innovation have propelled South Korea to lead in patent filings per capita, while helping the country maintain global competitiveness across industries. According to the World Intellectual Property Organization, South Korea was the top-ranked country for resident patent applications per GDP in 2023, with 7,309 applications per $100 billion GDP.[35] In the 2025 Global Innovation Index, South Korea achieved its highest-ever rank at fourth place, placing it among the top innovation economies, alongside Switzerland, Sweden and the US.[36]

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30 "The Digital New Deal Is to Lead Digital Transition in the World After COVID-19", MSIT, July 2021
31 "Government Sets Record R&D Budget of 35.3 Trillion Won for 2026", Business Korea, August 2025
32 "South Korea to pour $735 bn into developing sovereign AI built on Korean language and data", The Chosun Daily, June 2025
33 "Korea Attracts USD 9 Billion in Cloud and High-Tech Investments at APEC Summit", Telecom Review Asia, October 2025
34 "Nvidia expands AI ties with Hyundai, Samsung, SK, Naver", TechCrunch, October 2025
35 IP facts and figures 2024: Patents and utility models, WIPO, 2024
36 GII 2025 results, WIPO, 2025

The investment gap in innovation

For countries in Asia Pacific to become fully-fledged digital nations, there is an urgent need to significantly increase investments in innovation to support the development of transformative digital solutions. Key areas with notable investment shortfalls include the following:

- **R&D funding –** R&D spend acts as the primary vehicle for generating new knowledge, technologies and processes that drive economic growth. Except for South Korea (4.96%) and Japan (3.44%), all other countries in Asia Pacific spent less than 2% of GDP on R&D in 2023 (the most recent figures available), compared to the OECD average of 2.7%, driven by the US and Western European nations.[37] To enhance competitiveness and societal advancement, it is imperative to address the R&D funding gap across Asia Pacific.

- **Startup funding –** Startups serve as catalysts that turn new ideas into groundbreaking technologies, products and business models. In this context, funding from multiple sources, particularly VC, is crucial to sustaining innovation. In Asia Pacific, VC funding for startups has faced mounting pressure in recent years due to investor risk aversion, high interest rates and global economic uncertainties. Furthermore, most capital inflows remain heavily concentrated in established hubs such as Australia, India, Japan, Singapore and South Korea. This results in a funding shortfall for startups in emerging markets and smaller economies, which continue to face difficulties attracting investment.

[37] "R&D spending growth slows in OECD, surges in China", OECD, March 2025

Data governance

Data governance is vital for sustainable digital investment, as it protects value, enables scalability and secures long-term return on investment in an era when data is the foremost asset. A robust framework enhances consumer trust in digital services. When individuals feel confident their data is safeguarded, they are more inclined to engage in the digital economy, creating a larger, more attractive market for investors. Strong governance frameworks, encompassing data quality, privacy, security and ethical use, also help prevent costly breaches that can undermine investor confidence. Furthermore, effective data governance frameworks facilitate secure data sharing across AI, fintech and health tech platforms, transforming raw data into insights that fuel the expansion of the digital economy.

The data governance landscape in Asia Pacific is varied. Only a handful of countries have established comprehensive data protection frameworks and enforcement mechanisms, though progress is being made across the region. For instance, in October 2025, the Bangladeshi government approved the Personal Data Protection Ordinance 2025, which sets out obligations for data controllers and processors, safeguards for data subjects, and enforcement through the creation of a national data authority.[38] In April 2025, Japan and the European Commission agreed to deepen their cooperation on trusted data flows with like-minded partners, including within the "adequacy framework", which could involve extending mutual adequacy arrangements to additional countries.[39]

Philippines: growing the digital economy through data governance

The data protection landscape in the Philippines is governed by the Data Privacy Act of 2012 (DPA) – the nation's first comprehensive framework requiring safeguards for personal information processing by public and private entities. The DPA includes consent requirements, breach notifications within 72 hours, and the appointment of data protection officers. It is enforced by the National Privacy Commission (NPC) and aligns with global standards such as the EU's GDPR, aiming to balance privacy protections with the free flow of information. By 2016, implementing rules extended to cross-border data transfers, mandating adequacy assessments or contractual safeguards for international flows.

From 2020, implementation accelerated due to increased digital activity prompted by the Covid-19 pandemic, including remote work and contact-tracing applications, which heightened data risks. In July 2023, the NPC introduced mandatory registration for data controllers and processors through the NPC Registration System. In 2024, the National AI Strategy addressed ethical data use in generative AI, and blockchain initiatives like eGOVchain incorporated privacy protocols for budgeting processes. These measures indicate a shift towards more proactive governance, with support from international organisations such as the World Bank and ADB, which contributed to digital ID projects via PhilSys.

Data governance has influenced the Philippines' digital investment landscape, affecting regulatory approaches and digital economy growth. The DPA's alignment with international norms has been associated with greater investor confidence and expansion of the digital economy. In 2023, AWS launched a Local Zone in Manila to provide low-latency services and local data processing. Developments in privacy frameworks have also coincided with increases in e-commerce sales, which reached an estimated value of PHP500.9 billion ($9.8 billion) in 2023,[40] and the Philippine digital economy's rise to PHP2.25 trillion ($40 billion) in 2024, representing 8.5% of GDP according to the Philippine Statistics Authority.[41]

The Philippine data governance approach reflects ongoing reform aimed at facilitating digital investments. Compliance with international data protection standards supports the cross-border flow of data, which is important for global business operations and outsourcing activities. The NPC also participates in international efforts, such as the ASEAN Framework on Digital Data Governance, to harmonise regulations. Overall, the current framework is structured to reduce regulatory risk for investors and aims to establish a basis of trust important for the development of the country's digital economy.

38 "Bangladesh's Personal Data Protection Ordinance 2025: key takeaways", Asia News Network, October 2025
39 "Joint press statement by Michael McGrath and Ohshima Shuhei, Commissioner of the Personal Information Protection of Japan", EC, April 2025
40 "Cards account for 51% of e-commerce payments in the Philippines", Asian Banking and Finance, 2023
41 "Digital economy balloons to P2.25T in 2024", PIDS, April 2025

The investment gap in data governance

The investment gap in data governance across Asia Pacific primarily relates to implementation challenges, resulting in varying levels of protection and potential economic risks for businesses. Identified investment gaps in data governance in the region include the following:

- **Underfunding of regulatory bodies –** In several developing Asia Pacific countries, gaps exist not only in legislation but also enforcement capabilities. Limited funding can delay the establishment of independent regulatory authorities, or constrain their ability to enforce frameworks, adapt to technology changes such as AI, and offer consistent guidance to businesses.

- **Human capital and skills shortages –** There is a notable shortage of professionals skilled in data governance and cybersecurity, which affects the ability of the public and private sectors to implement and manage data governance frameworks.

- **Market fragmentation –** Varied data governance regulations throughout Asia Pacific introduce complexity for businesses operating in the region. Investment in regional harmonisation efforts could help streamline compliance processes and reduce operational costs.

Security

Public trust forms the foundation of an effective digital society, fostering broad adoption of digital technologies. Accordingly, robust cybersecurity measures are critical to ensure citizens and businesses have confidence in digital services offered by government and private entities, including e-commerce, online banking and telecoms. Beyond building trust, a secure digital landscape safeguards these entities against financial losses and reputational harm resulting from cyberattacks. As such, cybersecurity has emerged as a strategic priority for governments and enterprises due to the increasing scale and complexity of cyberthreats.

The IBM 2025 Threat Intelligence Index[42] reports that Asia Pacific accounted for a third of global cyberattack incidents in 2024, with Japan the most targeted nation. During this period, the average cost of a data breach in Japan reached $3.65 million. Cybersecurity remains a central concern for countries in the region, prompting governments to strengthen legislation and private entities to significantly invest in defensive strategies. Examples include the following:

- In May 2025, Japan enacted the Active Cyber Defense (ACD) Law,43 which authorises law enforcement and military agencies to conduct pre-emptive cyber operations in response to imminent threats. The legislation permits the monitoring of international communications to identify and neutralise cyberattacks and establishes an independent oversight committee to approve such operations. The ACD framework encourages collaboration between public and private sectors and institutes stringent penalties for data mishandling, while explicitly excluding domestic communications and private data from monitoring activities.
- In July 2025, KT Corp announced its intention to invest KRW1 trillion ($724 million) in cybersecurity initiatives over the next five years,44 aimed at strengthening its information security infrastructure through AI technologies. Citing the high costs of data breaches and the need to protect its infrastructure and customers, KT claims the investment will facilitate the deployment of a zero-trust security model (which treats all users and systems as untrusted until validated) and support the development of an AI-based cybersecurity framework designed to more accurately detect threats. Additionally, KT Corp plans to increase its dedicated cybersecurity personnel and expand collaboration with global technology firms.

Singapore – creating a secure cyberspace

Singapore prioritises cybersecurity through its Cybersecurity Strategy 2021, which is coordinated by the Cyber Security Agency. Initiatives include a legal framework to protect critical information infrastructure in 11 essential sectors, alongside industry-specific guides for entities in sensitive sectors including financial services and telecoms. The strategy also encompasses cyber talent development through partnerships with academia and industry, as well as public awareness initiatives such as the Cybersecurity Labelling Scheme, which now extends to medical devices.[45] Furthermore, Singapore engages in international cooperation with countries in the region and beyond to combat cross-border cyberthreats.

In response to the broader of the cyberthreat landscape and digital technology, Singapore is adopting a proactive approach to developing protection mechanisms for citizens and businesses. In October 2025, the government unveiled draft frameworks to strengthen national and organisational resilience to two emerging technology risks: the threat to cryptography posed by quantum computing, and the governance challenges associated with agentic AI.[46] The government also announced plans to establish a new Cyber Resilience Centre to help SMEs improve their cybersecurity defences and recover from incidents. The centre is expected to be operational in 2026.[47]

Implementing these and other measures requires considerable investment, particularly in talent development. To address the cybersecurity talent gap, the government has launched various initiatives, including specialised training for entry-level roles, bootcamps for students, and leadership training for roles such as board directors. The government also encourages collaboration between government agencies, educational institutions and private companies, and participates in international initiatives including the Global Cybersecurity Camp to foster cross-border cooperation aimed at tackling talent shortages.

Singapore's strong emphasis on cybersecurity directly impacts digital investment by building confidence among citizens, businesses and investors. This is evidenced by the country's rising status as a major global data hub and its ability to attract significant investment from global technology companies. The focus on cybersecurity has also generated a growing market for cybersecurity solutions, presenting significant opportunities for local and foreign cybersecurity firms.

42 "IBM X-Force 2025 Threat Intelligence Index", IBM, 2025
43 "Japan enacts active cyberdefense law", The Japan Times, May 2025
44 "KT to invest $724 mil. in cybersecurity, anti-phishing measures over 5 years", Korea Times, July 2025
45 "Launch of Cybersecurity Labelling Scheme for Medical Devices", CSA, October 2024
46 "Singapore releases draft quantum and agentic AI governance frameworks", JD SUPRA, October 2025
47 "New centre to help SMEs in Singapore improve cyber resilience", CNA, October 2025

The investment gap in security

As Asia Pacific's digital economy grows, so too does its vulnerability to cyberthreats. This underlines the urgent need to address the region's significant investment gaps in cybersecurity talent and adapt to AI-driven threats to build long-term cyber resilience and ensure sustainable digital growth. For instance, 92% of business leaders in India reported experiencing a breach that they partly attributed to a shortage of cyberskills.[48] The skills gap is particularly pronounced in emerging economies, which also suffer from a 'brain drain' as limited talent migrates to developed countries in search of better economic prospects. The proliferation of AI and other emerging technologies such as quantum computing is adding to the complexity of cyberthreats. Addressing these will require substantial investment in developing a robust cybersecurity ecosystem.

[48] 2024 Cybersecurity Skills Gap, Fortinet Training Institute, 2024

People

People are the creators, users and primary beneficiaries of digitalisation. As such, successful realisation of a country's digital ambitions directly depends on the availability of a skilled workforce capable of effectively using digital technologies, as well as universal access to connectivity to promote inclusive growth in the digital economy.

With an average score of 61 in the 2025 Digital Nations Index, countries in Asia Pacific generally perform well on the People component of the index. Nevertheless, there remains considerable scope for improvement, particularly in emerging economies where there is a significant gap in mobile internet usage and a shortage of digitally literate workers who can harness technology to enhance productivity and optimise processes. Some efforts are being made in this regard.

Indonesia – taking a multi-pronged approach to enhancing digital skills

Indonesia is investing in its people to advance its digitalisation ambitions through a multi-faceted approach that focuses on digital literacy, skills development and the creation of a supportive ecosystem from the grassroots to professional level. These initiatives, which involve collaboration between the government, private sector and educational institutions, include the following areas:

Digital literacy and awareness
At a basic level, the government employs various campaigns to raise awareness of the benefits of digitalisation in everyday life and business. For instance, the Ministry of Communications and Digital (Komdigi) aims to educate 50 million citizens through the National Digital Literacy Movement, with a focus on digital ethics, safety, culture and skills, ensuring a basic level of competence for all citizens.

Digital skills development
Komdigi offers the Digital Talent Scholarship programme (a free, certified training initiative for high-demand digital skills such as AI, cybersecurity, cloud computing and data analytics), as well as the Digital Leadership Academy – a programme specifically designed to upskill government and corporate leaders, equipping them with the strategic understanding needed to drive digital transformation initiatives effectively.

Ecosystem collaboration
The government is partnering with technology companies and start-ups to develop relevant training modules. For example, in April 2024, Microsoft committed to a $1.7 billion investment in Indonesia, which includes a pledge to train 840,000 Indonesians in cloud and AI technologies.[49] The Ministry of Higher Education, Science and Technology (Kemdiktisaintek) is collaborating with Google and domestic industry partners such as GoTo and Traveloka to deliver the Bangkit programme - a career-readiness curriculum in machine learning, mobile development and cloud computing. It helps prepare students with in-demand skills, with a focus on individuals from rural areas.

A skilled workforce is a major attraction for digital investments, as it helps companies reduce operational costs and minimise the risks associated with recruiting and training employees from scratch. For example, Apple's decision to invest in an AirTag accessory factory in Batam and another components and accessories factory in Bandung will benefit from the initiatives aimed at expanding the pool of skilled workers in the country. Furthermore, efforts to close the usage gap and increase digital literacy and skills will fuel growth in sectors such as e-commerce, fintech and digital services, creating a fertile ground for start-ups and further investment.

[49] "Microsoft Announces $1.7 Billion Investment to Boost Indonesia's AI and Cloud Capabilities", Cloud Computing, April 2024

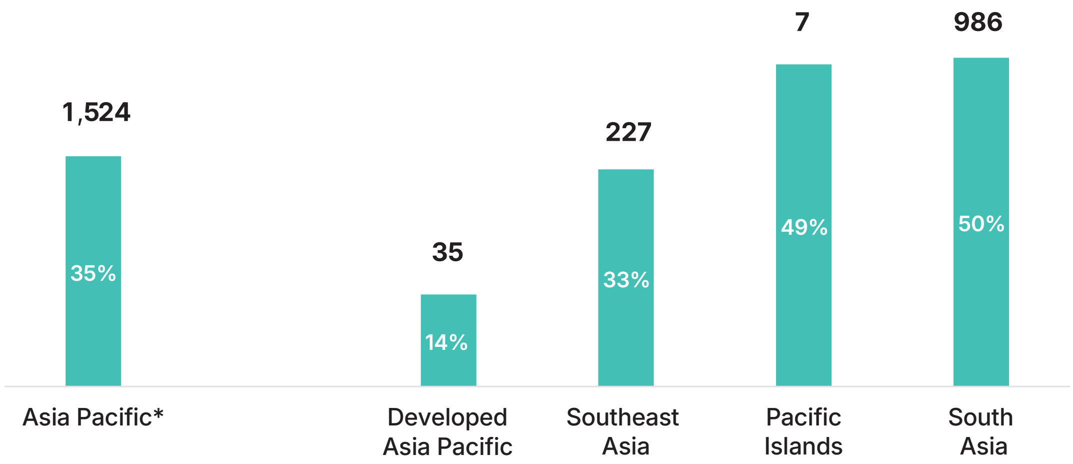
The investment gap in digital skills

It is essential to address the mobile internet usage gap across Asia Pacific, as it represents a crucial first step to building trust and confidence in digital services. Throughout the region, digital literacy remains a significant barrier to mobile internet adoption, notably among older users. In emerging economies, including South Asia (which accounts for 66% of the usage gap across the region, including China), the principal obstacles to mobile internet adoption are linked to the affordability of devices and government fiscal policies. Overcoming these and other barriers requires substantial investment and the appropriate policies to unlock that investment.

Figure 5: The mobile internet usage gap in Asia Pacific

Percentage usage gap and total number of mobile internet subscribers (million)

Source: GSMA Intelligence



*Includes China

In addition to the usage gap, a considerable shortfall remains in human capital and skills development across several countries. The rapid evolution of digital technologies frequently leaves the workforce lacking the requisite skills, leading to an investment gap in the education and training necessary to fully exploit these technologies. This shortage of skills has the potential to hinder progress in each of the other five pillars of a digital nation.

04
Accelerating digital investment in Asia Pacific

4.1
Measures to spur digital investment

The journey to digitalisation in Asia Pacific will be driven by investment. This is essential to close gaps across the components of a digital nation, including gaps in infrastructure, R&D funding, talent and mobile internet usage. While progress so far has resulted from significant investment by a range of stakeholders (including governments, mobile operators and others), continued effort remains vital.

The scale of investments required, coupled with competing demands for limited resources, means key stakeholders must identify innovative solutions to unlock the investment in digital technologies and solutions needed to sustain the region's competitiveness and ensure inclusive development across the region.

Set clear national goals for digital investment

Setting clear digital investment goals provides strategic direction for a country's digitalisation journey. For instance, investment targets focused on rural connectivity can help pinpoint areas of need and concentrate efforts where they will have the greatest impact. Such goals attract private capital by signalling to investors that a country is committed to its digital future. They also create a predictable investment environment for private investors and development partners, helping bridge funding gaps in priority areas.

Measurable targets enable governments and stakeholders to monitor progress, assess performance and hold all parties accountable for outcomes. This level of transparency helps maintain public and private sector support over the long term. The BharatNet programme, part of the Digital India initiative, is a prime example of a clear digital investment objective, aiming to connect all 250,000 Gram Panchayats in India to high-speed internet. As of June 2025, nearly 215,000 Gram Panchayats had been connected under BharatNet.[50]

Align government policies with digitalisation goals

While setting clear national goals for digital investment is important, it is equally vital that government policies are effectively aligned to support and achieve those objectives. In practice, this requires a whole-of-government approach, ensuring all departments work to a shared set of objectives so that their respective policies reinforce one another. Such alignment fosters a cohesive and supportive ecosystem, rather than a fragmented landscape marked by conflicting priorities and potentially counterproductive outcomes. For example, aligning policies around 5G deployment with fiscal policies could involve introducing financial incentives (such as tax breaks, subsidies, grants and favourable spectrum pricing) to reduce investment risks and make infrastructure projects financially viable. This in turn would stimulate economic activity and generate tax revenue from new sources.

In Vietnam, for instance, the government has introduced operator incentives in the form of a subsidy covering 15% of the cost of base-station equipment, provided operators succeed in building 20,000 5G base stations by the end of 2025.[51] This initiative is consistent with the wider goal of achieving 99% 5G coverage by 2030. In the Philippines, the Innovative Startup Act, enacted in 2019, offers incentives such as grants, subsidies and tax breaks for eligible start-ups, as well as additional benefits including subsidies for government services and facilities, and visa exemptions for foreign staff. This legislation has been a significant driver of VC investment in the country's innovation landscape, with total funding reaching $1.12 billion in 2024 – a 16.7% increase on 2023.[52]

50 BharatNet Project at usof.gov.in
51 "Vietnam to subsidize telecom providers for 5G network expansion", VietNamNet, February 2025
52 "Philippine startups ride funding boom, but growing pains remain", Nikkei Asia, September 2025

Use government investment to stimulate private capital

While private capital continues to account for most investment in digitalisation, particularly in capital-intensive areas such as digital infrastructure and innovation, public funds play a crucial role, especially in high-risk projects or those with uncertain short-term returns. Public investment can act as a risk-sharing mechanism and catalyst, providing essential seed funding to instil market confidence and unlock private capital for less commercially attractive projects, such as early-stage innovation or universal access initiatives where immediate financial returns are not viable.

For instance, in India, the government launched the Research Development and Innovation (RDI) Scheme in July 2025, allocating an initial INR1 trillion ($11.4 billion) budget to boost private sector R&D and seed a deep-tech fund of funds.[53] This move is already stimulating VC funding in India's deep-tech sector; in November 2025, it was reported that the country's deep-tech startups had secured more than $850 million in capital commitments from local and global investors, including Nvidia, Qualcomm Ventures, Activate AI, InfoEdge Ventures, Chiratae Ventures and Kalaari Capital.[54] In Australia, government investment in the NBN and its Digital Economy Strategy 2030[55] have been instrumental in attracting major private sector investment. Notably, in June 2025, AWS announced plans to invest AUD20 billion ($13 billion) between 2025 and 2029 to expand, operate and maintain its data centre infrastructure in Australia, marking the country's largest publicly announced global technology investment.[56]

Public–private partnerships (PPPs) have also emerged as a vital mechanism for mobilising digital investment. By aligning public policy goals with private-sector resources and expertise, PPPs enable governments to accelerate project delivery, share risks more effectively, and ensure the long-term sustainability of infrastructure and innovation programmes. When combined with targeted public funding, PPPs can amplify investment impact and encourage continued private participation in strategic sectors of the digital economy.

Avoid regulatory uncertainty

Inconsistent policies can cause hesitation among investors. Navigating the varied policy landscapes across the region can also delay cross-border projects. A stable and predictable regulatory environment is therefore essential to reduce risk for investors and enable long-term strategic planning, which is crucial to attract the significant private capital required for major projects. Consistent policies on market access and competition also establish a level playing field, encouraging investment by ensuring innovation and business success are determined by market factors rather than arbitrary regulatory changes. Moreover, a predictable regulatory environment, particularly one that aligns with international standards, can help make a country an attractive destination for large-scale regional investments.

For example, in April 2025, the Malaysian Department of Personal Data Protection issued Guidelines on Cross-Border Personal Data Transfer, offering much-needed certainty for investors as Malaysia seeks to establish itself as a regional hub for cloud and AI infrastructure. Similarly, Singapore's proactive stance on emerging technologies such as AI, quantum computing and data analytics provides a clear framework for investors.[57]

[53] "Cabinet Approves Research Development and Innovation (RDI) Scheme to scale up Research, Development and Innovation in Strategic and Sunrise Domains", PMIndia, July 2025
[54] "Nvidia joins India Deep Tech Alliance as group adds new members, $850 million pledge", Reuters, November 2025
[55] See Towards 2030: Positioning Australia as a leading digital economy and society at www.dfat.gov.au
[56] "Amazon investing AU$20 billion to expand data centre infrastructure in Australia and strengthen the nation's AI future", Amazon, June 2025
[57] "Singapore's Proactive Approach to Emerging AI and Quantum Tech", OpenGov Asia, October 2025

Address regional disparities through collaboration

Asia Pacific has a fragmented digital landscape, marked by considerable disparities in technological advancement across countries. This fragmentation hinders investment by limiting opportunities for economies of scale and, in many instances, restricting the mobility of skilled workers. Addressing these challenges requires collaboration in areas such as policy harmonisation, best-practice sharing, cybersecurity and data governance, as well as the development of cross-border digital infrastructure, including subsea internet cables, to facilitate larger investment. There is also a crucial social dimension, as enhanced collaboration can help bridge the significant digital divide in the region, so emerging economies and rural areas are not left behind in terms of digitalisation.

Countries in Asia Pacific can leverage a range of multilateral and bilateral mechanisms to foster collaboration. These include the ASEAN Digital Economy Framework Agreement, which seeks to harmonise rules on cross-border data flows, digital trade and cybersecurity in the region; APEC's Digital Economy Steering Committee, which is dedicated to facilitating trade, creating an enabling environment for the digital economy, and promoting digital inclusion through collaborative projects and best-practice sharing; and UNESCAP, which has undertaken initiatives to address gaps in cross-border fibre links across the region. On the bilateral front, Japan and the Philippines are working together on digital initiatives through a partnership centred on ICT, infrastructure development and economic growth;[58] the Australia–Indonesia Digital Economy Partnership aims to strengthen both countries' digital economies via projects focused on digital transformation;[59] and South Korea has collaborated with countries such as Vietnam[60] and Cambodia on ICT projects centred on e-government development, skills training and foundational digital infrastructure.[61]

[58] "Philippine President Embraces Global Alliances to Push Digitalisation", GIGA Focus Asia, 2024

[59] "Indonesia Partners with Australia to Strengthen Digital Economy Towards Vision 2045", Intimedia, August 2025

[60] "Ho Chi Minh City – Busan (South Korea) Business Forum", WTC Connect, 2025

[61] "South Korea pledges to support Cambodia in key digital areas", Khmer Times, April 2025

Call to action: prioritise investments to realise digital nation ambition

Countries in Asia Pacific have made considerable progress on their digitalisation journeys, benefitting from investments by governments, mobile operators, other private investors and development partners. However, analysis of the performance of countries in the GSMA Digital Nations Index reveals significant investment gaps across its five components. Addressing these gaps is essential for continued advancement in digitalisation, particularly given the rapid evolution of digital technologies and the growing mismatch between demand for and supply of digital services.

To sustain momentum and ensure no one is left behind, governments and policymakers must take bold, proactive steps to unlock new sources of funding and accelerate digital transformation. This requires the following:

- Deploying targeted policy levers such as fiscal incentives, PPPs and forward-looking regulation to attract and de-risk private investment.
- Establishing clear, measurable national digital investment goals that provide strategic direction and accountability.
- Fostering cross-border and regional collaboration to harmonise standards, share best practices and develop large-scale digital infrastructure, thereby creating bigger addressable markets and reducing fragmentation.
- Prioritising digital inclusion and sustainability by ensuring investments reach underserved communities and support green, resilient digital infrastructure.
- Building capacity and skills to ensure the workforce can fully participate in and benefit from the digital economy.

Now is the time to act. Asia Pacific nations can bridge the digital divide, unlock new economic opportunities and realise the full potential of digital nations to ensure inclusive and sustainable growth for all.

Appendix:
index methodology

Digital Nations Index metrics

The GSMA Intelligence Digital Nations Index examines the five key components of a digital nation: infrastructure, innovation, data governance, security and people. It maps the aspirations of governments in the region to these components.

The metrics of the Digital Nations Index rely on 21 indicators across the five main components. Each component consists of the following dimensions, number of indicators and corresponding weighting of indicators:

1. **Infrastructure:**
   a. Networks – 5 indicators (40% weighting)
   b. Spectrum – 1 indicator (30% weighting)
   c. Cloud – 1 indicator (15% weighting)
   d. Emerging technology – 2 indicators (15% weighting)
2. **Innovation:**
   a. Global Innovation Index – 1 indicator (25% weighting)
   b. R&D expenditure – 1 indicator (25% weighting)
   c. Legal protection – 1 indicator (25% weighting)
   d. Startup ecosystem – 1 indicator (25% weighting)
3. **Data governance:**
   a. Data protection – 1 indicator (50% weighting)
   b. Cross-border data flows – 1 indicator (50% weighting)
4. **Security:**
   a. Cybersecurity laws – 1 indicator (100% weighting)
5. **People:**
   a. Digital inclusion and online participation – 2 indicators (40% weighting)
   b. Future skills – 1 indicator (20% weighting)
   c. Digital literacy – 1 indicator (20% weighting)
   d. Online safety – 1 indicator (20% weighting)

Infrastructure is measured across four dimensions:

1. **Networks:** Adoption of technologies, including 5G, FTTP, NB-IoT, RedCap and non-terrestrial networks.
2. **Spectrum:** The amount of sub-1 GHz, 1–3 GHz, 3-6 GHz and mmWave spectrum used for mobile services per operator.
3. **Cloud:** Expenditure on public cloud infrastructure.
4. **Emerging technology:** Assessment of relevant industry developments across emerging technologies, including AI, drones, robotics and quantum computing.

Innovation is measured across four dimensions:

1. **Global Innovation Index:** The Global Innovation Index is an annual ranking of countries by their capacity for, and success in, innovation.
2. **R&D expenditure:** Gross domestic expenditures on R&D.
3. **Legal protection:** Evaluates national intellectual property laws.
4. **Startup ecosystem:** Measures the maturity of a country's startup ecosystem.

Data governance is measured across two dimensions:

1. **Data protection:** Considers the extent to which there is an independent and/or resourced supervisory authority for data privacy enhancing enforcement activities and whether this authority coordinates with other supervisory and relevant authorities both within and outside the region.
2. **Cross-border data flows:** Considers policy and regulatory guidance on CBDFs, assessing the range of data-transfer mechanisms on CBDFs and/or adequacy requirements.

Security is measured across one dimension:

1. **Cybersecurity laws:** Assesses the extent to which countries have fit-for-purpose cybersecurity laws and regulations.

People is measured across four dimensions:

1. **Digital inclusion and online participation:** Analyses the percentage of mobile internet users as a share of the total population and the availability of online content and services that are relevant to local populations.
2. **Future skills:** Examines the percentage of science, technology, engineering and mathematics degrees as a share of all tertiary-education degree recipients.
3. **Digital literacy:** Measures adult literacy rates and school-life expectancy to determine whether individuals have the basic skills needed to use mobile internet.
4. **Online safety:** Evaluates the level of online safety for children across different countries.

Building the index

The process for building the index consisted of determining the relevant data for the five components, identifying the 21 indicators, normalising the data, addressing missing data and calculating the composite of the measures. For all the indicators, the index used the latest data available at the time of research and took the values for each indicator from the same year.

The creation of the index required a complete data set, so the imputing of variables used a 'hot-deck' method of imputation to imply a value for a country by taking the value of a similar country.

The indicators had different units and scales, so the index normalised any indicator that did not use a 100-point scale to make the indicator values comparable and to construct aggregate scores for each country. For indicator values that required normalisation, the process set minimum and maximum values to transform the indicators into indices between 0 and 100 using the following formula:

Normalised value = ((actual value – minimum value) / (maximum value – minimum value)) × 100

After normalisation of the necessary values, the index became a composite of the five components on a 100-point scale, according to the weights for the indicators listed above, with 1 representing the worst situation and 100 the best. This normalisation allows comparison of the countries' scores for each category. To calculate the overall score, the index used the sum of the indicators within each component while taking into consideration each indicator's weighting.

The data for the index came from a variety of sources, including GSMA Intelligence, DQ Institute, FTTH Council, Startup Blink, Statista Market Insights, Oxford Insights, the US Chamber of Commerce, the World Intellectual Property Organization and the World Bank.

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