Southeast Asia
Public Policy Institute

# Policy State of Play: Artificial Intelligence in Southeast Asia

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## Key takeaways: AI policy-making progress in ASEAN

| Country | AI National Strategy | AI Guidelines | Gen AI Guidelines | AI binding regulations | AI upskilling initiatives |
|---|---|---|---|---|---|
| Singapore | | | | | |
| Malaysia | | | | | |
| Vietnam | | | | | |
| Thailand | | | | | |
| Indonesia | | | | | |
| Philippines | | | | | |

*Issued*

*Proposed / discussed / under review*

**All of the six ASEAN economies studied have national AI strategy and upskilling initiatives. Only Singapore and Indonesia have guidelines on AI, though there have been discussions in Malaysia. Five countries – Malaysia, Vietnam, Thailand, Indonesia, and the Philippines – have held discussions on legislation; no countries have implemented binding regulations.**

## AI in ASEAN

Artificial Intelligence (AI) is projected to generate considerable economic and social value in Southeast Asia. By 2030, AI adoption could improve the region's total gross domestic product (GDP) by between 13 and 18 percent, a value nearing US$1 trillion.[1] Buoyed by a burgeoning digital economy and a young, tech-savvy demographic, AI can play a major role in the region's next phase of industrial development, from energy systems to warehouse management as well as facilitating positive social outcomes such as financial inclusion and improved public services.[2]

Southeast Asia is still in the early stages of AI adoption and market maturity varies greatly. Singapore is a clear standout in overall AI readiness[3] and investment[4] while the rest of the region still lags behind more advanced countries by two to three years.[5] For example, there is a stark divide in AI venture capital investment: around 75 percent of total AI venture capital investment in the region is concentrated in Singapore (US$8.4 billion) — significantly surpassing other large ASEAN economies such as Indonesia (US$1.9 billion) and Vietnam (US$95 million).[6] Measuring AI investment per capita, Southeast Asian countries receive less than $1 per capita, except for Singapore at $68; by comparison the US receives US$155 per capita and Canada US$34.[7]

The key to realizing AI's trillion-dollar potential in Southeast Asia lies in creating the right environment for investment, technology development and widespread adoption throughout industry, business and society. This can only be achieved through careful but decisive policy choices. Policymakers must wrestle with a range of challenges: how to mitigate risks and ensure AI is safe, how to create a conducive environment for adoption, and how to leverage AI for national priorities across national security, economic growth or public services. These challenges are compounded by adjacent policy issues around the use of national and personal data and access to AI infrastructure, in addition to fears around job displacement and the impact of the high energy demand.

Most countries in the region have taken initial steps in AI policy development with the publication of a national AI policy or strategy, in addition to guidelines for the use of AI in specific sectors. At the regional level, ASEAN has published a Guide on AI Governance and Ethics and is discussing policies around generative AI.[8]

Although some governments have approached regulation – including Thailand and Malaysia – no market has yet issued binding rules on AI. This reflects concerns in the region that over-regulation could stifle adoption and innovation. Instead, governments have mainly prioritised boosting AI investment and capabilities, especially skills and training.

As such, the region overall has a more 'hands-off' approach to AI, especially in comparison to the pro-regulation approach of the EU – with its AI Act – and even in the context of multilateral discussions through the Global AI Summit series. Notably, there is less need for immediate high-level governance policy given the lack of foundation models based in the region. Though this will inevitably change.

While there is significant diversity across the region, there are core themes emerging, especially among the five to six leading digital economies.

## Key Themes in Southeast Asia

### 1. Wait-and-see, hands-off approach

Eager to respond to AI's economic potential but concerned about over-regulating and disincentivizing industry development, Southeast Asian governments have generally taken a hands-off approach to regulating AI. While leading digital economies in the region have published a national AI strategy or roadmap, none have issued binding regulations on AI use and development, though some – including Malaysia and Thailand – have considered it, and others are still considering options. In the meantime, many markets are sensibly making use of their comprehensive lawbooks on digital regulation in areas such as online safety and data.

### 2. Limited international engagement

Except for Singapore, Southeast Asia's engagement in global discussions regarding AI policy and regulation has been limited. Indonesia and the Philippines joined the first Global AI Summit in 2023 and endorsed the outcomes, but there has been limited follow-up. Some governments including Thailand and Vietnam have acknowledged the role of global standards through international bodies such as the ISO. However, in terms of international engagement, other issues such as cross-border e-commerce and payments remain a more tangible priority. It is important that the region remains engaged to avoid being a rule-taker.

### 3. National political concerns will influence AI policy development

Southeast Asian countries are fully aware of the economic and development benefits that the AI revolution can potentially bring to their citizens and economy, including growth, upskilling, and industry competitiveness. However, AI's status as an emerging technology with no overarching regulatory framework has sparked nationally-focused concerns. In the Philippines, there are concerns around labor displacement given the significant offshoring industry. In other markets – especially those with more stringent online content regimes – there are concerns around the impact of AI on scams, fraud, misinformation, and disinformation, and the impact on political stakeholders and broader social harmony.

### 4. Lack of government capacity

Regulators and policymakers responsible for drafting AI policy in Southeast Asia face the challenges of developing policy for a cutting-edge technology and are hindered by a lack of technical understanding and capacity. Thailand's attempt to draft AI laws in 2022, for example, was reportedly put aside partly due to issues of technical capacity. While upskilling programs in AI are growing in places like Singapore and Malaysia to court AI talent and investment in the private sector, further developments in AI regulations and policymaking must be accompanied by enhanced capacity building for government officials.

### 5. Ambition and recognition of the importance of adoption

Singapore has placed tech at the centre of its economic strategy, especially its position as a regional hub. Malaysia too has ambitions to be a top 20 global AI player, while other economies clearly recognize the importance of AI. While countries in the region may not have engaged in global discussions on AI safety, the focus has been on adoption and skills, which will have the greatest impact in any case.

## AI policymaking: the Global Context

Concerns around the ethics of AI use and the harms it generates abound, from disrupting democratic processes, promoting fraud and disinformation, and accelerating automation. In response, governments have been involved in several multilateral and global initiatives to shape AI policy and development. Leading countries such as the US and UK, supported by developments at multilateral forums, have led in AI policy and governance frameworks. While Southeast Asian government have not been at the centre of these discussions, they will set the policy agenda and form the basis of common standards, especially on safety and security.

### *Global AI Summit Series*

The first global summit on AI was held in Bletchley Park, UK, in November 2023.[9] Officially the AI Safety Summit, the international conference gathered 28 countries, including the US, China, EU, and Singapore, to discuss the safety and regulation of AI. The Summit included the publication of Bletchley Declaration, which aimed at establishing shared agreement and responsibility on the risks and opportunities of AI, particularly frontier AI.[10] Notably, Indonesia and the Philippines also attended the Summit and signed the Declaration.[11]

A second summit followed in May 2024 in Seoul, South Korea. Sixteen companies including Google, Meta, Microsoft, OpenAI, as well as firms from China, South Korea, and United Arab Emirates pledged to develop AI safely. The participants were backed by the G7 economies, the EU, Singapore, Australia, and South Korea. Among other priorities, they noted the importance of interoperability between governance networks and engagement and a network of safety institutes.[12] France will host the next AI Safety Summit, having touted itself as a European leader in AI model development.[13]

The lack of Southeast Asian participation at the past summits signals a lack of engagement from the region in global discussions on AI, with Singapore again emerging as a stand-out.

### *US Executive Order on AI*

In advance of the global summit, President Biden issued an Executive Order on AI in October 2023 to promote "the safe, secure, and trustworthy" development and use of AI.[14] The National Institute of Standards and Technology (NIST) will lead the development of guidelines and practices. The Order's new standards for AI safety and security include requiring AI developers to share their safety test results with the US government; developing standards, tools, and tests to ensure AI systems are safe and secure; protecting against engineering of dangerous biological materials; and establishing standards for detecting AI-generated content and authenticating official content.[15] It also stipulates ordering the development of a National Security Memorandum to direct further actions on AI and security. Given the breadth of the Order's scope and recommendations, it is likely to affect organizations across all sectors and markets.

### *United Nations*

In March 2024, the United Nations General Assembly (UNGA) adopted the world's first global resolution on AI. Proposed by the US and co-sponsored by more than 120 member states, the non-binding resolution followed ongoing efforts by many states to develop their own AI regulations.[16] It mainly asks countries to safeguard human rights, protect personal data, and monitor AI risks.[17]

### *The European Union (EU) AI Act*

Also in March 2024, the European Parliament approved the world's first legally binding set of rules in a comprehensive framework for constraining AI risks, the AI Act. In response to discussions about bias, privacy, and even humanity's future, the AI Act classifies products according to risk and the appropriate level of scrutiny. For example, AI applications with a clear risk to fundamental rights will be banned, such as those that includes the use of biometric data.[18] The Act marks the first time a major AI regulation comes with tangible impact and consequences.

### *UK-US Bilateral Agreement on Advanced AI*

Ahead of the second global summit, and following the UN and EU initiatives, in April 2024 the US and UK signed the first bilateral agreement on jointly developing advanced AI model testing.[19] The partnership was a follow-up to the November 2023 commitments announced at the AI Safety Summit at Bletchley Park, UK, which had similarly featured international collaboration on frontier AI safety.

### *The Proliferation of AI Safety Institutes*

Simultaneously, many governments have established organizations or institutes focused on AI safety issues in response to discussions at the AI Safety Summits. Earlier in October 2023, the UK had set up the world's first AI safety institute to

advance knowledge of AI safety and evaluate new types of AI and risks.[20] The US announced the creation of a similar institute in February 2024, called the AI Safety Institute Consortium (AISIC). AISIC falls under the National Institute of Standards and Technology (NIST) and leads the US government's efforts on AI safety.[21] The Consortium includes more than 200 AI creators and users, companies, academics, government and industry researchers, and civil society organizations on the frontlines of creating and using advanced AI systems.[22] In Asia, Japan[23] and Singapore[24] have established AI Safety institutes, while Korea has expressed plans to launch one in 2024.[25]

## Regional AI Initiatives

In addition to the US and EU, Southeast Asian governments closely watch policy influencers in the Asia Pacific region, including India, Japan, Korea, and Australia, who host comparatively more robust environments for AI research and industry development. Meanwhile, China has an ambitious goal to be the global leader in AI by 2030. Already, it is one of the earliest in the world to roll out detailed regulations governing AI.[26]

There has been a significant amount of activity at the regional level too, where ASEAN's more advanced digital economies have steered the region's AI governance initiatives.[27] Collectively, there is growing recognition of the need for more robust common frameworks for AI governance that can collectively and effectively respond to risks while reaping the benefits that AI transformation can bring to the region.

### *ASEAN Guide on AI Governance and Ethics*

Following a push for a regional AI guide to drive consensus on a regional approach to AI governance and ethics, ASEAN Digital Ministers announced a plan to develop the ASEAN Guide on AI Governance and Ethics in 2023. The Guide was published in February 2024 and contains practical recommendations guided by core principles including transparency, fairness, and accountability. Among other things, it includes recommendations on talent upskilling, innovation support, investment in research and development, and raising citizen awareness on AI use.[28]

The Guide employs a risk-based approach to determine the necessary level of human oversight for AI decision-making. The Guide can serve as an important reference that member states can use and improve for their own national approaches to AI policy and governance. Given the diversity in technical and regulatory capacities within ASEAN, in addition to stark gaps in AI readiness across the region, ensuring a robust AI governance and policy ecosystem will be a challenge.

### *ASEAN Generative AI guidelines*

ASEAN hosted the first workshop on the Emerging Policy Approaches to Generative AI in December 2023. The workshop saw 70 participants from member states, Japan, the US, UK, India, France, South Korea, Jamaica, and Bangladesh, among others, and featured a panel of experts from organisations such as the ASEAN Digital Senior Officials' Meeting, ASEAN-USAID IGNITE, USAID Regional Development Mission for Asia, AI Asia Pacific Institute, and the AI Institute of UNSW Sydney. The workshop provided recommendations on future strategies for the ethical advancement and use of generative AI in ASEAN.

Later, the June 2024 ASEAN Ministerial Meeting on Science, Technology and Innovation (AMMSTI) released a statement that noted the establishment of a working group on AI Governance, that, among others, aims to address the governance of generative AI.

### *The ASEAN Digital Economy Framework Agreement (DEFA)*

In August 2023, the ASEAN Economic Ministers' (AEM) meeting officially endorsed the study on the ASEAN Digital Economy Framework Agreement (DEFA).[29] The DEFA, scheduled to be completed by end 2025, aims to be the region's first regional, binding digital economy agreement. The Agreement will support the region's post-COVID recovery strategy and digital transformation. Its negotiation pillars include cooperation between members on emerging technology, such as AI, and including establishing mechanisms for regulatory cooperation for relevant standards and regulations. Other pillars include digital trade, online safety and cybersecurity, and cross-border data flows and protection, among others. Given the diversity of digital readiness across ASEAN as well as the ASEAN consensus approach, a probable outcome would be a relatively low-ambition DEFA with an emphasis on capacity-building and a potential staggered approach for member states to accede to provisions. Still, the DEFA could serve as a building block for higher ambition agreements in the region, including in AI policy development and regulation.

## ASEAN Country AI Policy and Governance Frameworks

*Singapore*

Singapore is striving for more AI capabilities in the country in the hopes that it could enhance the productivity of its ageing workforce, and as part of next phase of economic growth. The government employs a light-touch approach to AI policy that can be based around model governance frameworks and initiatives to boost AI capabilities and investment, such as the Model AI Governance Framework and the Model AI Governance Framework for Generative AI. These outline Singapore's principles on how risks of AI should be mitigated and are focused on the organizational structure during the development of AI.

As the government is focused on attracting AI capabilities, it is concerned that regulations could impede AI innovation and use. To this end, Singapore does not have any immediate plans to establish AI regulation. Meanwhile, in March 2024 the government published the Advisory Guidelines on the Use of Personal Data in AI Recommendations and Decision Systems to ensure that personal data continues to be protected within the legal purview of the Personal Data Protection Act.

In December 2023, the government launched the National AI Strategy 2.0 (NAIS 2.0), which outlines its plans to develop talent and promote a thriving AI industry. NAIS 2.0 can be broadly encapsulated by three systems: (a) building people and communities in the AI landscape, (b) building the infrastructure and environment for AI development; and (c) supporting AI activity across industry, government and research. Meanwhile, the risks in the misuse of AI (e.g. perpetuate scams and misinformation) remain a top political concern. To this end, other regulatory controls such as the Online Safety (Miscellaneosu Amendments) Act (OSMA), POFMA, and the Online Criminal Harms Act (OCHA) are expected to serve in place of an AI regulation to reign the risks and concerns on AI. The government will also leverage research and expertise to combat AI harms. For instance, Singapore will invest US$15 million to the Online Trust and Safety (OTS) Research Programme that establishes a Centre for Advanced Technologies in Online Safety (CATOS) to enhance Singapore's ability to detect deepfakes and misinformation and build online trust and safety tools.

The Singapore government recognizes that the localization of AI capabilities in the country will be met with challenges. Beyond the development of digital infrastructure to enhance computer power, cross-border data transfer mechanisms will need to continue to be open to Singapore to facilitate the training of AI on large data sets. It is likely that the government will leverage its push towards AI development in Singapore as part of its parallel push to reduce cross border transfer requirements. At the same time, the general politicization of AI can be expected, with concerns being raised in Parliament regarding the threat of AI taking over jobs and the misinformation and fraud that AI perpetuates. The new AI Group, established under the merger the Ministry of Communications and Information and the Smart Nation and Digital Governance Group, will have to thread a careful line between supporting the use of AI and making proactive moves to mitigate such threats and appease the general population.

Over the next five years, the government is committed to pumping more than US$740 billion into AI computing power, talent, and industry development as part of efforts to court AI investments. The government has also partnered tech giants in exploring AI use cases in finance, healthcare, and the delivery of public services, on top of developing a base large language model (LLM) rooted in the Southeast Asian context. Meanwhile, the launch of the AI Verify Foundation further solidifies the Singapore government's partnership with industry leaders such as IBM, Google, Microsoft, Red Hat, Salesforce and Aicadium, to co-develop testing frameworks and best practices. Concurrently, the government is ramping up efforts to not only attract, but also build up, AI talent in the country. The Singapore and US governments co-introduced a new AI Talent Bridge initiative in 2022 to bolster talent in emerging tech, including AI, focusing on youth and women.[30] In 2023, The Ministry of Communications and Information announced plans by the Infocomm Media Development Authority (IMDA) to increase workforce training in key tech areas including AI. IMDA is also targeting to reskill around 18,000 people in tech roles in AI and Analytics with an emphasis on Generative AI, Software Engineering, and Cloud and Mobility.[31]

A leader in AI business and infrastructure readiness in the region, Singapore has spearheaded discussions at the ASEAN level and been involved in several global AI governance discussions. Most recently,

Singapore led the development of the ASEAN Guide on AI Governance and Ethics and chaired the 2024 ASEAN Digital Ministers Meeting (ADGMIN). The government also consistently engages in global discussions on AI, participating in the past two AI Safety Summits and designating the Digital Trust Centre as the AI Safety Institute (AISI).[32] With a view to maintain its status as a gateway for digital investments in the region, Singapore views regional agreements such as the DEFA as an opportunity to lead in setting baseline standards for the region in digital trade, cross-border data flows and payments, as well as regulating emerging technologies such as AI.

### *Malaysia*

Malaysia has an ambition to be among the top 20 countries in AI technology. For now, Malaysia's overall approach to AI regulation is to build the necessary foundation for AI growth through the development of a proper code of ethics and governance framework. The government's 'wait and see' approach is taken to avoid overregulation, considering that AI technology is still at its nascent stages of development.

The government has long-term plans to develop an AI act as outlined in the National AI Roadmap 2021-2025 (AI-RMAP). However, the AI Act may take a while before coming to fruition. Meanwhile, the Ministry of Science, Technology, and Investment (MOSTI) is still evaluating the need for a legal framework through the AI Act. As a step towards this goal, the government hosted a public consultation for the draft National Guidelines for Artificial Intelligence Governance & Ethics (AIGE) from February to March 2024. AIGE is being developed to prevent and mitigate the risks associated with AI misuse and mostly relies on ex-ante mechanisms. The AIGE covers three major user groups: the public, policymakers, and technology developers or providers. It aims to distil the importance of AI and responsible AI practices as the government aspires to enhance AI development and deployment through the AI-RMAP. The AIGE guidelines also seek to encourage robust internal policies and practices among organizations and industry players to oversee the entire lifecycle of AI, from development to deployment and usage. Notably, the guideline is not legally binding and proposes a voluntary code of ethics and AI principles to promote ethical AI behaviours. As of May this year, AIGE is at the final stage and expected to be launched soon.

The government's focus on AI regulation continues to be driven by the need to create a conducive environment for foreign investment in AI-related industries. Planned guidelines aim to assist practitioners and developers in preventing and mitigating the risks associated with AI misuse. The early 2024 forecast by the Royal Malaysian Police regarding the increasing prevalence of AI-related scam cases also motivated the government to push for a guideline covering the use of AI. Nevertheless, the government has stated that regulatory issues involving AI currently fall under existing acts and legislation such as the Communications and Multimedia Act, the Personal Data Protection Act, and the Electronic Transactions Act. As such, the government is likely to consult existing other regulations when it comes to regulating AI.

Considering the lack of detailed expertise in digital technology, it is less likely that the development of AI policy will be politicized in Parliament. The misuse of AI at the grassroots level, such as deepfake videos involving politicians, may raise concerns regarding AI regulations and monitoring in Parliament. More challenges may arise at the implementation level instead, given technical capacity in government and the civil service. In response, the Digital Ministry has expressed its commitment to educating civil servants on AI use.

As the government examines the need for a legal framework for AI in Malaysia, government stakeholders involved in AI development, such as MOSTI and Malaysia's national Applied Research and Development Centre (MIMOS), are closely monitoring developments globally, particularly following the European AI Act as well as developments in ASEAN, Japan, and India. MOSTI, Universiti Teknologi Malaysia, and representatives of government agencies such as MIMOS and Malaysian Standards Department are part of a National Mirror Committee that has been tasked to develop national AI standards and monitor regulations in other jurisdictions to better understand what can be applied to the Malaysian context.

As Malaysia progresses towards its goal of becoming a regional hub for AI, the government is expected to embrace more public-private partnerships in the AI sector. This goal is evident through the establishment of an AI Study Center at the Universiti

Teknologi Malaysia (UTM) and announcements made on AI-related investments. Microsoft, for one, has announced its willingness to invest US$2.2 billion over the next four years to support Malaysia's digital transformation, including building cloud and AI infrastructure in Malaysia, creating AI skilling opportunities for an additional 200,000 people, and establishing a national AI Centre of Excellence. Nvidia has also expressed willingness to assist in developing Malaysia's AI ecosystem and collaborate with the government on the creation of Malaysia's own AI cloud computing system. This partnership will play a crucial role in driving innovation and growth in the field of AI within Malaysia. Moreover, through a collaboration between the ASEAN Foundation, Biji-Biji Initiative, and Microsoft, Malaysia is involved in the "AI Teach Malaysia Program" to provide AI literacy training to 1,000 TVET educators. Under the AI-RMAP, the government expressed its intention to integrate risk management into public-private partnerships related to AI development by 2025. The Malaysian government also aims to encourage MSMEs and organizations to adopt cloud computing and storage for AI starting from 2025. This objective involves potential partnerships and collaborations with various cloud providers, including TM-Huawei, AWS, Microsoft, IBM, Google, Oracle, and Alibaba.

While the government has expressed its interest in establishing Malaysia as a regional hub for AI, they have not expressed any plans to partake in regional standards-setting discussions on AI. Nevertheless, as per the AI-RMAP as well as the National AIGE Guideline, Malaysia does engage in joint global intellectual discourse on AI principles and policy making. This aligns with Malaysia's aim to invigorate ASEAN-led forums and work towards achieving substantial outcomes as ASEAN Chair in 2025. The government is simultaneously engaging with key regulators from other parts of the world to better understand policy making efforts related to AI.

### *Thailand*

Thailand's approach to AI policy broadly seeks to improve the country's readiness and expertise for AI development and commercialization. The government is motivated by the need to develop human resources and skills needed for a conducive AI ecosystem, recognizing that Thailand does not have a strongly networked community of people with AI expertise.[33]

Against this context, in July 2022, Thailand launched the National AI Strategy and Action Plan to lay the foundations for AI infrastructure development and support the country's economic growth and competitiveness by 2027. The slip in Thailand's ranking in the 2021 Oxford Insights Artificial Intelligence Readiness Index was deemed decisive in the launch of a national AI strategy.[34]

In the meantime, Thailand has adopted a 'wait and see' approach to AI regulation. Two sub-agencies under the Ministry of Digital Economy and Society – the Electronic Transactions Development Agency and the Office of National Digital Economy and Society Commission – separately hired researchers to draft AI laws from 2022 to 2023. However, both drafts were challenged and have essentially been put aside. Other government agencies have considered regulating AI throughout 2022 but these efforts failed to materialize, though there remains the risk of regulatory fragmentation, especially in the absence of comprehensive national policy direction. Given this precedence, it remains to be seen how Thailand's AI Strategy can meaningfully transform the country's AI governance and development ecosystem. Meanwhile, current efforts still revolve around voluntary standards being developed by the Electronic Transactions Development Agency (ETDA). Both ETDA and the National Electronics and Computer Technology Centre prefer industry-segmented oversight.

On another note, AI is not a divisive political issue in the country. Conventional worries about job losses and automation due to AI are not as prevalent as in some neighbouring markets, as only 4% of employees in the service sector are at high risk of being replaced by AI.[35]

It is expected that AI job creation and upskilling will remain a priority for the government's AI strategy in the future, as more than 70% of Thai business leaders stated they would not hire candidates without AI skills.[36] Already, the National AI Policy and Action Plan Steering Committee requested the government allocate US$28.9 million to accelerating the creation of 30,000 AI jobs.[37] When it comes to public-private partnerships, many ministries view collaboration on AI as an opportunity. In 2023, the Ministry of Digital Economy and Society, the Ministry of Transport, and Big Data Institute collaborated with Google on the Smart Skills project, which provided scholarships to Thai students for training in digital technology as well as generative AI. Following a 2024 tour of CEO Satya Nadella around Southeast Asia,

Microsoft announced that it would invest in AI infrastructure and set up its first Azure data center in Thailand.[38]

In terms of regulation, Thailand generally favours internationally recognised standards and will be adopting ISO/IEC 42001, the world's first AI management system standard. Thailand has also endorsed the Singapore Declaration and Part 2 of the ASEAN Guide on AI Governance and Ethics. During a cabinet meeting, it was mentioned that the Singapore Declaration sought to boost trust in the digital ecosystem through the promotion of data transmission innovation and cooperation on governance of emerging technologies, including AI. Nonetheless, Thai participation in global and regional discussions remains limited. The government continues a risk-based approach to AI, always referring to existing global cases with priorities centred around mitigation of disinformation and discrimination.

### *Indonesia*

Digital Technology, including AI, has been hailed as a critical component of Indonesia's national development to "Golden Indonesia" in 2045, when the country is projected to be the world's 4th largest economy (by GDP PPP) and the 8th largest economy by real GDP. As the government seeks to leverage the country's young population and market size to benefit from its economic potential, Indonesia has become an attractive destination for AI investment and development. The country already leads the region in AI adoption, with 24.6% of organizations adopting AI as of 2018, followed by Thailand (17.1%), Singapore (9.9%) and Malaysia (8.1%).[39]

The Indonesian government has taken a proactive but measured approach to regulating AI. Principally, the government wants to govern both the ethics and processes of AI. The first concerns placing the necessary precautions against AI harms and risks, mirroring the philosophy behind EU's AI governance. The second concerns governing the technicalities of AI development and use, from algorithms to data ownership. In developing AI policies and regulations, the government may include ethical standards aligned with the national philosophy *Pancasila*, transparency to prevent data misuse, and personal data protection; a balance between maximizing innovation and minimizing AI use risks; cybersecurity; and consideration of AI regulations in other jurisdictions, such as the US Executive Order 2023, the EU AI Act, and China's Interim Measures for the Management of Generative AI Services.

As early as 2020, the Agency for the Assessment and Application of Technology (BPPT) conducted initial discussions on an AI strategy with other government agencies, academics, and industry representatives. These efforts led to the issuance of the National Strategy for Artificial Intelligence (Stranas KA) in August 2020 that sets forth the national policy for AI development from 2020 to 2045. The Strategy partly aims to improve efficiency and effectiveness across industries in five areas of focus: AI, Internet of Things (IoT), advanced robotics, augmented reality, and 3D printing. The document also outlines national priorities where AI is expected to have the biggest impact: (1) health services; (2) bureaucratic reforms; (3) education and research; (4) food security; and (5) mobility and services. The Strategy builds on the Jokowi Administration's digital roadmap in 2014, which aims to boost Indonesia's standing in key sectors including hardware automation and manufacturing.

To date, Indonesia's AI-specific regulations are limited to non-binding guidelines because the government wishes to better study and understand AI before creating any binding regulations. The first is the Ministry of Communication and Informatics Circular Letter No.9 of 2023 on "AI Ethical Guidelines". The second is the Financial Services Authority (OJK) December 2023 Ethical Guidelines on Responsible and Trustworthy AI in the Financial Technology Industry, highlighting the ethical standards and requirements AI providers in the financial technology industry can adhere to. Two regulations are currently in development: Government/Presidential Regulation(s) on AI led by the Ministry of Communication and Informatics, and Presidential Regulation on National AI Strategy, led by the Coordinating Ministry of Economic Affairs. These regulations showcase the two approaches to AI governance in Indonesia: a horizontal approach, wherein the government develops a blanket policy affecting all digital sectors including AI; and a vertical one, whereby AI governance is dictated by a sectoral approach.

Indonesia's AI governance suffers from two main challenges: the lack of interministerial coordination and internal inconsistencies within the Ministry of Communication and Informatics. Due to the novelty of AI and limited capacities of policymakers outside the Ministry, other government agencies tasked with

AI development have outsourced the responsibility of developing AI governance to their counterparts, such as the handing over of the Presidential Regulation on National AI Strategy by the National Research and Innovation Agency (BRIN) to the Coordinating Ministry of Economic Affairs. As with many ASEAN countries, working-level officials still need to improve their understanding and grasp of AI technology before being tasked with developing AI regulations.

In the meantime, the government encourages public-private partnerships as a valuable pathway for AI sectoral development in the country. In 2024, Microsoft announced a US$1.7 billion investment over four years in new cloud and AI infrastructure in Indonesia, as well as AI skilling opportunities for 840,000 people. This represents the single largest investment in Microsoft's 29-year history in Indonesia, signalling private sector confidence in the country's potential to be a regional AI powerhouse.

Indonesia's engagement in global discussions is present but not consistent. Notably, it was one of the participants at the 2023 AI Safety Summit, after which the government stressed the importance of the ethical use of AI. At the regional level, Indonesia is prioritizing enhancing the digital economy and regional integration and has been active in leading negotiations on these issues. However, it will require more time to formulate stronger and more concrete positions on emerging technologies such as AI.

### *Vietnam*

Vietnam aims to position itself as a significant player in AI globally as well as lead in AI research, development, and application regionally. By 2030, the Generative AI sector is expected to contribute US$550 million to the country's digital economy.[40] In recognition of its AI sector potential, Vietnam has begun to apply AI in key sectors such as healthcare and banking and made significant strides in advancing research, application, and training of AI workforce. At the same time, ensuring and maintaining political stability is paramount for the Vietnamese government. This orientation will be a core consideration for the drafting and review of AI regulations.

In March 2021, the government issued the National Strategy for Artificial Intelligence Research, Development, and Application through 2030. The Ministry of Science and Technology emphasizes the Strategy's role in nurturing Vietnam's AI industry and maintaining its competitiveness and contribution to the country's socioeconomic progress. The National Strategy outlines several key goals and directives for developing AI technology in the country and highlights Vietnam's goal to be a centre for innovation and development of AI solutions and applications in ASEAN and the world by 2030.

Broadly, the government's efforts to shape the AI sector are limited to existing national strategies. Besides the above National Strategy, AI development is guided by the National Digital Transformation program until 2025, with an orientation until 2030. The program addresses the necessity to develop core technologies like AI and emphasizes the need to build a strong computing system to support digital ecosystems that utilizes AI. However, Vietnam has not created, passed or implemented any AI regulation. Its AI regulatory landscape thus remains neutral, as long as an AI company does not violate existing laws and regulations. It should be noted that each sector remains under the purview of regulations and business requirements. For example, a company that uses or creates AI for a particular sector will be subject to the existing regulatory framework governing that sector.

Nonetheless, the government remains steadfast in seeking to increase AI's contribution to the growth of Vietnam's society and economy. To this end, future development of AI regulations aim to reflect a balance between promoting AI innovation and safeguarding national safety and security. According to the National Strategy, Vietnam's AI legal framework should include the following goals: (1) develop and improve policies and laws to create an open legal corridor to meet the requirements of promoting research, development and application of AI in life; and (2) develop AI with people and businesses at the core, avoiding the abuse of technology and breach of rights and interests of organizations and individuals.

Several AI regulations may come into issuance in the future. In April 2023, the Ministry of Information and Communications released the Draft National Standards on AI and Big Data for public comments. The Draft aims to provide a standard foundation for firms that develop and provide AI products to ensure that they meet Vietnam's requirements concerning quality, security, traceability, robustness, transparency, and reliability. There has yet to be an update since. There is also the Draft Law on Digital

Technology Industry, which is still at the early stage of development at the same Ministry. The Draft Law is expected to cover new digital technologies such as AI, IoT, and Big Data and scheduled for submission and hearing at the National Assembly in 2025.

The Ministry of Information and Communications, one of the ministries involved in developing AI regulations, is concurrently embarking on several related projects, such as large language model (LLM) and creating standards for AI with a view towards global AI standards. As AI is a new and potentially profitable sector with far-reaching impact, future political discussions may take place around who will have the mandate to regulate AI. For now, the Ministry is looking into what other countries have done with regards to AI regulation and standards. Due to the dynamic nature of AI development and Vietnam's rather gradual policymaking and law drafting schedule for AI, detailed regulations on AI will likely be *ex-post* rather than *ex-ante*, and established and widespread use of AI in specific industries will likely come before detailed regulation.

Meanwhile, the National Strategy emphasizes the need to cooperate with the private sector. Among others, the Strategy includes several recommendations towards public-private partnership, such as creating joint research facilities and centres, training high skilled personnel in AI, and finalizing regulations and policies on attracting foreign direct investment and enabling multinational high-tech corporations to develop AI research and application centres in Vietnam. The Ministry of Information and Communications has indicated interest in cooperating with international companies and organizations to learn more about international best practices on AI lawmaking and embark on AI research projects.

At the regional level, standard setting is important to the Vietnamese government. The Ministry of Information and Communications has indicated willingness to cooperate with international organizations and companies on standard setting. Vietnam has also proactively participated in the ASEAN Digital Ministers' Meeting (ADGMIN) from 2021 to 2024. It remains unclear, however, whether Vietnam will adopt the principles set out in the ASEAN Guide on AI Governance and Ethics endorsed in the 4th ADGMIN in 2024.

*The Philippines*

The Philippines government recognizes that AI can be a significant driver of industry efficiency and labour upskilling in the country. The government's view towards AI development and governance is largely industry-driven and is therefore oriented towards initiatives that can align private sector goals and the government's goals for industry and labour productivity. Studies indicate the Philippines can benefit from a sizeable AI opportunity, with US$50.7 billion of economic benefits projected for businesses in the country in 2030 from adoption of AI products and solutions.[41] Professional services, particularly IT-business process management as a key sector, are expected to benefit significantly alongside retail, manufacturing, and financial services.[42]

In recognition of the benefits of AI adoption, the government has made efforts to improve its policy and regulatory environment for embracing Industry 4.0. The 2019 Philippine Innovation Act declares innovation as a vital component of national development and sustainable economic growth. In 2021, the government launched the National Artificial Intelligence Roadmap with a view to turn the Philippines into an AI hub in ASEAN. The Roadmap contains strategic priorities and responsibilities for the government, private sector, and academia and underscores the need to kickstart national AI development and boost the country's digital competitiveness. It provides a framework for investment, infrastructure, and implementation of AI readiness. Notably, it also recommends the establishment of the National Center for AI Research (N-CAIR) led by the private sector as a shared research hub for AI. The Roadmap also recognizes a lack of R&D personnel and weak data infrastructure and governance as major inhibiting factors.

Meanwhile, national infrastructure is a top priority in the Department of Science and Technology's (DOST) AI agenda. The Department has been collaborating with various stakeholders to make the AI R&D framework for 2019-2029 more useful for its intended beneficiaries as it seeks to empower more professionals through training and development.[43] DOST has also pledged more than US$8 million to support the Philippines' efforts to benefit from AI, from scientific development to workforce training.[44] In addition, the DOST aims to have 50,000 Filipino data scientists by 2029 through the Smarter Philippines initiative.[45]

While there is significant attention from government, there are no concrete regulations governing AI in the Philippines, although the Speaker of the House has expressed intent to create an AI legal framework in 2025. Separately, some bills on AI regulation have been proposed in the Senate and the House of Representatives and could point to how the government may eventually approach AI regulation. These include the creation of an Artificial Intelligence Development Authority (AIDA) to develop a regulatory strategy and lead national AI development; inquiries into the failure of AI companies to abide by labour standards; prohibition of the use of AI and automation technologies that may displace workers; and protection of labour against AI automation. The government's approach to AI regulation might further include intellectual property, data privacy, labour issues in the Business Process Outsourcing (BPO) and Original Equipment Manufacturing (OEM) markets, and innovation and cybersecurity.

In the future, it is expected that labour issues will be politicized in AI policy and regulatory development. Given the salience of labour and job security in the Philippines' policy landscape, public-private partnerships are likely to be oriented towards upskilling and workforce empowerment. Microsoft, for example, plans to train 100,000 Filipino women on AI and cybersecurity. In cooperation with the Department of Education, Microsoft will also provide AI-powered learning tools to around 27 million Filipino students.

The Philippines' engagement at the global level is limited but slowly improving, as showcased by its involvement at the AI Safety Summit in 2023. Yet, no concrete follow-up has been made following global discussions. Meanwhile, the current Marcos administration stands to benefit from regional leadership and alignment on areas like AI governance. The government is keen to explore potential regulations due to persisting concerns over labour force disruptions, as well as leverage ASEAN to drive its digital economy growth.

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