

RESPONSIBLE AI PLAYBOOK FOR RESILIENT ECONOMIC GROWTH



2025

US-ASEAN BUSINESS COUNCIL
POLICY BRIEF ON ARTIFICIAL INTELLIGENCE



About the Council

Since 1984, the US-ASEAN Business Council (USABC) has been the premier advocacy organization for US corporations operating within the dynamic Association of Southeast Asian Nations (ASEAN). Worldwide, the Council's membership of more than 180 companies generates almost US\$7 trillion in revenue and employs nearly 15 million people. Today our members include the largest U.S. companies conducting business in ASEAN, and range from newcomers to the region to companies that have been working in Southeast Asia for more than 100 years. The Council has eight offices around the globe, in Washington, DC; New York, NY; Bangkok, Thailand; Hanoi, Vietnam; Jakarta, Indonesia; Kuala Lumpur, Malaysia; Manila, Philippines; and Singapore.

To achieve its objectives, the Council conducts research and analysis of economic, environmental, financial, political, and social, conditions in the ten countries of the Association of Southeast Asian Nations (ASEAN) namely Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. The Council utilizes the results of its research and analysis to provide educational programs, technical information for product innovation, and trade and investment-related activities.

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AI BENEFITS AND USE CASES IN ASEAN

ASEAN is well positioned to experience the most significant benefits from responsible AI adoption, driven by the region's young, tech-savvy population and AI's [projected](#) economic impact of US\$1 trillion by 2030. Despite AI's transformative potential, only 23% of organizations surveyed in 2024 were [found](#) to be at the transformative stage of their AI journey. Regulatory complexity continues to pose a significant barrier to innovation and growth, with 77% of executives [reporting](#) that it negatively impacts key areas such as product development and strategic agility. As a result, organizations are increasingly diverting technology and digital transformation budgets towards navigating compliance challenges across multiple jurisdictions.

AI can [serve](#) as a force multiplier for smart cities, agriculture, industry 4.0, and the growth of micro, small, and medium enterprises (MSMEs) in the digital sector. Breakthroughs in generative and agentic AI offer transformative capabilities for the public sector stakeholders, advancing [scientific research](#), [fraud detection](#), [operational efficiency](#), and [personalized learning](#), which has been underscored by the identification of priority sectors across the national AI strategies of several ASEAN Member States (AMS). The growing interest in open-source AI models, hybrid AI, and on-device AI further [reflects](#) the region's pursuit of flexible, cost-effective, and sovereign approaches to AI deployment.

AI CHALLENGES

Inefficient Allocation of AI Infrastructure

The AI ecosystem is very broad and constantly evolves with new AI technological developments. Today, the deployment of AI algorithms and models can occur on the cloud as well as on devices. Massive generative AI models with billions of parameters [place](#) significant demands on computing infrastructure. Both AI training and inference have been constrained to cloud implementations for large and complex models. As generative AI adoption grows and compute demand increases, a distributed architecture will become increasingly important for AI to scale and reach its full potential. Decentralizing inference tasks to edge devices – especially with models that are appropriately sized for such devices – can support faster innovation cycles, as real-time processing on devices accelerates application development and adoption across industries.

Fragmented Policy Environment

ASEAN [exhibits](#) a wide range of AI readiness and regulatory complexities, leading to potential bottlenecks and additional administrative and operational constraints. AI policy coordination is typically spread across relevant digital ministries, with only a few AMSes having designated agencies to oversee national AI initiatives, increasing the likelihood of conflicting regulations and policy objectives. Regulatory frameworks also diverge in related areas such as data governance and risk management mechanisms. Harmonizing policies through regional and inter-agency coordination is critical to accelerating AI adoption, improving policy clarity and consistency, mitigating risks, and bolstering regional innovation.

Skills and Knowledge Gap

The significant digital skills and knowledge gap in Southeast Asia hampers the region from fully capturing the transformative potential of AI and future-proofing its labor force. Across the region, AI talent concentration [averages](#) around 0.32%, with Singapore having the highest AI talent concentration at around 0.9%. Approximately 164 million job roles (57%) in Southeast Asia are [expected](#) to be disrupted or augmented by generative AI, underscoring the need for a nimble, AI-literate workforce. Beyond technical training, closing this gap will also [require](#) broader public awareness and foundational education initiatives to build AI literacy. Public-private partnerships can play a critical role in delivering scalable, inclusive programs that address both immediate skills needs and long-term capacity building.

AI Safety and Trust

While businesses remain optimistic about AI, only 33% of technology and business leaders are [confident](#) that their AI solutions can be developed and managed wherever the data resides. Despite efforts among various AMS to update policies and related guidelines on data governance, cybersecurity, and AI safety, gaps in the general public's understanding of AI systems and safeguards present a potential barrier to greater adoption.

FOUNDATIONAL ENABLERS

Advancing Trusted Data Flows and Secure Data-Sharing Frameworks

Data transfers are integral for the development and deployment of high-quality, responsible AI systems across the region. Data-sharing frameworks and secure cross-border data flows build upon the progress made regarding regional data frameworks (e.g., [ASEAN Data Management Framework Guide](#), [ASEAN Model Contractual Clauses for Cross Border Data Flows](#)). By creating a richer data environment to train AI models, AI-enabled tools can better respond to local contexts and needs. Fragmented data governance models at the national level, including data localization requirements and extraterritorial compliance burdens, exacerbate administrative and operational costs, risks of potential data breaches, and regulatory uncertainty that ultimately hamper the development and broad-based adoption of AI-driven solutions.

Enhancing Connectivity and Bolstering Critical Infrastructure for AI Operations

5G and AI form the technological backbone of ASEAN's future economic growth. Uneven broadband access threatens to exacerbate the urban-rural digital divide. Increased adoption of 5G, cloud computing and new technologies (e.g., low-earth orbit satellites, edge AI) offers opportunities to provide traditionally underserved communities with fast, reliable, and secure internet access, and enables more communities to reap the benefit of AI, particularly on-device AI. Several AMSes have made strides in improving connectivity by adopting a "cloud-first" approach, with the ASEAN cloud computing market [projected](#) to exceed US\$40 billion by 2030. Furthermore, data center investments are [spreading](#) out across lower-cost, high-growth countries in Southeast Asia (e.g., Malaysia, Vietnam) and decentralizing beyond tier-1 cities to tier-2 areas (e.g., Johor, Batam, Hanoi).

This growth in technology infrastructure, particularly cloud computing and AI tools, is [enabling](#) broader, more inclusive access to AI. Organizations of all sizes can now adopt AI, from single applications to custom solutions, without major infrastructure investments. Supporting these access models will help democratize AI adoption across the region, especially for SMEs. The combination of cloud AI with edge AI devices [enables](#) diverse AI use cases in consumer, industrial and business contexts, promoting the growth of AI ecosystems and the innovation of new digital products and services by developers. To support this momentum, AMSES must have robust 5G infrastructure, which relies on accessible and affordable spectrum.

Facilitating Public and Private Investment in Research and Development (R&D)

In 2023, R&D spending in ASEAN [reached](#) US\$55 billion. Over the past decade, ASEAN has [increased](#) intangible innovation assets, including patent applications (70% growth), industrial design filings (80%), and trademark applications (110%). Country-led initiatives such as [ThaiLLM](#) and [Project ViGen](#) aim to build high-quality, open-source LLMs and datasets in local languages to support culturally grounded AI development. These initiatives highlight how targeted R&D can advance and strengthen regional AI ecosystems that respond to linguistic and cultural contexts. R&D subsidies, tax credits, and procurement incentives coupled with initiatives to strengthen IP and FDI regimes can bolster AMSES' attractiveness and long-term growth potential.

POLICY RECOMMENDATIONS

1.

Enhance Interoperability and Harmonization to Address Fragmentation, Trust, and Safety Concerns

- **Implement ASEAN AI Guides and Responsible AI Roadmap** via multi-stakeholder processes to operationalize the guides and clarify the application of existing legal and regulatory frameworks in relation to AI development and deployment. The [ASEAN Guide on AI Governance and Ethics](#), [Expanded ASEAN Guide on AI Governance and Ethics – Generative AI](#), and [Responsible AI Roadmap](#) provide regionally endorsed, consensus-based tools to guide implementation. In addition, non-binding national frameworks, such as the U.S. NIST [AI Risk Management Framework](#) (“AI RMF”) and the Singapore IMDA [Model AI Governance Framework](#), provide flexible tools to guide implementation. Multi-stakeholder dialogue, involving sectors beyond traditional ICT stakeholders and overseen by the ASEAN Working Group on AI Governance (WG-AI), would provide a strong foundation for aligning legal and governance approaches, ensuring benchmarks account for divergences in AI readiness and policies remain fit for purpose as AI advances.
- **Delineate roles and responsibilities across different AI actors (e.g., developers, distributors and integrators, deployers, and end users)** to ensure policies are appropriately scoped and remain technically feasible. In parallel, ASEAN could explore balanced approaches to protecting intellectual property rights while promoting innovation and safeguarding the rights of developers. Policies that focus copyright protection on AI input and AI-generated content can enable responsible development while maintaining respect for creative ownership. These approaches would help ensure IP regimes remain relevant, innovation friendly and safeguard intellectual property rights as AI capabilities evolve.
- **Recognize the many different aspects and contexts of AI development and deployment (e.g., enterprise, consumer, predictive, generative, agentic)**, recognizing the unique opportunities and challenges presented by the various possible use cases.
- **Advance interoperability via alignment with internationally-recognized standards and best practices**, including [ISO/IEC 42001:2023](#) (Information technology – AI – Management System), [ISO/IEC 23894:2023](#) (Information technology – AI – Guidance on risk management), [OECD AI Principles](#), [UNESCO Recommendation on the Ethics of AI](#), [UNESCO Ethical Impact Assessment](#), and the [Hiroshima AI Process](#). Concurrently, AMSes should strengthen regional cooperation by participating in joint mapping and crosswalk exercises, such as the [NIST-IMDA crosswalk exercise](#), to support the development of common AI terminology and taxonomy. The ASEAN Digital Economy Framework Agreement (DEFA) discussions also offer a window of opportunity to further identify transparent, non-discriminatory governance principles and desired outcomes for critical and emerging technologies, including AI. These initiatives would help ASEAN develop shared expectations and facilitate regulatory coherence across jurisdictions.

2.

Advance Trusted, Secure AI to Strengthen Public Trust and Responsible AI Adoption

- **Adopt a risk-based approach with human oversight mechanisms where necessary, and focus on high-risk use cases based on the likelihood, severity, and impact of harm.** The NIST AI RMF and industry best practices (e.g., supervised fine-tuning, iterative red teaming) offer insights on how countries can adopt a risk-based approach throughout the AI lifecycle. For example, the AI RMF highlights that using demographic-based modeling in regulated domains, such as employment, credit, or housing, poses a significant risk. It recommends measures such as bias measurement, documentation of legal and regulatory requirements and integration of human oversight to mitigate unfair or discriminatory outcomes. These measures should align with internationally-recognized best practices and standards to support interoperability and ensure that common safety measures are recognized across the region.
- **Integrate voluntary tools to balance innovation and risk,** such as risk assessments and impact assessments, which can be adapted as AI policies and technology evolves. A more flexible, voluntary approach can help businesses maintain operational efficiency, assess the appropriate level of human involvement, and ensure the safety and security of their AI systems in a structured manner. For example, the [Hiroshima AI Process' Voluntary Reporting Framework](#) can serve as an example that encourages AI developers and distributors to voluntarily report their transparency and accountability practices.

→ Salesforce pro-actively balances AI innovation with risk mitigation through its "[Ethics by Design](#)" approach, which is embedded within the Einstein Trust Layer. This framework ensures data privacy, security, and ethical standards are upheld in AI applications. Key functionalities include secure data handling, data masking with a zero-retention policy to protect sensitive information, and an audit trail for transparency and accountability in AI operations. Furthermore, Salesforce's adherence to an AI Acceptable Use Policy within the Trust Layer, which prohibits the generation of individualized medical, legal, or financial advice, aligning AI applications with humane and ethical standards. These voluntary tools and policies collectively empower organizations to safely use AI while addressing societal and ethical challenges.

→ Amazon's [Frontier Model Safety Framework](#) establishes clear Critical Capability Thresholds in areas such as cybersecurity and automated AI R&D. The Framework uses multiple evaluation methods including automated benchmarks, expert red teaming, and uplift studies to assess risks. When evaluations show a model has reached a critical threshold, specific Safety Measures and Security Measures must be implemented before deployment. This systematic approach demonstrates how organizations can operationalize risk assessment and mitigation throughout the AI lifecycle.

- **Encourage the integration of security standards and techniques into AI products and services,** adopting a secure by design and secure by default approach. A holistic AI security approach should include human oversight, model security, lifecycle management, and incident response strategies. AMS should consider establishing AI-specific guidelines and updating national cybersecurity strategies if policy gaps are identified.

→ Meta's [CyberSecEval](#) serves as the industry's first open-source cybersecurity safety evaluation suite for large language models (LLMs), evaluating LLMs' propensity to generate insecure code and comply with requests from cyber attackers, offensive and defensive cybersecurity capabilities, and security vulnerabilities.

→ Salesforce integrates the [Open Web Application Security Project \(OWASP\) standards](#) to bolster the security of its AI deployments by addressing common vulnerabilities throughout the development lifecycle. By implementing robust security controls and best practices to protect against threats specific to AI systems (e.g., prompt injection and data poisoning), Salesforce is able to ensure the integrity, confidentiality, and availability of its AI applications and the data they process.

- **Strengthen public-private mechanisms to advance AI safety**, such as regulatory sandboxes and testing toolkits. ASEAN should consider developing a regional mechanism that is recognized across jurisdictions, building upon existing best practices such as Singapore's AI Verify.

→ AWS's [Responsible Generative AI Community](#) initiative in Singapore demonstrates effective public-private collaboration in AI governance. Working with Singapore's Digital Industry Office, the initiative brings together over 50 organizations across industries to share best practices, develop responsible AI guidelines, and create practical implementation frameworks. This community-driven approach helps organizations adopt AI responsibly while addressing sector-specific needs.

3.

Ensure Robust 5G Infrastructure Across ASEAN to Maximize AI Adoption in All Sectors

- **Allocate 5G spectrum to cater the growing data traffic.** 5G technology will need the low, medium and high (mmWave) radio frequency spectrum to provide coverage to the country and capacity due to high traffic growth. It is predicted that the data traffic will quadruple, reaching over 465 exabytes monthly by 2030. 33% of the data traffic comes from AI applications. Therefore, 5G networks are necessary to facilitate the unstoppable growth of data consumption.
- **Provide incentives to drive a faster 5G network deployment.** As the data grows exponentially in an unprecedented time, governments need to drive 5G network deployment with various forms of incentives. This will help the network operator invest in network deployment at low, medium, and mmWave spectrum bands. Additional incentives should be considered to drive secured 5G and AI applications in different industry verticals and spur the growth of start-ups and MSME in developing AI applications for business verticals and community needs.

4.

Promote AI Adoption by Bridging AI Knowledge Gaps and Encouraging Local Developer Ecosystems and Startups

- **Develop policies to support AI adoption, in particular facilitating SME access to AI tools.** More than three quarters of small businesses are currently [using](#) at least one AI tool through digital platforms – some of which provide the tools for free – and digital platform driven AI is important to levelling the playing field between small and big businesses. Removing barriers to SME adoption of AI enabled tools will be important for realizing the benefits of the technologies. This is an area ripe for private-partner partnership. For example, Singapore's [Digital Enterprise Blueprint](#) ("DEB") accelerates AI adoption through industry partnerships, enabling SMEs to deploy GenAI solutions. This has led to improved productivity, streamlined operations, and stronger digital competitiveness across sectors.

→ Salesforce has partnered with the Singapore Government on DEB to equip SMEs and workers with essential expertise, resources, and technologies. As part of this effort, the Data + AI Boost SME Program was launched to help SMEs leverage data and AI for growth .

- **Develop resilient AI skills and knowledge development pipelines through public-private partnerships and investment in reskilling and upskilling initiatives.** As AI augments a growing number of job roles, upskilling and reskilling programs and partnerships should be implemented and expanded to help train employees, build upon traditional academic pathways, and remain aligned with industry shifts toward skill-based hiring. Public-private cooperation offers opportunities for governments to better understand shifts in in-demand skills and employment trends and better match education and training pathways against labor market dynamics.

→ Meta's Llama Incubator Program supports 100 startups, SMEs, and public agencies in developing responsible, open-source AI solutions in partnership with the Singapore Government. Over six months, participants receive technical and business mentorship, alongside access to AI safety tools such as Singapore's testing framework and Project Moonshot. This initiative reflects a structured, ecosystem-driven approach to capacity-building that aligns with national digital strategies.

→ AWS's Generative AI Spotlight program in Southeast Asia also demonstrates effective ecosystem support. The program has engaged 40 startups, including 12 from Singapore, in 2024, providing them with technical expertise, mentorship, and access to AI tools. Furthermore, innovation hubs like the AWS-IMDA Joint Innovation Center @ PIXEL offer additional support to local enterprises and startups by providing access to latest technologies and dedicated support.

→ Google's AI First Accelerator programs support early-stage AI startups by offering mentorship, technical guidance, and access to Google Cloud tools and Gemini models. The program in Singapore aligns with national research priorities, while the program in Indonesia supports regional startups through hybrid training and tailored product development support. The initiative contributes to building technical capabilities and expanding access to advanced AI tools among local developers and businesses.

- **Invest in and encourage local developer ecosystems and startups.** Technological advancements, such as on-device AI and open-source models, have democratized access to AI, enabling MSMEs and local startups to play a greater role in the AI development ecosystem. The provision of government incentives, such as seed funding, grants, and other forms, to support a flourishing developer ecosystem, enabling local players to develop new AI-enabled tools that address local needs.

→ Qualcomm's AI Hub platform offers support to developers and companies, including startups and MSMEs, to deploy AI models that can run on edge devices, including smartphones, compute, automotive and IoT. Developers and companies can choose from AI models on the AI Hub platform or bring their own model. Using the AI Hub platform simplifies deployment, enabling developers and companies to launch new products and services more quickly to address local needs. Qualcomm has collaborated with AI Singapore to make the SEA-LION LLM available on the AI Hub, which enables developers and companies to create solutions that reflect Southeast Asian language patterns and usage.