

Conference Report

Conference on Southeast Asia-Japan Partnership in Strengthening Regional Economic Security

25 February 2026



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Organisers



The Centre on Asia and Globalisation (CAG), Lee Kuan Yew School of Public Policy, National University of Singapore, was established in 2006. CAG seeks to establish a platform for constructive dialogue among leading scholars and experts on important issues in world affairs. Since 2011, it has developed collaborative networks and relationships with major universities, think tanks, research centres, and policy institutions in Australia, China, the European Union, India, Japan, Russia, South Korea, the United Kingdom, and the United States.



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Foreword

Heightened geopolitical competition, supply chain disruptions, and rapid technological change have brought questions of economic security to the forefront of regional policy debates. For Southeast Asia and Japan which are longstanding partners in trade, investment, and economic development, the challenge is to strengthen economic resilience without undermining the open and rules-based regional economic order that has underpinned Asia's growth for decades.

Against this backdrop, the Centre on Asia and Globalisation (CAG) at the Lee Kuan Yew School of Public Policy convened a closed-door conference titled "Southeast Asia–Japan Partnership in Strengthening Regional Economic Security" on 25 February 2026. The meeting brought together senior academics, policy analysts and private-sector experts to exchange views on emerging economic security challenges and explore practical avenues for deeper cooperation between Southeast Asia and Japan.

Discussions focused on three key areas that are central to strengthening regional economic security. The first examined how Southeast Asia and Japan can work together to reinforce resilient and transparent supply chains while maintaining fair and open markets. The second explored the strategic importance of building safe, reliable, and interoperable digital infrastructure across the region. The third addressed the governance of critical and emerging technologies, including how countries can safeguard national interests while preserving the openness needed to sustain innovation and growth.

A central theme emerging from the discussions was that economic security and economic openness are not mutually exclusive. Rather, effective strategies require deeper cooperation, stronger regional institutions, and sustained engagement among governments, industry, and research communities. Strengthening Southeast Asia–Japan partnerships in these areas will be critical for ensuring that the region remains resilient, competitive, and anchored in a stable rules-based economic system.

This conference report summarises the key insights and policy recommendations that emerged from the conference discussions.

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List of Abbreviations

AFISS	ASEAN Framework for Integrated Semiconductor Supply Chains
AI	Artificial Intelligence
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CERTs	Computer Emergency Response Teams
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DEFA	Digital Economy Framework Agreement
GDP	Gross Domestic Product
ICPC	International Cable Protection Committee
UNCLOS	United Nations United Nations Convention on the Law of the Sea
WTO	World Trade Organization

Welcome Remarks

The welcome remarks were delivered by **Dr Joseph Liow Chinyong**, Dean and Wang Gungwu Professor in East Asian Affairs at the Lee Kuan yew School of Public Policy, National University of Singapore. The Dean welcomed participants and emphasised the growing prominence of economic security in regional and global policy discussions. He noted that ASEAN has evolved significantly since its establishment in 1967. ASEAN has since become one of the world's most important regional groupings, with a combined GDP approaching US\$4 trillion and strong long-term growth prospects. The ASEAN Economic Community has played a central role in promoting economic openness and regional stability.

Dean Liow stated that regional integration has been uneven, reflecting disparities in development levels and institutional capacity among member states. The recent accession of Timor-Leste as ASEAN's eleventh member highlights ASEAN's commitment to inclusivity, while underscoring the continuing challenges of economic and institutional development. At the same time, the broader global economic environment has become increasingly volatile. Multilateral institutions that previously underpinned economic cooperation face mounting challenges. Meanwhile, firms are restructuring supply chains in response to tariffs, export controls, and geopolitical tensions.

These developments have brought economic security to the forefront of policymaking, raising questions about how countries can maintain openness while reducing vulnerabilities arising from concentrated dependencies. Dean Liow said that economic security should not be interpreted as a retreat from globalisation, but rather as an effort to adapt institutions and partnerships to new structural realities. Regional cooperation remains essential in managing these challenges. ASEAN's experience demonstrates that regional architecture can evolve in response to changing external conditions.

He highlighted the importance of ASEAN-Japan cooperation in strengthening economic resilience. Japan is a key economic partner of Southeast Asia in supporting collaboration to reinforce supply chains, support technological development, and sustain regional growth. By strengthening partnerships and institutional frameworks, ASEAN and Japan can transform

current uncertainties into opportunities for greater resilience and strategic renewal. Dean Liow concluded by expressing hope that the conference would contribute to advancing policy dialogue and strengthening regional cooperation.

Keynote Address

Mr Ashok Mirpuri, the Chair of the Japan-Singapore Symposium, gave the keynote address. He highlighted how economic security has become an increasingly important policy concern, particularly for Singapore as a highly interconnected trade hub and centre for regional cooperation. Rather than retreating from globalisation, resilience and economic security should be strengthened through continued openness, deeper cooperation, and improvements in supply chains and emerging technologies.

Economic security has also become closely linked to national security. As economies become more interconnected, they are also more vulnerable to systemic risks. Recent shocks, including the COVID-19 pandemic, technology restrictions, energy supply disruptions, supply chain bottlenecks, and climate-related events, have demonstrated how concentrated interdependencies and limited buffers can undermine economic stability. In this context, economic security should not be understood as protectionism, but as a framework for managing risks within an open economic system. Policymakers must therefore identify areas of excessive vulnerability, reduce exposure without distorting markets, and preserve openness while strengthening resilience. These considerations are particularly relevant for countries such as Singapore and Japan, whose economies depend heavily on trade, investment, and predictable rules.

The broader strategic environment is also evolving. Relations between the United States and China are increasingly characterised by strategic competition, resulting in selective decoupling or de-risking in sensitive sectors, and tighter controls on technology, trade, and investment. For Singapore, Japan, and the other ASEAN countries, this creates a complex environment that places structural pressures on supply chains, technology ecosystems, and policy autonomy. Economic security in this context is about preserving agency and ensuring that regional economies retain the ability to make independent choices despite external geopolitical competition.

Against this backdrop, regional partnerships have become increasingly important. ASEAN–Japan cooperation, built on decades of trade, investment, development cooperation, and mutual trust, plays a stabilising role in the regional economic order. Southeast Asia’s demographics and

production networks complement Japan’s technological capabilities, capital, and industrial expertise, reinforcing openness, inclusivity, and rules-based engagement in the region. It also ensures that the regional economic architecture is shaped not only by major powers but also by the agency of regional and middle powers.

Several priority areas for regional economic security were highlighted. First, supply chain resilience remains a key concern. While supply chains have traditionally prioritised efficiency, economic security now requires greater diversification, transparency, and adaptability to reduce vulnerabilities. Second, energy security is increasingly important as countries transition towards lower-carbon energy systems. This transition may introduce new risks, making regional cooperation in clean energy infrastructure financing and grid stability essential. Third, food security and climate resilience are growing challenges as climate change and external shocks increase volatility in global food markets, leading to rising food prices and social pressures. Cooperation in climate-resilient agriculture, improved logistics and cold-chain infrastructure, and regional information sharing can help mitigate these risks. Finally, digital and technological resilience is critical, requiring stronger protection of digital infrastructure alongside cooperation in cybersecurity, standards development, and trusted data frameworks.

The strong bilateral relationship between Singapore and Japan—marking its 60th anniversary this year—remains a key pillar of this cooperation. Both countries share a commitment to open trade, multilateral rules, and regional stability, and continue to work together through platforms such as ASEAN, APEC, the WTO, and the CPTPP. Strengthening dialogue and cooperation between ASEAN and Japan will therefore remain essential to promoting regional economic security and stability.

Panel I: Strengthening Supply Chains, Ensuring Fair and Equitable Markets

The first panel examined how geopolitical tensions and industrial policy shifts are reshaping global supply chains, particularly semiconductors and advanced manufacturing. The speakers highlighted ASEAN's growing role in supply chain diversification and Japan's economic security strategy.

Dr Denis Hew opened the session by noting that ASEAN's economic growth has been closely linked to global value chains and an open, rules-based trading system. However, this model is increasingly under strain due to rising geopolitical tensions, industrial policy interventions, and renewed protectionism. While tariffs and export controls present direct economic challenges, he stated that uncertainty in itself has become a major concern and the unpredictability of policy shifts that complicate investment decisions and long-term planning. He observed that supply chains, which were previously optimised for efficiency and cost minimisation, are now being restructured to incorporate resilience and security considerations. Governments and firms alike are seeking to reduce excessive dependencies on single markets or suppliers. In this evolving landscape, ASEAN and Japan share a common interest in maintaining open trade while strengthening supply chain security. Regional cooperation will therefore play an important role in ensuring that supply chains remain reliable, efficient, and resilient.

Dr Aladdin Rillo continued the discussion by emphasising that global value chains have become an increasingly critical component of economic security as they underpin the production and distribution of essential goods and technologies. In particular, semiconductors have emerged as a strategically important industry as it enables digital transformation across sectors. He notes that ASEAN semiconductor revenues are projected to grow significantly, from approximately 96 billion USD in 2024 to over 163 billion USD by 2029, reflecting strong and sustained demand. Dr Rillo added that ASEAN has established itself as a key participant in semiconductor supply chains, particularly in assembly, testing, and packaging activities. Several member states, such as Singapore, Malaysia, Vietnam, Thailand, Indonesia, and the Philippines, play important roles across different segments of the industry. However, the region's participation remains concentrated in downstream activities and has yet to fully develop upstream capabilities (e.g. integrated circuit design, wafer fabrication).

He noted that ASEAN's semiconductor ecosystem has become characterised by complementary national strengths. While Singapore serves as a hub for logistics, research, and high-value manufacturing, Malaysia has developed strong capabilities in advanced packaging. On the other hand, Vietnam has emerged as an important assembly hub, and the Philippines has built expertise in integrated circuit design.

However, these capabilities remain fragmented across national borders. Strengthening regional integration would allow ASEAN to leverage these complementary strengths and establish itself as a more competitive and resilient semiconductor hub. He highlighted ongoing initiatives to promote the sector such as the ASEAN Framework for Integrated Semiconductor Supply Chains (AFISS) which was adopted in 2025. The framework aims to promote supply chain integration, strengthen infrastructure, and develop skilled human capital.

Overall, Dr Rillo highlighted how Japan, as a global leader in semiconductor equipment, materials, and manufacturing technologies, can play an important role in supporting ASEAN's development. Japanese firms maintain extensive operations across the region, contributing to regional production networks and technological upgrading. Strengthening Japan-ASEAN cooperation in areas such as research and development, infrastructure investment, and talent development would help ASEAN move toward higher-value activities and enhance supply chain resilience.

Dr Tomoo Kikuchi furthered the discussion by considering how Japan's economic security strategy has evolved amidst structural economic challenges and geopolitical tensions. Japan faces several long-standing domestic constraints, such as stagnating real wages, high public debt, and relatively low labour productivity. Moreover, geopolitical competition and supply chain disruptions have highlighted vulnerabilities in critical industries.

In response, Japan enacted the Economic Security Promotion Act in 2022, which introduced targeted measures to secure supply chains for critical goods, strengthen infrastructure protection, and promote advanced research and development. These initiatives reflect Japan's broader effort to strengthen resilience while maintaining technological leadership.

Dr Kikuchi also highlighted how Japan's evolving approach toward regional cooperation, which increasingly values "co-creation" rather than traditional development assistance. Japanese firms and governments are working with ASEAN partners to jointly develop technologies, expand manufacturing capacity, and strengthen digital and industrial infrastructure. Japan is supporting investments in semiconductor manufacturing, digital connectivity, and critical mineral supply chains across Southeast Asia. Such partnerships allow Japan to diversify production while enabling ASEAN countries to upgrade their technological capabilities and industrial competitiveness.

He pointed out that ASEAN plays a central role in Japan's supply chain diversification strategy. Countries such as Vietnam and Malaysia have attracted substantial Japanese investment in semiconductor manufacturing. Meanwhile, Singapore remains an important hub for research and innovation. Indonesia has become a key partner in securing critical mineral supplies for battery production, and the Philippines is gaining importance in infrastructure and resource-based supply chains. Strengthening these partnerships would enhance resilience while supporting economic growth across the region.

Mr Manu Bhaskaran examined the broader how geopolitical rivalry and structural shifts in global trade are reshaping supply chains and creating both risks and opportunities for ASEAN. He noted that geopolitical tensions, particularly between the United States and China, are fundamentally changing the considerations that firms use when making investment decisions. Supply chains are no longer optimised solely for efficiency and cost, but increasingly incorporate geopolitical risk and national security concerns.

He observed that strategic competition between major powers is likely to persist, and its effects will extend beyond trade policy into broader economic and technological domains. Export controls and tariffs are reshaping global production networks, prompting firms to diversify manufacturing locations. Against this backdrop, ASEAN has emerged as a major beneficiary of this shift as firms seek alternative production bases that offer stability and connectivity to global markets.

Mr Bhaskaran also highlighted the impact of China's growing industrial competitiveness. China's expanding technological capabilities and export capacity have reshaped global manufacturing, contributing to increased competition and trade imbalances. In response, many countries have introduced protective measures to safeguard domestic industries. Simultaneously, Chinese firms have expanded overseas investment, with ASEAN emerging as a key destination due to its geographic proximity and relatively open investment environment.

He brought the focus of the discussion back to ASEAN's ability to maintain a position of strategic neutrality has enhanced its attractiveness as a manufacturing and investment destination. However, the benefits of supply chain reconfiguration have been unevenly distributed across ASEAN member states, reflecting differences in infrastructure, workforce capabilities, and industrial policy frameworks. He added that deeper regional integration will be essential for ASEAN to fully capitalise on these opportunities and reap economies of scale for advanced manufacturing sectors such as semiconductors. Strengthening coordination among ASEAN member states, improving connectivity, and harmonising policies could help create larger and more competitive regional production ecosystems. He also highlighted Japan's important role as a longstanding investor and technological partner, noting that Japanese firms have extensive production networks across ASEAN and can contribute to strengthening regional supply chains.

During the Q&A session, participants raised questions about ASEAN's ability to fully capitalise on supply chain reconfiguration and the risks posed by intensifying geopolitical competition. Several participants asked whether ASEAN could realistically move into higher-value segments of semiconductor production given existing technological and infrastructure constraints. In response, Dr. Rillo noted that ASEAN already possesses important foundational capabilities that could support upgrading within the semiconductor value chain. He emphasised that deeper regional integration, investment in talent development, and stronger strategic partnerships with Japan would be essential in enabling ASEAN economies to move further upstream into areas such as design and advanced manufacturing.

Participants also asked about Japan's investment strategy and whether Japanese firms were likely to expand their presence in ASEAN. Dr Kikuchi explained that Japan's economic security policies explicitly encourage supply chain diversification, including incentives for firms to expand production abroad. In this context, ASEAN's growing technological capabilities, expanding markets, and strategic location make it an increasingly attractive partner for Japanese companies seeking to build more resilient supply chains.

Questions were also raised about the broader geopolitical environment and its implications for ASEAN. Mr Bhaskaran observed that current supply chain reconfigurations are driven primarily by longer-term structural shifts rather than short-term political developments. He argued that ASEAN's openness and relative neutrality provide the region with a strategic advantage, allowing it to attract investment from multiple partners. However, he cautioned that ASEAN must continue strengthening regional integration and improving its industrial capabilities in order to sustain this momentum.

More broadly, the discussion underscored that building supply chain resilience will require coordinated efforts among governments, industry actors, and regional institutions. Strengthening infrastructure, developing human capital, and expanding technological cooperation were highlighted as key priorities for ensuring that ASEAN and Japan remain competitive in an increasingly uncertain global economic environment.

Panel II: Building Safe, Reliable and Resilient Digital infrastructure

The second panel examined the growing strategic importance of information and communication infrastructure, particularly the security and resilience of digital infrastructure such as submarine cables, 5G networks, and Open RAN ecosystems. The discussion highlighted how these infrastructures have evolved into critical components of economic security in the digital age.

Professor Takashi Terada opened the session by focusing on the strategic importance and vulnerabilities of submarine cable systems. He noted that subsea cables form the backbone of global internet connectivity but remain highly exposed to physical, cyber, and geopolitical risks. In Southeast Asian waters, particularly the South China Sea, cables face potential disruptions ranging from accidental damage to deliberate interference. Professor Terada highlighted concerns about landing stations, many of which are in relatively remote or poorly secured areas and often fall outside direct government oversight. This creates vulnerabilities, particularly when foreign companies are involved in operating or accessing these facilities.

To mitigate these risks, he emphasised the importance of strengthening maritime security and developing greater capacity for cable maintenance and repair. Because the number of specialised vessels capable of repairing submarine cables is limited, cooperation between Japan and Southeast Asian countries could help create a more stable and responsive repair environment. Beyond physical protection, he also highlighted the need for regulatory coordination and norm-building to address fragmented governance across the region. Professor Terada further suggested that technology demonstrations, public–private partnerships and expanded educational cooperation could strengthen long-term collaboration between Japan and ASEAN. Such cooperation would benefit both sides: ASEAN gains technological expertise and infrastructure investment, while Japan can tap into the region’s younger and more diverse workforce. He also highlighted emerging cyber cooperation, such as a joint cyber exercise between Thailand’s National Cybersecurity Agency and Japanese institutions. Expanding similar initiatives to include other regional partners could help test security practices at vulnerable landing stations and improve collective preparedness.

Professor Terada also stressed the importance of strengthening existing regional institutions to support cooperation. Agreements such as the CPTPP provide high-standard rules on digital trade, data flows, and e-commerce that could help harmonise regional regulations. However, only a few ASEAN countries currently participate, highlighting the need for a dual-track strategy in which frameworks like CPTPP and RCEP both serve as rule-making anchors while gradually expanding membership.

Following this, **Ms Lim May-Ann** examined how thinking about digital infrastructure security has evolved. She noted a conceptual shift from a purely defensive approach toward a broader resilience framework. Drawing from Kerckhoff's principle, earlier approaches focused on protecting infrastructure through secrecy and technical safeguards. Today, however, policymakers increasingly assume that disruptions will occur and instead emphasise the capacity to anticipate, absorb, and recover from attacks. This shift has expanded how digital infrastructure security is understood. Rather than focusing solely on physical assets such as cables and data centres, the discussion now includes the broader socio-technical ecosystem surrounding them. Policymakers must consider how infrastructure is mapped, how risks are anticipated, how disruptions are absorbed, and how systems adapt following an incident.

Ms Lim also highlighted the expanding cyber-physical attack surface as digitalisation deepens across sectors. The rise of artificial intelligence and interconnected systems means that threats are no longer limited to physical sabotage. Even when physical infrastructure such as data centres is secure, vulnerabilities can arise through software, network management systems, and AI-enabled attacks. In particular, the emergence of agentic AI has heightened concerns among policymakers about the scale and sophistication of potential cyber threats. She also noted practical barriers to cooperation, particularly the reluctance of private firms to share sensitive information due to reputational concerns or commercial competition. These gaps can complicate government efforts to coordinate responses to digital infrastructure risks.

In terms of policy responses, Ms Lim emphasised the growing importance of minilateral and bilateral cooperation alongside broader regional frameworks. Smaller groupings of countries can often act more quickly to address emerging risks. Recent agreements between Singapore and

Japan on quantum science and technology illustrate how such partnerships can strengthen technological collaboration. At the same time, she stressed the importance of maintaining interoperable and standardised digital infrastructure systems so that networks remain functional even amid geopolitical tensions. Addressing legal and accountability gaps, particularly regarding AI-managed networks and cross-border data flows, will also be an important priority for policymakers.

The final presentation by **Dr Tobias Liebetrau** examined submarine cable security from a broader geopolitical perspective. He argued that submarine cables have increasingly become central to global security debates. Historically, cables have long been targets during conflict, with incidents of cable cutting and interception occurring as early as the World Wars. Recent incidents involving damaged cables in regions such as the Baltic Sea and the China Seas have further intensified concerns about potential state-driven interference. He argued that submarine cables have become part of the emerging landscape of hybrid warfare, where the boundaries between war and peace, as well as between public and private actors, are increasingly blurred. Determining whether cable damage is intentional or accidental is often difficult, complicating attribution and response.

Dr Liebetrau also highlighted the growing role of private technology companies in financing and operating submarine cable systems. This adds another layer of complexity to governance, as strategic infrastructure increasingly lies in the hands of commercial actors operating across multiple jurisdictions. He added that the limitations of purely national approaches to cable security. Because submarine cables are inherently transnational, they connect multiple jurisdictions and regulatory regimes. National-level governance frameworks are therefore insufficient to address the shared risks and vulnerabilities faced by states and companies relying on the same infrastructure. Dr Liebetrau had also emphasised that cable security intersects with multiple policy domains, including maritime security, digital sovereignty, economic competitiveness, and cybersecurity. The wide range of potential threats—from military attacks and espionage to criminal activity and accidental damage—further complicates governance efforts. These challenges underscore the need for regional and international cooperation.

However, building such cooperation presents its own difficulties. One key challenge is determining the appropriate governance structure, as cable security overlaps with defence, diplomacy, maritime safety, and digital policy. Another challenge is coordinating among the wide range of actors involved, including governments, military organisations, intelligence agencies, private companies, and technical experts. He suggested that regional collaboration could begin by building upon existing institutions and governance frameworks. Harmonising national legislation, criminalising cable damage, and developing shared interpretations of international legal frameworks such as UNCLOS could help create a stronger foundation for cooperation. Improved information sharing and coordinated responses across civil, military, and private-sector actors would also enhance resilience.

Finally, he emphasised the importance of improving knowledge infrastructure around submarine cable systems. Mapping cable networks, assessing their strategic importance, and understanding ownership structures are essential for conducting effective risk assessments. While new monitoring technologies such as sensors and unmanned systems may help enhance surveillance, they also introduce new dependencies and vulnerabilities that must be carefully evaluated.

During the Q&A session, participants raised questions about the prospects for cooperation on digital infrastructure security in Southeast Asia, particularly regarding subsea cables and broader cyber resilience. One participant highlighted that although cooperation is often emphasised, ASEAN countries hold different threat perceptions and strategic priorities when it comes to cyberspace and digital infrastructure. As a result, even when similar infrastructure is used, countries may view risks differently, making deeper regional cooperation challenging. This raises the question of how ASEAN can move beyond the lowest common denominator and develop practical forms of collaboration that lead to concrete implementation rather than remaining limited to discussions and annual meetings.

Questions were also raised about whether ASEAN currently a standalone framework has addressed the security and resilience of undersea cables. Panellists explained that while there is no dedicated regional agreement, elements of cooperation are embedded in broader initiatives such as DEFA, which includes provisions related to cybersecurity and online safety. ASEAN countries also cooperate through Computer Emergency Response Teams (CERTs), which

regularly conduct joint exercises to simulate attacks on critical infrastructure. However, differences in national priorities such as the limited relevance of subsea cables for landlocked countries like Laos, make it difficult to establish binding regional commitments.

The discussion also explored technological developments and alternative infrastructure. One participant asked whether satellite services could become a viable alternative to subsea cables as companies increasingly seek to diversify digital transmission networks. The panel noted that while satellite technology is gaining attention, particularly in national defence discussions, subsea cables remain the backbone of global data transmission, and coordinating protection efforts for existing infrastructure remains a major challenge.

Several questions addressed the broader issue of rulemaking and standards for digital governance. Panellists noted that different countries promote competing normative approaches, particularly regarding data governance and digital regulation. For example, Japan has promoted the concept of Data Free Flow with Trust in global trade discussions, while other countries maintain stricter approaches to data sovereignty. Given these differences, some of the speakers on the panel suggested that ASEAN's "ASEAN Minus X" approach, which allows a smaller group of countries to advance cooperation first may help overcome gridlock while still allowing less technologically advanced members the flexibility and time to catch up.

Comparisons with the European Union were also discussed. Panellists observed that Europe faces similar challenges in coordinating digital infrastructure protection due to differing threat perceptions among member states. However, cooperation has progressed in some technical areas, such as cable repair coordination and the development of best practices through organisations like the International Cable Protection Committee (ICPC). It was suggested that ASEAN could begin with practical and less politically sensitive areas of cooperation, such as information sharing and repair coordination between countries connected to the same cables.

Overall, the discussion highlighted that protecting digital infrastructure requires cooperation between governments, private companies, and technical communities, as much of the infrastructure including subsea cables is privately owned. Panellists emphasised that while

geopolitical tensions may complicate rulemaking, practical collaboration in technical areas could still provide a foundation for stronger regional resilience.

Panel III: Protection and Promotion of Emerging Technologies

The third panel focused on how Southeast Asia and Japan can safeguard the protection and promotion of emerging technologies. The speakers discussed ways Southeast Asian countries and Japan can cooperate to reinforce a secure yet innovative and friendly environment that supports shared resilience and strengthens high-value regional industries.

Dr Yose Rizal examined how Southeast Asian countries can balance technological openness with growing security concerns in the evolving global technology landscape. He began by observing that technology policy in Southeast Asia remains predominantly framed as a development issue. Across ASEAN, technological adoption is associated with improving productivity, supporting industrial upgrading, enhancing connectivity, and strengthening public service delivery. In this sense, the primary motivation for technology policy in ASEAN has been economic development.

However, the broader geopolitical environment has increasingly brought security considerations to the forefront of technology governance. Rising geopolitical competition and technological rivalry among major powers have introduced various constraints on technology access. Export controls are expanding, investment screening mechanisms are tightening, and research security rules are becoming more prevalent. Infrastructure governance is also evolving from a technical matter into a strategic concern. As a result, access to advanced technologies is becoming more conditional, creating additional challenges for countries that rely heavily on foreign technological inputs.

These challenges are further compounded by tightening global technology governance frameworks. As access to emerging technologies such as advanced semiconductors and artificial intelligence becomes increasingly regulated, Southeast Asian countries may face higher compliance burdens, longer approval timelines, and greater dependence on a limited pool of approved suppliers. This could potentially widen development gaps within the region, as only some countries may possess the institutional capacity and resources required to comply with these evolving regulatory standards.

ASEAN must reconcile the imperative of development-driven technology access with security requirements. Rather than adopting major power “security-first” models, ASEAN should pursue openness with calibrated risk management. Selective scrutiny should focus on high-consequence technologies, while broader measures should remain permissive. Regional coordination platforms, such as DEFA, provide mechanisms for rules-based governance. ASEAN–Japan cooperation offers opportunities to enhance resilience through AI governance, semiconductor upgrading, submarine cable security, and talent development.

Dr Ayako Takemi emphasised how technology investment is increasingly inseparable from traditional security and economic considerations. As emerging technologies become central to economic competitiveness and national resilience, governments are placing greater emphasis on establishing structured dialogue mechanisms that link technology investment decisions to governance frameworks and implementation oversight. In this context, the policies of Japan’s Takaichi administration were presented as an example of a government pursuing an integration of technological development with economic security objectives. This is characterised by a dual agenda: proactive investment in advanced technologies and safeguarding economic security. This includes expanded public spending on research and development, the introduction of multi-year budgets for technology investment, and long-term planning frameworks designed to support innovation in strategic sectors such as AI and semiconductors.

Recent policy initiatives demonstrate the scale of this commitment. Significant funding allocations have been proposed for AI development and semiconductor industries, reflecting Japan’s intention to strengthen its technological capabilities while maintaining competitiveness in an increasingly contested global technology landscape. The government also introduced regulatory measures aimed at safeguarding national interests, including revisions to investment screening frameworks and discussions surrounding mechanisms.

ASEAN and India are explicitly identified as strategic partners for AI and semiconductor cooperation. Initiatives such as the ASEAN-Japan Co-creation Initiative for AI advance safety, trustworthiness, and interoperability, aligning with the Hiroshima Process International Code of Conduct. The administration is also developing “sovereign AI” capabilities, integrating physical and vertical AI to complement scale-oriented AI. This reflects the strategy to compete in a highly

contested technological landscape. This framework recognises the cross-cutting nature of emerging technologies: AI applications increasingly span traditional domains, including biology and robotics, reinforcing the need for agile and systemic cooperation. She highlighted that Japan's approach offers a window for structured ASEAN–Japan collaboration, moving beyond ad hoc bilateral engagement toward implementation-oriented partnerships. The framework combines governance, industrial investment, and cross-sectoral coordination to manage strategic competition while promoting development and innovation.

Ms Yinghui Tng added her perspective from the private sector. She highlighted the dual nature of AI: its potential to drive transformative innovation and its exposure to security risks. Using examples from Google, she contrasted breakthroughs such as AlphaFold, which solved a 50-year biological challenge and accelerated global research, with the constant threat of generative AI being exploited for scams, mitigated in real time by AI-driven protections in Gmail. These contrasting examples illustrated how AI simultaneously expands scientific capability while introducing new vulnerabilities in digital ecosystems. She framed the core challenge as balancing innovation with security, not as competing priorities but as governance objectives that must be managed together.

Three guiding principles underpin a pro-growth AI policy framework. First, oversight should focus on AI applications, not the underlying technology, applying risk-based frameworks proportional to potential harm. High-risk domains like critical infrastructure or healthcare warrant rigorous assessment, while low-risk applications remain unconstrained to promote experimentation. Such an approach also requires clear allocation of responsibilities between AI developers and deployers, ensuring accountability rests with actors who control how systems are ultimately used.

Second, open ecosystems and trusted data flows are essential, leveraging regional frameworks such as ASEAN's DEFA to harmonise data standards and reduce trade costs. Effective implementation of DEFA could strengthen regional digital integration, expand cross-border data flows, and enable firms, particularly smaller enterprises, to scale across ASEAN markets. Conversely, fragmented digital regulations and data localisation requirements risk increasing compliance costs and slowing innovation across the region.

Third, investment in both technology and people is crucial. AI adoption must be paired with a ‘Secure-by-Design’ approach and a multi-tiered workforce strategy, cultivating AI Learners, Implementers, and Innovators, including targeted skilling support for SMEs. This framework recognises that technological safeguards alone are insufficient without a workforce capable of responsibly developing, deploying, and managing AI systems.

Japan’s AI Promotion Act and the Hiroshima AI Process exemplify governance models that balance innovation, security, and global interoperability. ASEAN’s Hanoi Digital Declaration advances similar objectives, stressing regulatory alignment, multi-stakeholder engagement, and practical implementation of AI governance. Together, these initiatives signal a shift toward coordinated regional approaches to AI governance. These initiatives demonstrate that security and innovation need not be opposing priorities; rather, they can reinforce one another if policies are structured, risk-sensitive, and inclusive of industry expertise.

During the Q&A session, the panel explored the potential for collaboration between Japan and ASEAN in the development of physical AI, including drones and robotics. Panellists noted that while Japan holds a comparative advantage in this area, collaboration across the region is constrained by technological diversification and security considerations. Early-stage collaboration was considered feasible, particularly if it focuses on context-driven, sensor-based applications, with trusted partnerships at the country level. Such arrangements could benefit ASEAN not only in developing capabilities but also in supporting innovation for Japanese companies. Exchanges could be mutually advantageous, for instance through data-sharing arrangements that help refine technology, highlighting that collaboration need not be a one-way transfer.

Security concerns emerged as a critical dimension. Dual-use applications, such as autonomous vehicles, drones, and military adaptations, underscore the challenge of balancing innovation with risk. Panellists emphasised that governance should extend beyond traditional legal frameworks. Emerging approaches include literacy training, safety evaluation mechanisms, and coalition-based standards, reflecting a proactive governance model in which governments work closely

with private sector actors to moderate potential threats. The private sector–government interface was identified as increasingly important, as new technologies cannot be safely or effectively managed in a purely hands-off manner.

The discussion also addressed regulatory complexity in the ASEAN region. Rapid growth in domestic regulations and delays in concluding agreements, such as the DEFA, create barriers for digital trade and innovation. Panellists highlighted the need for adaptable, principle-based frameworks rather than rigid rules, particularly given the fast pace of technological evolution. Establishing “gold standards” or overarching principles can help governments navigate differences in national capacities while promoting innovation and security. It was noted that technology often goes through a “honeymoon phase,” with regulators reacting only after critical junctures reveal real-world limits and risks.

Attention was drawn to the unintended consequences of emerging technologies. Beyond deliberate misuse, technologies can produce unforeseen impacts that require anticipation and mitigation. Effective governance therefore involves identifying both intended and unintended risks early in the development and deployment process.

The discussion concluded with reflections on lessons from Japan’s AI Promotion Act, which embodies a light-touch, risk-based approach. Panellists emphasised that ASEAN countries, as primarily technology consumers, should remain open to diverse sources of AI, while establishing guardrails to manage security risks. Political trust and intergovernmental collaboration were seen as essential for building comprehensive, secure technological partnerships. The overarching principle for the region is to balance openness with standards and safeguards, enabling access to emerging technologies without compromising safety or strategic interests.

Closing Remarks

The conference has highlighted both opportunities and challenges in advancing economic security and technological collaboration in Southeast Asia. A key area identified for potential cooperation between Japan and ASEAN lies in human capital development, including the exchange of technical expertise, education programmes, and support for emerging technologies and digital infrastructure. Such initiatives can foster mutual capacity building and innovation across the region.

Discussions also underscored that while Southeast Asia does not yet have a formalised definition of economic security, decades of deeper economic integration and participation in global value chains have enhanced regional resilience and reduced the potential for conflict. Building on this foundation, policymakers have the opportunity to reconceptualise economic security to reflect the evolving and unpredictable global environment.

Moving forward, insights from the panels and Q&A will inform policy recommendations aimed at strengthening collaboration between Japan and Southeast Asia, supporting economic security, and promoting technological and digital advancement in a complex and rapidly changing landscape.

The organisers express gratitude to all participants for their valuable contributions, which have provided a rich foundation for shaping future policy dialogue and cooperative initiatives in the region.

Recommendations

1. ASEAN and Japan should strengthen collaboration in the semiconductor sector to build more resilient and diversified supply chains. ASEAN already plays an important role in assembly, testing, and packaging activities, but greater integration is needed to move into higher value-added segments such as design, fabrication, and research. Japan's strengths in semiconductor equipment and advanced manufacturing can complement ASEAN's production networks. Joint initiatives should focus on research collaboration, infrastructure investment, and technology transfer to support the development of an integrated regional semiconductor ecosystem.
2. ASEAN member states possess different comparative advantages across the semiconductor and electronics value chain. Greater regional coordination can allow these complementary capabilities to function as an integrated production network rather than fragmented national industries. Policymakers should strengthen initiatives such as the ASEAN Framework for Integrated Semiconductor Supply Chains (AFISS), encourage cross-border industrial clustering, and improve connectivity between manufacturing hubs. This would enable ASEAN to capture economies of scale while strengthening resilience against external shocks.
3. Human capital remains a key constraint to upgrading within semiconductor and advanced manufacturing supply chains. ASEAN and Japan should expand cooperation in technical education, research partnerships, and industry training programmes to build a larger pool of skilled engineers and technicians. Regional initiatives that support talent mobility, joint research programmes, and university–industry collaboration would help address workforce shortages while enabling ASEAN economies to move into more advanced segments of the semiconductor value chain.
4. ASEAN and its partners should strengthen regional cooperation to enhance the resilience and security of digital infrastructure. Governments should establish coordinated mechanisms for monitoring, maintaining, and repairing critical infrastructure such as submarine cables, particularly in high-risk maritime zones such as the South China Sea. Information-sharing

platforms and operational coordination between ASEAN countries and partners such as Japan can help improve preparedness against both accidental damage and deliberate interference.

5. Regional actors should address regulatory fragmentation by harmonising governance frameworks for digital infrastructure security. ASEAN should accelerate efforts to establish common standards for cybersecurity, data governance, and critical infrastructure protection. Greater regulatory alignment can reduce uncertainty for investors, strengthen trust between governments and private-sector operators, and support the development of secure and interoperable digital infrastructure across the Indo-Pacific. Existing regional trade frameworks such as the CPTPP and RCEP can serve as rule-making anchors to support digital trade governance and cross-border data flows. At the same time, ASEAN may benefit from drawing on international best practices and expertise from other regional organisations, such as the EU, particularly in areas relating to infrastructure protection, cybersecurity standards, and regulatory coordination.
6. Governments should adopt a resilience-based approach to digital infrastructure protection that integrates cyber, physical, and socio-technical dimensions. Rather than focusing solely on preventing attacks, policymakers should prioritise the capacity of systems to anticipate, absorb, and recover from disruptions. This requires strengthening risk assessment mechanisms, improving the mapping and monitoring of critical infrastructure networks, and enhancing coordination among government agencies, telecommunications providers, and private firms.
7. ASEAN and regional partners should promote multilateral and bilateral cooperation to address emerging digital infrastructure risks. Smaller and more flexible cooperation frameworks can complement broader regional institutions by enabling faster responses to technological and security challenges. Initiatives such as joint cyber exercises and bilateral agreements on emerging technologies can serve as practical platforms for testing resilience measures and strengthening operational coordination across the region.

8. ASEAN should define economic security on its own terms, balancing national flexibility with regional coherence. Guardrails should be applied selectively, targeting high-consequence technologies, while maintaining openness for broader sectors. Institutional capacity should be strengthened at national and regional levels to manage compliance, risk assessment, and strategic technology governance. Diversification strategies should incorporate trusted supplier frameworks. ASEAN–Japan collaboration should focus on AI governance, semiconductor value-chain upgrading, submarine cable resilience, and talent circulation to reinforce technological resilience while preserving development-driven access.
9. ASEAN should engage with Japan through structured, cross-sectoral frameworks, focusing on AI, semiconductors, and emerging technologies. Programmes should embed governance, safety, and interoperability standards, leveraging multi-year investment and R&D planning. Collaboration must strengthen industrial capacity, facilitate talent circulation, and provide agile responses to strategic competition. Ad hoc or siloed mechanisms should be replaced with systemic, implementation-oriented partnerships between public and private stakeholders to ensure operational effectiveness and alignment with ASEAN development objectives while managing economic and security risks.
10. ASEAN should adopt an AI governance framework that is application-focused, risk-based, and anchored in open, interoperable ecosystems. Efforts should harmonise national regulations under DEFA, strengthen public-private collaboration, and invest in workforce development across AI literacy, implementation, and innovation. High-risk AI domains require rigorous oversight, while low-risk applications should face minimal regulatory friction. ASEAN should leverage best-practice frameworks such as Japan’s AI Promotion Act and the Hiroshima AI Process to ensure globally aligned standards. This approach will secure trust, foster investment, enable SMEs, and transform the security–innovation tension into a virtuous cycle of economic and technological growth.

Conference Programme and Agenda

Conference on Southeast Asia-Japan Partnership in Strengthening Regional Economic Security

Lee Kuan Yew School of Public Policy

Wednesday, 25 February 2026

Time	Description
9:30 – 9:50	<p>Welcome Remarks</p> <p>Dr Joseph Liow Chinyong, Dean and Wang Gungwu Professor in East Asian Affairs at the Lee Kuan Yew School of Public Policy, National University of Singapore</p> <p>H.E. Hiroshi Ishikawa, Ambassador of Japan to Singapore</p>
9:50 - 10:20	<p>Keynote Address</p> <p>Mr Ashok Mirpuri, the Chair of the Japan-Singapore Symposium</p>
10:20 - 10:40	<p>Tea Break</p>
10:40 - 12:10	<p>Panel I: Strengthening Supply Chains, Ensuring Fair and Equitable Markets</p> <p>This panel explores how Southeast Asia and Japan can work together to reinforce resilient, transparent, and sustainable supply chains at a time of intensifying geopolitical rivalry and global economic fragmentation. Speakers will examine how non-market policies and practices distort competition, deepen strategic dependencies, and limit opportunities for countries to participate in higher-value segments of global value chains. These are issues central to both ASEAN’s long-standing regional integration agenda and Japan’s economic security priorities. The discussion will highlight how Southeast Asia-Japan cooperation can promote markets where</p>

	<p>reliability, safety, and supply stability are properly valued, enabling autonomous growth and strengthening the rules-based economic order.</p> <p>Moderator: Denis Hew, Senior Research Fellow, CAG, LKYSPP</p> <p>Speaker 1: Dr Aladdin Rillo, Managing Director, Economic Research Institute of ASEAN and East Asia (ERIA), Indonesia</p> <p>Speaker 2: Professor Tomoo Kikuchi, Graduate School of Asia-Pacific Studies, Waseda University, Japan</p> <p>Speaker 3: Mr Manu Bhaskaran, Senior Partner, Centennial Group, Singapore</p> <p>Q&A</p>
<p>12:10 - 1:25</p>	<p>Lunch</p>
<p>1:25 - 2:55</p>	<p>Panel 2: Building Safe, Reliable and Resilient Digital Infrastructure</p> <p>This panel focuses on the growing strategic importance of information and communication infrastructure, especially digital infrastructure such as 5G networks, Open RAN ecosystems, and submarine cables in shaping regional economic security. As Southeast Asian countries deepen their digital transformation, ensuring that network infrastructure is safe, reliable, and resilient has become a shared priority for both Japan and the region. The session will discuss the implications of such infrastructure development on trust, interoperability, and long-term security, while exploring avenues for practical Southeast Asia-Japan collaboration, including capacity-building, technology demonstrations, and private-sector engagement to support a robust and rules-based digital environment.</p> <p>Moderator: Barbora Valockova, Post-Doctoral Fellow, CAG, LYSP</p>

	<p>Speaker 1: Professor Takashi Terada, Graduate School of Political Science, Doshisha University, Japan</p> <p>Speaker 2: Ms Lim May-Ann, Director of Multilateral Relations, Data Policy and Partnerships, Access Partnership, Singapore</p> <p>Speaker 3: Associate Professor Tobias Liebetrau, Department of Political Science, University of Copenhagen, Denmark</p> <p>Q&A</p>
2:55 – 3:15	Tea Break
3:15 – 4.45	<p>Panel 3: Protection and Promotion of Emerging Technologies</p> <p>This panel examines how Southeast Asia and Japan can safeguard and responsibly advance critical emerging technologies—such as AI, semiconductors, and unmanned systems—while maintaining openness that supports innovation and economic growth. As technology flows increasingly intertwined with national security, speakers will address policy measures related to investment screening, export controls, cybersecurity, and research integrity, and discuss how coordinated approaches can prevent unwanted technology leakage without stifling economic dynamism. The session will highlight how Southeast Asia-Japan cooperation can reinforce a secure yet innovation-friendly environment that supports shared resilience and strengthens high-value regional industries.</p> <p>Moderator: Miguel Gomez, Senior Research Fellow, CAG, LKYSPF</p> <p>Speaker 1: Associate Professor Ayako Takemi, Research Centre for Advanced Science and Technology, University of Tokyo, Japan</p>

	<p>Speaker 2: Dr Yose Rizal, Executive Director, Centre for Strategic and International Studies (CSIS) Jakarta, Indonesia</p> <p>Speaker 3: Ms Yinghui Tng, Head of Southeast Asia, Government Affairs & Public Policy, Platforms and Devices at Google</p> <p>Q&A</p>
4:45 – 5:15	Wrap-up session and Closing Remarks

Conference Speakers

Joseph Liow Chinyong	Dean and Wang Gungwu Professor in East Asian Affairs at the Lee Kuan Yew School of Public Policy, National University of Singapore
Hiroshi Ishikawa Ashok Mirpuri	Ambassador of Japan to Singapore Co-chair of the Japan-Singapore Symposium
Denis Hew	Senior Research Fellow at the Centre on Asia and Globalisation, Lee Kuan Yew School of Public policy, National University of Singapore
Aladdin Rillo	Managing Director at the Economic Research Institute of ASEAN and East Asia (ERIA), Indonesia
Tomoo Kikuchi	Professor at the Graduate School of Asia-Pacific Studies, Waseda University, Japan
Manu Bhaskaran	Senior Partner at the Centennial Group, Singapore
Barbora Valockova	Research Fellow at the Centre on Asia and Globalisation, Lee Kuan Yew School of Public Policy, National University of Singapore
Takashi Terada	Professor of International Relations at the Graduate School of Political Science, Doshisha University Japan
Lim May-Ann	Director of Multilateral Relations, Data Policy and Partnerships at Access Partnership, Singapore
Tobias Liebetrau	Associate Professor at the Department of Political Science, University of Copenhagen, Denmark
Miguel Gomez	Senior Research Fellow at the Centre on Asia and Globalisation, Lee Kuan Yew School of Public policy, National University of Singapore
Ayako Takemi	Associate Professor at the research Center for Advanced Science and Technology at the University of Tokyo
Yose Rizal	Executive Director at the Centre for Strategic and International Studies (CSIS) Jakarta, Indonesia
Yinghui Tng	Head of Southeast Asia, Government Affairs & Public Policy, Platforms and Devices at Google



Group Photo



Joseph Liow giving his welcome remarks



Ashok Mirpuri giving the key keynote address



Participants in the workshop



Participants in the workshop



Session 1 Panel (R-L): Tomoo Kikuchi, Denis Hew, Aladdin Rillo, and Manu Bhaskaran



Session 2 Panel (R-L): Lim May-Ann, Barbora Valockova, Tobias Liebetrau, and Takashi Terada



Session 3 Panel (R-L): Miguel Gomez, Yinghui Tng, Yose Rizal, and Ayako Takemi



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