

# First ASEAN Startup Policy Roundtable

Building a Tech Startup  
Ecosystem in ASEAN: Taking  
Stock and Looking Ahead

Mahirah Mahusin

Prepared by

Mahirah Mahusin

Hilmy Prilliadi

Satria Mahesya Muhammad

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## Building a Tech Startup Ecosystem in ASEAN: Taking Stock and Looking Ahead

ERIA DIGITAL INNOVATION AND SUSTAINABLE ECONOMY CENTRE (E-DISC)  
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## Introduction

Over the last decade, tech startups have emerged as drivers of economic growth and innovation within the Association of Southeast Asian Nations (ASEAN) region. Facilitated by advancements in digital technologies and the region's digital economy, startups have revolutionised various industries, fostered innovation, and attracted substantial investments. Their proliferation has the potential to drive economic expansion, job creation, and sustainable development across the ASEAN region. Despite promising prospects, however, the journey towards establishing a robust startup ecosystem in ASEAN remains challenging and uneven across ASEAN Member States. Some of these challenges are related to digital infrastructure, access to finance, and talent acquisition. Moreover, the absence of a cohesive regulatory framework at both the national and regional levels poses significant obstacles to startup growth and sustainability.

The inaugural ASEAN Startup Policy Roundtable, organised by the Economic Research Institute for ASEAN and East Asia (ERIA) Digital Innovation and Sustainable Economy Centre (E-DISC), was intended to facilitate comprehensive discussions and knowledge sharing amongst key stakeholders of the startup ecosystem, including from government, industry, academia, and international organisations, whilst fostering collaboration and generating actionable solutions. Going forwards, E-DISC will convene policy dialogues and continuous learning in the areas of entrepreneurship, innovation, and the digital economy, empowering ASEAN policymakers and entrepreneurs to navigate and to thrive within the regional startup landscape.

## At a Glance

<i>Welcome Remarks</i>	<i>Keynote Presentations</i>	<i>Building a Robust Digital Infrastructure</i>	<i>Access to Finance for Tech Startups</i>	<i>Nurturing Human Capital</i>	<i>Concluding Remarks</i>
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**Tetsuya Watanabe**  
*President, ERIA*

'We aim to contribute to more success stories emerging from the region. As a knowledge platform, we are committed to fostering a culture of collaboration and closer partnerships with a wide variety of stakeholders in support of ASEAN's sustainable digital transformation.'

On behalf of President Tetsuya Watanabe, Koji Hachiyama, chief operating officer of ERIA, underscored the remarkable growth witnessed in ASEAN's startup ecosystem over the past decade, attributing it to a surge in innovative entrepreneurship – such as those in digital and green technologies – that correlates to the growth of the ASEAN digital economy. Mr Hachiyama highlighted the region's substantial contributions to global digital trade – projected to reach US\$1 trillion by 2030 – and acknowledged the shifting geography of ASEAN innovation, with fast-growing tech hubs such as Jakarta and emerging ecosystems like Ho Chi Minh City, Manila, and Phnom Penh. Some of these ecosystems are closely linked to local needs and cultures, such as Islamic Fintech in Malaysia and halal cosmetic industries in Indonesia.

He noted that it is imperative to recognise the hurdles facing private investments in the ASEAN startup landscape, even amidst global macroeconomic shifts related to tightened monetary policy, leading to a decline in private funding worldwide. However, amidst these challenges, the region offers abundant opportunities. With 400 million active internet users, it stands as one of

the world's largest internet bases. Moreover, the growth of the middle class across all ASEAN Member States is anticipated to spur domestic demand, thereby accelerating digital adoption. This trend is further reinforced by the region's predominantly young population, projected to peak at 220 million persons by 2038, which is poised to drive demand for innovative digital products and services.

Indeed, he stated, facilitation and transparency initiatives play vital roles in aiding the private sector's navigation of the diverse and often fragmented regional market. It is essential for businesses – irrespective of size or maturity – to grasp local nuances and preferences to tailor their operations effectively. Considering the linguistic and cultural diversity across the ASEAN region alongside varying levels of digital development, localised applications are significant. As examples, tech-driven solutions must address traditional language biases in artificial intelligence (AI) development to ensure inclusivity, while the surge in digital payments must acknowledge that sizable segments of the ASEAN population lack access to traditional banking services. However, amidst these challenges lies an opportunity to better support home-grown innovations addressing pressing regional issues and the unique needs of communities within and across ASEAN Member States.

Mr Hachiyama expressed optimism about the region's abundant opportunities. It has a large internet user base, growing middle class, and youthful demographic dividend. He underlined the importance of tailored governance frameworks, such as the ASEAN Digital Economy Framework Agreement and the *ASEAN Guide on AI Governance and Ethics*, in fostering innovation-led entrepreneurship. Mr Hachiyama also underscored the need for facilitation and transparency initiatives to enable businesses to navigate the diverse ASEAN market effectively. Indeed, through initiatives like the ASEAN Startup Roundtable, E-DISC aims to foster collaborative dialogue and partnerships, nurturing a supportive ecosystem that empowers local entrepreneurs to address regional challenges and drives sustainable economic growth across ASEAN and East Asia.

## Keynote Presentations

### Current Trends of the Tech Startup Landscape in ASEAN

*Singapore is a trailblazer in shaping the regional tech startup ecosystem, while other city-level ecosystems in the ASEAN region are evolving rapidly.*

*ASEAN governments grapple with startup support policies amidst a paradox of global connectivity versus local ecosystem value, fostering a trend towards city-level diversification.*

*Despite declining financing, diverse funding sources – like venture capital and government grants – remain vital for startup growth.*

**Recognising the potential for tech startup growth.** The startup landscape began emerging in the 2010s in the ASEAN region. Recognising the potential for economic growth and transformation, ASEAN governments continue to provide support for startup growth through various policies,

programmes, and initiatives. These forms of support will continue to evolve as ecosystems mature, with ASEAN Member States often looking to established hubs like Silicon Valley for inspiration. A paradox was highlighted; while technology enables global connectivity, there is also inherent value in physical proximity within local ecosystems (noting that local ecosystems are usually concentrated in highly urbanised areas), underscoring the importance of fostering city-level ecosystems alongside diversification across secondary cities.

**Addressing financial challenges in startup growth.** Financial support is critical to startup growth, yet recent data indicate a decline in financing levels, raising questions about the sustainability of this trend.<sup>1</sup> Despite challenges, various forms of financing – including venture capital (VC) and government grants – continue to play a significant role in nurturing startups. The Asian Development Bank’s strategy involves engaging with both ecosystem players and startups, revealing nuanced perspectives on challenges and opportunities. This mirrors broader conversations where perceptions often differ amongst stakeholders, stressing the need for effective communication and collaboration.

**Examining the role of incubators in startup ecosystems.** Incubators, often considered essential components of startup ecosystems, have seen significant expansion, particularly in emerging markets like the Philippines. However, their effectiveness varies, underscoring the need for further research into what constitutes a successful incubator. The A-E-G-H Tech sector – encompassing Fintech, e-commerce, and logistics; Agritech; Edtech; Greentech; and Healthtech – is emerging as a dominant force in the current landscape, with the public sector and private sector players, such as farmers, becoming key market demographics and directly contributing to national development.

**Promoting collaboration between universities and industry.** Universities and research institutes also play roles in fostering innovation and entrepreneurship. Collaborative efforts between academia and industry can accelerate the translation of ideas into viable startups, driving economic growth. Looking ahead, exploring potential areas of disruption – such as AI and renewable energy – offers prospects for future growth and supports development objectives in the region. Embracing collaboration, innovation, and adaptability will be imperative to building a vibrant tech startup ecosystem in the ASEAN region, charting a course towards sustainable growth and prosperity.

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<sup>1</sup> A. Haswidi (2023), ‘SE Asian Venture Funding in Jan–Sept 2023 Retreats below Pandemic Levels’, *Deal Street Asia*, 27 October, <https://www.dealstreetasia.com/stories/se-asia-deal-review-q3-2023-summary-368578>

## Linking Tech Startups to Innovation, Markets, and Policies

*Indonesia's evolving middle class and productive sectors signal opportunities for global integration and economic diversification.*

*Challenges include an underemphasis on basic science research, necessitating stronger ties between local universities and high-income countries.*

*The ASSIST and GEIPP programmes emphasise addressing economic uncertainties and promoting innovation and inclusivity in ASEAN's startup ecosystem.*

**Experiences of Latin America and Africa.** Speakers shared examples of innovation ecosystems and entrepreneurship outside of the ASEAN region. The dynamic startup scene in Nairobi, Kenya as well as in Vienna, Austria were explored, where ground-breaking solutions like M-Pesa in Nairobi have transformed the financial landscape, showcasing innovation's power in driving financial inclusion. The Government of Chile's Venture Capital Chile initiative was also cited as an idea that can be considered by ASEAN policymakers.

**Indonesia's evolving economic landscape.** In Indonesia, insights from industry leaders and a [World Bank report](#) highlighted Indonesia's rapidly expanding middle class and evolving productive sectors. The country's shift from traditional manufacturing to a hybrid model incorporating services and digital platforms presents unique opportunities for global integration and economic diversification. Despite promising digital sectors, challenges persist, notably an underemphasis on basic science research, necessitating strengthened ties between local universities and high-income countries to foster innovation and technological advancement.

**Sustainability and innovation in ASEAN's startup ecosystem.** While VC remains vital for ASEAN's startup ecosystem, ensuring its sustainability amidst economic uncertainties like the COVID-19 pandemic is crucial. The United Nations has taken proactive measures, including Sustainable Development Goal investments in Indonesia and the establishment of the [Global Eco-Industrial Parks Programme \(GEIPP\)](#) and the [ASSIST Programme](#), aligning with public policies and developmental agendas to address market demands sustainably. The ASSIST Programme targets multiple sectors (i.e. textiles, jewellery, agri-food, and aquaculture) by emphasising sustainable practices to promote environmental consciousness and efficiency. It aims to foster sustainable development across various industries.

**Trends shaping industrial development in ASEAN.** A report from the [World Economic Forum](#) highlighted critical trends shaping industrial development across the ASEAN region. Assessing involvement in emerging technologies is vital for positioning ASEAN Member States at the forefront of innovation and future readiness. Collaboration with like-minded partners will be essential to drive positive change across ASEAN's startup ecosystem, emphasising inclusivity, sustainability, and innovation and underscoring the collective responsibility to promote a thriving entrepreneurial landscape in the region.

## Open Discussion

**Understanding the complexity of ASEAN tech startup ecosystems.** Participants acknowledged the diversity and complexity of startup ecosystems in the region, emphasising that there is no one-size-fits-all template for startup or ecosystem development in the region. It is important for all stakeholders to recognise the varying levels of development across ASEAN Member States and to understand the components of their respective ecosystems. Policymakers were encouraged to focus on attracting players rather than becoming all-encompassing providers themselves. Therefore, ASEAN Member States must evaluate their ecosystems' strengths and gaps and learn from successful examples such as Singapore.

**Leveraging global examples and networks.** It is also essential for ASEAN Member States to leverage existing networks and to learn from global examples while acknowledging the limitations of direct emulation, particularly for less-developed ecosystems. Nurturing interdisciplinary teams within startups can lead to startup success, but participants also cautioned against the misconception that success stems solely from brilliant ideas rather than effective execution and team dynamics.

**Promoting collaboration and nuanced policy approaches.** Other perspectives that were shared ranged from the role of privilege in startup success to the balance between supporting local and foreign startups. Discussions highlighted the need for a nuanced approach tailored to each country's context and in fostering collaboration amongst governments, the private sector, and international institutions. Participants also advocated for policies that prioritise network building; support basic science research; and promote inclusive, transparent funding mechanisms. The session concluded with a call for a deeper understanding of the complexities inherent in startup ecosystems. Building a robust ecosystem demands sustained effort, collaboration, and adaptability to local realities.

## Building a Robust Digital Infrastructure

*Huawei offers tailored programmes for startups, focussing on augmented reality, blockchain, and 5G technologies, and facilitating the global sourcing of startups.*

*There is a need for government-driven interventions and collaborative partnerships to address the digital infrastructure challenges hindering ASEAN's startup ecosystem and innovation potential.*

*The Ted Fund and Thailand's Ministry of Higher Education, Science, Research, and Innovation are collaboratively spearheading efforts to transform Thailand's startup landscape.*

## Public–Private Initiatives in Support of Startups

**Public–private partnerships fostering startup ecosystems.** Public–private partnerships are important in supporting the startup ecosystem, as evidenced by the collaboration between Huawei Cloud and the Singaporean Government. They actively promote innovation and idea exchange through initiatives like the SPARK programme, situated within the government-sponsored Infocomm Media Development Authority (IMDA) Pixel facility. The programme, serving as a startup incubator, aims to cultivate a thriving deep-tech startup ecosystem, with approximately 1,800 startup applications annually and over 4,000 entities engaged since its inception. Notably, SPARK's Program Horizon, an Applied Intelligence Accelerator Program geared towards enterprises, facilitates the scaling up of startups by demystifying technological complexities across various domains, including architecture, security, data, analytics, and AI. Recognising the evolving landscape of digital ecosystems, Program Horizon serves as a platform to seamlessly integrate cross-industry collaborations, addressing new challenges and complexities. It makes Horizon not just a programme but a platform uniquely positioned to help enterprises navigate through The Horizons Co-Creation Value Chaptered Playbook. Their model emphasises sourcing startups globally through the accelerator and incubator programmes. These programmes, tailored to specific verticals such as AR, blockchain, and 5G, provide Singaporean startups with workspace and access to subject matter experts.

**Connections and international expansion.** Despite not directly investing in startups financially, some established tech companies like Huawei also facilitate connections amongst tech startups with venture capitalists through 'demo days', where startups showcase their potential to secure funding. Moreover, Singapore's government-backed mechanisms – including grant funding and support for international expansion – have contributed significantly to the success of its startup ecosystem. Its collaboration with countries like the Republic of Korea (ROK), which offers grant funding for startup expansion into new regions, exemplifies the benefits of international cooperation. By tapping into established ecosystems in other place, Singaporean startups can further accelerate their growth and innovation.

**Mentoring and collaboration for innovation.** Subjectivity remains a challenge in the VC market, necessitating a more data-driven approach to assess startups' readiness for scaling. Thus, Huawei's methodology focusses on mentoring startups based on extensive data points, including business viability and market validation. It aims to facilitate scalable opportunities for startups by linking them with tangible projects, as highlighted by its collaboration with Changi Airport Group. Through this structured approach, Huawei seeks to bridge the gap between startups and corporations, fostering innovation and technological advancement. Rooted in first-principle thinking, this approach aims to address legacy challenges while embracing emerging technologies. By facilitating collaboration amongst startups, small and medium-sized enterprises, and corporations, it aspires to accelerate digital transformation and to drive innovation across industries.

**Incubators and accelerators.** Essentially, collaboration with established ecosystems, coupled with robust support mechanisms, is crucial for catalysing incubators and accelerators. Singapore's exemplary model underscores the importance of foundational blocks such as

grants and supportive policies and partnering with innovation leaders from the private sector in co-developing applicable real-world solutions.

## Digital Infrastructure and Tech Startup Promotion: Experience from the Republic of Korea

**Leadership in digital infrastructure development.** Participants heard from the experience of the ROK in developing digital infrastructure and tech startup promotion. ROK's leadership in these areas stems from government initiatives dating back 30 years, including the design of an information superhighway following the example of the United States. The necessity of government-driven interventions to build digital infrastructure was emphasised; it, in turn, leads to the development of a robust ecosystem.

**Addressing structural gaps in digital infrastructure.** Preparing for the next digital infrastructure phase concerned the ROK, including engaging global providers and investing in digital infrastructure development. These are key challenges for the ASEAN region as well, as poor infrastructure is hindering digital startups and innovation, creating a vicious cycle. To address these structural gaps, several policy recommendations were proposed:

- Creating win–win partnerships amongst ASEAN Member States can help leverage global technologies while developing regional architecture design capacities. For example, ROK's partnership with ASEAN Member States can facilitate technology transfer and capacity building, crucial for startup ecosystem development.
- Establishing Asian-wide partnerships for digital infrastructure, such as international cloud forums, can foster collaboration and address regional disparities in cloud service deployment strategies.
- Promoting market-oriented solutions through partnerships can stimulate entrepreneurship (e.g. medical AI partnerships between ROK and Thailand, aimed at creating market demand for innovative solutions).
- Addressing market challenges and opportunities requires converging efforts to identify and to capitalise on emerging trends, such as AI-driven customisation for artisan industries.
- Exploring partnerships for Industry 4.0 initiatives can enhance digital transformation capabilities and infrastructure, particularly in data sharing and trust-building mechanisms. Drawing from global examples, policymakers can experiment with minimum viable products to overcome trust barriers and to drive innovation.

## Education Policy Reform to Foster Innovation and Entrepreneurship in Thailand

**Thailand's transformative approach to startup promotion.** Participants learned of Thailand's efforts to promote early-stage startups, especially those originating from local and regional areas. The Ministry of Higher Education, Science, Research, and Innovation has undergone significant transformations over the past 4–5 years, merging the higher education sector – including all universities in Thailand – with the Ministry of Science and Technology. This decision stemmed from the recognition that higher education needs to adapt to societal changes, including an ageing population and evolving learning patterns. Traditional 4-year university degrees are no longer the only route, with lifelong learning becoming increasingly common. In addition, operating under the Ministry of Higher Education, Science, Research and Innovation, the Technology and Innovation-Based Enterprise Development (Ted) Fund provides funding and knowledge support and serves as an incubator, particularly for innovation-led startups and enterprises.

**Response to demographic shifts and educational evolution.** This shift has been influenced by demographic changes, such as a decrease in the number of students due to a declining country birth rate. Consequently, the government has encouraged universities to focus on education as well as commercialisation, including technology transfer and business development. Hence, the merger aimed to bridge higher education, research, and innovation under one umbrella.

**Initiating funding for tech commercialisation.** This funding initiative began about 7 years ago, primarily focussing on technology commercialisation. It aimed to support high-tech startups and innovation service providers while fostering ecosystem development. Initially, the government stressed rapid fund deployment to stimulate the market, and its key performance indicator centred around dispersing funds efficiently to catalyse growth.

**Diverse funding schemes for startup growth.** Through the Ted Fund, Thailand has provided funding for over 100 new startup projects annually, mainly supporting university-driven initiatives. Their funding schemes target various stages of startup development. The Ideation incentive programme supports university students and recent graduates in validating their business ideas. The Proof of Concept Fund aids in scaling promising projects that have shown initial success. Additionally, it offers funds to help tech companies enter the market. Moreover, the ministry collaborates with a private matching fund to attract VC and to accelerate startup growth. Success stories include ventures in digital infrastructure, such as a project in southern Thailand that utilises digital technology to improve agricultural processing. These initiatives aim to nurture a vibrant startup ecosystem in Thailand, focussing on sectors like digital technology, agriculture, and health care.

## Open Discussion

**Tailored platforms for business growth.** Amongst others, participants highlighted market constraints – such as smaller market sizes – and expansion challenges that are particularly pertinent for lesser-developed economies, emphasising the need for tailored platforms to facilitate business growth in these economies. One of the policy recommendations to address these challenges is open collaboration, allowing startups and relevant ecosystem players to leverage global partnerships whilst understanding each country’s unique strengths and challenges. Additionally, the approach to technology deployment should focus on addressing specific needs and tailoring solutions to local needs and capabilities.

**Challenges in digital infrastructure development.** Additionally, it was acknowledged that developing a cohesive strategy for digital infrastructure development within ASEAN would be a difficult task given the diversity and varying levels of digital readiness of ASEAN Member States. In addressing infrastructure development, policymakers should focus on building regional sites in areas with ready university infrastructure that have demonstrated a commitment to fostering innovation ecosystems where resources and capabilities align, identifying leverage points for system transformation and collaboration with technology partners to address infrastructure gaps, recognising the importance of government support and readiness, and partnering with the right collaborators at both the regional and local levels.

## Access to Finance for Tech Startups

*Despite a significant decline in equity funding, particularly in South-East Asia, optimism persists due to underlying growth strategies, with a renewed focus on AI and Greentech startups in 2024.*

*Diversifying funding from government, businesses, and VCs, while emphasising prudent financial management, is crucial for startup sustainability.*

*Creating an optimal ecosystem for financing tech startups requires policy reforms and innovative approaches, including engaging university experts to facilitate innovation commercialisation.*

## Investors’ Insights on Financing Tech Startups

**Resilience amidst declining equity funding.** In 2023, equity funding for tech startups saw a notable 38% decrease globally compared to 2022 figures, amounting to US\$285 billion, while South-East Asia experienced a more pronounced decline of 65%, falling from US\$12.4 billion to US\$4.3 billion. Remarkably, these figures still surpassed pre-pandemic levels, indicating resilience and potential.

**Optimism and strategic shifts in investment.** The key to this resilience lies in the adoption of robust underlying growth strategies, which continue to attract investor interest despite cautionary sentiments related to interest rates and geopolitical uncertainties. Looking ahead to

2024, investors are optimistic for improvement, particularly with increasing spotlight on AI and Greentech startups, suggesting a strategic shift in focus.

**Role of impact funds and policy innovations.** To address the critical financing gap issue, particularly for women and minority-led entrepreneurs, several noteworthy funding vehicles were highlighted such as the Black Impact Fund in the United States, dedicated to uplifting Black communities. Recognising the need to tailor funds for inclusivity, Phitrust Asia's shared that it has invested in a startup in Thailand aimed at providing training opportunities for persons with disabilities.

**Initiatives for sustainable innovation ecosystems.** Impact funds emphasise investors' commitments to social impact over a strict focus on financial returns. In addition to impact funds, the significance of policy innovations was highlighted, citing the Community Reinvestment Act in the United States as an example. This legislation encourages regulatory measures to facilitate increased access to financial resources within communities. Another initiative noted involves transitioning from a purely philanthropic approach to incorporating impact funds in the strategies for foundations. This shift towards market-based solutions ensures a more sustainable and enduring means of addressing social challenges. Participants also learnt of the [European Institute of Innovation and Technology \(EIT\) Digital](#) initiative that aims to strengthen Europe's digital innovation ecosystem; it is a unique collaboration amongst leading businesses, universities, and research institutions across Europe – demonstrating to ASEAN that it could implement a similar platform. This initiative could serve as a catalyst for attracting VC funding and fostering innovation in the region. Overall, these multifaceted approaches aim to bridge the financing gap and to create a more inclusive and sustainable landscape for entrepreneurs from diverse backgrounds.

## Entrepreneurial Finance: Strategies, Sources, and Insights for Startups

Using Singapore as an example, various factors contributing to the success of startups there were highlighted, such as co-funding mechanisms, low taxes for capital gains, and a supportive legal framework.

**Critical role of informal finance.** Informal finance has emerged as a critical – but often overlooked – aspect, with a specific emphasis on capital from friends and family. This was particularly noted in cases where startups operate in small niche markets, where traditional VC may not express interest. Moreover, this particular model of financing is more flexible than traditional financing from VC.

**Government funding and entrepreneurial finance.** Government funding is a good source of entrepreneurial finance, especially in emerging economies where private entrepreneurial financing is not as prevalent. This support often takes the form of grants and subsidies. At the same time, entrepreneurs should not become overly fixated on obtaining grants or becoming 'grantpreneurs'; securing a grant should be viewed as an end rather than an ultimate goal.

**Exploring diverse sources of finance.** Diverse sources of finance were explored, including business houses, corporations, and VC, with a specific mention of the VC concentration in Singapore. At the same time, these forms of capital may also come with varying demands and expectations from entrepreneurs. Entrepreneurs should explore all of the various funding options in relation to their startups' goals and objectives.

**Strategic utilisation of financial resources.** Beyond the initial step of securing financing, startups must understand the equally critical second step – strategic utilisation of financial resources. Entrepreneurs are encouraged not only to secure funds but also to employ them judiciously, incorporating key strategies such as saving money, making forward-looking investments, forming alliances with other entities, and diligently managing cash flow. Entrepreneurs must broaden their perspectives beyond a singular focus on VC. Instead, a diverse range of financing options should be considered, customising their approach based on the distinct characteristics and requirements of each case.

## Policy Innovations for Tech Startup Support

**Australia's progressive policy initiatives.** Australia's progressive policy initiatives aimed at advancing education, innovation, and entrepreneurship were highlighted. First, Australia has embraced a holistic approach to technology education, ensuring that students are well versed in the digital landscape from kindergarten to grade 12. Additionally, incentives have been established to encourage students to learn Asian languages, promoting cultural understanding and global collaboration. University-level reforms include a reshaped curriculum, compelling students to engage in diverse studies beyond their core degrees, fostering interdisciplinary perspectives.

**Emphasis on collaborative research.** Australia's commitment to collaborative research is evident in the establishment of university/industry research centres and policy innovation labs, where academia and industry work hand-in-hand to drive innovation with market-based solutions. The emphasis on internationalisation is seen in efforts to globalise the university experience. Moreover, the government's strategic investments in innovation and entrepreneurship within universities create environments conducive to transformative ideas. Illustrating the impact of these policies, Canva's co-founder reflected on the positive outcomes of a supportive policy landscape, facilitating connections with potential investors. These policies also contribute to the crucial role that universities play in startup development, as demonstrated by historical cases such as the creation of Wi-Fi through research. Successful examples of commercialisation like Resonance Health and Noisy Guts further underscore the diverse and unexpected paths that innovation can take. Events like the West Tech Fest highlight the importance of bringing together the right individuals to cultivate a thriving entrepreneurship ecosystem, emphasising that collaborative efforts involving external stakeholders are essential for a robust innovation landscape beyond the university setting.

**Government investment in policy reforms.** The importance of government investment in policy reforms and innovation was emphasised to foster a conducive ecosystem for financing tech startups. Universities play a pivotal role in startup development with their ability to facilitate

the commercialisation of research through market solutions – particularly when leveraging the expertise of the right individuals.

## Open Discussion

**Future focus areas for VC.** Regarding future focus areas for VC, participants noted investors' interests in Greentech; AI; and technologies related to energy transition, deep tech, health, and education in the region. Given the current investment climate, it is also expected that VC will become more selective towards investments. Discussants highlighted the challenge of the right matching, noting that there is a surplus of funds but a shortage of promising startups with high chances of success and returns, emphasising the need for a more discerning approach.

**Facilitating connections between investors and startups.** Participants also discussed the possibility of policy initiatives that can facilitate connections between angel and impact investors with the right startups. In response, discussants advocated for the creation of a broader community of investors to enhance support networks. Participants recognised the difficulty of navigating good deals for investors in the expansive ASEAN market and suggested that having a platform that streamlines access to investment opportunities would be helpful for investors. The role of governments in addressing market failures was also recognised; in such cases, a hybrid investment approach can be utilised, such as blended finance, particularly in impact investments where private capital alone may be insufficient.

**Relevance of the traditional VC model.** Startup participants highlighted the expensive and risky journey to unicorn status and questioned the continued relevance of the traditional VC model. Although that VC model will continue to remain relevant, it should be supplemented with government support, echoing the theme of collaboration between the public and private sectors.

**Shift in Asia's investments.** Participants noted the shift in Asia's investment landscape, where a growing trend towards investing in startups aims to generate societal impact (i.e. impact investment) as well as investors' recognition that successful entrepreneurship takes time (i.e. patient capital). Some of these new forms of financing opportunities can help address funding challenges encountered by 'good startups' whose business models aim to tackle wider societal issues.

## Nurturing Human Capital for Tech Startup Success

*Fostering a thriving tech talent ecosystem in South-East Asia requires improved access to regional experiences, international exposure for entrepreneurs, and multinational founding teams, emphasising community connections and passion beyond policies*

*Amazon Web Services (AWS) cultivates human tech capital in South-East Asia by collaborating with governments, offering access to learning materials through the AWS platform in partnership with local entities, supporting ecosystem partners, and engaging with experts to enhance skills development.*

*Startup talent challenges can be addressed through community building; stakeholder collaboration; and solutions like equity compensation, university engagement, and regional exchanges.*

### Lessons of Nurturing Talent from SEA Bridge

**Enhancing the region's tech talent ecosystem.** Developing and integrating tech talent in South-East Asia are the responsibility of various stakeholders, including media, entrepreneurs, risk capital, corporations, governments, and universities. [SEA Bridge](#), for instance, is a private-led initiative ecosystem builder, aiming to provide a regional network, expansion advisory services, and incubator for startups. The SEA Bridge Talent component conducts several programmes that bring together startup ecosystem players, regional universities, and relevant private stakeholders across South-East Asia through conferences and training programmes to nurture entrepreneurial talent and skills and to encourage community formation.

To enhance the region's tech talent ecosystem, the following recommendations were made:

- Increase access to regional experiences for South-East Asian talents.
- Provide more programmes, especially funding support, to enable entrepreneurs to gain exposure overseas.
- Encourage the formation of multinational founding teams, emphasising the importance of co-founders from different countries to foster diverse problem-solving approaches.

Emphasis was placed on the significance of personal connections and collaboration to build a robust tech talent ecosystem in South-East Asia, highlighting that building tech talent goes beyond policies and requires a genuine collective effort.

### Nurturing Tech Talent by AWS

**Private-led initiatives in tech talent development.** Adding to examples of private-led support for building tech talent in the region, Amazon Web Services (AWS) has developed several platforms to build digital skills, focussing on cloud computing, as well as to foster connections between entrepreneurs and various stakeholders within the startup ecosystem in the ASEAN region. The Talenta programme in Indonesia is an example of such a successful partnership between

the Government of Indonesia and the United States Embassy in Indonesia. Additionally, through AWS Activate, AWS provides startups with free tools and resources to help entrepreneurs build, launch, and scale their cloud solutions.

AWS extends support to human capital development by actively engaging with ecosystem partners and local tech communities by organising events such as the AWS Founders Forum. This entails fostering connections and collaborations within the broader startup ecosystem, thereby creating a network that contributes to the holistic growth of individuals and businesses involved in the tech sector. AWS also emphasises strategic collaborations with individuals or organisations that excel in specific areas. By leveraging the expertise of these partners, AWS optimises its efforts to cultivate human capital, ensuring that resources are deployed effectively to maximise impact and to foster sustainable growth in the tech ecosystem.

## Nurturing Human Capital for Tech Startup Success from QBO Innovation Hub

**Addressing talent challenges in the startup ecosystem.** Beyond funding, startups require access to talent in engineering, business, and design to sustain their business. PWC noted that 61% of startups identified access to talent – including tech talent – as critical to startup success.<sup>2</sup> The QBO Innovation Hub in the Philippines runs a variety of programmes including mentorship sessions and accelerator initiatives targeted to startups in local communities that typically do not have adequate access to startup support due to geography or systemic barriers.

As a developing country, 'brain drain' is an issue for the Philippines, and the limited supply of quality talent means that startups must compete with more established companies in attracting talent. To address this talent challenge, various solutions – including raising pay and benefits; providing equity-based compensation; fostering a strong purpose, culture, and mission; engaging with universities; implementing broad and inclusive recruitment; leveraging mentorship and venture-backed talent who have worked overseas; upskilling existing employees; and building entry-level talent through apprenticeships – were suggested.

**Maintaining momentum in talent acquisition.** Despite facing persistent challenges, the QBO Innovation Hub noted that the startup sector can maintain momentum in talent acquisition, prioritising accessibility, consistency, and patience in its initiatives. Efforts should be concentrated on sparking interest in working within the sector, along with persuading reference groups – such as peers and teachers – to support and to encourage individuals to join the industry. Active learning plays a crucial role in overcoming barriers and fostering sustained growth.

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<sup>2</sup> PWC (2020), 'Startups and the Business Impact of COVID-19'; <https://www.pwc.com/ph/en/publications/pwc-publications/startups-covid19.html>

## Open Discussion

**Critical factors for talent pool development.** Participants highlighted two critical factors for talent pool development: diffusion of knowledge and government policies to incentivise returning talent who worked overseas. Additionally, it was noted that in Asia, choosing to pursue entrepreneurship often faces barriers such as parental resistance and a lack of family support. Regarding talent acquisition, questions were raised about the effectiveness of equity-based compensation, particularly in light of factors like the funding winter and limited exits. The nuance here is that Employee Stock Ownership Plan (ESOP), given the current landscape, may hold little actual monetary value, but they serve a more psychological purpose, particularly for younger generations like Generation Z. For them, having a sense of purpose and feeling part of a movement is more motivating than immediate financial gain. This insight suggests an opportunity to utilise equity-based compensation as a tool for talent acquisition, especially with young people. It was suggested that successful exits demonstrate the value of equity-based compensation, while startups need education on the legal aspects, particularly concerning equity structure. Moreover, regarding the role of mentors in advising team members of startups, it was highlighted that internal team members of a startup bear the primary responsibility for managing a company, with mentors offering guidance to support the company's growth. However, in models like venture builders, mentors and external resource persons may play a more proactive role in the startups' operations and decision making.

At the ASEAN level, the Committee on Science, Technology and Innovation (COSTI) has launched the ASEAN Talent Mobility programme to share lessons learnt and best practices in setting up regional structures to support intra-regional and bi-regional talent mobility based on the European Union's experience. Under COSTI, Malaysia is also leading the ASEAN Startup Initiative for 2024.

Other comments by participants include the need for governments to develop policy interventions focussing on deep tech to address fundamental societal problems. Tech talent mobility will support tech startups for long-term growth. From higher institutions' perspective, universities play a crucial role in cultivating talent, as well as for upskilling, reskilling, and new skills development for an ageing society.

## Concluding Remarks



**Koji Hachiyama**

*Chief Operating Officer, ERIA*

'ASEAN holds immense potential in the startup landscape. While Silicon Valley is an example of a successful tech startup ecosystem, ASEAN does not necessarily need to emulate this model. In ASEAN, we are working towards regional economic integration, and when fully realised, ASEAN can truly be a centre for innovation-led growth.'

In his concluding remarks, Koji Hachiyama reflected on the depth of discussions that unfolded, highlighting the diverse perspectives shared by participants from various sectors, including government officials, industry leaders, investors, and entrepreneurs. These insights underscored the multidimensional nature of developing a robust tech startup ecosystem in ASEAN, emphasising the necessity for coordinated efforts amongst stakeholders to address the region's unique challenges and opportunities.

The paradox of digital connectivity and the importance of nurturing local innovation ecosystems were also noted. Key recommendations emerged from the discussions, including fostering win-win public-private partnerships and establishing Asian-wide collaboration focussed on digital infrastructure development. These ideas aim to tackle challenges and to leverage market opportunities, laying the foundation for sustainable growth across the region. Additionally, he addressed financial constraints and human capital development within the ASEAN tech startup sector, appreciating participants' exploration of strategies for bridging early-stage funding gaps and nurturing a skilled workforce.

While acknowledging the success of the Silicon Valley model, Mr. Hachiyama emphasised that ASEAN need not necessarily replicate it. Instead, he highlighted the region's unique potential for regional economic integration and innovation-led growth. Through initiatives like E-DISC, ERIA remains committed to fostering an environment conducive to innovation, collaboration, and the holistic development of the ASEAN tech startup landscape.

## Further Reading

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# List of Participants

## Speakers

Name	Organisation
Marco Kamiya	United Nations Industrial Development Organization (UNIDO), Indonesia
Jeong Hyop Lee	Program Management Unit for Competitiveness (PMUC), Thailand
Thibault Danjou	Phitrust Asia, Singapore
Casper Sermsuksan	SEA Bridge, Thailand
Llewellan Vance	Huawei Cloud APAC, Singapore
Nitin Pangarkar	National University of Singapore, Singapore
Katrina Rausa Chan	QBO Innovation Hub, Philippines
Paul Vandenberg	Asian Development Bank (ADB), Philippines
Ivan Gn	Amazon Web Services, Asia-Pacific and Japan, Singapore
Charnwit Tridech	Technology and Innovation-Based Enterprise Development Fund (Ted Fund), Thailand
Shaun Wellbourne-Wood	Asian Development Bank (ADB)

## Moderators

Name	Organisation
Aladdin D. Rillo	Economic Research Institute for ASEAN and East Asia (ERIA), Indonesia
Gempei Asama	Deloitte Tohmatsu Venture Support, Japan
Abi Abadi Tisnadisastra	ATD Law in Association with Mori Hamada & Matsumoto, Indonesia
Ghai Leong Wong	Deloitte Tohmatsu Venture Support, Japan

## Agenda of the Roundtable

Time	Agenda
08:30 – 09:00	<b>Registration and Coffee Chat</b>
09:00 – 09:10	<b>WELCOME REMARKS</b> <ul style="list-style-type: none"> <li>• <i>Tetsuya Watanabe, President, ERIA</i></li> </ul>
09:10 – 09:15	<b>Group Photo</b>
09:15 – 10:05	<b>KEYNOTE PRESENTATIONS</b> <i>Moderator: Aladdin D. Rillo, Senior Economic Advisor, ERIA</i> <i>Current Trends of the Tech Startup Landscape in ASEAN</i> <ul style="list-style-type: none"> <li>• <i>Paul Vandenberg, Principal Economist, Economic Research and Development Department, ADB</i></li> </ul> <i>Linking Tech Startups to Innovation, Markets, and Policies</i> <ul style="list-style-type: none"> <li>• <i>Marco Kamiya, UNIDO Country Representative, Indonesia</i></li> </ul>
10:05 – 10:30	<b>Coffee Break</b>
10:30 – 12:00	<b>SESSION 1: Building a Robust Digital Infrastructure to Support Tech Startups</b> <i>Robust digital infrastructure – both hard and soft – is a prerequisite for ASEAN Member States to take full advantage of the potential of the digital economy. Designing, developing, and using new technologies such as blockchain and AI require more powerful ICT infrastructure, and the varying levels of digital infrastructure readiness of ASEAN Member States means that tech startups across ASEAN are not operating on a level playing field. Notwithstanding, many tech startups can leverage digital connectivity as secondary innovators, particularly those who found success by focussing on software-as-a-service, taking advantage of digital technologies to unlock the full potential of cross-border data.</i> <i>This session will highlight the importance of building the necessary foundation for digital transformation including safeguarding data transactions, exploring the progress of digital infrastructure development, and examining efforts to bridge the digital divide by promising tech startups. Lead discussants can present case studies and share their experiences related to the topic.</i>

<b>10:30 – 11:30</b>	<p><i>Moderator: Gempei Asama, Head of Asia Office, Deloitte Tohmatsu Venture Support</i></p> <p><i>Speakers:</i></p> <ul style="list-style-type: none"> <li>• <i>Llewellan Vance, Startup Ecosystem Lead, Huawei Cloud APAC</i></li> <li>• <i>Jeong Hyop Lee, Senior Advisor, PMUC, Thailand</i></li> <li>• <i>Charnwit Tridech, Director, Ted Fund</i></li> </ul>
<b>11:30 – 12:00</b>	<b>Open Discussion</b>
<b>12:00 – 14:00</b>	<b>LUNCH</b>
<b>14:00 – 15:30</b>	<p><b>SESSION 2: Access to Finance for Tech Startups</b></p> <p><i>Limited access to capital is a significant barrier for technology startups in South-East Asia. Non-listed corporations, including startups, face considerable challenges in accessing a reasonable amount of finance compared to listed firms. While venture capital funding has been more accessible for startups in later stages of development, early-stage startups often struggle to secure the necessary capital to kickstart their ventures. This limited financial access hinders the growth and development of startups in the region. What are the sources of finance and incentives available for tech startups in ASEAN? How can countries address the financing gap, particularly for women and minority-led tech entrepreneurship? What would attract other major sources of funding such as venture capital players to support startup growth?</i></p> <p><i>This session will centre on the financial challenges and opportunities faced by tech startups in securing the necessary financial resources for their growth. Key stakeholders will share their insights, case studies, and best practices to foster a more supportive financial ecosystem for startups in the ASEAN region.</i></p>
<b>14:00 – 15:00</b>	<p><i>Moderator: Abi Abadi Tisnadisastra, Managing Partner, ATD Law in Association with Mori Hamada &amp; Matsumoto</i></p> <p><i>Speakers:</i></p> <ul style="list-style-type: none"> <li>• <i>Thibault Danjou, Investment Committee Member, Phitrust Asia</i></li> <li>• <i>Nitin Pangarkar, Associate Professor, National University of Singapore</i></li> <li>• <i>Shaun Wellbourne-Wood, Senior Applied Research Specialist, ADB</i></li> </ul>
<b>15:00 – 15:30</b>	<b>Open Discussion</b>
<b>15:30 – 16:00</b>	<b>Coffee Break</b>

<b>16:00 – 17:30</b>	<p><b>SESSION 3: Nurturing Human Capital for Tech Startup Success</b></p> <p><i>The shortage of tech talent presents a significant challenge for regional start-ups, hampering their ability to find and to retain qualified employees due to the high demand for and limited supply of skilled professionals. Aside from the restrictions on intra-ASEAN skilled labour mobility, this challenge of filling in the talent gap is closely linked to the need for continuous skills development and upskilling in the rapidly evolving tech industry. However, offering training can strain startups' limited finances. On a positive note, South-East Asia's tech startup ecosystem benefits from a youthful and dynamic workforce, eager to embrace new technologies, making them well-suited for the fast-paced start-up environment.</i></p> <p><i>This session will focus on strategies for developing and retaining a skilled workforce in the tech startup sector. This moderated session will include start-up incubators, government policymakers, experts from academia, private sector representatives, and human resources practitioners.</i></p>
<b>16:00 – 17:00</b>	<p><i>Moderator: Brandon Wong, Senior Consultant, Deloitte Tohmatsu Venture Support</i></p> <p><i>Speakers:</i></p> <ul style="list-style-type: none"> <li>• <i>Casper Sermsuksan, Founder, SEA Bridge, and Executive Vice President, Thai Startup Association</i></li> <li>• <i>Ivan GN, Head of Scale ISVs and Startups, Public Sector, Amazon Web Services, Asia-Pacific and Japan</i></li> <li>• <i>Katrina Chan, Executive Director, QBO, Philippines</i></li> </ul>
<b>17:00 – 17:30</b>	<b>Open Discussion</b>
<b>17:30 – 18:00</b>	<p><b>WRAP-UP AND CLOSING SESSION</b></p> <ul style="list-style-type: none"> <li>• <i>Koji Hachiyama, Chief Operating Officer, ERIA</i></li> </ul>
<b>18:00 – 20:00</b>	<b>Dinner Reception Hosted by ERIA</b>

*This report was prepared by Mahirah Mahusin, Hilmy Prilliadi, and Satria Mahesya Muhammad.*

*Address: ERIA Digital Innovation and Sustainable Economy Centre (E-DISC), 15th Floor of the ERIA Office, Sentral Senayan II Building, Jalan Asia Afrika No. 8, Gelora Bung Karno, Senayan, Jakarta, Indonesia*

*Website: <https://bit.ly/eria-edisc>*

Sentral Senayan II, 5th, 6th, 15th floors  
Jalan Asia Afrika No.8  
Gelora Bung Karno, Senayan  
Central Jakarta 10270, Indonesia  
Tel: (62-21) 57974460 Fax: (62-21) 57974463  
E-mail: [contactus@eria.org](mailto:contactus@eria.org)

