

Policy Brief

Enhancing ASEAN's Competitiveness: Strategies for Talent Mobility and Cooperation in the Digital Economy

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Key Messages:

- ASEAN's digital services and information and communications technology sectors face a significant talent shortage, despite the region's rapid economic growth, highlighting the need for coordinated talent mobility initiatives.
- Current frameworks are insufficient, with domestic regulations and inconsistent standards creating obstacles to professional mobility.
- Integrating talent mobility provisions into the ASEAN Digital Economy Framework Agreement can establish a platform for cooperation, address talent gaps, and support innovation-led growth.
- Incentivising companies to invest in employee skills development and strengthening cooperation with private sector actors is key to addressing digital skills gaps.
- A region-wide 'tech pass' for digital professionals can facilitate easier movement across ASEAN, ensuring access to necessary talent for the digital economy.
- Developing national standards for digital skills and enhancing student mobility will better align ASEAN's talent pool with market needs.

This policy paper examines the critical role of talent mobility and cooperation in fostering innovation and addressing the growing digital skills gap in ASEAN. Despite rapid growth in the region's digital economy, the talent pool remains insufficient to meet the demands of information and communications technology and knowledge-based industries. Current ASEAN efforts, such as the ASEAN Agreement on the Movement of Natural Persons and various mutual recognition arrangements, have not fully addressed these challenges. This paper argues that integrating talent mobility and development provisions into the ASEAN Digital Economy Framework Agreement (DEFA) will enhance regional competitiveness. By promoting regional cooperation, addressing skill gaps, and creating a unified framework for talent development, the DEFA can support ASEAN's transition towards an innovation-driven economy. Key recommendations include the establishment of a regional dialogue platform, creation of a region-wide 'tech pass', and increased private sector involvement in workforce development.

Digital transformation has intensified the demand for highly skilled professionals to support the structural transformation of economies. In ASEAN, however, the information and communications technology (ICT) sector has not generated much employment despite growing over 9% annually for the past decade; the sector's employment share lags other Asia-Pacific regions (ILO, 2019). The digital services sector in Thailand grew by 37% from 2010 to 2020, but the number of digital workers only increased by 26%; Indonesia needs 9 million ICT workers to meet demand by 2030 (Bhandari, 2023).¹ The 2021 ASEAN Digital Integration Index identified digital skills and talent as the region's weakest pillar. Therefore, strengthening digital skills – from basic technical competencies to managing complex ICT systems – and enhancing the talent mobility of professionals can urgently fill the workforce gaps in ASEAN's ICT, digital, and knowledge-based industries (USAID, 2021).

The impact of talent mobility on innovation and entrepreneurship is clear in global leaders like the United States (US), United Kingdom (UK), and Singapore (WIPO, 2024). In the US, high-skilled immigrants in tech roles have driven innovation and fostered business and technology exchange with their home countries (Kerr, 2014). Recognising the link amongst talent mobility, innovation, and entrepreneurship – and to tap into the global talent pool – many ASEAN Member States (AMS) have developed immigration policies and visa programmes targeting tech talent (Litania and Ajmone Marsan, 2023), such as Malaysia's Tech Entrepreneur Programme and Indonesia's Golden Visa, which aim to attract foreign tech talent.

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¹ SMERU Research Institute, Digital Upskilling for Indonesia, <https://smeru.or.id/en/research/digital-upskilling-indonesia>

While ASEAN has recognised the importance of talent mobility,² intra-ASEAN progress has been slow and may reflect the political sensitivity of immigration policies. To support labour mobility, some initiatives have been implemented, including the *ASEAN Agreement on the Movement of Natural Persons*, liberalisation of services commitments under the Regional Comprehensive Economic Partnership (RCEP) agreement and ASEAN+1 free trade agreements, mutual recognition arrangements,³ and the *ASEAN Qualifications Reference Framework* (ASEAN, 2018). Regardless, foreign services suppliers often face barriers from domestic regulations in the host country, including inconsistent standards and low professional interest due to various socioeconomic factors (Gentile, 2019). Automatic recognition of foreign qualifications is rare, and mutual recognition arrangements do not guarantee market access (Yue et al., 2019).

The ASEAN Digital Economy Framework Agreement (DEFA) Exclusive Stakeholders Roundtable in September 2024 noted that while hiring outside talent is essential for firms, it remains a stopgap measure, as it is crucial to develop local talent throughout ASEAN for long-term competitiveness. The quality of local talent is also an issue when the local labour supply struggles to align its competencies with the demands of industries. The figure below illustrates a talent ecosystem where skills supply and demand are aligned through education, employment services, and labour market information.

The *ASEAN Digital Masterplan 2025* calls for regional digital skills standards to establish common curriculum standards and accreditation for ICT and science, technology, engineering, and mathematics (STEM) qualifications to promote mobility and inclusivity, but this initiative remains a low priority (ASEAN, 2021). Meanwhile, talent-focussed initiatives under the ASEAN Committee on Science, Technology and Innovation (COSTI) track – such as the ASEAN Talent Mobility Community⁴ and US–ASEAN Science, Technology, and Innovation Cooperation Program⁵ – focus on recruiting researchers and other talent rather than easing restrictions on the movement of digital/tech professionals.

The lack of a centralised approach to talent development at the regional and national level is also observed in the region's technical and vocational training (TVET) and skills development. The establishment of the ASEAN TVET Council aims to address this gap by providing

² The 2003 Declaration of ASEAN Concord II and the 2007 *ASEAN Economic Community Blueprint* emphasised the facilitation of skilled worker movement, visa harmonisation, and mutual recognition arrangements (ASEAN, 2007; 2012). The *ASEAN Economic Community Blueprint 2025* reaffirms that skilled labour mobility is critical for a cohesive ASEAN economy (ASEAN, 2015).

³ Invest in ASEAN, ASEAN Mutual Recognition Arrangements, <https://investasean.asean.org/asean-free-trade-area-agreements/view/757/newsid/868/asean-mutual-recognition-arrangements.html>

⁴ ASEAN Talent Mobility, <https://asean-talent.nxpo.or.th/about>

⁵ ASEAN, United States Department of State, and Arizona State University, About the STIC Program, <https://stic.asuengineeringonline.com/about-stic/>

a platform for coordination, research, and innovation as well as monitoring programmes that support TVET (ASEAN, 2022).

ASEAN does advance talent development through programmes with various dialogue partners, sectoral dialogue partners, and industry leaders – but these efforts are divided along respective sectoral tracks. Scholarship programmes like the ASEAN–UK SAGE Women in STEM Scholarship, Australia for ASEAN scholarships, and Türkiye Scholarships offer pathways for talent development and inclusivity.⁶ Initiatives such as Go Digital ASEAN, co-developed by the ASEAN Coordinating Committee on Micro, Small and Medium Enterprises, The Asia Foundation, and Google, aim to strengthen digital skills amongst underserved groups such as underemployed youth (USAID, 2021). Given this regional fragmentation, a consolidated framework for talent building and development would benefit ASEAN stakeholders to better take advantage of these wide-ranging initiatives.

The Global Innovation Index 2024 saw ranking improvements for most AMS (WIPO, 2024). Nevertheless, ASEAN must urgently invest in building strong foundations in education to cultivate an innovative and competitive talent pool noting the downward trend in Programme for International Student Assessment⁷ scores across several AMS, which could hinder their ability to capitalise on opportunities in the digital economy and towards innovation. These challenges highlight the pressing need for talent and skills development to support the transition towards advanced innovation ecosystems in the region (ERIA, 2024).

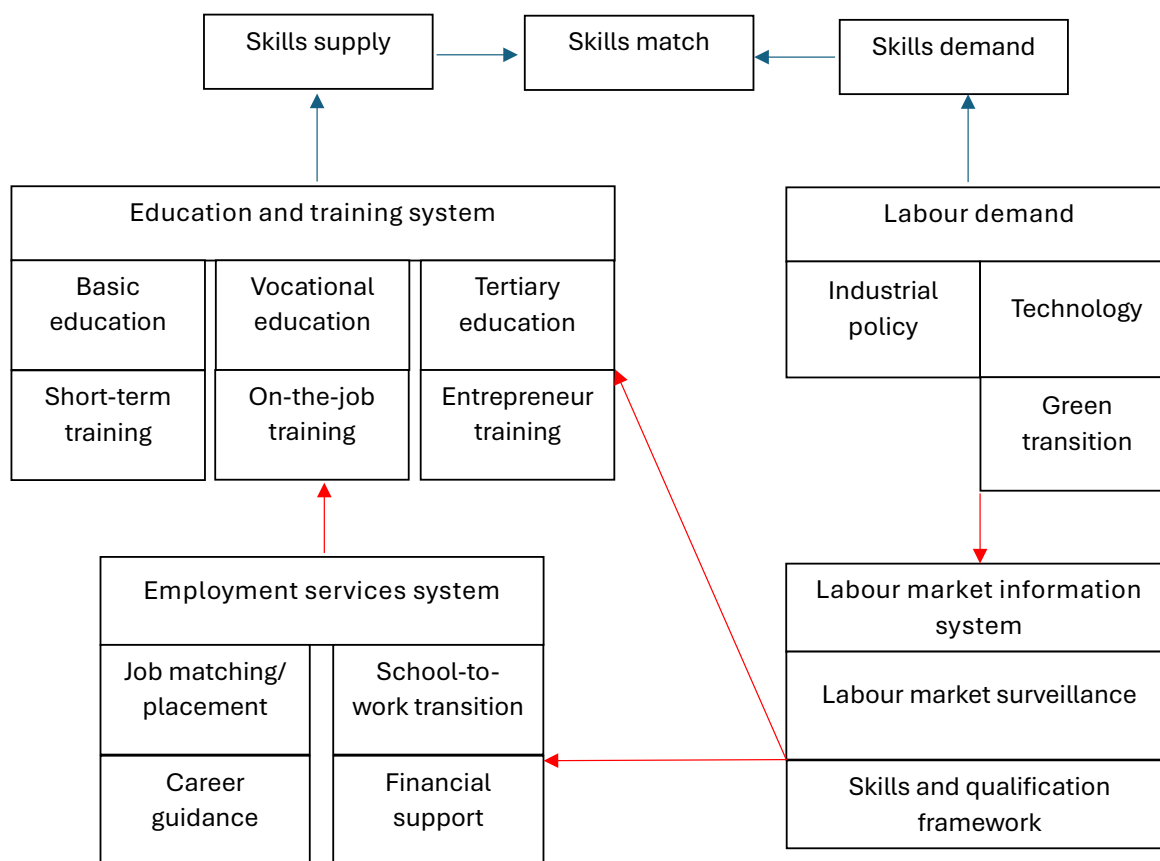
By the nature of their architecture, current digital economy agreements focus on fostering cooperation and establishing a set of common rules pertaining to the digital economy, with market access elements being markedly absent, including Mode 4 for the movement of digital professionals. This detail is unlike comprehensive free trade agreements, which cover all sectors of the economy, such as the RCEP agreement and *Comprehensive and Progressive Agreement for Trans-Pacific Partnership*. Regardless, incorporation of a standalone chapter/provisions on talent mobility in the DEFA presents an opportunity to affirm the importance of and urgency in addressing the talent gap for innovation-led growth in ASEAN. By integrating talent mobility, development, and cooperation provisions, the DEFA can signal ASEAN's commitment to regional competitiveness and establish a more coordinated platform for regional dialogue, exchange of good practices, and cooperation to better understand the impact of talent mobility on AMS. In addition, it can help identify talent shortages and gaps in critical sectors, while streamlining the existing fragmentation of talent-related initiatives across ASEAN Community pillars.

In shaping the provisions on talent mobility, development, and cooperation under the DEFA, aligning them with the *ASEAN Trade in Services Agreement* and the *ASEAN*

⁶ ASEAN, Scholarship, <https://asean.org/scholarship/>

⁷ Developed by the Organisation for Economic Co-operation and Development (OECD), this programme assesses the abilities of 15-year-old students in mathematics, reading, and science.

Figure 1: Skills Development and Labour Market Integration Framework



Source: Wibisono et al. (unpublished).

Agreement on the Movement of Natural Persons will establish more coherence. The DEFA can complement these two agreements by reinforcing the urgency to streamline processes for technology, ICT, and the mobility of digital professionals and adopt a holistic, region-wide approach to talent building and cooperation. By fostering cross-sector cooperation, the DEFA can also create a more inclusive environment for talent building and the seamless flow of talent and knowledge within ASEAN.

Policy Recommendations

The following policy recommendations to develop and to facilitate the seamless movement of talent within the region are proposed:

- Incorporate text provisions to establish a platform for regional dialogue and cooperation to improve the movement of professionals essential to the digital economy and innovation-led growth, including intra-corporate transferees;⁸ identify barriers at the national and regional levels; and explore talent-attraction policies.
- Explore the feasibility of a region-wide 'tech pass' for digital talent to facilitate movement across AMS, including for non-AMS nationals based in ASEAN.

⁸ The consensus amongst private sector attendees of the DEFA Exclusive Stakeholders Roundtable, 9 September 2024, Bali.

Clear criteria will be required for various profiles of digital professionals regardless of sector.

- Enhance regional cooperation through an ASEAN-wide labour market information-sharing system and encourage private sector involvement in sharing skills demands and addressing administrative barriers.
- Incentivise companies to invest in employee skills development, including reskilling and upskilling initiatives, and attractive reward systems.
- Consider the feasibility of national standards for digital skills training, similar to the UK's national standards for essential digital skills and Singapore's Digital Skills for Life framework to improve workforce readiness in the digital economy.
- Explore the potential of tapping into diaspora networks within and outside of ASEAN to encourage the inward flow of knowledge, ideas, and best practices on innovation and successful entrepreneurship.
- Explore scholarships and other funded arrangements with ASEAN external partners for professional certification programmes and micro-credentials to ensure the industry relevance of ASEAN professionals.

- Allow student and intern mobility in ASEAN by easing visa restrictions, permitting students to intern at ASEAN-based international technology companies (an existing implementation bottleneck for the US-ASEAN Internship Program by US-ASEAN Business Council), and enabling graduates to gain real-life experience in diverse ASEAN markets more effectively.

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