

Strengthening Labour Mobility for Southeast Asia's Young Workforce Amidst AI Driven Transformation

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Executive Summary

This brief provides policy recommendations for strengthening labour mobility for Southeast Asia's young workforce amidst AI-driven changes to work. These are based on insights from Tech for Good Institute's discussions with public and private stakeholders under the *New Models of Work* series. The conversations spanned six in-country roundtables in the Philippines, Indonesia, Malaysia, Vietnam, Singapore, and Thailand, and four regional roundtables held virtually.

With 61% of the region's population under age 35, the rapid integration of generative Artificial Intelligence (AI) threatens traditional entry-level roles, which are often the primary targets for automation. These roles have traditionally been the gateway for graduates to acquire experience and progress professionally. Many employers are already reducing entry-level hiring, placing traditional school-to-work pathways under strain and heightening economic precarity for young workers.

AI-driven transformation requires policymakers to build an ecosystem where the young workforce is being prepared ahead of time, purposefully deployed to meaningful jobs, and supported them to be more mobile, both domestically and regionally. This brief provides 3 ways to do so:

Adaptive, Incentive-Aligned Educational Reforms

Transitioning from static degrees to adaptive, incentive-aligned systems. This includes using real-time market data for curriculum redesign and institutionalising mandatory, credit-bearing work-integrated learning (WIL).

Cultivating the "HEAL" (Health, Education, Administration, and Literacy) Economy

Expanding pathways into resilient, human-centric sectors. Recommendations include streamlining certifications for frontline roles and deploying augmented intelligence to boost productivity in these fields.

Operationalising Regional Mobility and Strengthening Safety Nets

Expanding work opportunities both regionally through the facilitation of cross-border talent circulation, and domestically through the strengthening of safety nets to non-traditional forms of employment.

Ultimately, the region must move beyond incremental adjustments toward systemic reform to ensure technological progress strengthens labour mobility for young people.

1. Young Workforce Precarity in SEA's AI Transformed Labour Market

Southeast Asia (SEA) is currently at a demographic and technological crossroad. The region has a relatively young workforce — with 383 million people under the age of 35, or 61% of the total population.¹ Job prospects of this young demographic are being shaped by the rapid integration of generative AI in work and in the immediate future, agentic AI. This transformation represents not merely a shift in technology use, but a restructuring of the economic ladder. 91% of organisations from a global survey² report that entry-level roles are already changing or disappearing due to AI, indicating a strain in the traditional pathways for youth integration into the professional workforce. The region is home to a digitally native generation, yet up to 76% of the region's young workers³ are classified as highly exposed to AI-driven disruption. Without proactive policies, the promise of a productive youth workforce risks being undermined by systemic economic precarity.

In Southeast Asia, the most immediate risk to work posed by AI adoption is the disruption of entry level roles that have historically served as the professional training ground for fresh graduates. Junior-level positions typically involve high-volume, routine cognitive tasks which are the primary targets for GAI automation. Important trends further highlight the nature of this disruption:

➤ Hiring Contraction

66% of organisations² from a global survey of 5500 organisations expect to reduce entry-level recruitment over the next three years.

➤ Shrinking "Middle" Jobs

As tasks traditionally performed by early-career professionals are offloaded to algorithms, the bridge between entry level jobs and management is being severed.

➤ Skills Volatility

The skills needed for a given job in SEA are expected to change by 72% by 2030 (compared to 2016 levels),⁴ making even recently acquired degrees rapidly obsolete.

2. Supply-Demand Talent Mismatch Rooted in Ecosystem Gaps

The disruption of entry-level roles are symptoms of a widening chasm between the labor market's needs and the region's current educational output. As the on-ramps to professional careers disappear, the burden of change shifts from individual capacities to the broader ecosystem of developing the young workforce. Structural governance, policy, and collaboration gaps currently prevent the young workforce from having viable career paths after graduation.

➤ Educational Design and Skills Change Mismatch

A fundamental policy challenge lies in the mismatch between the static nature of educational accreditation systems and the rapid pace of technological change. Degree programmes are typically structured around three to four year cycles, governed by rigid accreditation requirements that limit curricular flexibility. In contrast, AI capabilities evolve on a timescale of months, not years. This temporal mismatch leads to degree obsolescence, where graduates enter the labour market with skills that are already partially outdated.⁵ To address this gap, policymakers in SEA have consistently emphasised the need for stronger industry–education collaboration. Yet governance frameworks have largely remained aspirational rather than operational. National strategies, skills roadmaps, and digital economy plans frequently call for closer ties between universities and industry, but rely heavily on voluntary cooperation and soft coordination mechanisms.

➤ Underdevelopment of Human-Centric and Care-Based Sectors

As AI reshapes routine cognitive and technical work, human-centric jobs particularly in sectors such as Healthcare, Education, Administration, and Literacy (“HEAL” sectors) are likely to remain structurally resilient.⁶ Demographic changes in the region, including an aging population and shrinking family sizes, will further increase the demand for care-based professions.⁷ However, Southeast Asia’s workforce readiness agenda remains heavily oriented toward digital and technical skills. Education and training systems continue to signal higher economic returns in Science, Technology, Engineering, and Mathematics (STEM) pathways, reinforcing the perception that HEAL roles offer limited mobility and weaker income prospects. This has contributed to persistent shortages in essential services such as healthcare⁸ even as demand rises due to expanding social needs. Workers in these fields also face structural barriers, including rigid certification processes and high administrative burdens, which limit entry and reduce their capacity to adapt to new technologies.

➤ Barriers to Talent Mobility

A central gap in SEA’s young workforce transformation is the limited and uneven mobility of young talent across borders and spanning non-traditional forms of employment, despite deepening regional integration. While ASEAN frameworks such as Mutual Recognition Arrangements (MRAs)⁹ aim to facilitate professional mobility, implementation remains fragmented. While talent mobility can improve career viability, it also raises concerns about brain drain — particularly for lower-income countries facing shortages in critical sectors. The policy challenge is therefore to promote managed mobility that enables skills circulation rather than permanent loss, balancing opportunities for young workers with safeguards to mitigate adverse migration effects. At the same time, a growing share of Southeast Asia’s young workforce is engaged in non-traditional employment arrangements — including contract-based, platform, freelance, and cross-border remote work. These workers often lack equal access to traditional social security and benefit systems usually designed for traditional work. The absence of harmonised safety nets across employment statuses and jurisdictions constrains mobility and discourages young people from pursuing expanded opportunities.

3. Policy Recommendations for Promoting Young Workforce Mobility

Addressing these gaps require more than incremental adjustments. Innovative approaches are needed for how the region develops and deploys human capital. Initiatives must move from top-down mandates toward strengthening the talent innovation ecosystem. The following recommendations for educational system reforms, strengthening resilient sectors, and promoting greater talent mobility seek to ensure no young worker is left behind in the digital tide.



3a. Accelerating Education Reforms Through Adaptive Incentive Aligned Systems

Curriculum redesign, micro-credentials, and stackable learning pathways have been well established as necessary changes to tertiary level instruction. For these outputs to materialise, reforms must address the educational processes and incentive structures that ultimately determine their quality. The deeper challenge lies in ensuring that educational systems themselves are flexible and are capable of responding to industry shifts at speed. Moreover, mandates for industry–education collaboration must move beyond policy declarations and be translated into concrete financial and institutional incentives. Both structural adaptability and incentive alignments are necessary to strengthen talent pipelines for young graduates entering the labour market.

Integrate data and real-time labour-market information for triggering course redesign

Governments should move beyond static degree structures towards benchmarks tied to real-time labour market intelligence. Rather than revising curricula only every few years, ministries can institutionalise AI-driven labour observatories¹⁰ that monitor job demand and trigger mandatory program reviews when data points either to a skill being obsolete or the growing importance of a new competency in a certain industry. Singapore provides a strong foundation for this approach: its SkillsFuture ecosystem¹¹ and integrated manpower planning already rely heavily on labour market data. Extending this data infrastructure to formally guide university accreditation reviews or funding allocations would operationalise a continuous, trigger-based reform model rather than periodic curriculum updates.

➤ Embed structured Work-Integrated Learning (WIL) as a graduation requirement

Internships and industry exposure should be institutionalised as mandatory and credit-bearing programs anchored in clear competency expectations. This would ensure that hands-on experience translates into demonstrable skills rather than informal or uneven placements. Malaysia's higher education reforms under the 13th Malaysia Plan¹² and Thailand's MHESI "AI Workforce Development"¹³ programme already emphasise stronger industry collaboration. Embedding structured WIL requirements within these frameworks can help convert broad policy intent into consistent practice across institutions.

➤ Use incentives to better align education-industry initiatives

While the importance of industry-academic linkages is a common refrain in policy circles, traditional mandates for cooperation can fall short due to misalignments in interests, lack of buy-in, resource constraints or opportunity costs.¹⁴ To strengthen impact, governments can take a more proactive role by providing tangible fiscal and operational incentives. For instance, Thailand's Ministry of Higher Education offers up to 250% in tax deductions¹⁵ for academic institutions and enterprises that spend on industry-aligned certified training courses. Non-monetary incentives can also be explored, including expediting accreditations for collaborative programs, or providing public recognition for exemplary programs.



3b. Cultivating the "HEAL" Economy and Human-Centric Resilience

Southeast Asian governments have rightly focused on digital and AI skills. However, workforce resilience strategies must also recognise that HEAL (Health, Education, Administration, and Literacy) occupations are more structurally resistant to technological disruption than traditional high-profile sectors in STEM and finance. As AI increasingly reshapes routine cognitive and analytical work, employment volatility in these fragile sectors is likely to intensify. By contrast, HEAL roles — grounded in human interaction, caregiving, community presence, and relational trust — face a far lower risk of large-scale technological displacement. Policies should proactively incentivise young talent toward HEAL careers, where the risk of large-scale displacement is significantly lower. Doing so would not only meet rising social demand for care services, but also rebalance labour market flows toward more durable and meaningful job pathways for young people:

➤ Establish public employment and service corps pathways in HEAL Sectors

Governments can create pipeline programs that channel young graduates into community care, health, and education roles, particularly in underserved areas. These programs should provide pathways into permanent employment through job placements and employer matching. Indonesia offers a relevant model through [public service deployment programs in education and health](#)¹⁶ which could be modernised to incorporate digital administration and community health data systems.

➤ Streamline certification for frontline roles

Traditional medical and education degrees take years, creating a bottleneck for addressing the needs of an aging population. Governments should develop competency-based vocational frameworks that allow young workers to enter the workforce quickly via specific certifications (e.g., elderly care, mental health first aid) that can be turned into full professional degrees later. Rigorous oversight by regulators and certification boards can ensure that streamlined courses do not come at the cost of lowering quality standards. For instance, the Department of Health in the Philippines has [created](#)¹⁷ a certification process for primary care workers in the Philippines. The certification allows health workers to provide primary or point-of-care services in community health centers around the country, upon the completion of 12 online modules within a year .

➤ Deploy "Augmented Intelligence" to elevate frontline HEAL productivity

Instead of viewing AI as a threat, it should be treated as a force multiplier for low-to-mid-skilled HEAL workers. Governments should first prioritise foundational digital and infrastructure necessary to develop AI solutions. Once these are in place, they can also fund the development of localised AI tools that allow community health and education workers to perform tasks previously reserved for specialists. [In Vietnam, AI-assisted chest X-ray screening for tuberculosis](#)¹⁸ is being scaled to help community workers screen patients in rural areas without waiting for a radiologist.



3c. Operationalising Regional Mobility and Strengthening Safety Nets for Non-traditional employment status

The future of work in Southeast Asia is increasingly borderless, yet within individual countries, technological disruption and structural shifts may limit job opportunities for graduates in certain sectors within their home countries. Expanding the lens beyond national labour markets can therefore provide young workers with access to opportunities in neighbouring economies, where demand for their skills is stronger. At the same time, policymakers must anticipate potential political and social sensitivities around increased skilled migration. This ensures that mobility arrangements are well-managed, reciprocal, and supported by domestic workforce development strategies to mitigate concerns over displacement and brain drain. In a previous brief [on talent mobility](#),¹⁹ we have laid out recommendations to:

Improve implementation of existing agreements

Fully operationalise [regional agreements on mutual recognition of qualifications and movement of natural persons](#) to facilitate the seamless movement of young professionals across member states. Strengthening enforcement and harmonising standards can make these frameworks more effective in practice. In parallel, ASEAN states should embed clearer reciprocity mechanisms within these arrangements to help offset potential externalities, like talent imbalances and domestic shortages. Such reciprocity provisions can promote skills circulation rather than one-way outflows, ensuring that mobility supports both regional integration and national workforce resilience.

Modernise tax and social security schemes

Governments should modernise tax and social protection systems to reflect the growing diversity of work arrangements, from standard employment to freelance and hybrid forms of work. As labour markets become more flexible, policy frameworks must ensure that independent and self-employed workers are not excluded from social security coverage. For instance, [Singapore's Central Provident Fund](#)²⁰ provides structured contribution mechanisms for self-employed persons, including those with mixed employment arrangements, thus empowering them to build social security savings while reducing taxable income. By improving clarity, accessibility, and administrative simplicity, governments can encourage broader participation in formal systems.

Southeast Asia's ability to harness AI as a driver of inclusive growth will ultimately depend on how well it equips and mobilises its young workforce. As entry-level pathways are reshaped and traditional career ladders erode, policy must move beyond incremental adjustments toward systemic reform by aligning education, labour mobility, and regional cooperation with the realities of an AI-driven economy. By investing in human-centric capabilities, enabling practical pathways into work, and operationalising cross-border talent frameworks, the region can ensure that technological progress strengthens youth resilience and promotes long-term economic dynamism.

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