Tripartite Collective

Tripartism in Action – Workforce Skills Development in Singapore since 1965

A collaboration between Associate Professor Terence Ho and Dr Silin Yang from the Institute for Adult Learning, Singapore University of Social Sciences and the Tripartite Collective, with contributions from the Ministry of Manpower, National Trades Union Congress, Singapore National Employers Federation, SkillsFuture Singapore and Workforce Singapore.

Content

This case study was written by Associate Professor Terence Ho and Dr Silin Yang, Institute for Adult Learning, Singapore University of Social Sciences, with contributions from Tripartite Collective (TC) partners – the Ministry of Manpower (MOM), National Trades Union Congress (NTUC), Singapore National Employers Federation (SNEF), SkillsFuture Singapore (SSG) and Workforce Singapore (WSG).

Introduction and outline

The transformation of Singapore's economy since the country's independence in 1965 is mirrored by a less heralded, but no less important, development: the transformation of workforce skills. Without the latter, the former would not have been possible. Education and skills development formed the bedrock of Singapore's industrialisation push, enabling the fledgling nation to establish itself as a manufacturing base for multinational corporations (MNCs), producing goods of increasing complexity over the years in tandem with an improving skills profile.

In the absence of natural resources, Singapore had no alternative but to place human capital development at the top of its economic agenda. MNCs joined hands with the government to support training, as a skilled workforce – rather than oil or minerals – was the raison d'etre for their investment here. Just as critical to this endeavour were the unions, whose support facilitated the rapid upskilling of the workforce.

As Singapore commemorates 60 years of independence in 2025, it is timely to take stock of the nation's skills development journey. This case study traces the arc of Singapore's workforce transformation over six decades, highlighting how the tripartite collaboration among the government, employers and unions has helped Singapore to build a globally competitive, skilled workforce.

From the initial industrialisation drive to today's digital and green transitions, the transformation of the economy has depended on workforce skills upgrading, enabled by a tripartite compact built on trust, collaboration and shared purpose. Each era brought new challenges and priorities. The early decades focused on vocational training to support industrialisation, followed by job redeployment and upskilling as Singapore's economy restructured, moving up the value chain.

Over the past decade, lifelong learning has taken centre stage. The SkillsFuture movement, launched in 2015, places skills mastery and lifelong learning at the core of economic resilience and workforce mobility. Initiatives such as the Skills Frameworks, SkillsFuture Credit, Jobs-Skills Dashboard and the Careers & Skills Passport, reflect an integrated and anticipatory approach to developing a skills ecosystem that aligns individual aspirations with enterprise transformation and national economic priorities.

Tripartism has actively shaped each phase of Singapore's skills development journey. Today, technological disruption, demographic shifts, evolving employment practices and the climate transition are transforming the labour market, necessitating greater workforce adaptability and reskilling at scale. These developments call for a shift towards a skills-first approach that recognises skills and competencies as the primary currency for employment, career progression and organisational performance. As Singapore makes progress towards a skills-first economy, tripartite collaboration will be key to building a reputable skills ecosystem that is inclusive and responsive to a dynamic labour market.

This case study has the dual aim of chronicling Singapore's efforts in skills development to date, as well as looking ahead to the next phase of skills development.

Section 1 outlines the early efforts by the government, employers and trade unions in equipping the workforce with skills to support industrialisation. Sections 2 to 4 are organised around three milestones in Singapore's workforce transformation: the establishment of the Skills Development Fund (SDF) in 1979, the introduction of Skills Redevelopment Programme in 1996, and the launch of the SkillsFuture movement in 2015.

These are examined alongside the broader policies, institutions and programmes that emerged within each period, offering a deeper understanding of how Singapore's skills development strategy evolved in response to economic restructuring, demographic shifts and global trends.

Section 5 turns to the future, outlining the key considerations and imperatives for the next bound of SkillsFuture, which will be integral to the future of Singapore and Singaporeans. As Prime Minister Lawrence Wong said at the SkillsFuture Movement's 10th anniversary event, "SkillsFuture is about our people – it is about bringing out the best in every Singaporean."[1]

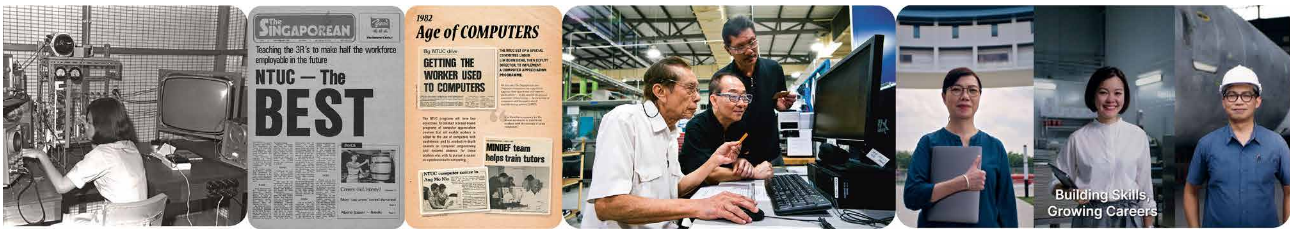

Photo: NLB, NTUC, SSG.

[1] Lawrence Wong, Speech at the 10th Anniversary of SkillsFuture, 23 May 2025. https://www.pmo.gov.sg/Newsroom/PM-Lawrence-Wong-at-the-SkillsFuture-10th-Anniversary.

Tripartism and Skills Development to Support Industrialisation (1960s – 1978)

Prior to independence, industrial relations in Singapore were highly adversarial, marked by poor working conditions, frequent strikes, and confrontation between unions and employers. Labour unrest peaked in the 1950s.[2] The Hock Lee Bus riots and other episodes of industrial unrest highlighted the risks of an adversarial labour model in a small and vulnerable economy with a GDP of just USD 704 million in 1961, and an unemployment rate close to 10 percent.[3]

After 1965, Singapore embarked on a path of labour-intensive, export-oriented industrialisation to generate jobs for a fast-growing workforce. However, it continued to face daunting challenges: high unemployment, industrial unrest and a largely unskilled workforce. These conditions presented not just an economic challenge but also an existential one. Singapore's survival hinged on the country's ability to industrialise rapidly, which required a fundamental rethinking of workforce development and labour relations.

The government recognised the critical need for stability to bolster investor confidence. It was in this context that Singapore's unique brand of tripartism emerged, with the government, employers and unions working closely together to support inclusive economic growth by creating good jobs, developing skills and raising productivity.

The Labour Movement as a Key Partner in Economic Development

The institutional foundations for tripartism had been laid prior to independence with the establishment of the Ministry of Labour and Welfare in 1955 and the formation of the National Trades Union Congress (NTUC) in 1961. The 1969 NTUC Modernization Seminar marked an

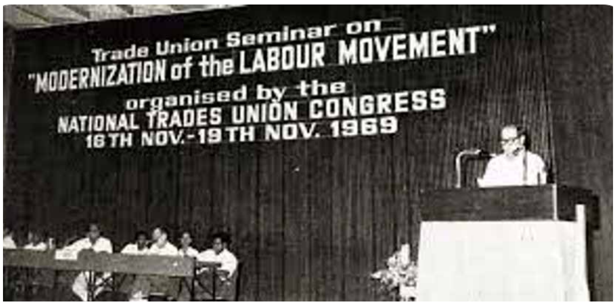

Photo: NTUC.

[2] Ministry of Manpower, "Hock Lee Bus Riots – Chaotic Labour Management Relations," May 2021. https://www.nas.gov.sg/archivesonline/sphpcard26?catId=0.

[3] United Nations, *A Proposed Industrialization Programme for the State of Singapore*, June 1961, p(ii).

inflection point in labour relations. Before then, strikes and work stoppages were prevalent and industrial relations weak.[4]

The seminar was a watershed moment for the Labour Movement as it decided to pivot its approach from confrontation to cooperation at the workplace, and to play a broader role in socioeconomic development. This was in recognition of the national imperative for economic growth and stable industrial relations to create jobs. It followed the passing of the Employment Act and the Industrial Relations (Amendment) Act in 1968.

At the 1969 seminar, then-Prime Minister Lee Kuan Yew remarked that "The labour movement has decided to take a positive role in the development of the Republic's economy. It will cease to be a narrow, sectional pressure group whose interests and advancement are to be promoted at the expense of others. On the contrary, the labour movement has now recognised that it is only when there is growth and prosperity in the Republic that its members can get the improvements they want. Further, the movement has also recognised that it has a positive contribution to make to economic growth."[5]

The shift in NTUC's posture laid the groundwork for Singapore's distinctive tripartism – a collaborative approach in which government, unions, and employers work together to grow the economy and uplift workers through training and employment. This spirit of collaboration enabled Singapore to pivot from reactive industrial "firefighting" to proactive economic restructuring. Institutions were progressively strengthened and policies aligned to support job creation, skills upgrading and inclusive growth.

"The labour movement has decided to take a positive role in the development of the Republic's economy. It will cease to be a narrow, sectional pressure group whose interests and advancement are to be promoted at the expense of others. On the contrary, the labour movement has now recognised that it is only when there is growth and prosperity in the Republic that its members can get the improvements they want. Further, the movement has also recognised that it has a positive contribution to make to economic growth."

Lee Kuan Yew, then-Prime Minister

A skilled and disciplined workforce was among the key factors that attracted foreign multinationals to invest in Singapore, allowing export industrialisation to take off. Singapore succeeded in becoming a cost-competitive manufacturing base for electronics manufacturers from the United States, Europe and Japan. By the mid-1970s, after over a decade of industrialisation, Singapore had achieved nearly full employment.[6]

[4] National Trades Union Congress, "ReUnion – An Exhibition by NTUC: Celebrating Our Past. Inspiring Our Future," 4 July 2019. https://www.ntuc.org.sg/uportal/news/ReUnion--An-exhibition-by-NTUC-Celebrating-our-past-Inspiring-our-future/.

[5] National Trades Union Congress, "ReUnion – An Exhibition by NTUC".

[6] Ravi Menon, "An economic history of Singapore — 1965 – 2065," Address at the Singapore Economic Review Conference 2015, 5 August 2015. https://www.bis.org/review/r150807b.htm.

Early Investment in Technical and Vocational Education

Investment in technical and vocational education was integral to the rapid development of a skilled workforce. In 1966, a mere 16 percent of the workforce had at least secondary education, leaving Singapore with a significant skills deficit as it pursued economic growth.[7] It was vital to build up technical and vocational training to support the country's industrial needs. This entailed a significant rechannelling of national education expenditure towards technical and vocational education.[8]

Before 1968, Singapore had only one vocational institute offering a limited range of trades. In 1969, six new vocational institutes were established, and annual enrolment surged from one or two hundred a year to over two thousand students a year.[9] In addition to establishing vocational institutes, certain academic schools were paired with vocational schools to create a technical education stream.

The shift was not only about infrastructure; it was about system-wide readiness. The move towards technical education required large-scale training and retraining of teachers with the necessary skillsets. These early investments in technical and vocational education significantly expanded the pool of skilled workers to support industrialisation.

Industry and Institutional Support for Productivity and Training

Besides widening educational pathways, Singapore needed dedicated institutions focused on training and productivity to boost competitiveness and improve job outcomes.

In 1967, the National Productivity Centre (NPC) was established. Initially overseen by the Economic Development Board (EDB) and later by the Ministry of Labour, the NPC brought together tripartite stakeholders to spearhead the productivity movement in Singapore. In 1972, NPC became the National Productivity Board (NPB), with a tripartite board comprising 14 representatives from government, employers, unions and academia. Its mission was to instil a culture of productivity in Singapore, modernise businesses and improve the quality of the workforce to meet the challenges of a competitive global economic environment.

[7] Geraldine Yee Fong Chen, "Manpower Policy Under Industrial Restructuring: Singapore in the 1980s," (PhD thesis, University of London, 1991), 95, https://soas-repository.worktribe.com/output/412254/manpower-policy-under-industrial-restructuring-singapore-in-the-1980s.

[8] Ong Pang Boon, Speech at the Debate on the Annual Budget Statement, 12 December 1968. https://www.nas.gov.sg/archivesonline/data/pdfdoc/PressR19681212d.pdf.

[9] Goh Keng Swee, Speech at the Conference of Business Opportunities in S.E. Asia Organised by the Financial Times, 21 November 1972, https://www.nas.gov.sg/archivesonline/data/pdfdoc/PressR19721121d.pdf.

In parallel, EDB set up training centres in partnership with leading companies, viz. Tata, Rollei and Phillips, which played an active part in the design and running of training programmes. Trainees went through an apprenticeship programme that included two years of training in the centres, followed by two years of on-the-job training attached to the lead MNC or other firms.[10]

Alongside these efforts, the Adult Education Board (AEB), which had been established in 1960, ran basic education classes for working adults who had missed out on primary education. Later it also offered vocational courses for working adults to upgrade their skills; as well as courses for those who wanted to pick up practical skills or learn something for personal interest. At its peak, the Board ran dozens of study and training centres across the island.[11]

System-building efforts continued with the establishment of the Industrial Training Board (ITB) in 1973 to centralise, coordinate and intensify industrial training. The ITB featured tripartite representation with members from the government, unions and employers. To ensure that training was attuned to the needs of industries, the ITB appointed trade advisory committees comprising experts in various technical fields to advise on the types of courses and skills required, including curricula, facilities and equipment.[12]

During this formative period, Singapore pursued productivity improvement, skills upgrading, and vocational education as part of an integrated national strategy. These efforts were anchored by tripartite collaboration. Tripartism provided the connective tissue that enabled the initiatives to scale quickly and gain buy-in from the ground. This was critical in developing a more disciplined and better-skilled workforce, which helped to strengthen investor confidence, improve productivity and lay the foundation for sustainable economic growth.

Photo: National Library Board.

[10] Tharman Shanmugaratnam, Speech at EDB Society's 25th Anniversary Gala Dinner, 23 July 2015, https://www.mof.gov.sg/news-publications/speeches/Speech-by-Mr-Tharman-Shanmugaratnam-Deputy-Prime-Minister-and-Minister-for-Finance-at-EDB-Society-39-s-25th-Anniversary-Gala-Dinner.

[11] Wong, Speech at SkillsFuture 10th Anniversary.

[12] Janice Loo, Technical and Vocational Education, National Library Board, 2019. https://www.nlb.gov.sg/main/article-detail?cmsuuid=5d76abd9-eab3-45e0-975c-f131db7c4fc1.

Economic Restructuring and Skills Upgrading for Competitiveness (1975 – 1995)

By 1979, Singapore's economy was rapidly industrialising and had started to attract higher value-added industries, diversifying employment opportunities and creating better jobs for Singaporeans.[13] Incomes rose rapidly between 1979 and 1981, the result of a wage adjustment policy, recommended by the tripartite National Wages Council, to reflect labour scarcity and encourage higher productivity. The high-wage policy was intended to push employers to restructure, moving from labour-intensive to more capital- and technology-intensive production.[14] However, productivity growth could not keep pace with wage growth, and Singapore's economic competitiveness eroded.

Singapore experienced its first post-independence recession in 1985 as global demand weakened and business costs rose. The government responded by cutting costs to help the economy regain competitiveness. The economy quickly rebounded, and growth and incomes resumed their upward trajectory. As Singapore's economy diversified and moved up the value chain, skills had to improve in tandem. It was necessary to institutionalise support for training and skills development in support of economic restructuring.

Tripartism: Institutionalising Shared Responsibility for Workforce Development

The formation of the Singapore National Employers Federation (SNEF) in 1980 – through the amalgamation of the Singapore Employers Federation and the National Employers Council – provided employers with a unified voice and facilitated a more coordinated negotiating approach, completing the tripartite framework supporting Singapore's industrialisation.

During this period, tripartism evolved from a mechanism for maintaining industrial peace into a key enabler of workforce transformation and national competitiveness. It institutionalised shared responsibility among government, employers and unions, ensuring that training priorities were aligned with national development needs and accepted across the workforce.

[13] Ministry of Manpower, "Singapore Workforce: 70 Years of Transformation," The Straits Times, 1 May 2021. https://www.straitstimes.com/singapore/singapore-workforce-70-years-transformation-ministry-of-manpower.

[14] SG101, "1979 to 1984: Economic Restructuring," Accessed 30 September 2025. https://www.sg101.gov.sg/economy/growing-our-economy/1979/.

Workforce development aimed to achieve a broad-based uplift of worker skills and enable better jobs with higher salaries. The objective was to support rapid industrial upgrading by equipping lower-skilled workers with baseline capabilities for employability and upward mobility. This was pertinent at the time as many workers, particularly older ones, had limited formal education.

Two developments in 1979 were particularly significant in Singapore's workforce transformation: the establishment of the Skills Development Fund (SDF), which incentivised upskilling, and formation of the Vocational and Industrial Training Board (VITB), which expanded technical and vocational education capacity. VITB was structured with tripartite representation, so that the perspectives of government, employers, and unions were reflected in decisions on training priorities, curricula and implementation.

These initiatives laid the institutional groundwork for Singapore's human capital investment. By embedding skills development within tripartite governance structures, training became a shared responsibility. This would prove crucial as Singapore navigated economic and technological disruptions in subsequent decades.

Photo: National Archives Singapore; SNEF.

Skills Development Fund

The Skills Development Fund (SDF) was established in 1979, with employers required by law to contribute via a monthly Skills Development Levy. The fund was used to finance the training of employees, retrain retrenched workers, and upgrade business operations and technology. This redistributed resources from employers who relied heavily on low-wage, unskilled labour to those that invested in upskilling their workforce.[15]

The fund was administered by the Ministry of Finance[16] on the advice of a tripartite advisory council, the Skills Development Council, which comprised representatives from the government, employers and NTUC. The Council approved training schemes, disbursed grants, and set funding priorities.

Several landmark initiatives emerged under the SDF, including the Basic Education for Skills Training (BEST), Modular Skills Training (MOST), Worker Improvement through Secondary Education (WISE), Core Skills for Effectiveness and Change, and Critical Enabling Skills Training. These programmes, several of which were started and administered by NTUC, reached tens of thousands of workers, and were key enablers of social mobility and economic adaptability. John De Payva, then-President of NTUC, highlighted training as a significant element of Singapore's success with tripartism, and the SDF as a key factor in Singapore's economic development.[17]

Expanding Technical and Vocational Education Capacity

While the SDF addressed the incentive structure for upskilling, equal attention was paid to building the institutional capacity to strengthen technical and vocation education. The increasing convergence of continuing education, vocational and technical training led to the amalgamation of the ITB and the AEB[18] to form the VITB in 1979.

The VITB aimed to prepare school-leavers for employment and to provide working adults with opportunities for continuing education and skills upgrading. It served as the country's largest supplier of industrial workers and technicians, as well as commercial, clerical and secretarial employees. It sought to make vocational training more systematic and professional by setting national standards, as well as conducting tests, examinations and certification.[19]

The BEST programme, started by NTUC in 1982 in collaboration with VITB, helped workers attain basic literacy and numeracy skills equivalent to primary six level in English and Mathematics. Besides NTUC and People's Action Party (PAP)'s Education Centres, BEST classes were also conducted at VITB Centres, Ministry of Defence units and private companies. More than 350,000

[15] Ministry of Manpower (MOM), *Charting Our Path: 70 Years of Working Together and Lessons for Tomorrow* (Singapore: MOM, 2025), 51, https://www.mom.gov.sg/-/media/mom/documents/about-us/mom70/mom-70th-anniversary-book.pdf.

[16] Today, the fund is managed by SkillsFuture Singapore.

[17] Ai Yun Hing and Russell D. Lansbury, Social Dialogue and Skills Development: Tripartite Approaches to Training in Singapore (Geneva: International Labour Office, 2008), 6.

[18] AEB was set up in 1960 to meet the educational needs of working adults, and provided basic vocational training.

[19] Singapore Vocational and Industrial Training Board, *Commemorative Magazine: 10 Years of Vocational Training in Singapore (1973 – 83)*, 1983, https://catalogue.nlb.gov.sg/search/card?recordId=4080665.

workers benefitted before the programme was phased out in 2008 due to improvement in the educational attainment of the workforce.

The complementary WISE programme, introduced in 1987 to serve workers with less than secondary-level education, provided a pathway for them to attain General Certificate of Education (GCE) 'N' level qualifications in English Language and Mathematics. By year 2000, approximately 92,000 workers had enrolled in WISE classes.[20]

Photo: National Archives Singapore.

As part of the efforts to upgrade vocational training in Singapore, VITB was replaced by the Institute of Technical Education (ITE), a post-secondary institution, in 1992. ITE retained the tripartite DNA of its predecessor, with a governing board comprising representatives from employers, unions and the government. Beyond vocational education, the broader technical education landscape was strengthened through the expansion of polytechnic education and university articulation pathways. The two existing polytechnics, Singapore Polytechnic and Ngee Ann Polytechnic, were joined by Temasek Polytechnic in 1990 and Nanyang Polytechnic in 1992. The new polytechnics were set up to meet the demand for middle-level professionals, particularly in the rapidly expanding service sector. Notably, the German-Singapore Institute, the French-Singapore Institute, and the Japan-Singapore Institute – which had been established by EDB in the late 1970s and early 1980s to serve as conduits for the transfer of technology to Singapore – were transferred to Nanyang Polytechnic in 1993.[21]

Both the Nanyang Technological Institute (which opened in 1981 and later became Nanyang Technological University in 1991) and the National University of Singapore admitted top polytechnic graduates into their engineering courses, supporting the national priority to train more engineers for industry.

[20] Othman Bin Haron Eusofe, Speech at the Year 2000 “BEST” & “WISE” Programmes Graduation and Award Presentation Ceremony, 22 July 2000, https://www.nas.gov.sg/archivesonline/data/pdfdoc/2000072201.htm.

[21] Heng Swee Keat, Speech at the EuroCham Sustainability Awards 2023, 2 November 2023. https://www.pmo.gov.sg/Newsroom/DPM-Heng-Swee-Keat-at-the-EuroCham-Sustainability-Awards-2023.

Economic Restructuring and Skills Upgrading for Competitiveness (1975 – 1995)

Singapore had become a successful and diversified economy by the mid-1990s, with a skilled workforce and high incomes after decades of strong economic growth. Concurrently, Singapore's workforce gained international recognition for its quality, productivity, and adaptability. The Global Competitiveness Yearbook (1996) by the World Economic Forum ranked Singapore first in its ability to meet the "needs of a competitive economy."[22]

However, as the economy evolved and global competition intensified, new challenges emerged. Singapore was becoming a more expensive location for production, facing significant competition from lower-cost competitors. The 1997 – 1998 Asian Financial Crisis exposed Singapore's vulnerabilities to the external environment as a highly trade-dependent nation; and the early 2000s was a period of heightened unemployment due to the global electronics slowdown following the dot-com boom, and the SARS outbreak in 2003. Basic skills and efficiency were no longer sufficient to meet the demands of industry, necessitating a concerted effort to deepen skills and spur innovation for a knowledge-based economy.

Singapore accelerated its efforts to position itself as a key node in the global and regional network. The challenge was not only attracting investments and creating jobs, but also ensuring that workers were equipped with the skills to take up new jobs, particularly those in high growth sectors. As then-Deputy Prime Minister Lee Hsien Loong noted in 2000, "new jobs (created) do not automatically translate into employment for every worker. New jobs require new skills, which many of the laid off workers do not have."[23]

> *"New jobs (created) do not automatically translate into employment for every worker. New jobs require new skills, which many of the laid off workers do not have."*
>
> **Lee Hsien Loong, then-Deputy Prime Minister**

Funding support for training, and a national skills recognition system, were two key planks in entrenching a lifelong learning ecosystem that would support Singapore's drive to become a knowledge-based economy with good jobs for citizens.

[22] Yeo Cheow Tong, Keynote Address at the 1996 National Training Award Presentation Ceremony at the PSB Auditorium, 23 October 1996, https://www.nas.gov.sg/archivesonline/data/pdfdoc/1996102302.htm.

[23] Lee Hsien Loong, Speech at the Opening of the Inaugural Singapore Learning Festival, 27 August 2000. https://www.nas.gov.sg/archivesonline/data/pdfdoc/2000082704/lhl20000827e.pdf.

Skills Redevelopment Programme

The Skills Redevelopment Programme (SRP) was a tripartite initiative spearheaded by NTUC to support workforce transformation amid economic uncertainty, especially for rank-and-file workers who lacked a proper skills upgrading structure.[24]

Then-NTUC Deputy Secretary-General Lim Swee Say stressed that “the best way forward to look after the interest of workers is to equip them with the hard skills to be productive, soft skills to be adaptive, and customer-centric skills to be competitive.”[25]

Beginning with ten companies and offering training opportunities for 1,500 rank-and-file workers, the SRP had two distinctive features: all training led to industry-recognised certification, and the government supported both training fee subsidies and absentee payroll. The SRP marked a shift towards a co-investment model where employability was a shared undertaking among employers, unions and workers.[26]

Starting as a $10 million pilot, SRP proved so effective during the Asian Financial Crisis that the government expanded it by $100 million. Its funding mechanism of government support for beneficial training remains a staple of SkillsFuture programmes today.[27]

Complementing the SRP was the NTUC-Education and Training Fund (N-ETF) established in 1998, which broadened access to skills upgrading and retraining for union members. The fund also encouraged individual-initiated learning as a complement to employer-sponsored training. Today, this spirit continues through the Union Training Assistance Programme (UTAP), which defrays the cost of skills upgrading and retraining for union members.

Photo: NTUC.

[24] Kay del Rosario, “The Man Who Built Ladders: Lim Swee Say on Why PWM Beats Minimum Wage,” National Trades Union Congress, 4 July 2025, https://www.ntuc.org.sg/uportal/news/The-man-who-built-ladders-Lim-Swee-Say-on-why-PWM-beats-minimum-wage/.

[25] Ong Teng Cheong Labour Leadership Institute (OTCi), *Milestones of NTUC and Worker Upgrading and Employability,* (Singapore: OTCi, 2022).

[26] Ibid.

[27] Rosario, “The Man Who Built Ladders”.

Manpower 21 Plan

The Manpower 21 Plan, launched in August 1999, set out a comprehensive vision to develop Singapore's manpower as a key competitive advantage in the new global economy, underpinned by six strategic thrusts: manpower planning, lifelong learning, talent augmentation, manpower development, workplace transformation, and partnership.[28] These strategies and recommendations arose from a collaborative and consultative process involving Ministry of Manpower (MOM) partners, including the unions, industry, grassroots, people and public sectors.

Translating the Manpower 21 vision into action required not only long-term system-level reforms but also immediate, targeted interventions to support workers facing displacement. A series of programmes was introduced to address emerging structural mismatches in the labour market, strengthen employability, and promote shared responsibility for workforce transformation.

Among the key recommendations under the plan were providing more incentives to employers and individuals to encourage lifelong learning, and the establishment of a national skills recognition system.

Lifelong Learning Endowment Fund

As economic transformation gathered pace, it became clear that Singapore required a permanent fiscal commitment to support continuous upskilling and lifelong learning. Then-Prime Minister Goh Chok Tong said, "The pace of creation and destruction of jobs will also pick up… In such an environment, unless workers have a broad range of skills, and are versatile enough to keep pace with technological progress, they will constantly fear for their livelihood."[29] This was the raison d'etre for the establishment of the Lifelong Learning Endowment Fund (LLEF) in March 2001, with an initial injection of $500 million from the government, to promote and support lifelong learning in Singapore.[30]

"The pace of creation and destruction of jobs will also pick up… In such an environment, unless workers have a broad range of skills, and are versatile enough to keep pace with technological progress, they will constantly fear for their livelihood."

Goh Chok Tong, then-Prime Minister

[28] Ministry of Information and the Arts, "Launch of Manpower 21 Plan," press release, 31 August 1999. https://www.nas.gov.sg/archivesonline/data/pdfdoc/1999083105.htm.

[29] Goh Chok Tong, Speech at the NTUC Education and Training Fund Dinner, 3 March 2001, https://www.nas.gov.sg/archivesonline/data/pdfdoc/2001030308.htm.

[30] Lee Boon Yang, Second Reading Speech on the Lifelong Learning Endowment Fund Bill, 12 January 2001. https://www.nas.gov.sg/archivesonline/data/pdfdoc/2001011211.htm.

Unlike other training funds tied to cyclical economic needs, the LLEF was set up as an endowment fund, enabling sustained investment income to support continuous upgrading and reskilling of workers. The fund was intended to complement existing efforts, including the SDF, by focusing not only on employer-sponsored training but also training initiated by individuals, communities and non-traditional providers.[31]

Programmes supported by the fund were delivered through collaborations among government agencies, unions, employer associations and training providers.[32] For instance, NTUC and SNEF were involved in the development of the National IT Literacy Programme that was rolled out in 2001 to help Singaporeans acquire basic IT and Internet skills, in order to minimise the dangers of a widening digital divide.

National Skills Recognition System and Workforce Skills Qualification

The National Skills Recognition System (NSRS) was a key component of Singapore's lifelong learning system under the Manpower 21 Plan. It was established to develop definitive workplace skills standards and accord recognition to training that meet these standards. To address the time constraints faced by working adults, the system was designed to encourage "bite-size" modular learning that could be offered part-time or even on the job. The development of NSRS was steered by the National Skills Council, comprising industry players, learning providers, unions and the government, reflecting the tripartite partners' role in aligning training with industry and workforce needs.

While the LLEF and NSRS laid important foundations for lifelong learning and skills recognition, the early 2000s brought heightened urgency to systematise and scale these efforts. In the aftermath of regional and global shocks,[33] Singapore experienced significant economic disruption and rising retrenchments. Between April and June 2003, the economy saw a record loss of 25,963 jobs, exceeding the total number of jobs lost in the whole of 2002.[34]

These developments reinforced the need for a coherent national framework to coordinate continuing education and training (CET) efforts and better support workforce resilience.[35] Arising

[31] Ibid.

[32] Over time, the LLEF funded a broad range of other initiatives including the Workfare Skills Support (WSS) scheme and Professional Conversation Programmes (PCPs), which have since been renamed Career Conversion Programmes (CCPs). It also provided a foundation for individual-facing interventions such as the SkillsFuture Mid-Career Enhanced Subsidy, enhancing affordability and access to training for mature workers.

[33] Ng Eng Hen, "Jobs for Resident Workforce (Statement by the Acting Minister for Manpower)," *Singapore Parliamentary Debates*, 14 August 2003, https://sprs.parl.gov.sg/search/#/topic?reportid=013_20030814_S0004_T0010.

[34] Chia Sue-Ann and Rachel Lee, "Agency Acts to Get Jobless Back to Work," *The Straits Times*, 13 September 2003. https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes20030913-1.2.3.

[35] Singapore. Economic Review Committee, *New Challenges, Fresh Goals – Towards a Dynamic Global City* (Singapore: Ministry of Trade and Industry, February 2003), 15, http://www.mti.gov.sg/ResearchRoom/Documents/app.mti.gov.sg/data/pages/507/doc/1%20ERC_Main_Committee.

from recommendations by the Economic Review Committee, MOM established a statutory board, the Singapore Workforce Development Agency (WDA), on 1 September 2003 to spearhead CET policy and implementation.

WDA subsequently launched the Singapore Workforce Skills Qualifications (WSQ) system in 2005. Designed in consultation with industry players and unions, WSQ provides modular, competency-based certification pathways across sectors, focusing on skills application and employability rather than academic attainment.[36] It serves as the national skills-based credentialling system that enables skills recognition by employers and workers alike. WSQ has been key in developing workforce skills and competencies to support industry growth and transformation.

Support for Job Redesign

As Singapore developed into a knowledge-based economy, it became evident that worker redeployment required more than just upskilling – it also required deliberate job transformation. The Job Re-Creation Programme (JRP)[37] was introduced in 2005 as a joint effort by NTUC and the government to support economic restructuring.

The JRP sought to redesign low-paying, unattractive jobs through better work conditions and training, with the goal of attracting more Singaporeans to such roles. Within two years, the programme resulted in over 7,200 redesigned jobs and facilitated the placement of 4,600 lower-skilled workers. To scale its reach and impact, the programme received an additional $40 million from the government and $10 million from the Singapore Labour Foundation.[38]

Beyond immediate outcomes, the JRP also laid important groundwork for the Progressive Wage Model (PWM) by linking wages to skills and productivity, and enabling structured career progression for lower-wage workers.[39] According to Lim Swee Say, NTUC embarked on JRP in tandem with PWM because it wanted to directly address the three challenges ("three lows") faced by lower-wage workers: "low skill, low productivity and low wage."[40] He noted that "SRP and JRP laid the foundation for the eventual establishment of skills ladder through SkillsFuture; and productivity and job ladders through PWM."

[36] SkillsFuture Singapore, Singapore Workforce Skills Qualifications, last updated 4 June 2025. https://www.ssg.gov.sg/skills-development/workforce-skills-qualifications#342dc668f6446d18ddb48d9c7206ef1c.

[37] Since then, the JRP has evolved into Workforce Singapore's current Job Redesign Programmes.

[38] National Trades Union Congress (NTUC), "JRP Awards 2006," 1 November 2010, https://www.ntuc.org.sg/uportal/news/JRP-Awards-2006/#:~:text=Job%20Re%2DCreation%20Programme&text=Through%20JRP%2C%20they%20have%20enhanced,workers%20and%20less%2Dskilled%20workers.

[39] Rosario, "The Man Who Built Ladders."

[40] Lim Swee Say, email to author, 8 August 2025.

Skills Programme for Upgrading and Resilience (SPUR)

The Skills Programme for Upgrading and Resilience (SPUR) was launched in late 2008 as a tripartite response to the Global Financial Crisis. The $600 million programme was designed with three objectives: to cut costs and save jobs by helping companies manage excess manpower and reduce retrenchments; to reskill and upskill local workers, including those who were retrenched, so they could upgrade their competencies and convert to new jobs; and to build capabilities for recovery by strengthening the overall manpower base to position Singapore's workforce for the eventual economic upturn.

Training capacity under the CET system was doubled, and course subsidies were raised to as much as 90 percent, with enhanced absentee payroll support so companies could release workers for training at minimal cost.[41] Responding to feedback on the limited range of options, the number of SPUR courses was rapidly expanded from 150 at launch to over 1,000 the following year. SNEF also set up a new unit to assist firms in drawing up training plans, supporting over 200 companies to send 10,000 workers for SPUR training in 2009.[42]

The swift rollout of SPUR, supported by MOM, WDA, NTUC and SNEF, enabled employers to better manage their excess manpower during the downturn, as well as upgrade their workers and capabilities to strengthen business competitiveness when the economy recovered.

[41] MOM, *Factsheet on skills programme for upgrading and resilience (SPUR)*, Accessed 30 September 2025. https://www.mom.gov.sg/-/media/mom/documents/manpower-resources/factsheets-circulars/factsheet-spur---annex-a.pdf.

[42] Singapore National Employers Federation, *Rebounding from the Downturn of 2008/2009: A Review* (Singapore: SNEF, 2010).

[43] Ministry of Manpower, "Refreshed Continuing Education and Training (CET) Masterplan," Accessed 30 September 2025. https://www.mom.gov.sg/employment-practices/skills-training-and-development/refreshed-cet-masterplan.

Continuing Education and Training (CET) Masterplans

While initiatives like WSQ strengthened skills recognition and workforce certification, it became increasingly important to align these systems with sector-level manpower planning and long-term workforce strategies. Singapore's efforts to institutionalise lifelong learning needed to go beyond qualifications and include clear pathways, quality assurance and coordinated leadership across economic sectors.

This motivated the launch of the national CET Masterplans, which provided a strategic blueprint for scaling and integrating CET across the economy. The first CET Masterplan, launched in 2008, focused on enhancing training capacity, quality assurance through the Singapore WSQ system, and improving accessibility for adult learners.[43]

The second masterplan, called CET 2020, was launched in 2014 in tandem with the recommendations of the Applied Study in Polytechnics and ITE Review (ASPIRE) Committee. ASPIRE sought to strengthen applied education by enhancing students' career and academic prospects. Its recommendations included improving education and career guidance, deepening school-industry linkages to ensure curricular relevance, and expanding progression pathways for polytechnic and ITE graduates to deepen or broaden their skills within a structured, industry-relevant framework.[44]

CET 2020 built on this momentum by setting out a vision to deepen workforce expertise. This involved sector lead agencies working hand in hand with unions and employers to develop medium-term manpower and skills strategies aligned with sectoral growth and productivity goals. These roadmaps identified the skills needed over a five-year horizon and outlined concrete measures to meet them, with stronger employer involvement in recognising and building skills.

Underpinning the 2020 CET Masterplan vision was a drive towards a more holistic and integrated strategy to develop a career-resilient, future-ready workforce with a commitment to skills mastery. This paved the way for the subsequent launch of the national SkillsFuture movement in 2015.

[43] Ministry of Manpower, "Refreshed Continuing Education and Training (CET) Masterplan," Accessed 30 September 2025. https://www.mom.gov.sg/employment-practices/skills-training-and-development/refreshed-cet-masterplan.

[44] Ministry of Education, *Applied Study in Polytechnics and ITE Review (ASPIRE) Report* (Singapore: MOE, 2014).

SkillsFuture Movement: Investing in Lifelong Learning for Business and Workforce Transformation (2015 – Present)

By 2014, Singapore had made substantial progress in strengthening its skills ecosystem. Initiatives such as the SRP, the WSQ and the CET Masterplans had institutionalised lifelong learning and enhanced workforce resilience. However, there was a need for an even more integrated, future-oriented approach. Training participation among certain segments of the workforce remained uneven, and employer investment in skills development was not always aligned with future needs. Furthermore, the economy was undergoing deeper shifts driven by technology, ageing and global competition.

Singapore was experiencing rapid demographic change with an ageing workforce and a falling total fertility rate. Other driving forces reshaping the economy and workforce included globalisation, technological advancement, digitalisation and climate change. This made it imperative to anticipate emerging skills and potential changes to job content, and to embark on pre-emptive upskilling in tandem with industry transformation.

Significance of SkillsFuture

Against this backdrop, the SkillsFuture movement was launched in 2015 as a major new phase in Singapore's investment in lifelong learning. Then-Deputy Prime Minister Tharman Shanmugaratnam described SkillsFuture as "quite simply Singapore's most important economic and social strategy in the long term."[45] This reflects the dual imperative of keeping the economy globally competitive, and ensuring that Singaporeans have access to good jobs, fair wages and meaningful careers throughout their lives.

Photo: NTUC; The Straits Times.

[45] Adrian Lim, "Singapore Can Be World Leader in Cultivating Lifelong Learning, Says Tharman Shanmugaratnam," *The Straits Times*, 25 April 2019, https://www.straitstimes.com/politics/singapore-can-be-world-leader-in-cultivating-life-long-learning-says-tharman-shanmugaratnam.

As a holistic movement to foster a culture of lifelong learning and skills mastery, SkillsFuture helps individuals make informed choices in education, training and careers. It seeks to develop an integrated, high-quality system of education and training that is responsive to evolving industry needs. It promotes employer recognition and career development based on skills and mastery, while at the national level, it fosters a culture that supports and celebrates lifelong learning.

In this paradigm, each stakeholder plays a part. Workers are not passive recipients of training but actively chart their career and learning pathways. Unions support workers in adapting to change, and help drive enterprise and workforce transformation. Employers are expected to invest in workers, embedding workforce development within their business strategy, while the government provides digital infrastructure and labour market intelligence, and builds institutional trust.

SkillsFuture Singapore and Training Support

In 2016, WDA was reconstituted into two separate statutory boards:

- SkillsFuture Singapore (SSG), under the Ministry of Education, was tasked with driving and coordinating the implementation of the national SkillsFuture movement, promoting a culture and holistic system of lifelong learning through the pursuit of skills mastery, and strengthening the ecosystem of quality education and training in Singapore.

- Workforce Singapore (WSG), under MOM, was oriented towards labour market activation, job matching, career services and employment facilitation, particularly for mid-career and displaced workers. It also retained oversight of key initiatives such as Career Conversion Programmes (CCPs) and Support for Job Redesign under the Productivity Solutions Grant (PSG-JR) to support companies in workforce development.

The decoupling of upstream skills development and downstream labour market intervention enabled sharper institutional focus, accountability and performance management. With these foundations in place, the SkillsFuture movement extended its reach through a suite of funding support and initiatives aimed at strengthening individual agency, industry alignment and training quality.

To ensure quality and relevance, SkillsFuture-supported training courses are curated by SSG in consultation with sectoral agencies and industry partners. These include modular, stackable programmes across diverse modalities (online, blended, or face-to-face), which may articulate towards full qualifications. To ensure teaching quality, adult educators must be trained and certified by the Institute for Adult Learning to be eligible to conduct SkillsFuture-supported training.

The alignment of training programmes with industry needs has translated into stronger enterprise engagement: 24,000 employers supporting 241,000 employees participated in SSG-supported training in 2024, up from 23,000 employers and 228,000 employees in 2023.[46] Mahendran Thennarasu, a 30-year-old security supervisor, highlighted that training has improved his work performance by providing the necessary technical skills, emergency preparedness, and customer service abilities. It has also boosted his career prospects by creating clear progression paths and higher earning potential through PWM.[47]

As a movement, SkillsFuture is sustained through tripartite collaboration. The government provides strategic direction and funding support; training providers work closely with industry to ensure training programmes are relevant to industry needs; employers invest in their workforce; while the Labour Movement mobilises workers and firms.

Tan Kok Yam, Chief Executive of SSG, sees close coordination among tripartite stakeholders as vital to the SkillsFuture movement. He cited "progressive employers who invest in their workforce; Queen Bee companies, professional bodies and trade associations who are force multipliers in helping us reach to many more workers and employers; and the unions, who reach out to workers through various channels to drive the training agenda." According to Tan, "these stakeholders do not merely raise training participation, they also help us shape the training to be relevant to their sectors and their supply chains."[48]

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> **Tan Kok Yam, Chief Executive of SSG**

[46] SkillsFuture Singapore, SkillsFuture Year In Review 2024: *Learners Shift to More Career Relevant Training with the SkillsFuture Level Up Programme*, 9 April 2025, https://www.ssg.gov.sg/newsroom/skillsfuture-year-in-review-2024.

[47] Mahendran Thennarasu, email to author, 19 August 2025.

[48] Tan Kok Yam, email to author, 11 September 2025.

SkillsFuture Initiatives

Skills Frameworks were introduced in 2016 to create a common skills language for individuals, employers and training providers.[49] These frameworks – co-created by employers, industry associations, education institutions, unions and government – articulate job roles, career pathways, and skills requirements across more than 30 sectors. The frameworks facilitate skills recognition and support the design of training programmes for skills and career development.

According to former Chief Executive of SSG Ng Cher Pong, "the Skills Frameworks build on the earlier WSQ frameworks, with the notable difference being that they are not conceptualised as a qualifications framework. Instead, they are intended to be living documents that would be used by training providers in developing their curriculum, by individuals in identifying the skills required for them to progress in their careers, and by enterprises in drawing up training roadmaps for their employees." He described the development of Skills Frameworks as a "tripartite process to involve all the stakeholders in defining the skills and competencies required for each of the key industries in Singapore."[50]

A **SkillsFuture Credit** scheme was introduced in 2015 to strengthen individual agency in skills development. Each Singaporean aged 25 and above was given an initial $500 credit that could be used to offset out-of-pocket costs in a wide range of training programmes. This placed training decisions in the hands of citizens, independent of their employers.

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Ng Cher Pong, former Chief Executive of SSG

In 2020, a further $500 credit was provided, with a five-year expiry date to encourage timely reskilling. Mid-career workers aged 40 to 60 received an additional $500 top-up in the same year, and a further $4,000 credit in 2024, to support deeper reskilling and career transitions. In 2024, 260,000 Singaporeans used their SkillsFuture Credit, a 35 percent increase from 192,000 in 2023. Of these, 28,000 citizens tapped on the new Mid-Career Credit in undertaking a substantive skills reboot. By 2024, around 1.05 million Singaporeans, or 37 percent of the population, had used their SkillsFuture Credit since the scheme's inception in 2016.[51]

Besides funding for reskilling, people also need access to timely information, guidance and targeted support when navigating career transitions. Complementary initiatives like the **SkillsFuture Career Transition Programme** and the **Jobs-Skills Portal support** individuals in making informed and forward-looking career

[49] Ministry of Education, "Progress of Adoption of Skills Frameworks" (parliamentary reply to Mr Patrick Tay Teck Guan, Pioneer SMC), 5 July 2021, https://www.moe.gov.sg/news/parliamentary-replies/20210705-progress-of-adoption-of-skills-frameworks.

[50] Ng Cher Pong, email to author, 04 August 2025.

[51] SkillsFuture Singapore, *SkillsFuture Year-in-Review* 2024.

decisions. Those navigating career shifts, particularly mid-career workers, may avail themselves of a suite of Train-and-Place (TnP) and Place-and-Train (PnT) programmes jointly designed by SSG, WSG and industry partners.

The **SkillsFuture Work-Study Programmes**, offered at the certificate, diploma and degree levels, blend classroom-based learning with structured on-the-job training, enabling individuals to gain industry-relevant experience while working towards nationally recognised qualifications. This model promotes applied learning, facilitates smoother school-to-work transitions, and supports continual career upgrading for working adults. Since its launch, the Work-Study Programmes have been expanded into a major education pathway for ITE graduates, with places for up to one third of each cohort of ITE students.

To recognise and encourage deep skills mastery, **SkillsFuture Fellowships** were introduced. Fellowships are the highest skills accolade for individuals who demonstrate excellence in their respective fields and a commitment to mentoring others.

The **SkillsFuture Level-Up Programme (SFLP)**,[52] introduced in 2024, supports individuals aged 40 and above to pursue significant upskilling and reskilling to stay relevant and competitive amidst a rapidly changing economy. SFLP provides mature citizens a further $4,000 SkillsFuture Credit (Mid-Career) top-up for use on selected industry-relevant programmes, expanded subsidies for a second full-time diploma, and a training allowance for selected full-time courses to offset income loss during upskilling. These measures aim to reduce financial barriers and enable mid-career workers to acquire in-demand skills in growth areas.

Enterprise Support Initiatives

While SkillsFuture empowers individuals to take ownership of their learning, careers transformation must also take place at the enterprise level. Firms play a critical role in shaping job content, investing in skills, and creating opportunities for workers to apply new capabilities. To support this, a suite of enterprise-focused initiatives was introduced to embed workforce development into business strategies and ensure that training translates into meaningful employment outcomes.

The **SkillsFuture Enterprise Credit** provides financial support for firms that invest in employee training and transformation initiatives. This encourages businesses, especially SMEs, to build workforce capabilities in tandem with enterprise upgrading.

Jobs Transformation Maps (JTMs) help employers and workers navigate industry and workforce transformation by examining how key trends impact sector-specific jobs and skills. By understanding the emerging trends and technological shifts in their sector, stakeholders can make informed decisions about workforce development and job redesign. To help employers translate the JTMs into action, initiatives like the **PSG-JR** were rolled out to help

[52] Ministry of Education, "Infosheet 2: Enhancing Support for Mid Career Individuals under the SkillsFuture Level Up Programme," 6 March 2025, https://www.moe.gov.sg/news/press-releases/20250306-infosheet-2-enhancing-support-for-mid-career-individuals-under-the-skillsfuture-level-up-programme.

firms restructure work processes, tasks and responsibilities, creating higher-value jobs and more sustainable career pathways. Meanwhile the **Capability Transfer Programme (CTP)** strengthens local capabilities by facilitating the transfer of expertise from foreign specialists.

The **Enterprise Workforce Transformation Package (EWTP)**, an inter-agency effort by WSG, SSG and Enterprise Singapore (ESG) in 2025, provides holistic support to enterprises for workforce transformation through the SkillsFuture Workforce Development Grant (WDG), with enhanced support for job redesign to align workforce capabilities with organisational goals.[53]

The **Career Conversion Programme (CCP)** was also enhanced with higher salary caps to help employers reskill mid-career new hires or existing employees into growth job roles with good longer-term prospects, with salary support of up to 90%.

The **Mid-Career Pathways Programme (MCPP)** offers employers the opportunity to assess experienced mature jobseekers aged 40 and above who bring along transferable past skills/experience before making a job offer. Through the attachment, where the government co-funds the attachment allowance, host organisations will be able to train and evaluate these trainees if they are a good fit for job roles within their organisations.

SkillsFuture: Taking Stock and Looking Ahead

Over the past decade, the SkillsFuture movement has facilitated a proactive, ecosystem-wide approach towards skills development and lifelong learning. The focus has shifted beyond programme delivery to system integration where skills mastery, individual agency and enterprise transformation are interdependent drivers of economic and social resilience. Reskilling and job transformation are seen as key to navigating change by aligning workforce capabilities with emerging business needs.

While there has been progress in increasing participation rates, employer engagement and public awareness, challenges remain. Some workers, especially mid-career workers, still face difficulties in translating newly acquired skills into better jobs and upward mobility.[54] Motivating employers to invest in future skills beyond immediate operational needs continues to require financial incentives and regulatory nudges.[55]

In the next bound of SkillsFuture, a key challenge is to translate the considerable investment in training into outcomes, whether career progression, wage growth, or career resilience. With rapid technological advances transforming industries and jobs, reskilling to facilitate career transitions and support enterprise transformation will be particularly important for Singapore.

[53] The WDG comprises workforce transformation schemes such as WSG's Career Conversion Programmes and SSG's Workplace Learning support.

[54] National Trades Union Congress (NTUC), *Our Workers' Compact* (Singapore: NTUC, 2023). https://www.ntuc.org.sg/Uportal/News/Flipbooks/EWMC_OurWorkersCompact.

[55] Sue Ann Tan, "Upskilling Vital for Workers, but Relevance and Company Support Are Key, Say Panellists," *The Straits Times*, 21 February 2025, https://www.straitstimes.com/singapore/workers-upskilling-is-vital-but-it-has-to-be-relevant-and-companies-need-to-buy-into-it-panel.

The Next Bound: Building Career Health and Resilience in a Skills-First Economy

The years ahead will see the world of work transform in profound ways. Technological advancements, demographic transition, climate change and other systemic forces are reshaping how jobs are created, defined and performed. Generative AI, in particular, is accelerating this shift. No longer confined to automating routine or manual work, AI is now encroaching into domains once considered uniquely human, such as writing, music composition and coding.

Management consultancy McKinsey estimates that globally, over 100 million workers will need to change jobs by 2030 due to automation and AI.[56] According to the World Economic Forum, 60% of companies worldwide expect to transform their business by 2030 and workers can expect that 30% of their existing skill sets will be transformed or become outdated within the next few years.[57] Of particular concern is the impact of generative AI on entry-level jobs, where there are early signs it is crimping recruitment in areas such as software development and customer service.[58]

In Singapore, the workforce is rapidly ageing. An increasingly multi-generational workforce also introduces complexity as each cohort is shaped by different aspirations, expectations, digital proficiencies, and work values. Layered over the demographic transition are the emerging trends of job uncertainty, non-linear career trajectories, and a growing premium on a person's adaptability and learning agility.

Lifelong learning is no longer optional – it must become a way of life for workers in order to remain employable. It does not suffice to frontload knowledge before entering the workforce; there is an increasing need for continuing professional development as people take up new job roles or new tasks within existing jobs.[59]

[56] McKinsey & Company, *Automation, Reskilling, and the Changing World of Work*, 2021. https://www.mckinsey.com/featured-insights/themes/automation-reskilling-and-the-changing-world-of-work?.

[57] *World Economic Forum, Future of Jobs Report 2025*, 2025. https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf.

[58] Erik Brynjolfsson, Bharat Chandar and Ruyu Chen, "Canaries in the Coal Mine? Six Facts about the Recent Employment Effects of Artificial Intelligence," Stanford Digital Economy Lab working paper, 2025, https://digitaleconomy.stanford.edu/wp-content/uploads/2025/08/Canaries_BrynjolfssonChandarChen.pdf.

[59] Terence Ho, "The Future of Work in the Age of AI," in *Singapore (Re)Defined* (Singapore: World Scientific, 2025, forthcoming).

Skills-First Approach in Workforce Development

To address these complex, intersecting challenges, Singapore has set its sights on a skills-first approach: recognising skills and proficiency, and not mere qualifications, as the primary currency for employment, career progression, and organisational performance. This will encourage timely, industry-relevant training by recognising and rewarding skills, while facilitating greater mobility across jobs and sectors.

Individuals' willingness to pursue non-traditional learning pathways depends on whether employers recognise those skills. Employer take-up depends on the credibility of training providers. SSG Chief Executive Tan Kok Yam stressed the need for "employers to be very clear what skills they need, for example in their job postings, so that individuals have good clarity on what to pursue, and training providers can quickly adjust or revamp their offerings." He said that this is the reason "SSG is pushing hard for the use of skills as a common national language for coordination across the labour and the training market."

Adopting a skills-first approach will require coordinated effort and will take time to be fully embraced by stakeholders. To this end, a Centre for Skills-First Practice has been set up within the Institute for Adult Learning to promulgate awareness and build skills-first capabilities among employers, training providers and other stakeholders.

The aim is to co-create a credible and inclusive skills-first ecosystem where recognisable skills and proficiency guide labour market signalling, mobility, productivity, and broader societal value.[60] According to Tan, such an ecosystem would make the labour force nimbler and give it a strong competitive advantage.[61]

This ambition is not without precedent. Valuable lessons can be drawn from countries such as Germany and Switzerland, where skills-based systems have long supported economic competitiveness. SNEF Vice-President Alexander Melchers observed that these economies demonstrate several strengths. Switzerland, one of the world's most innovative nations with a high GDP per capita and a workforce comprising one-third foreigners, exemplifies this approach. Only about 20% of each student cohort graduates with the Matura (equivalent to the Abitur, A Levels, or IB), which is required for direct university entry; the majority pursue vocational training or specialised diplomas instead. This flexible system allows mobility between academic and vocational tracks, enabling students to transition later if desired.

Similarly, Germany's apprenticeship programme is industry-led rather than government-driven. Trade associations define curricula aligned with market needs, ensuring responsiveness and relevance. Companies, in turn, value being part of an ecosystem where each member benefits from the collective training efforts of others.[62]

[60] Gog Soon Joo, Johnny Sung, and Matt Sigelman, *Skills First: Are We There Yet?*, Working Paper 1 (Singapore: Institute for Adult Learning, 2025), https://www.ial.edu.sg/getattachment/040b0eff-3a13-4634-996b-22d8aaf28cc5/Paper-1-Report.pdf.

[61] Tan Kok Yam, email to author, 11 September 2025.

[62] Alexander C. Melchers, email to author, 26 September 2025.

Company Training Committees (CTCs)

Complementing the national SkillsFuture movement, CTCs were launched in April 2019 by the Labour Movement to help both workers and companies transform for the future. CTCs bring employers, workers and union leaders together to identify skills and training needs in line with a company's strategic direction, and implement training and workforce upgrading plans for workers to take on better jobs, with higher pay and career progression.

In 2022, the government set aside $100 million to scale up CTCs and support companies in implementing transformation projects through the NTUC CTC Grant. The NTUC CTC Grant, funds up to 70% of qualifying enterprise and workforce transformation project costs for companies with CTCs that commit to positive business and worker outcomes, such as wage increase. In Budget 2025, Prime Minister and Minister for Finance Lawrence Wong announced a top-up of another $200 million to help more companies transform.

As of 1st September 2025, over 3,600 CTCs have been formed, and more than 700 transformation projects have been committed to improve wages and career prospects for nearly 10,000 workers.[63]

NTUC Deputy Secretary-General Desmond Tan, who leads NTUC's Training and Transformation efforts, explained that "with a focus on workers' needs, unions and employers evaluate job roles, tasks, and workplace environments, and drive initiatives in job redesign, productivity enhancement, and skills training to ensure alignment with changing business needs. These efforts help workers continuously upgrade their skills, feel more secure in their jobs and career paths, and progress sustainably – while enabling companies to stay competitive and agile – a win-win outcome for both employers and workers."[64]

According to Desmond Tan, NTUC is expanding the CTC initiative from a single-company model to a cluster approach: "This Cluster Lead concept enables industry leaders to take the lead in driving transformation not just within their own company but across a network of suppliers and partners. By sharing best practices, identifying common skills gaps and coordinating training efforts, these Cluster Leads help build a more resilient ecosystem – enabling more workers to benefit and supporting a stronger economy."

"This Cluster Lead concept enables industry leaders to take the lead in driving transformation not just within their own company but across a network of suppliers and partners. By sharing best practices, identifying common skills gaps and coordinating training efforts, these Cluster Leads help build a more resilient ecosystem – enabling more workers to benefit and supporting a stronger economy."

Desmond Tan, NTUC Deputy Secretary-General

[63] National Trades Union Congress, "Close to 10,000 Workers to Benefit from CTC Grant; More Companies Adopting AI through the Grant," 15 September 2025, https://www.ntuc.org.sg/uportal/news/Close-to-10000-workers-to-benefit-from-CTC-Grant-More-companies-adopting-AI-through-the-Grant/.

[64] Desmond Tan, email to author, 4 September 2025.

Career Health and Resilience

Emerging from the Forward Singapore conversations in 2023, "Career Health SG" was launched on 10 July 2025 as a national initiative under the SkillsFuture movement. It seeks to empower individuals to take greater ownership of their employability and long-term career trajectories.

According to WSG Chief Executive Dilys Boey, Career Health SG is "particularly significant to both workers and businesses in today's economic climate, given Singapore's open economy and exposure to global macrotrends such as the disruption of artificial intelligence", which makes it "crucial for individuals to remain agile and proactively build their career resilience." She said that "with improved career health, individuals will be better equipped with the necessary skills to navigate career choices and transitions across their career life spans."[65]

Photo: NTUC; WSG.

Alexander Melchers emphasised that for Career Health initiative to succeed, "both employers and employees must co-own the journey". He noted that employers could play their part by "encouraging individuals to move across roles and industries based on their proven skills and competencies" and that structured rotations and deployment could be part of talent development to encourage mobility within the firm or across subsidiaries.[66]

Individuals are encouraged to engage with the broad suite of government-supported training and career conversion programmes to chart purposeful, future-oriented career pathways. This includes tools such as Careers & Skills Passport, career conversations guidebook for employers and employees,[67] and labour market insights to help them identify growth areas, deepen relevant skills, and make intentional career moves.

The Careers & Skills Passport, introduced as part of the national "Career Health" initiative, provides Singaporeans with verified records of their skills, training and work experience, enabling better skills visibility to employers and facilitating more seamless career transitions. It addresses the opacity of skills signalling in hiring practices, and the limited visibility of a person's accumulated learning and experience.

[65] Dilys Boey, email to author, 9 September 2025.

[66] Alexander C. Melchers, email to author, 26 September 2025.

[67] Career Conversations guidebooks to help individuals and employers navigate career conversations, produced by WSG in consultation with SNEF.

For the passport to gain traction, employer recognition is a must. This requires a shared skills taxonomy and easy-to-update, portable skills and employment records. Crucially, every individual must have meaningful access, including vulnerable workers in low-wage, informal or contract roles who may face barriers such as digital literacy and access. As of March 2025, about 30 public and private entities had adopted or would be adopting the Careers & Skills Passport to recognise skills, facilitate talent recruitment and workforce planning.[68]

Complementing these efforts, WSG has rolled out the Polaris Suite of programmes, offering highly subsidised personalised career guidance to help individuals with their career planning. Individuals can also use their SkillsFuture Credit for career guidance programmes[69] by WSG-endorsed providers, making quality career support more accessible and embedding it as part of the lifelong learning journey.

The next bound of SkillsFuture will place career health and workforce resilience at the centre of the movement to maximise the impact of training and lifelong learning. This involves equipping individuals to make informed career-skills-learning decisions, stay employable across life stages, and navigate career transitions with confidence. Beyond individual adaptability, resilience is also about how organisations and systems respond to disruption. Employers that invest in workforce development are better positioned to retain talent, adapt to changing business needs, and build long-term competitiveness. At the national level, resilience depends on an agile and well-connected skills ecosystem that supports continuous learning and smooth transitions.

Singapore's strong tripartite foundations facilitate the shift toward a skills-first ecosystem and the strengthening of career health. This involves deepening collaboration across government, employers, and unions to ensure that training remains relevant, inclusive, and responsive to the needs of both workers and employers.

For workers, the question is how to lower barriers to accessing quality, industry-relevant training and provide timely support throughout their career journeys. For employers, the challenge lies in making training more closely attuned to future industry needs, by co-developing training solutions, investing in workforce development, and embedding reskilling and upskilling into business strategy. For policymakers, it is about enhancing institutional capabilities and governance to strengthen the skills ecosystem, infrastructure and institutions, so that data platforms, measurement systems, and stakeholder coordination reinforce one another as part of a coherent whole. At the societal level, Singapore must continue to nurture a culture that values lifelong learning and continuous growth.

[68] Workforce Singapore, *Annex A: Factsheet on Careers & Skills Passport*, 23 May 2025. https://www.wsg.gov.sg/docs/default-source/content/news/celebrating-a-decade-of-empowering-singaporeans-to-upskill-and-reskill--and-advance-in-their-careers/annex-a-final.pdf?sfvrsn=b62225e5_1.

[69] Workforce Singapore, Career Guidance Programme, 2025. https://www.wsg.gov.sg/home/individuals/career-matching-guidance/career-guidance-programmes.

Conclusion

Singapore is often seen as a country at the forefront of human capital and workforce development, with sustained investment in skills and strong institutional coordination. Singapore ranked 2nd out of 67 economies in the IMD's World Talent Ranking 2024, as well as 2nd out of 134 countries in INSEAD's Global Talent Competitiveness Index 2023.[70]

These achievements are a testament to the country's sustained investment in skills development,[71] which remains a cornerstone of Singapore's economic and social compact. There is however still room to do better. Singapore's training participation rate was at a 9-year low at 40.7% in 2024, down from the pandemic peak of 49.9% in 2021. While Singapore's performance relative to other countries has improved in Cycle 2 of the OECD's Programme for the International Assessment of Adult Competencies (PIAAC), Singapore's adult literacy score still lags behind the OECD's mean.

There is reason to be hopeful because of the concerted effort and adaptability of tripartite partners in Singapore's workforce development journey to date. While the roles of the tripartite partners have evolved over the decades in response to changing economic and workforce needs, one thing has remained constant: a deep-seated commitment to working together for collective progress.

Whether responding to economic restructuring, supporting youths and mid-career transitions, or shaping new skills pathways, the government, employers and unions have consistently engaged with one another in good faith and sought win-win outcomes. Permanent Secretary (Manpower) Ng Chee Khern highlighted that Singapore's success has been "underpinned by a formula of being pro-business, pro-worker, and pro-future." Tripartism is the "secret sauce" that has enabled Singapore to weather successive economic shocks while continually uplifting its human capital base. According to Ng, tripartism "has been built through years of relationship building, mutual trust, and shared successes" and is now a "sophisticated mechanism for workforce and economic development."[72] He recounted that when the COVID-19 pandemic threatened jobs in 2020, tripartite partners worked closely to respond swiftly in a whole of nation effort.

[70] EDB Singapore, "2024 World Talent Ranking: AI Replacing Human Labor Could Exacerbate Exclusion in Certain Major Economies," 19 September 2024, https://www.edb.gov.sg/en/about-edb/media-releases-publications/imd-world-talent-ranking-2024.html.

[71] Institute for Adult Learning Singapore, "Singapore's Adults Register Improved Rankings in OECD Study on Information Processing Skills," media release, 10 December 2024, https://www.ial.edu.sg/getattachment/b1a13e95-3d1a-4cbb-a2c7-5810a5bbde56/Media-Release_PIAAC-Cycle-2.pdf?lang=en-US&ext=.pdf.

[72] Ng Chee Khern, email to author, 18 August 2025.

While Singapore's unique tripartite relationship continues to be anchored by strong trust and collaboration between the government, unions, and employers, Ng noted that emerging workplace trends are testing traditional approaches to maintaining industrial harmony and worker protection.[73] Technological change is gathering pace, with AI, robotics and autonomous systems improving rapidly. Some jobs will be eliminated and many others transformed, while new jobs requiring different skills will be created. This will necessitate reskilling at scale to support job transitions and employability. In this complex and fast-evolving landscape, the ability to learn continuously, adapt nimbly, and deepen capabilities across the workforce is indispensable, not only for individual employability, but also business and national competitiveness.

Continued tripartite partnership will be crucial to enable dynamic and timely reskilling, as well as to foster an economy powered by skills. Building a credible, inclusive, and agile skills-first ecosystem requires strong coordination across stakeholders: employers must recognise and reward skills; training providers must respond to industry needs; workers must be motivated and empowered to learn and reskill continuously; and policymakers must continue to invest in people, systems and institutions that support the entire ecosystem.

As Lim Swee Say put it, "as long as our tripartite leaders partner together in unity, we can keep looking ahead, thinking ahead, innovating ahead and rallying the ground ahead of our global partners and competitors. This is the only way we can turn challenges and threats into opportunities for growth for our economy and progress for our people and workers."[74]

> *"As long as our tripartite leaders partner together in unity, we can keep looking ahead, thinking ahead, innovating ahead and rallying the ground ahead of our global partners and competitors. This is the only way we can turn challenges and threats into opportunities for growth for our economy and progress for our people and workers."*
>
> **Lim Swee Say, then-NTUC Deputy Secretary-General**

With sustained investment in people and skills, Singapore can rise to the challenge of building a future-ready workforce. For employers, this means meeting skills demands to support enterprise growth and transformation. For workers, it means stronger employability, better wages, and more meaningful careers. For Singapore, it means nurturing a globally competitive workforce for sustainable, inclusive growth. This win–win–win formula, anchored in tripartite collaboration, will be key to Singapore's continued progress.

[73] Ng Chee Khern, email to author, 18 August 2025.
[74] Lim Swee Say, email to author, 8 August 2025.

Discussion questions

1. What are the strengths and limitations of Singapore's skills development and lifelong learning ecosystem, and how has Singapore's brand of tripartism contributed to its development?

2. With change accelerating, how can tripartite collaboration be strengthened to ensure timely and coordinated workforce transformation that addresses both the demand and supply of skills?

3. What further actions can be taken collectively to close the last-mile gap for different segments of the workforce to ensure no one is left behind in the transition towards a skills-first economy?

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ABOUT THE TRIPARTITE COLLECTIVE (TC)

Jointly set up by the tripartite partners, Ministry of Manpower (MOM), National Trades Union Congress (NTUC), and the Singapore National Employers Federation (SNEF), the Tripartite Collective (TC) aims to strengthen the spirit of tripartism in the community by fostering trust and socialising stakeholders to the values and benefits of tripartism. The TC will bring together members from the tripartite community, academic, legal and media communities to exchange views and ideas on issues faced by employees and employers. Through such exchanges, the TC seeks to build relationships and develop capabilities within the community to further the development of progressive workplaces. To achieve these outcomes, the TC will commission research studies, conduct open dialogues and sharing sessions, and organise capability development programmes.

Tripartite Collective

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