



THE HUMAN TOUCH

BALANCING MANPOWER RESILIENCE WITH PRODUCTIVITY FOR TRANSFORMATION

Manpower Policy Paper on Supporting Lifestyle Services,
Environmental Services and Estate & Facilities Management Services



The Singapore business community has emerged stronger since the COVID-19 pandemic began two years ago. Businesses and workers underwent an accelerated pace of digitalisation, transformed operating models, and adjusted to a fundamental shift in the way we work. Despite the constant disruptions, we found fresh ways to adapt and respond to the challenges, turning anxieties into opportunities by growing online presence, accessing overseas markets, and ‘zooming’ our way into new partnerships. While 2021 set us off on a bumpy year of uneven recovery, 2022 is the year of re-gaining our footing towards growth, and for businesses to double down on long-term transformation and deepening of core capabilities. With Singapore charting a new way forward towards COVID-19 endemicity, a productive and diverse workforce is ever more critical to supporting the next bound of growth.

The tight labour situation is a perennial challenge for Singapore. But 2022 has unleashed the ‘perfect storm’ in **size**, **shape**, and **substance**.

Size – as our economy responds to an ageing and shrinking workforce, **shape** – as workforce expectations evolve post-pandemic, and **substance** – as skills mismatches deepen amidst rapid technological advancement and the emergence of new business models. Access to and availability of workers has become the top-of-mind concern across many service industries, which collectively form the backbone in supporting Singapore’s vibrant economy.

The business community, trade associations and chambers (TACs), government, unions, and academia have weathered the pandemic together, forming even stronger partnerships in the process. The Singapore Business Federation (SBF) has been working with fellow TACs, namely the Environmental Management Association of Singapore (EMAS), Landscape Industry Association (Singapore) (LIAS), Restaurant Association of Singapore (RAS), Security Association Singapore (SAS), Singapore Hotel Association (SHA), Singapore Nightlife Business Association (SNBA), Singapore Retailers Association (SRA), and Waste Management and Recycling Association of Singapore (WMRAS), to distil the manpower challenges and detail the actionable opportunities for businesses across the Lifestyle Services, Environmental Services, and Estate and Facilities Management (EFM) Services.

We share the vision of growing a skilled and productive Singapore core, while cultivating progressive and innovative enterprises with access to the most suitable manpower supplement to support their growth aspirations. Together, let us take concerted actions in addressing the manpower challenges today, so that businesses and workers can continue to thrive tomorrow for the benefit of Singapore and Singaporeans.



— — — — — **Lam Yi Young**
Chief Executive Officer (CEO)
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EXECUTIVE SUMMARY

SBF and fellow TACs in the Lifestyle Services, Environmental Services, and EFM Services have been supporting businesses in the face of severe disruptions brought about by COVID-19. While some of the issues encountered are more transitory in nature, the manpower challenges in these industries precede the pandemic and are expected to worsen as economic activity ramps up this year.

Broadly, the industries chronically struggling with tight labour supply fall under Lifestyle Services, Environmental Services, and EFM Services. Lifestyle Services comprise industries serving the consumption needs of the economy in the areas of retail, food services, hotels, and nightlife. Environmental Services and EFM Services refer to industries such as waste management, cleaning, security, landscaping, and various building and amenities upkeep functions. Collectively, these industries are essential to the day-to-day running of any modern economy, though they risk being unnoticed.

As the Singapore economy gains a firmer footing towards recovery and growth in 2022, there is scope for key stakeholders including businesses, TACs, government agencies, unions, and post-secondary educational institutions (PSEIs) to come together in a concerted effort to address the manpower needs of these sectors and unlock sustainable growth for all.

This paper builds on the perspectives and progress made by these stakeholders and presents the critical success factors and key actions that can be taken to support the manpower needs of the Lifestyle Services, Environmental Services, and EFM Services.

Critical Success Factor	Key Action
Talent A diverse pool of players and intentional line-up selection	1. Tripartite Partners to actively coordinate the redeployment of workforce from pandemic-related operations to Lifestyle Services 2. Businesses to enhance the value proposition of jobs in Lifestyle Services, Environmental Services, and EFM Services 3. Businesses and TACs to work with NTUC and PSEIs to strengthen workplace training and upskilling efforts
Teamwork A synergistic effort to improve manpower utilisation and allocation	4. TACs to facilitate cross-sector collaboration to achieve higher operational efficiency and better resource allocation 5. Businesses to step up as Queen Bees to build up value chain capabilities 6. Businesses to optimise EFM resource requirements through an outcome-based approach
Rules A more targeted and nuanced manpower policy approach	7. Tripartite Partners to work together to review the broad classifications of business activity, in particular for Services, for purpose of manpower policies 8. Tripartite Partners to work together to review expansion of Non-Traditional Source (NTS) Occupation List and diversification of NTS countries 9. Government to support access to international students enrolled in, and recent graduates from, training programmes related to Lifestyle Services, Environmental Services, and EFM Services

PART 1 .

CONTEXT

A Constrained Labour Market

Like most advanced economies, Singapore has a constrained resident labour force with decelerating population growth. This was exacerbated by the COVID-19 pandemic with two consecutive years of non-resident employment declines as a result of border restrictions. While the labour supply situation is expected to ease with the move towards endemicity, the reality on the ground is a record rise in job vacancies with the ramp up in economic activity, but met with difficulties in filling job vacancies, which reflects the growing mismatch of skills and attitudes in the labour market.

Businesses today sit in the eye of the perfect storm of a profit squeeze. Recovery and growth in revenue remains tenuous while operating costs continue to escalate. The cost of labour, raw materials, electricity, and transportation have soared on the back of inflationary pressures, supply chain bottlenecks, and geopolitical tensions. A rising interest rate environment will impact the cost of doing business as well. Businesses recognise the importance of transformation to survive and thrive in a post-pandemic world and have pressed on with efforts to pivot and innovate with accelerated adoption of automation and digital solutions. However, technology is not the panacea to a constrained labour market. Investments in new technology must be matched by a proficient and available pool of workers to execute business model and process improvements to ensure long-term outcomes.

Impact on Singapore's Lifestyle Services, Environmental Services, and EFM Services

Lifestyle Services support the consumption needs of the nation. The retail, food services, hotels, and nightlife industries comprising close to 42,000 establishments in Singapore contribute to 3.5% of GDP in 2019 and employ close to 11% of the overall labour force. These industries are not only central to the Singapore socio-cultural identity, but also critical to Singapore's status as a global hub as well as a preferred business and leisure destination. As a whole, the Lifestyle Services cater not just to consumption necessities and discretions, but also the higher order needs of the population, making for a diverse and vibrant Singapore.

The reopening of the economy will involve the ramping up of operations and offerings by the Lifestyle Services as individuals gather in larger group size and resume social and business activities. Lifestyle Services are, however, facing challenges in securing the manpower required to meet this demand as adjacent sectors compete for the limited pool of local and foreign workforce willing and able to participate in job roles that often require shift or weekend rosters, physical exertion over long periods of time, and high customer interactions and expectations.



Sheng Siong's Experience in Recruiting Locals



Sheng Siong is an established supermarket chain that has transformed from a family-owned provision store to a mainboard-listed company with 64 outlets and an online presence that translates to a turnover of over a \$1 billion annually. The brand is equally known for its customer-service approach and its employee-focused culture. At Sheng Siong, staff share in the rewards of the firm's performance and are recognised for their loyalty and contributions to the company through benefits such as free meals, family day events, and education grants for employees' children.

In 2020, Sheng Siong paid out generous staff bonuses as a result of the company's strong performance due to the elevated demand during the pandemic and in recognition of the tremendous effort put in by employees during this period. While thousands of job applications streamed in following this, most locals did not take up the job offers eventually. Prospective candidates cited intensive physical labour, shift work during weekends and public holidays and having to interact with customers as the key reasons for rejecting the job offers.

Acknowledging that company culture or fair wages would not be sufficient to overcome the challenges of recruiting manpower, the major supermarket chains, including Sheng Siong, are working with the Institute of Technical Education (ITE) to develop a Work-Study Diploma for existing employees and Work-Study Programme (WSP) for students and fresh graduates. These initiatives aim to promote continuing education and career development, as well as develop a pipeline of future talent for the industry.

Businesses in the Lifestyle Services continue to embrace digital transformation with the automation of processes such as ordering and payment, and adoption of e-commerce to reach a wider market. Yet, the need for manpower remains as many job roles in the retail, food services, hotels, and nightlife industries require both human judgment and emotional intelligence. Furthermore, pivoting to e-commerce often entails an even larger workforce to manage expanded operations around online sales, warehousing systems, and logistics and fulfilment.

Mothercare Singapore Pivots from Bricks to Clicks



Mothercare Singapore, under Kim Hin International Group, is a leading premium retailer of baby, children, and maternity products. The brand is associated with specialism, quality, and safety, carrying close to 40,000 stock-keeping units (SKUs) with a turnover of under \$50 million annually through its strong online presence and 11 stores island wide.

Back in 2020, Mothercare started its Lazada and Shopee e-commerce stores to complement its own online website and launched its Digital Nursery Advisor (DNA) programme – a complimentary online consultation service for parents to navigate the world of baby products, as part of its digital transformation strategy. The company has also committed close to \$1 million in capital to overhaul its Information technology (IT) infrastructure and enhance data collection with the support of Enterprise Singapore's (ESG's) Enterprise Development Grant (EDG).

While these digital transformation efforts have enabled Mothercare to diversify operations and grow online revenue, it had to ramp up its warehousing and logistics capabilities significantly to meet the increased demand and added complexity of operations. As more retailers go online, the sector's need for manpower remains as more workers will be required for backroom logistics functions, even as the number of workers involved in frontline sales functions is streamlined. Depending on the nature and range of products sold, Mothercare sees an opportunity for retailers to leverage the expertise of logistics companies and the aggregation of back-end infrastructure for greater efficiency in operations.

Environmental Services and EFM Services form the foundation of Singapore’s reputation as an efficient, clean, and safe garden city. These industries consist of waste management, cleaning, security, landscaping, maintenance, and engineering services that contribute to an estimated 2% of GDP in 2019. With over 136,000 employed in these industries, they perform crucial activities that ensure public health and safety. In line with the *Zero Waste Masterplan* and *Singapore Green Plan 2030*, Environmental Services and EFM Services are poised to play a critical role in Singapore’s green transition.

The challenge of recruiting locals into Environmental Services and EFM Services has not dissipated for decades. Businesses recognise this and have embraced technology in the form of cleaning robots and integrated facilities management over the years. However, infrastructure limits the extent to which functions such as waste disposal and collection, toilet cleaning and landscaping can be automated. With an increasingly educated population, it is extremely challenging to recruit residents in what are often perceived as dirty, dangerous and difficult (3D) jobs that often require shift and weekend work as well as physical exertion.

V8 Environmental’s Focus on Technology with a Human Touch



V8 Environmental (V8) is one of the General Waste Collectors (GWCs) in Singapore that provides a full suite of waste collection services. The company has invested heavily in the setting up of a Materials Recovery Facility (MRF), which integrates robotics to accelerate sorting and recycling rates to improve efficiency. Artificial intelligence (AI) technology is also used to better identify non-contaminated materials and improve the quality of recovery.

Notwithstanding the deployment of the MRF in sorting and waste recovery, quality control and ‘last-mile’ sorting must still be performed by humans to ensure top grade quality of its recyclables. Quality is key in recycling, as only ‘pure’ waste streams can be recycled. Higher quantity and quality of recovery would also allow the company to strengthen partnerships and work towards its circular economy aspirations. Unlike the manufacturing process where production lines deploy machines and automation that execute uniform tasks, waste products come in irregular forms and would therefore require some form of human dexterity to pick.

Annex A provides a deep dive into the labour market and business challenges in Singapore, and **Annex B** illustrates the characteristics of Lifestyle Services, Environmental Services, and EFM Services and corresponding workforce intricacies.



PART 2.

WINNING THE GAME BY OVERCOMING MANPOWER CHALLENGES AS A TEAM

Successful sports teams are agile in navigating the critical components of talent, teamwork, and rules in order to win their game. The same analogy applies to how businesses, TACs, government agencies, unions, and PSEIs need to come together to unlock the constrained labour market as we pursue sustainable, resilient, and inclusive economic growth as a nation. Our critical success factors are:



Talent

A diverse pool of players and intentional line-up selection



Teamwork

A synergistic effort to improve manpower utilisation and allocation



Rules

A more targeted and nuanced manpower policy approach

The Lifestyle Services, Environmental Services, and EFM Services have been dealt a difficult hand by the pandemic. Yet, they have overcome border closures, capacity limits, group size changes, operational disruptions, and stepped up to deliver enhanced public health and safety requirements with resilience and grit. For these industries, winning the game means translating this ability to pivot and adapt quickly to new opportunities as Singapore charts our new way forward. This will require the commitment and efforts of all stakeholders.

A Talent – A diverse pool of players and intentional line-up selection

The manpower challenges faced by the Lifestyle Services, Environmental Services, and EFM Services precede the pandemic. Based on annual job vacancy statistics published by the Ministry of Manpower (MOM), the top 10 non-Professionals, Managers, Executives and Technicians (non-PMET) job vacancies in the past decade have remained relatively unchanged. Unsurprisingly, these roles include cleaners, security guards, shop sales assistants, waiters, and kitchen assistants.

With global economic recovery and the reopening of borders underway, travel and the demand for lifestyle services is on the upswing, putting even more pressure on manpower to meet the ramping up of operations. Although the reopening of borders will facilitate the inflow of foreign labour to support this, the ability to take on foreign manpower is constrained by the ability to grow the local workforce. Many businesses in the Lifestyle Services are currently operating below capacity, and will not be able to move to full capacity without the requisite manpower, such as waitstaff to support longer opening hours or hospitality attendants to turn over rooms expeditiously.

Key Action 1:

Tripartite Partners to actively coordinate the redeployment of workforce from pandemic-related operations to Lifestyle Services

There were around 2,000 Safe Distancing Ambassadors employed by the various government agencies as of April 2022, with the number expected to taper as the government eases COVID-19 restrictions. This move will allow critical workforce to be redeployed to other sectors, and a more concerted effort can be made for workers to be re-directed to the Lifestyle Services.

For this to be effective, **coordination among the Tripartite Partners is key. NTUC's Employment and Employability Institute (e2i) can work with TACs to organise job fairs and job matching services to match these workers with roles in the Lifestyle Services, as many of the frontline jobs supporting COVID-19 operations are similar in nature, involving shift hours and interaction with the public.** The various government agencies employing workers in COVID-related functions can support this by allocating time-off for workers to attend job fairs organised by e2i. In addition to participating actively in the job matching process, businesses can also tap on the Jobs Growth Incentive and the SGUnited Mid-Career Pathways Programme to facilitate the onboarding of mature mid-career individuals.

Key Action 2:

Businesses to enhance the value proposition of jobs in Lifestyle Services, Environmental Services, and EFM Services

The Lifestyle Services, Environmental Services, and EFM Services have not been the top choice for locals looking for a job. While efforts have been made to enhance the wages and dignity of jobs in these sectors, perceptions are entrenched around long working hours, physical exertion, and having to manage high consumer expectations.

Businesses can enhance the value proposition of these jobs by striving to meet workers where their priorities lie. For workers seeking flexibility, businesses can tap on the suite of useful resources under the Tripartite Standard on Flexible Work Arrangements² and offer more flexible work arrangements to meet their needs. Contrary to common misperceptions, services-related jobs do not always have to involve rigid schedules with long hours. With a complementary pool of full-time employees, part-timers, and casual workers, businesses can offer flexi-shifts in line with operational peaks during certain days or timings. For workers who value higher pay frequency, businesses can offer weekly or fortnightly wage crediting, an arrangement already offered by most gig economy platforms today. This can be done in-house or in partnership with an Earned Wage Access service provider.

To secure a healthy pipeline of workers, businesses have been working upstream with PSEIs and various training institutions on graduate and internship placements. Despite these efforts, the retail industry for example has found that a significant number of graduates in retail fields-of-study choose to pursue full-time work outside of the industry, with around only one-third of graduates pursuing jobs within the industry. **Businesses can excite more students to sink their roots in these industries through better curation of internship programmes to showcase innovation and development opportunities within the Lifestyle Services.** This can help reduce the “leakage” from the Lifestyle Services courses in PSEIs.

Key Action 3:

Businesses and TACs to work with NTUC and PSEIs to strengthen workplace training and upskilling efforts

It is imperative for businesses to prioritise workplace training and upskilling efforts to ensure that the existing workforce is productive and engaged. While disruption to day-to-day operations can be a major barrier to learning and development (L&D), especially in industries already struggling with chronic manpower shortages, L&D is an essential investment to ensure that workers are equipped with the skills and knowledge to be optimally deployed to support a company's growth. With over 40% of employees indicating that they had left a job recently due to the lack of L&D opportunities³, L&D is an important talent retention tool against the backdrop of intense competition in the labour market.

For sustained and effective outcomes, **business and TACs can tap on the suite of tools and services offered by NTUC, SkillsFuture Singapore, Workforce Singapore and the PSEIs to co-develop business transformation plans and workforce development initiatives that are fit-for-purpose.**

NTUC's Training and Placement (T&P) Ecosystem Helps Companies and Workers to Transform



The NTUC T&P Ecosystem is a one-stop shop comprising NTUC's e2i, NTUC LearningHub (LHUB), NTUC Industry Training and Transformation (IT&T) and the Ong Teng Cheong Labour Leadership Institute (OTCi). Leveraging tools such as the Operation & Technology Roadmap (OTR), NTUC Industry Training Officers work with TACs and companies to develop a customised roadmap for business and workforce transformation, including digital solutions and training pathways necessary to support the transformation process.

Copthorne King's Hotel Singapore (Copthorne), a unionised company under the Food, Drinks and Allied Workers Union (FDAWU), completed their OTR in 2020. The OTR enabled Copthorne to actualise its digitalisation plans in the areas of personalised guest services experience and the automation of labour-intensive tasks. Copthorne also took on training initiatives co-developed with LHUB to upskill and retrain workers, thus facilitating the flexible deployment of manpower across functions to support the hotel's operational demands during the COVID-19 pandemic.

At an industry level, WMRAS and the Building Construction and Timber Industries Employees' Union (BATU), with support of the National Environment Agency (NEA), embarked on its OTR initiative in 2020. The roadmap covered technological adoptions for improved safety and productivity, implementation of continuous L&D initiatives for workers, and supported the implementation of the Progressive Wage Model (PWM) for about 3,000 workers. In partnership with e2i and LHUB, waste management companies embarked on training in areas such as workplace safety, driving safety, and basic ICT skills, upskilling workers' capabilities and uplifting the industry's image in the process.

Singapore Institute of Technology (SIT) Champions Workplace Learning



SIT is Singapore's first university of applied learning, with a mission to develop individuals and innovate with the industry through workplace learning and applied research. In partnership with the Land Transport Authority, SBS Transit and SMRT Corporation, the university piloted pathways for existing employees to obtain a bachelor's or master's degree in Sustainable Infrastructure Engineering (Land) which will equip them with the competencies to take on more specialised roles, while working and learning at the same time.

SIT also offers the SkillsFuture Work-Study Degree (WSDeg), which is an alternative work-study pathway for adult learners. Under the WSDeg, SIT delivers the technical knowledge while industry partners provide students with exposure to real-world challenges to validate their learning. This provides employers with a structured approach to develop their workforce and to assess potential hires while they are undergoing their studies with SIT.

B Teamwork – A synergistic effort to improve manpower utilisation and allocation

In land-and labour-scarce Singapore, it is not optimal for individual companies or even single industries to develop in silo.

With the Industry Transformation Maps (ITMs) 2025 underway, respective economic clusters are plotting workforce projections to support the transformation and growth vision of their respective industries. Taken in totality, these workforce projections may not be tenable in the context of our shrinking resident labour force and carefully calibrated foreign manpower allowance. Instead, industries need to actively look out for interdependencies across supply chains and come together as ecosystem partners to optimise resource utilisation and allocation.

Key Action 4:

TACs to facilitate cross-sector collaboration to achieve higher operational efficiency and better resource allocation

The retail-logistics nexus is an opportunity area for deeper cross-sector collaboration. Many retailers have expanded into e-commerce to secure new revenue streams amidst evolving consumption and purchasing patterns. During the pandemic, retailers pivoted frontline sales staff to backend logistics fulfilment roles as physical footfall dropped while online sales surged, an arrangement that will need to be relooked with physical stores springing back to life.

Given resource constraints, it is not viable for every retailer to invest in full in-house backend warehouse and distribution capabilities to handle the complexities of omni-channel inventory management and direct-to-consumer fulfilment. Instead, retailers can tap on e-commerce enablers and logistics providers to execute supply chain activities. This approach supports economies of scale with a team of warehousing and logistics workers serving a group of companies in the most efficient way, rather than individual companies competing to recruit their own in-house teams. This is similar to the use of shared services in human resource and finance functions by some smaller firms, which is more prevalent today.

Likewise, logistics providers can tap on physical retail stores to facilitate fulfilment instead of focusing only on building its own parcel box infrastructure across the nation or only offering door-to-door delivery, which is the most resource intensive fulfilment option. One example of such collaboration is between Lazada, Ninja Van, and 7-Eleven, enabling shoppers to opt for 'collection points' in conveniently located 7-Eleven stores.⁴

Synagie's End-to-End Retail Supply Proposition



Synagie is a leading digital commerce enabler in Singapore with over 600 brand partners in the beauty, fashion, sports, premium liquor, home and living, electronics and digital goods space. Leveraging big data and cloud-based ecosystem services and solutions, Synagie automates, integrates and simplifies all aspects of the digital commerce value chain. This one-stop-shop service is especially useful to its SME partners, who depend on Synagie to fully manage their online stores on leading e-commerce platforms, from campaign strategy, to inventory tracking, fulfilment solutions, and data analytics.

Synagie has an extensive strategic roadmap of programmes and initiatives to help its brand partners achieve economies of scale, lower operating costs and streamline resource and manpower utilisation: (i) The Synagie Partners and Network (SPAN) advocates intra- and inter-sector consolidation and sharing of infrastructure with suitable businesses. Synagie currently works with third-party logistics partners like SingPost and Ninja Van for on-demand warehousing and last-mile delivery. (ii) Synagie 2.0 is a plug-and-play solution to drive digitalisation of commerce for traditional retailers and business-to-business (B2B) companies, managing both in-store procurement and distribution, on top of business-to-consumer (B2C) fulfilment for online channels. (iii) The Synagie Commerce Academy (SCA) is being developed in conjunction with the Singapore Management University, to develop and nurture a steady supply of best-in-class digital commerce workforce for the industry.

The built environment-EFM nexus is another opportunity area for deeper cross-sector collaboration. Early engagement with EFM Services in the design of buildings allows for intentional infrastructure planning to facilitate the automation of labour-intensive EFM tasks and efficient deployment of EFM workers in integrated roles. An example is lift size and placement which dictates the future feasibility of using robots for routine cleaning work. As EFM functions are automated and streamlined, building owners also benefit from more consistent service standards and reduced reactive maintenance.

To unlock such cross-sector collaborations, TACs which have intimate knowledge of their members' common problem statements and unique strengths can step up to connect potential companies for win-win arrangements. This will help the ecosystem streamline overall manpower utilisation and allocation in Lifestyle Services, Environmental Services, and EFM Services.

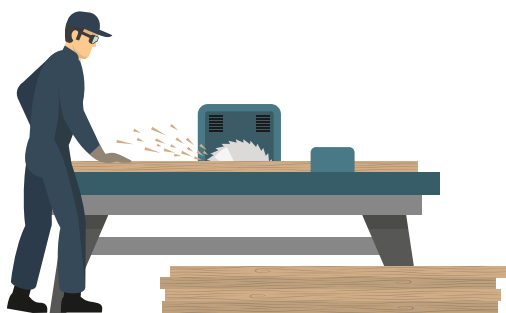
Key Action 5:

Businesses to step up as Queen Bees to build up value chain capabilities

Singapore has a vibrant landscape comprising multinational companies (MNCs) and large local enterprises (LLEs) that are at the forefront of their industries. **In addition to company-based training for their own employees, businesses can also extend these capability building efforts to their industry and value chain to uplift the workforce at scale.**

The SkillsFuture Queen Bee (SFQB) network is a platform for anchor companies to champion skills development in SMEs through advisory support in identifying and acquiring the skills needed for business transformation. Building on the momentum of more than 20 SFQB companies appointed thus far, SkillsFuture Singapore (SSG) aims to partner up to 40 SFQB companies to benefit 4,000 SMEs by 2025.

Commune Lifestyle 'UpScales' with the Industry



Commune Lifestyle is a homegrown furniture design and lifestyle company with a strong regional presence and over 80 global stores. Since its appointment as a SFQB in 2021, the company has worked with SMEs on the 'UpScaling with Commune' programme to learn from Commune's best practices in branding, internationalisation and digitalisation. Through competency-based training, masterclasses and peer learning sessions, SMEs can tap on Commune Lifestyle's expertise and experience to uplift their workforce, and collectively contribute to the furniture industry's aspiration to grow to greater heights.



Key Action 6:

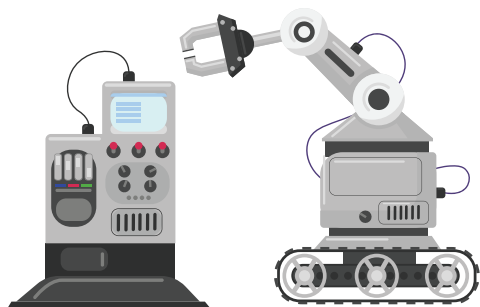
Businesses to optimise EFM resource requirements through an outcome-based approach

As the demand and complexity for EFM Services continues to rise with the proliferation of integrated commercial, residential, and recreation facilities, simply increasing manpower to meet service standards is unsustainable. An outcome-based approach for EFM Services addresses this by specifying contractual requirements in terms of measurable performance outcomes instead of a predetermined headcount. A mutually discussed longer contract tenure may also be necessary to provide the runway for service providers to invest in the necessary technology and infrastructure.

This model unlocks value for both service buyers, which are assured of the service level and quality rendered, as well as service providers, which are incentivised to increase worker productivity and invest in technology. A less widely discussed benefit of outcome-based contracts (OBCs) is its potential to improve the image and lived experience of workers in Environmental Services. For instance, an outcome-based landscaping contract creates the opportunity for a skilled landscape worker to optimise physical hours and enjoy a degree of flexibility in working hours, as long as the desired outcomes are achieved.

Since May 2020, the government has adopted OBCs for all new cleaning and security services contracts. Yet, uptake of OBCs by the private sector is lagging in spite of efforts like the Smart Sourcing Initiative piloted by NTUC in 2017 to provide funding support to service buyers such as shopping malls and condominiums to implement OBCs. Based on a survey conducted by the Ministry of Home Affairs (MHA) in 2020, OBC adoption rate among private sector security services buyers then was only around 6%.⁵ **There is potential for more businesses to adopt OBCs for EFM Services by strengthening their procurement capabilities and tapping on the best practices of the public sector in its transition to OBCs.**

ISS Facility Services Singapore Achieves More with OBCs



ISS Facility Services Singapore (ISS) is a leading workplace experience and facility management company with over 9,000 employees in Singapore. The company leverages a fleet of tech-enabled and mechanised tools to alleviate the largely manual workload performed by cleaners. Recognising that toilet cleaning is one of the most labour-intensive and challenging activities for a cleaner, ISS is working with the various Institutes of Higher Learning (IHLs), together with A*STAR, to develop a proof-of-concept solution for this largely manual activity in typically confined spaces.

ISS together with Raffles Quay Asset Management (RQAM) have successfully adopted OBCs for the cleaning services on premises which includes Marina Bay Financial Centre, Marina Bay Link Mall and One Raffles Quay, shifting away from a traditional focus on headcount requirements. This outcome-based approach has enabled ISS and RQAM to benefit from improvements in service quality and increased productivity as workers augmented by technology focus on providing efficient solutions. Under the OBC model, RQAM was able to achieve lower overall outsourced service cost with a reduced overall reliance on manpower.



C Rules – A more targeted and nuanced manpower policy approach

The nub of the manpower challenge is the shortfall of frontline workers to meet growing demands as we eat more, buy more, build more, and recycle more. Sections **(A) Talent** and **(B) Teamwork** above underscored what businesses and TACs can do in partnership with government agencies, unions, and PSEs to stretch manpower supply and optimise manpower utilisation, in addition to ongoing efforts to transform processes, upskill workers, and redesign jobs.

Yet, optimisation alone will not be enough. The pool of Singaporeans willing to work in these industries will shrink every year as new entrants to the job market are more qualified and existing workers retire. With foreign manpower supplement necessary to keep these services industries going, a more nuanced manpower policy approach will ensure that the **(C) Rules** guiding enterprise development continue to serve the intended purpose of facilitating sustainable, resilient, and inclusive growth.

Key Action 7:

Tripartite Partners to work together to review the broad classifications of business activity, in particular for Services, for purposes of manpower policies

The current Services classification groups firms across a diverse range of service-related areas including:

- a. Financial, insurance, real estate, infocomm and business services
- b. Transport, storage and communications services
- c. Commerce (i.e., retail and wholesale trade)
- d. Community, social and personal services
- e. Hotels
- f. Restaurants, coffee shops, food courts and other approved food establishments

All companies under the Services classification are subject to the same work permit requirements such as migrant worker source countries, maximum period of employment, quota on dependency ratio ceiling (DRC) on the number of work permit holders (WPHs) that they can employ and the corresponding levy rate. This broad classification does not reflect labour market dynamics such as the nature of work, education level, job demand and resident labour force supply across the significantly different Services industries. It is imperative to recognise that the job roles in knowledge-intensive activities like finance and insurance, ICT, and professional services are fundamentally different to that of waste management, cleaning and EFM.

There is an opportunity to review this and Tripartite Partners can work together on a more nuanced classification of business activity, particularly for Services, so that more differentiated policy interventions can be applied to address specific manpower challenges. For example, given the dependence of Lifestyle Services on casual labour, there may be merit to aggregate the hours worked by all local casual labour and compute them as headcounts that can count towards the quota for hiring foreign workers.

There is also an opportunity to recalibrate the DRC and related foreign manpower policies for Services at sub-sector level in order to better allocate foreign manpower to industries in most need of this augmentation without upsetting the overall foreign manpower balance. While the government had recently announced the Manpower for Strategic Economic Priorities (M-SEP) Scheme that will be launched later this year to provide companies undertaking activities which support Singapore's strategic priorities with short-term flexibility to hire S Pass holders and WPHs beyond the prevailing DRC, this is ultimately a time-bound initiative which will not address the enduring manpower challenges faced by Lifestyle Services, Environmental Services, and EFM Services.

Key Action 8:

Tripartite Partners to work together to review expansion of Non-Traditional Sources (NTS) Occupation List and diversification of NTS countries

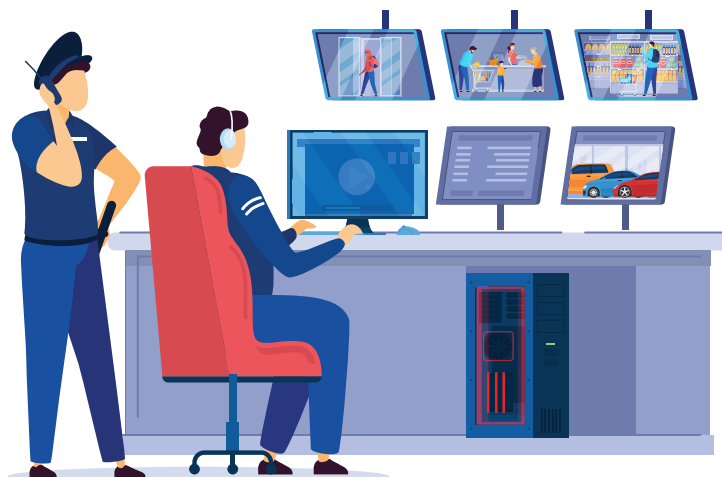
At the Committee of Supply (COS) 2022 debate, MOM introduced the NTS Occupation List that will come into effect on 1 September 2023. The list applies to a very restricted set of occupations that employ very few locals and for which employers can hire WPHs from NTS countries.

➔ Introduction of NTS Occupation List for Services and Manufacturing Sectors

Currently, firms in the Manufacturing and Services sectors can only hire migrant workers from: • Malaysia • People's Republic of China (PRC) • North Asian sources (NAS): Hong Kong (HKSAR passport), Macau, South Korea, Taiwan	From 1 Sep 2023, firms in Manufacturing and Services sectors can hire WPHs from the following NTS countries for a restricted set of occupations in the NTS Occupation List: • Bangladesh • India • Myanmar • Philippines • Sri Lanka • Thailand Note: firms in the Construction, Marine Shipyard and Process sectors can hire migrant workers from NTS countries regardless of occupation.	NTS Occupation List Manufacturing sector • Sheet metal workers • Welders • Metal moulders • Riggers • Structural metal preparers and erectors Services sector • Cooks in Indian restaurants • Food processing workers, excluding supervisors and general foremen, food and beverage tasters and graders, bakers, pastry cooks and confectionery makers
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Aside from cultural considerations, the NTS Occupation List covers job roles in Services and Manufacturing that resemble construction and plant maintenance-type work performed in the Construction, Marine shipyard, Process (CMP) sectors, for which the employment of migrant workers from NTS countries is permitted. In essence, these are labour-intensive 3D jobs, often sited at inaccessible locations, that Singaporeans are not inclined to work in. **Based on these job characteristics, the NTS Occupation List can be expanded to include rank-and-file (RnF) occupations in Environmental Services, such as general waste collection crew, recyclable sorters, waste treatment and disposal workers. In addition, the Tripartite Partners in consultation with the relevant TACs can study the case for the inclusion of other occupations, such as those among the top 10 non-PMET job vacancies, into the NTS Occupation List.**

In addition, Tripartite Partners can work together on expanding the list of NTS countries to diversify Singapore's foreign labour sources, with particular consideration of the available labour pool with the propensity to engage in labour migration in order to improve earning opportunities. Industry feedback, supported by the analysis in **Annex C** points towards Cambodia, Indonesia, and Vietnam as potential additional NTS countries for consideration.



Key Action 9:

Government to support access to international students enrolled in, and recent graduates from, training programmes related to Lifestyle Services, Environmental Services, and EFM Services

International students and recent graduates are a valued source of labour for Lifestyle Services, Environmental Services, and EFM Services. As these students are already in-country and typically stay for at least 12 to 18 months, there is an opportunity for them to contribute to the economy without placing additional stress on our infrastructure. Currently, internships are only permitted for full-time international students in approved institutions.

The government can consider allowing international students studying in services-related programmes in EduTrust-certified Private Education Institutions (PEIs) to take on internship opportunities and part-time work related to their training courses. In addition, regardless of nationality, recent graduates of IHLs, approved industry academies such as SHATEC, and EduTrust-certified PEIs can be offered time-bound work passes to work in services industries related to their field of study.



CONCLUSION

Lifestyle Services, Environmental Services, and EFM Services are fundamental to the economy, supporting the daily needs of the nation and sustaining Singapore's strong reputation as an efficient, clean, and safe garden city. The lack of manpower has left these industries in a challenging position of operating below capacity, focused solely on getting through the day's work, in spite of the positive progress that Singapore is making towards endemicity. While the reopening of borders may ease some of the labour crunch, companies in these industries will continue to face overall manpower shortage as they are unable to hire foreign workers without the corresponding local workforce. The reality is that the chronic manpower situation precedes the pandemic and has persisted, even worsened, in spite of the efforts of Lifestyle Services, Environmental Services, and EFM Services to optimise, transform, and strengthen the value proposition of jobs on offer.

As we chart our new way forward together, businesses, TACs, government agencies, unions, and PSEIs have the opportunity to collectively unlock sustainable, resilient, and inclusive growth for the economy. By supporting the manpower needs in Lifestyle Services, Environmental Services, and EFM Services with conviction and commitment, we not only ensure the preservation and progress of many of these homegrown businesses, but also lay the operational foundations to transform for the future.

A DEEP DIVE INTO THE LABOUR MARKET AND BUSINESS CHALLENGES

Singapore's constrained resident labour force

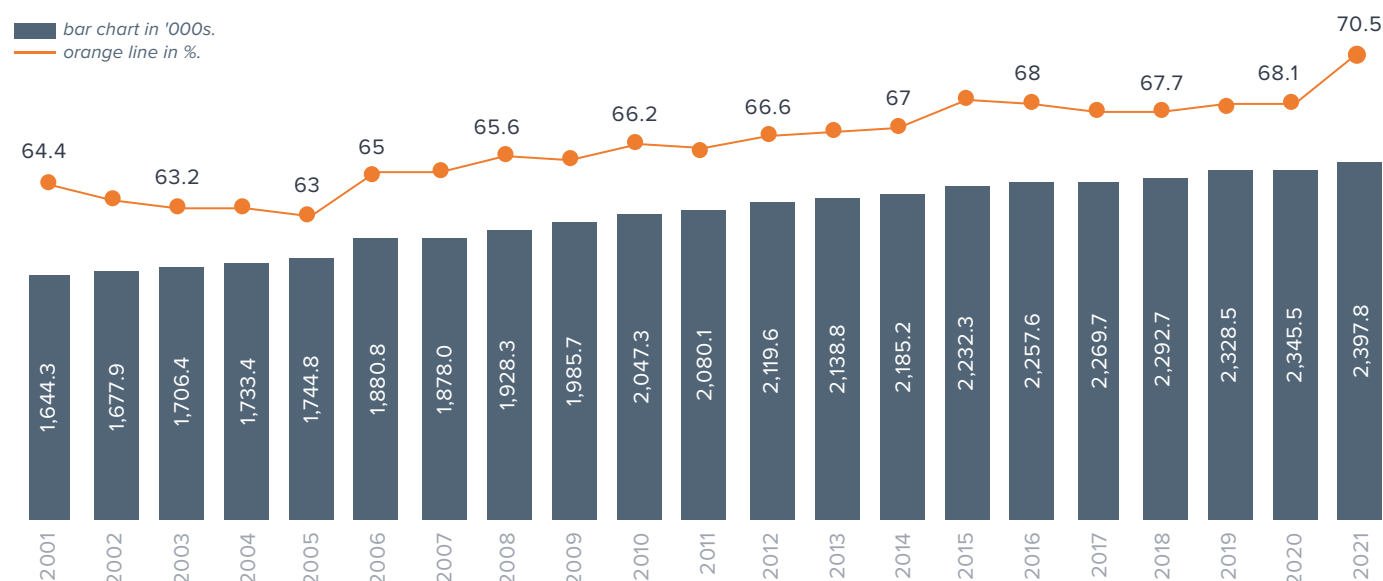
Our island-state has long struggled with a limited resident labour force due to structural constraints. The total population of 5.4 million grew at an average annual rate of 1.5% between 2000 to 2021 as the resident population grew at an average annual rate of 0.9% during the same period.⁶ The resident labour force, in turn, grew by an average annual rate of 2.0% in the same period. This translated to about 39,700 additions to the resident workforce each year. As of 2021, the resident labour force stood at 2.4 million.

Declining general marriage rates and historically low fertility rates have led to decelerating growth in the resident population. The total fertility rate in Singapore sits at 1.1, well below the needed replacement rate of 2.1, and one of the lowest in the world. Between 1980 to 2001, the resident population grew at an average annual rate of 1.7%, compared to 0.9% from 2000 to 2021.

As standards of living improved in the country, so did the level of education. With education levels improving, the occupational composition of employed residents moved up the value chain, made up of a greater share of Professionals, Managers, Executives and Technicians (PMETs). In 2001, 45% of employed residents were in PMET occupations. By 2021, over 60% of employed residents held PMET roles. The number of non-PMET residents shrank from over 878,000 to 865,600 in the same period.⁷

Given the limited resident population, increasing the labour force participation rate (LFPR) has been a lever for the government to drive labour input from the resident population. Through legislative and policy moves, the statutory retirement age has been raised progressively to drive active-ageing and ensure retirement adequacy. Efforts to drive diversity and inclusion, such as spotlighting women's issues and persons with disabilities (PWDs), have also intensified in recent years. The resident LFPR in 2021 was 70.5% compared to 64.4% in 2001.

→ Total resident labour force and labour force participation rate 2001-2021



Source: Comprehensive Labour Force Survey, Manpower Research & Statistics Department, Ministry of Manpower (MOM)

► Tight labour market conditions exacerbated by the pandemic

Contraction in the labour market is by no means new. In the past 30 years, various financial and health crises have shaped the labour market in similar ways. However, the COVID-19 pandemic resulted in unprecedented challenges with the combination of public health concerns leading to a slowdown in economic activity and social mobility that affected both lives and livelihoods. Pre-pandemic employment levels were at their highest in 2019, and the labour market was already characterised as tight, with some sectors seeing higher wage growth due to difficulties in recruitment, while overall unemployment rates remained stable.

Singapore saw the largest annual decline in total employment in over 30 years in 2020. Excluding migrant domestic workers (MDWs), total employment declined by 166,600 year-on-year as economic activities contracted with the disruptions caused by the pandemic. This decline was driven by losses in non-resident employment of 181,500 while resident employment registered an increase of 14,900. In 2021, year-on-year employment grew by 41,000, driven by the services sector, while the construction sector saw a moderate increase of 4,300 employed and manufacturing declined by 1,800. Non-PMET jobs were the most impacted by the pandemic as more rank-and-file (RnF) jobs were lost, and a large outflow in work permit holders (WPHs) among the non-resident workforce was seen over the last two years.

Job vacancies peaked with 117,100 jobs available in the market at the end of 2021, with the ratio of jobs vacancies to unemployed persons at its highest ever level at 2.11 in 4Q 2021.⁸ The demand for jobs came from a sustained global recovery in the demand for goods and services in manufacturing, wholesale trade, and financial and professional services. Concurrently, local restrictions eased as the pandemic came under better control. Hiring picked up to support the ramp-up of operations in the domestic-oriented industries. Unemployment rates improved by January 2022, registering 2.3% overall and 3.1% for residents. These rates were around the levels seen in December 2019 and close to the average levels of 2018 and 2019.

► Enduring job vacancies

For nearly a decade, the top non-PMET job vacancies in demand have remained largely unchanged. The RnF job roles that have consistently been the hardest to fill include Cleaners, Security Guards, Shop Sales Assistants, Waiters and Kitchen Assistants. Unsurprisingly, residents tend to shun these jobs as they are physically strenuous, offer less attractive pay, are in less conducive working environments, and involve shift or weekend schedules.

→ Top 10 non-PMET job vacancies: 2012 to 2021

2012	2013	2014	2015	2016
- Cleaner - Shop Sales assistant - Waiter - Security Guard - Construction Labourer - Food Service assistant - General Office Clerk - Cashier - Cook - Material & Freight Worker	- Shop Sales assistant - Cleaner - Waiter - Security Guard - Receptionist & Customer Service - Construction Labourer - General Office Clerk - Cook - Material & Freight Worker - Kitchen assistant	- Shop Sales assistant - Cleaner - Security Guard - Waiter - Receptionist & Customer Service - General Office Clerk - Construction Labourer - Food Service assistant - Cook - Material & Freight Worker	- Waiter - Security Guard - Receptionist & Customer Service - Shop Sales assistant - Cleaner - Cook - Food Service assistant - General Office Clerk - Material & Freight Worker - Construction Labourer	- Shop Sales assistant - Security Guard - Cleaner - Receptionist & Customer Service - Waiter - Food Service Attendant - Cook - Material & Freight Worker - General Office Clerk - Construction Labourer
2017	2018	2019	2020	2021
- Security Guard - Receptionist & Customer Service - Shop Sales assistant - Waiter - Cleaner - Material & Freight Worker - Cook - General Office Clerk - Cashier & Ticker Clerk - Food Service assistant	- Cleaner - Shop Sales assistant - Security Guard - Receptionist & Customer Service - Waiter - Cook - Material & Freight Worker - General Office Clerk - Heavy Truck & Lorry Driver - Healthcare assistant	- Security Guard - Receptionist & Customer Service - Shop Sales assistant - Cleaner - Waiter - Healthcare assistant - Kitchen assistant - Material & Freight Worker - Cook - General Office Clerk	- Cleaner - Security Guard - Shop Sales assistant - Waiter - Construction Labourer - Receptionist & Customer Service - Material & Freight Worker - General Office Clerk - Heavy Truck & Lorry Driver - Kitchen assistant	- Construction Labourer - Shop Sales assistant - Cleaner - Security Guard - Waiter - Receptionist & Customer Service - General Office Clerk - Material & Freight Worker - Heavy Truck & Lorry Driver - Kitchen assistant

Source: Job Vacancies 2021 and yearly reports. Ministry of Manpower (MOM)

On the other end of the spectrum, the PMET job vacancies were for high-skilled and specialised roles such as healthcare workers and information communications and technology (ICT) related roles. These ICT related roles were the most in-demand, as adoption of technology and digitalisation efforts of businesses across all industries intensified. Businesses indicated that there was a shortage of suitable residents to fill these roles due to the lack of necessary skill sets and relevant work experience.

► Foreign workforce exodus

The foreign workforce effectively acted as a buffer for resident employment during the pandemic and recession.⁹ During the downturn, businesses generally retrenched foreign workers first, so as to preserve jobs for residents. Further to this, some foreign workers also chose to return to their home countries to be with their families during the crisis.

The divergence between resident and non-resident employment trends widened in 2021 as government measures such as the Jobs Support Scheme, Jobs Growth Incentive, SGUnited Jobs and Skills Packages and pandemic-related temporary roles helped temper resident unemployment. Non-resident employment, however, continued to decline. 2021 saw a further decline of 30,000 in the foreign workforce (excluding MDWs), adding on to the decline of 181,500 seen in 2020. Border restrictions and travel anxieties contributed to the inability to replace the outflows of foreign workers.

The easing and streamlining of border measures is expected to ease access to foreign workers, particularly for sectors facing acute labour shortages. This was evidenced by an increase in non-resident employment in 4Q 2021, the first increase in two years. However, overall non-resident employment remains below pre-pandemic levels.

➔ Foreign workforce numbers

PASS TYPE	DEC 2016	DEC 2017	DEC 2018	DEC 2019	DEC 2020	DEC 2021
Employment Pass (EP)	192,300	187,700	185,800	193,700	177,100	161,700
S Pass	179,700	184,400	195,500	200,000	174,000	161,800
Work Permit (Total)	992,700	965,200	972,600	999,000	848,200	849,700
Work Permit (MDW)	239,700	246,800	253,800	261,800	247,400	246,300
Work Permit (CMP sectors)	407,500	360,700	355,700	370,100	311,000	318,400
Other work passes	28,300	30,700	32,100	34,700	32,200	27,200
Total foreign workforce	1,393,000	1,368,000	1,386,000	1,427,400	1,231,500	1,200,400

Source: Foreign Workforce Numbers. Ministry of Manpower (MOM)

► In the eye of the 'perfect storm' of a profit squeeze

Businesses today sit in the eye of the 'perfect storm' as the recovery and growth in revenue remains tenuous while operating costs continue to escalate. As a small and open economy, Singapore is highly impacted by global developments that have implications on businesses' supply chains, raw material costs and other operating considerations such as electricity and transportation costs. Inflationary pressures have persisted since most of the world reopened in 2021. Manpower costs continue to rise as the tight labour market gives rise to competition and society takes active steps to uplift conditions for lower wage workers. Businesses are also compelled to continue investing heavily in digitalisation and technology to transform and reduce reliance on manpower in a bid for survival.

The services industries operate on thin margins. Average industry profitability was 3.6% in 2019, with the top expenditures being the cost of goods and raw materials, manpower, transportation and rent.¹⁰ The inflationary environment and looming uncertainties in the global economy are likely to further impact these top expenditure items for many businesses.

► Persistent inflationary pressures and supply chain disruptions

At the peak of the pandemic, production dialled down due to a combination of lockdowns and a plunge in consumption demand. As the pandemic came under control, countries reopened their economies. Consumers were eager to spend and businesses quickly ramped up operations.

Production supply struggled to keep up with the increase in demand due to a lack of material inputs and labour shortages. Worsening the mismatch, supply chains were disrupted due to border closures. These caused a surge in not only raw material costs but also in transportation costs. Today, shipping costs are nearly double that of 1Q 2021.¹¹ China's zero-COVID strategy remains highly disruptive to global supply chains as new waves of infection trigger lockdowns in major ports.

The recent developments between Russia and Ukraine have caused further spikes in energy prices, as well as prices of other commodities as both countries are large exporters of raw materials such as grains, metals, and neon – a key component in semiconductors. Aside from a protracted war causing disruptions to global supply chains, the threat of a humanitarian crisis and large-scale displacement of refugees may have further implications for the global economy.

To rein in inflation, policymakers employ monetary policy tightening through either raising interest rates, such as with the US or raising the rate of appreciation of exchange rates, as in the case of Singapore. The rising interest rate environment has implications on the overall costs of doing business.

► Higher manpower costs in the new environment

The tight labour market is characterised by rising wages. A limited pool of available manpower for related jobs and industries has intensified competition to recruit manpower to sustain operations. In the past year, some industries have experienced double-digit wage increments just to retain manpower. The holiday season at the end of 2021 until early 2022 saw frontline businesses paying sign-on bonuses to secure manpower to manage the increased volumes. The pace of wage increases driven by intense competition to secure manpower may be unsustainable in the longer term.

Most of the services industries covered in this paper fall under the Progressive Wage Model (PWM). The cleaning, security, and landscape industries were the first groups of workers to be covered by the PWM. The retail industry is expected to implement PWM by late 2022, while food services and waste management will proceed in 2023.¹² Aside from increased wages, PWM aims to increase productivity in these sectors by upgrading workers in tandem with progress in training and certification.

The Progressive Wage Credit Scheme (PWCS) introduced in Budget 2022 will help provide transitional support for these industries to implement PWM. Government co-funding of wage increases for lower-wage workers will help support businesses in allocating resources toward digitalisation and transformation efforts concurrently.

► Ongoing need to invest in capital-intensive transformation

To add to the suite of cost-base increases businesses have to deal with, the need to innovate and transform looms large. Responding to the government's call for industry transformation, industries themselves acknowledge the need to remain competitive by tapping on the suite of support measures that have been put in place.

According to SBF's annual National Business Survey (NBS) 2021/2022, the key priorities for transformation will be investment in new technologies and digitalisation with the objective of raising productivity, optimising operations and reducing operating costs in the long term. These investments require extensive upfront capital outlay and have a protracted payback or realisation period. The support measures announced in Budget 2022 are welcomed by businesses as these schemes will help build digital and innovation capabilities. In addition to financial support, businesses need the human capital to execute these transformative initiatives.

► Common phenomenon in advanced economies

The concerns and challenges in advanced economies¹³ are fairly similar. Reports of chronic and acute shortages exist in the United States, United Kingdom, Germany, Australia, South Korea, and Japan. The same labour conundrum exists around facilitating economic growth while balancing the social impact of a heavy reliance on non-resident labour.

► Similar sectoral compositions, labour force, and social expectations

Most of these nations have similar economic structures. With beginnings as industrial economies, these countries have transformed to become knowledge-based economies powered by high output from the services sectors. Population demographics are also similar in that improved standards of living led to increased life expectancies, a highly educated share of youth, advanced technological infrastructure and high per capita incomes. This also gave rise to different socio-economic expectations from the middle class, such as an emphasis placed on white-collar jobs and an aversion to blue-collar work.

Country Case : United Kingdom (UK)

The UK saw businesses struggle with the worst staff shortages since the late 1990s as the pandemic and lockdown related measures have led to a severe drop in migrant workers. This was further exacerbated by the changes in free movement and restrictions to labour access with the EU due to Brexit. Similar to the exodus of migrant workers in Singapore in the past two years, the UK estimated that over 1.3 million migrant workers had left the country during the pandemic.

As lockdowns eased in the middle of 2021, job vacancies rose sharply in line with business demand. As of November 2021, this stood at close to 2.7 million. Wages had increased by 7.4% year-on-year due to significant labour shortages. Reports also emerged of UK firms offering sign-on bonuses during peak demand periods for customer-facing staff.

Similar to Singapore, non-resident labour dependence in the UK exists at the extreme ends of the labour force spectrum – in low-skilled and low-wage jobs, and in high-skilled and technical jobs. The share of non-UK born workers had ranged from 20% to 30% since 2008. These were primarily in occupations such as health professionals, research professionals, information and communication technology (ICT), food preparation, hospitality, food preparation and cleaning.¹⁴

Country Case : South Korea

Similar to Singapore, South Korea has a high share of highly educated younger generation, with over 70% of those aged 25-34 possessing a degree. According to polls, over 80% of small and medium enterprises (SMEs) were unable to find locals to fill jobs in the manufacturing, agriculture and construction sector.¹⁵ For those businesses that managed to recruit residents, high attrition rates ensued. Businesses thus turned to migrant workers to fill blue-collar jobs in South Korea. A majority of these workers came from the developing countries in Southeast Asia.

To ease the manpower shortage, policy reforms were earlier enacted through the temporary labour migration scheme and the introduction of the Employment Permit System (EPS) in 2004.¹⁶ As of 2020, there were around 248,000 migrant workers under the EPS working in the manufacturing, construction, agriculture and services sectors. The EPS utilises government-to-government (G2G) bilateral arrangements with about 16 countries. Of these countries, the top four source markets were Vietnam, Thailand, Indonesia and the Philippines, contributing to over 55% of the non-resident labour force. Workers from Nepal and Cambodia were also increasingly sought after.

One of the unique features of the EPS is engagement between industry and government to pre-determine annual foreign manpower needs. The Ministry of Employment and Labour engages across the other ministries through a Foreign Workforce Policy Committee that is also represented by SME associations and labour unions. Implementation is under the remit of the Ministry of Employment and Labour that publishes the manpower requirements through the Korea Employment Information System and various regional job and support centres in over 15 countries.

► Temporary seasonal recruitment and extensions of permits as policy response to acute manpower shortages

In response to the labour shortages, the UK and Korean governments have acknowledged the need to facilitate entry and ease regulations for non-resident workers.

The UK government approved short-term seasonal recruitment for Q4 2021.¹⁷ 10,500 non-resident workers for heavy goods vehicle drivers and poultry workers were permitted as a temporary solution with simultaneous calls to increase wages and working conditions for resident workers in the sector.

The Korean government eased regulations for non-resident workers, expanding the eligible industries and non-resident worker supplements. It also extended existing non-resident worker visas for another year.¹⁸

Annex B.

DEEP DIVE INTO CHARACTERISTICS OF LIFESTYLE SERVICES, ENVIRONMENTAL SERVICES, AND EFM SERVICES

Lifestyle Services – Satisfaction of needs and wants in retail, food services, hotels and nightlife

In 2000, there were 24,365 consumer-facing establishments, including retail trade, food services and hotels, which collected \$31.3 billion in operating receipts. By 2019, this figure was nearly double with 41,168 establishments, with a turnover of \$66.6 billion.¹⁹ These industries collectively contributed to 3.5% of GDP in 2019.

→ Lifestyle Services Industries: Establishments and Operating Receipts 2019

FOOD SERVICES

Cafes, Food Courts, Coffee Shops & Canteens	6,749	4,434.6
Fast Food Outlets	491	1,367.3
Food Caterers	463	1,112.8
Pubs	359	240.5
Restaurants	4,937	4,054.4

HOSPITALITY

Hotels & Accommodation	531	7,602.7
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RETAIL

Clothing Apparel & Footwear	7,024	5,496.1
Computer & Telecommunications Equipment	1,911	4,384.9
Cosmetics, Toiletries & Medical Goods	1,780	3,385.3
Department Stores	130	2,787.2
Food & Alcohol	2,016	1,846.9

■ Establishments ■ Operating Receipts (\$m)

Furniture & Household Equipment	2,327	2,045.4
Mini-marts & Convenience Stores	2,330	1,874.6
Optical Goods & Books	1,473	1,367.2
Others	3,764	1,974.6
Petrol Service Stations	216	2,232.6
Recreational Goods	995	699.7
Supermarkets & Hypermarkets	418	6,592.8
Transport Equipment	1,496	8,321.1
Watches & Jewellery	1,758	4,778.6
GRAND TOTAL	41,168	66,599.3



Source: The Services Sector. Department of Statistics (DOS)

As at end 2021, there were a total of 153,500 employed in retail trade, 25,200 employed in hotel and 215,600 employed in the food services industry.²⁰ The total employment of 394,300 in these industries made up about 11% of the total Singapore labour force, catering to the consumption of not just the resident population, but also international business and leisure travellers alike. Such a diverse range of establishments offering consumer necessities and discretionary goods makes for a vibrant Singapore.

Food arguably is central to the identity of Singapore. Apart from the industry's significance in providing food security, health and nutrition, food has socio-cultural significance. Homegrown brands are an important part of Singapore's national identity and cultural heritage. However, in the past two years, numerous heritage brands and local establishments have had to shutter their doors as they could no longer sustain operations due to a lack of demand and manpower. Nightlife and catering businesses have also struggled with restrictions in trading hours and group sizes. The road to endemicity should help revitalise these businesses, but along with a recovery in demand comes the need for manpower to support a ramp-up in operations.

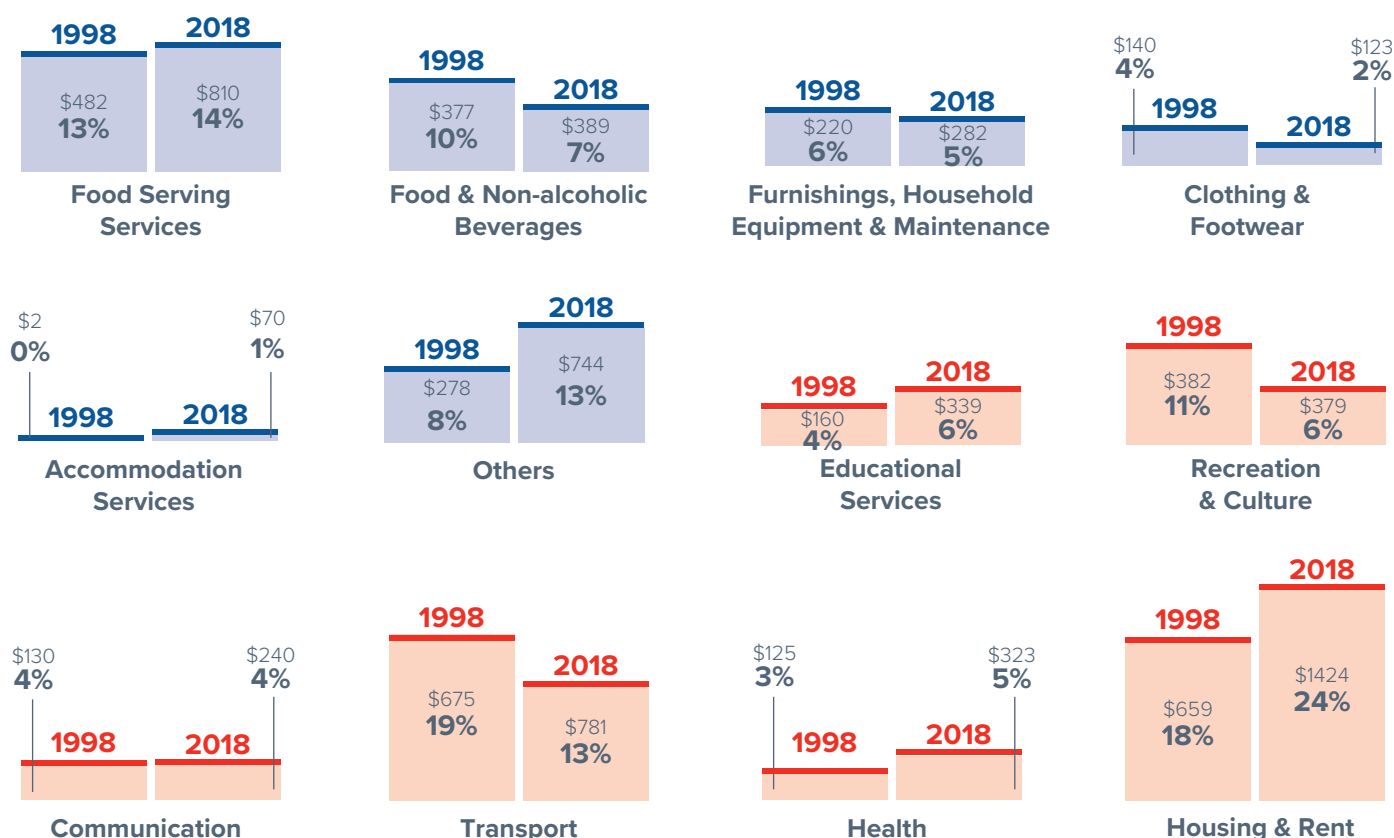
Retail saw the biggest shift and acceleration toward the adoption of e-commerce and e-payments during the pandemic. With limits on social interactions, the bulk of regular consumers' activity had to shift online. Alongside the rise of omni-channel touchpoints, consumer preferences have shifted with the proliferation of choices and the rise in immediacy. Brand loyalty has also waned in the face of supply chain issues and disruptions to demand fulfilment.

Hospitality, while often associated with hotels rooms, also includes Meetings, Incentives, Conferences and Exhibitions (MICE), as well as weddings and in-house F&B outlets. In a typical full-service Singapore hotel, F&B and MICE account for close to 40% of revenue streams. With Singapore as a global hub for exhibitions and conferences, MICE operations typically mobilise a large number of service workers in organising events and attending to guests. This is in addition to the seamless day-to-day operations of hotels, in a city that sees one of the highest occupancy levels in the world.

► Consumption expenditure is an integral part of the economic equation

In the past 20 years between 2000 to 2020, private consumption expenditure from the National Account averaged about 44%.²¹ Data from the Household Expenditure Survey in 2018 show that 20% of the average household's expenses went to food alone.²² In addition, grouping data points Clothing & Footwear, Furnishing, Household Equipment and Maintenance, and Others, to represent the spending on lifestyle goods and services, these account for 21% of household expenditure. Taken together, the average household spends \$2,418 on lifestyle goods and services every month. A little over two in every five dollars spent by households in Singapore makes its way into the Lifestyle Services industries.

➔ Monthly household expenditure: 1998 vs 2018



Source: Report on the Household Expenditure Survey 2017/2018. Department of Statistics (DOS)

■ Spend into Lifestyle Cluster

Environmental Services and EFM Services – Keeping the lights on

The Environmental Services consist of waste management and cleaning industries, while EFM Services includes security, landscaping, mechanical and electrical (M&E) services, and pest control. In 2019, there were 403 security and investigation establishments and 2,135 cleaning & landscape maintenance companies. As of 2021, there were around 500 waste management companies in Singapore. The actual number of companies performing Environmental Services and EFM Services are higher, as there are companies classified under the construction sector that perform cleaning and landscaping activities, and companies that perform in-house cleaning, security and maintenance functions on their own.

As at end 2021, total employment was 76,600 in cleaning and landscaping and 48,000 in security, both of which contribute critically to public health and safety as we transition to endemicity.²³ The waste management industry employs over 12,000 workers covering the end-to-end process of waste collection, sorting, recycling, treatment and disposal.

Total operating receipts brought in by primarily classified security, cleaning and landscaping companies were \$5.4 billion in 2019. The waste management industry, grouped under the Utilities industry contributed \$5.8 billion to the GDP in 2019. Even at the lower range of estimates, the cluster contributes to at least 2% of GDP. More critically, Singapore generates on average over 7.5 million tonnes of waste annually, with a recycling rate of around 60%. This means that close to 3.0 million tonnes of waste need to be disposed of yearly.

Often out of sight and out of mind, these industries are crucial activities that play an essential role in ensuring public health, safety and security. These services are a fundamental necessity in any modern economy. On an international level, the Singapore brand is associated with efficiency, cleanliness and safety, all of which would be impossible without strong Environmental Services and EFM Services. In the 21st century, these behind-the-scenes services have become an invisible part of the economic chassis, essential to smooth-running day-to-day activities throughout the modern economy.

→ Companies and employment



Security

Companies
403
Total Employed
48,000



Cleaning, Landscaping and maintenance

Companies
2,135
Total Employed
76,600



Waste Management

Companies
500+
Total Employed
12,000+

Source:

The Services Sector. Department of Statistics (DOS)

Waste Management Workforce Skills Qualifications. SkillsFuture Singapore (SSG)

► Accelerator of sustainability, safety and resilience

As more emphasis and clarity of action is placed on achieving the *Singapore Green Plan 2030*, businesses are under increased pressure and scrutiny to deliver higher environmental targets. For instance, in a bid to achieve climate, economic and resource resilience, the Zero Waste Masterplan aims to move enterprises from a linear to a circular model of reusing resources. Global supply chains and external demand drivers will compel some industries to achieve carbon footprint reductions sooner than the end of the decade. In this regard, Environmental Services and EFM Services industries play a critical role in facilitating circularity and net-zero, as other industries will look to step up recycling and recovery rates.

EFM ensures efficiency in operations for other users of shared spaces and assets. The industry forms the backbone of safe and smooth-running public and private sector operations, harmonising people, work activities, as well as residential and commercial environments. The development of new industries and the emergence of more complex modes of operations have given rise to evolving demands and expectations of EFM. Across the economy, EFM Services have a financial impact on the accounts of a majority of businesses that own, occupy or lease facilities. On a recurring basis, effective EFM allows for substantial cost reductions to operations through quality control and economies of scale. Over the longer term, it extends the productive and useful life of fixed assets.

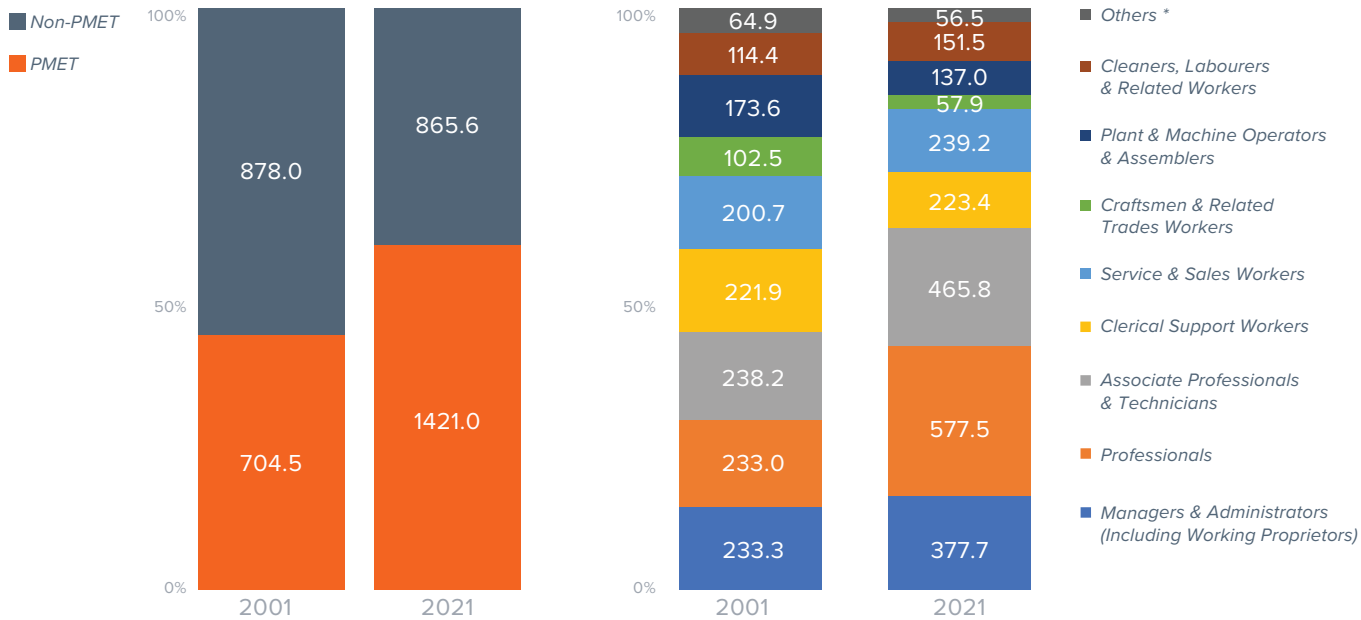
► **Manpower challenges and needs in these industries**

The key challenge in Lifestyle Services, Environmental Services and EFM Services industries is the ability to secure manpower in core labour-intensive activities performing rank-and-file (RnF) jobs. Recruitment challenges range from the negative perceptions of these industries, the lack of resident applicants for related job roles, and the outflows of non-resident workers that may be intensified by the enhancements made to manpower policies. On top of this, there are shortages and intense competition for high-skilled and specialised talent required to execute complex transformation and bring to life new operating models for businesses.

► **Challenges in attracting locals into these industries**

Shifting occupations in-line with economic progress. Singapore, like other advanced economies detailed in the previous section, experienced improvements in living standards and saw an increasing share of highly educated workers. The previous generation may have been employed in blue-collar work along with the industrialisation of the economy, but white-collar desk-bound jobs dominate the economy today as the economic structure has shifted to become more service and knowledge-based. This is evidenced by the rise in the share of PMETs over the past two decades. In Singapore, less than four in ten residents perform non-PMET roles today, compared to more than half of the resident labour force two decades ago.

➔ **Resident occupation types 2001 vs 2021** (figure in '000s)



Source: Comprehensive Labour Force Survey, Manpower Research & Statistics Department. Ministry of Manpower (MOM)

Beyond higher wages. The issue goes beyond pay as the challenge of attracting residents persist in spite of the successful implementation of PWM. Social priorities and perceptions of these industries have to be addressed. Businesses are willing to pay to recruit manpower in the current labour market as attracting and securing manpower is a key priority for the next 12 months.

Shifting social priorities among residents. According to the latest World Values Survey (WVS) in Singapore, the perceived importance of work has dropped in the rank of priority over time. In 2020, work ranked fifth in order of priority as compared to being deemed the second most important priority in 2002.²⁴ The pandemic has changed expectations on working with more flexibility and a premium on wellness. More importantly, the younger generation of workers are fundamentally different, valuing work-life balance more highly and a need for alignment with an organisation's mission and values.²⁵

Negative perceptions in these industries. Among locals, there is a misperception that all job roles in the Environmental Services and EFM Services industries are dirty, dangerous and difficult (3D). As seen in the UK and South Korea, the challenges in recruiting residents into these industries are common across advanced economies. For Lifestyle Services industries in Singapore, facing customers is a particularly arduous activity, perhaps due to high consumer expectations. Additionally, traditional operating models in these businesses dictate that manpower must be present in fixed and determined hours. This lack of flexibility contributes to the undesirable nature of working in consumer-facing and on-site services industries.

► Technology complements, not replaces, humans

The purpose of automation is to increase productivity and not necessarily to fully replace the need for manpower. As processes are automated, jobs can effectively be redefined. Technology should allow businesses to scale by removing repetitive and mundane tasks from workers.

Automation-labour fallacy. A study by Yale University found that between 1978 and 2017, Japanese manufacturing firms saw an increase in employment of 2.2% for every robot introduced per 1,000 workers. The Massachusetts Institute of Technology found that the adoption of advanced technologies led to more hiring in Finnish firms. Likewise, the London School of Economics found that in British industries, there was a strong positive association between greater initial automation, firm survival and increases in employment.²⁶ Technological innovation, digitalisation and automation will not replace the need for manpower as jobs roles will progressively be redefined and rescoped to focus on value-added activities. Together with investments in training to reskill workers and implementing change management, businesses can achieve both human capital development and labour productivity growth.

Processes automated and digitalised, where possible. The service industries have invested steadily in automation and transformation activities. The onset of the pandemic further accelerated businesses' adoption of productive solutions in order to ensure survival. At the current state, businesses have automated processes such as digitising payments, e-commerce solutions, utilising smart sensors and integration through Internet of Things (IoT) adoption, to alleviate shortages of manpower and move jobs up the value chain. About 85% of businesses from the Industry Transformation Map sectors have taken up the Productivity Solutions Grants (PSG) since 2018.²⁷

Unpredictable environments: beyond scope for now. McKinsey notes that the technical potential for automation differs between sectors and activities. For example, about half of the activities performed by retail assistants can be automated, while the other half of retailing involves cognitive and social skills.²⁸ Advising customers on purchase decisions requires judgment and emotional intelligence. More importantly, the research emphasises the lower potential for automation in unpredictable environments. These are situations where contexts are random in manner and require flexibility in judgment to arrive at the appropriate interventions. Below are some examples of jobs that cannot be easily automated:



Housekeepers who have to clean hotel rooms with where pillows are thrown in different places and towels laid in different parts of the room.



Butchers who have to cater to different cuts and preparations of meat to fulfil different requests from restaurants and customers.



Waste collectors who need to navigate across a mix of roads, streets and alleys that are not directly accessible to vehicles to collect from a mix of shophouses, buildings, terraces and blocks.



Landscapers who are expected to exercise judgment in pruning trees between roads and pavements to ensure the canopy of trees act as shade while ensuring the safety of vehicles passing through.

Enhancing customer experiences: the value multiplier. According to research done by Qualtrics, two out of three Singaporeans cite sub-par customer experience and dissatisfaction with customer service as the primary reason for switching brands. This translates to about 10% of revenue at risk due to bad service experiences. Conversely, building a relationship with positive customer experiences increases the likelihood of repeat business by almost four-fold.²⁹ The increasing trend toward personalisation of digital experiences remains a driving force in novel customer interactions. A generic one-size-fits-all approach is no longer valuable to the customer.

Revitalised appreciation for mobility and interaction. The pandemic brought about a renewed appreciation for moving about freely and visiting public spaces. Ultimately, experiences and interaction fulfil deeper needs apart from consumerism and consumption as people want to socialise, commune and disconnect, or simply be out in public. Stores continue to be a place to be visited, not simply to acquire or consume, but to experience and interact. These clusters are crucial to the experiences of productivity and well-being of the workforce, but also the need for recreation in society.

► Demand for high-skilled talent for transformation

Businesses need to scale and capture new opportunities through transformation. This transformation is led by adopting and building technological capabilities. Furthermore, the green transition is accelerating as a core shift that industries must make in order to ensure a resilient future. Apart from competition for these high-skilled talents, businesses must keep a look out for these new and emerging jobs.

ICT-related jobs. Skilled talent and manpower are enablers of these transformations that range from the revamp or setup of information technology (IT) infrastructures and networks, digitalisation of processes, robotics and process automation. Additionally, there are digital-related skills and technical competencies such as e-commerce, data analytics and software development that are core to realising digital solutions. According to SGTech's survey in 2021, a majority of companies faced challenges in hiring tech talents. The poll also found that 81% of companies had plans to hire new tech talents. While 5% of the companies who responded with plans to hire new tech talents required more than 100 new headcounts, about 40% of companies responded with needing at least 10 new headcount, and more than half of companies responded that they required less than 10 new headcount to perform tech-related roles.

Competing with high-growth industries. While a significant part of the manpower shortage lies in core labour-intensive RnF jobs, businesses are also competing against big names and established multinational corporations (MNCs) to recruit high-skilled talent in ICT-related roles. Within industries themselves, the competition for such talent is intensifying, with SMEs often squeezed out by larger organisations' ability to offer higher wages.

Green skills and jobs. According to LinkedIn's Global Green Skills Report 2022, the fastest-growing green skills are in Ecosystem Management, Environmental Policy and Pollution Prevention.³⁰ The transition to a greener economy is supported by equipping the workforce with the knowledge and relevant skills to enact and enable sustainable economic activities. Given the urgency of environmental sustainability action, the Environmental Services and EFM Services industries are at the forefront of upskilling and educating their workforce, while being placed in a strong position to influence all other industries.



ANALYSIS OF HOUSEHOLD INCOMES FOR SOURCE COUNTRIES

To analyse the available pool of labour in source countries, we look at the annual household income groups in the source country. The improvements in household incomes and shifts in shares of household income buckets reflect the improving economic conditions and standards of living within the countries. Labour migration is driven by the availability of work and higher earning opportunities, in both the home and host countries.³¹

The traditional source countries are China, Malaysia and North Asian sources (NAS) comprising Hong Kong, Macau, South Korea, and Taiwan. Non-traditional source (NTS) countries include Bangladesh, India, Myanmar, Philippines, Sri Lanka, and Thailand. A third group of countries, Cambodia, Indonesia, and Vietnam are potential additions to the NTS list and termed 'other sources'.

Based on available data from Oxford Economics, annual household income on constant 2015 prices level is grouped into three buckets.

- a. Annual household income less than USD 2,000, which translates to the poverty threshold.
- b. Annual household income between USD 2,000 and USD 10,000, which equates to between SGD 550 and SGD 1,150 in monthly wages (based on 2015 exchange rates of 1.37 USD/SGD). This is comparable to the median salary of SGD 1,100 earned by Work Permit Holders (WPH) in 2020³², which is typically used to support the entire household in their home countries. This bucket represents the available pool of labour as individuals in this bucket have the highest propensity to engage in labour migration in order to improve earning opportunities.
- c. Annual household income above USD 10,000, which is an indicator of progression towards middle class. The measure of the middle class in emerging and developing economies begins at around USD 15,000 due to lower costs of living.³³

Between 2005 and 2020, the share of households with an annual income between USD 2,000 and USD 10,000 declined for traditional source countries like Malaysia and other NAS countries. China, with the largest pool of available, saw a marginal increase in this household income bucket. Many NTS countries and 'other source' countries saw an increased share of households in this bucket with Cambodia, Thailand, Vietnam recording the highest share of households in this group.

Projections for 2030 reflect the improving economic conditions in all countries with an increasing share of households earning higher income levels. As households move out of the USD 2,000 to USD 10,000 income bucket, we expect the attractiveness of labour migration to decrease. Traditional source labour markets like China and Malaysia expect a decline in the available pool of labour. Conversely, the available pool of labour in NTS markets of Bangladesh, India and Myanmar is expected to increase.

By 2030, the aggregate available pool of labour for both NTS and 'other source' countries in the USD 2,000 and USD 10,000 bucket is expected to surpass the available pool of labour for traditional source countries.

→ **Share of Households by Annual Income Bucket by Source Group of Countries in USD** (constant 2015 levels)

	China	Malaysia	NAS	Bangladesh	India	Myanmar	Sri Lanka	Philippines	Thailand	Cambodia	Indonesia	Vietnam
Less than \$2,000												
2005	26%	1%	0%	41%	40%	64%	12%	6%	6%	37%	14%	23%
2020	2%	0%	0%	25%	26%	20%	4%	4%	2%	13%	8%	5%
2030	1%	0%	0%	11%	14%	6%	1%	1%	1%	3%	3%	1%

Between \$2,000 and \$10,000

2005	70%	69%	20%	58%	59%	36%	84%	86%	86%	63%	82%	76%
2020	71%	58%	12%	73%	68%	80%	79%	83%	87%	86%	80%	91%
2030	55%	36%	10%	82%	73%	93%	68%	73%	81%	94%	73%	85%

Above \$10,000

2005	3%	30%	80%	1%	2%	0%	5%	8%	8%	0%	4%	1%
2020	27%	41%	88%	2%	5%	0%	17%	13%	11%	1%	12%	4%
2030	45%	64%	90%	7%	13%	1%	30%	27%	18%	3%	24%	14%

Source: Oxford Economics



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