

Alliance for Action on Business Competitiveness Report



CONTENTS

Foreword	1
Chapter 1: Background	3
Chapter 2: Engagement Process	7
Chapter 3: Manpower	8
Chapter 4: Land	17
Chapter 5: Regulations	28
Conclusion	42
Acknowledgements	45

JOINT FOREWORD BY CO-CHAIRS



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The global economic environment has become more fractured since the pandemic, with heightened geopolitical tensions threatening the multilateral trading system. Supply chains are being reconfigured, with economic nationalism and industrial policy on the rise. This has led to a more contested global economic environment, with direct and spillover impact on our businesses and workers.

At the same time, the acceleration of disruptive technologies and the urgency to transition to net zero impose potential new challenges for businesses. These can come in terms of capability gaps, heightened costs, and the threat of not being able to compete in the post-pandemic global economy. Feedback from businesses has been clear – emphasising the need for support in emerging areas like green technologies, sustainability and digital transformation, while managing potentially sustained higher costs in the new normal.

Given Singapore's small and open economy, we are not insulated from these global tensions and external pressures that threaten our business competitiveness. Nonetheless, there are bright spots and fundamental strengths that Singapore can build on to increase our competitiveness. These include our strong trade partnerships, pioneering efforts to build digital and green capabilities, as well as the deep trust among industry, labour unions, and Government. These characteristics form our strong foundation as we work to address critical areas such as manpower transformation, land optimisation, and regulatory agility, which are essential in order for us to adapt to evolving technological advancements and the demands of a changing global economy.

It is in this spirit that the Singapore Business Federation (SBF) and Ministry of Trade and Industry (MTI) have come together to form an Alliance for Action (AfA) on Business Competitiveness in 2024, to explore ways to enhance Singapore's competitiveness in key areas. This effort specifically targets manpower transformation, land use optimisation, and a regulatory framework that supports innovation and future growth. However, we recognise that the AfA is not a panacea for all the challenges that businesses face. There are broader, structural issues in the global economic landscape that require continued collaboration and adaptation by both businesses and the Government.

Along with industry leaders from multinational enterprises (MNEs) and small and medium-sized enterprises (SMEs), as well as representatives from the National Trades Union Congress (NTUC) and multiple public sector agencies, the AfA has gone through rigorous rounds of industry engagements and discussions to co-create possible solutions over the past nine months to address both short and long-term competitiveness. Through the AfA process, over 100 companies were engaged. This process has allowed the private and public sectors to better appreciate each other's challenges and considerations, while working together towards constructive outcomes to strengthen business competitiveness.

We are particularly mindful of businesses' feedback on the cumulative effects of wage pressures, manpower shortages, upskilling needs, sustainability requirements and regulatory agility. The AfA's recommendations, informed by broad-based and sector-specific engagements, aim to transform challenges into opportunities for growth. We encourage businesses to take ownership of this transformation and leverage collaborative platforms like the AfA to ensure Singapore remains competitive amidst global shifts.

On behalf of SBF and the Government, we would like to thank all AfA members and stakeholders who have provided feedback and participated in the AfA in one way or another. Your involvement has been instrumental in helping us better understand the needs of our businesses and workers, which has enriched our policy discussions.

This AfA report is a culmination of the hard work over the past year; it represents the strong tripartite partnership and the will of our people to come together and explore solutions for the betterment of Singapore. We encourage all businesses, workers, and public sector agencies to understand the deliberations and recommendations in the report. We look forward to the AfA's recommendations being considered seriously by the industry and Government. We hope that the AfA's work can contribute to broader efforts to help our businesses and workers turn challenges into opportunities, leverage global trends for growth, and strengthen competitiveness for a better future ahead.

Even as we conclude the AfA, we will build on its momentum to continue strengthening the partnership between the private and public sector, and to collectively work together as One Team Singapore to sharpen our business competitiveness.



Mr Mark Lee and SMS Low Yen Ling
Co-Chairs of the AfA on Business Competitiveness
1 November 2024

A FUTURE-READY SINGAPORE – STRATEGIC IMPERATIVES FOR ENDURING COMPETITIVENESS

A Race to Differentiate Ourselves for a New Era of Economic Growth

Businesses around the world are facing the most disruptive period in our generation as they try to navigate a variety of risks – economic, environmental, health, technological and armed conflict.

Amidst headwinds and crises, the global economy is restructuring at a scale and pace never seen before. International consensus supporting globalisation is now in reverse as we see economies de-risking and de-coupling. Businesses are considering how to mitigate these risks, while seizing new growth opportunities in an increasingly competitive environment.

Singapore has been able to maintain our position as one of the world’s most competitive economies. In 2024, we ranked 1st in the International Institute for Management Development (IMD)’s World Competitiveness Ranking.¹ Between 2016 and 2023, the Singapore economy achieved real gross domestic product (GDP) growth of 2.8% per annum (p.a.), outpacing most other small, advanced economies (classified by the International Monetary Fund [IMF] as advanced economies with populations between five and ten million).²

For the medium-term, Singapore should continue to build on our competitive advantages of trust and neutrality, by pressing on with transformation to improve our competitiveness, and strengthening our productivity and capabilities while managing within our resource constraints. We need to ensure that our operating environment remains pro-business and supports our enterprises and workers to manage rising costs.

Continuing to strengthen Singapore’s Unique Selling Proposition

Business competitiveness refers to the ability of a country to create and sustain an environment that enables businesses operating within its borders to achieve consistent growth, productivity, and ultimately, prosperity. As new pockets of economic growth emerge globally and Singapore’s resources – labour, land and carbon – become increasingly constrained, Singapore needs to consider how it continues to stand out as a preferred place to conduct business.

Developing and enhancing an attractive business environment is essential to creating good opportunities for Singapore and generating resources to uplift our people. Besides attracting Foreign Direct Investment (FDI), which spurs productivity through competition and knowledge transfer, an attractive business environment also benefits local Singaporean businesses and small and medium-sized enterprises (SMEs). Singapore has witnessed a 10% and 17% increase³ in the number of enterprises for SMEs and non-SMEs respectively from 2020 to 2023. These local businesses need a strong and facilitative business environment to support their continued growth.



¹ IMD World Competitiveness Ranking 2024, https://www.imd.org/centers/wcc/world-competitiveness-center/rankings/world-competitiveness-ranking/rankings/wcr-rankings/#_tab_Rank

² Department of Statistics Singapore, <https://tablebuilder.singstat.gov.sg/table/TS/M015721>

³ Department of Statistics Singapore, <https://tablebuilder.singstat.gov.sg/table/TS/M600981>

In recent years, Singapore has faced increasing cost challenges:

- a. Labour. Singapore's Relative Unit Labour Cost (RULC)⁴ in the manufacturing sector rose significantly by 9.2% and 10.7% in 2022 and 2023 respectively (i.e., became less competitive), albeit remaining below historical levels. This was due to larger increases in Singapore's manufacturing Unit Labour Cost (ULC) vis-à-vis our competitors, compounded by the stronger Singapore dollar.
- b. Land. Industrial land costs have increased on average at about 0.6% year-on-year over the past five years. Today, average industrial land rents in Singapore range from SGD0.15/square foot/month (sf/mo) in Tuas to SGD0.59/sf/mo in Kallang Basin.⁵

While operating costs in Singapore may be increasing, this differential reflects the premium value proposition of doing business here, characterised by our exceptional political stability, high level of trust, and neutrality. We must build on these foundational strengths to continually attract global businesses seeking a secure, efficient, and well-connected hub for their Asian operations and beyond.

To sustain our competitive edge, it is crucial to adopt a holistic approach that not only emphasises the importance of a favourable business environment but also addresses the specific needs of various sectors. It is essential to recognise that business competitiveness is influenced by a complex interplay of factors beyond just operational costs. Elements such as workforce skills, land availability, regulatory frameworks, and technological advancements all play pivotal roles in shaping the competitive landscape. Understanding these diverse influences allows us to create targeted strategies that address the specific needs of businesses and enhance their ability to thrive in a competitive environment.

Focusing on Productivity

Given the breadth of factors impacting competitiveness, the AfA has focused on three key pillars – Manpower, Land, and Regulations – which are of critical and immediate importance to companies confronting competitive pressures. For each of these pillars, the AfA set out to tackle a few key questions:

 Manpower	<ul style="list-style-type: none">• How to enhance workforce competitiveness, through workforce transformation and capability development, to support new growth areas in the green and digital economy and to help businesses scale internationally• How to support businesses in accessing a complementary workforce pool to support growth and transformation
 Land	<ul style="list-style-type: none">• How to support businesses with land lease policies that encourage investments in productivity and innovation to support transformation• How to increase land use intensity and increase land productivity to maximise the use of limited industrial land
 Regulations	<ul style="list-style-type: none">• How to balance regulatory objectives with the need for regulatory flexibility to support critical areas such as the green transition• How to streamline regulatory requirements and costs through a more coordinated whole-of-government approach

⁴ The RULC index for manufacturing is derived by comparing Singapore's manufacturing ULC vis-à-vis 16 competitor economies, measured in a common currency. The 16 economies are Australia, China, France, Germany, Hong Kong, India, Indonesia, Japan, Malaysia, Netherlands, South Korea, Taiwan, Thailand, the United Kingdom, the United States and Vietnam. The RULC index for manufacturing is reported annually in MTI's Annual Economic Survey. https://www.mti.gov.sg/-/media/MTI/Resources/Economic-Survey-of-Singapore/2023/Economic-Survey-of-Singapore-2023/Ch3_AES2023.pdf

⁵ Industrial Land Rates, JTC website (as of 25 Oct 2024), <https://www.jtc.gov.sg/find-land/industrial-land-rates>

The AfA recognised that many of the challenges surfaced by businesses under these three pillars were complex and would require, in some cases, further study before settling on a solution that was best for Singapore. In developing its recommendations, the AfA was conscious of the need to have a mix of solutions that could be readily implemented in the near term to provide immediate support and relief to businesses, with longer term measures that might need to be fine-tuned but had the potential to be needle-moving in strengthening Singapore's long-term competitive edge.

Spotlight on Manufacturing:

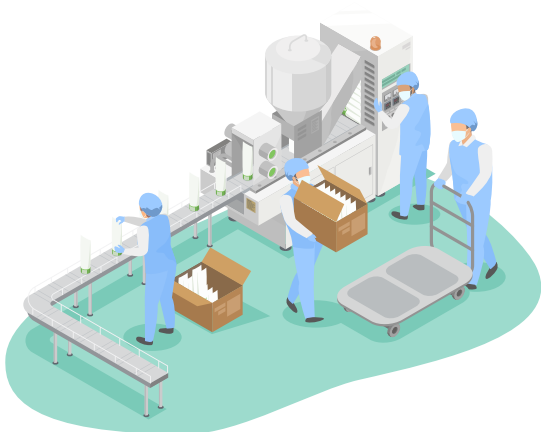
Keeping the Manufacturing Engine Running: Towards Manufacturing 2030⁶

A common theme that surfaced through the AFA consultation process was the challenges faced by manufacturing firms here.

Singapore has been able to sustain a sizable manufacturing sector despite our higher cost structure and competition from neighbouring countries. Many companies have decided to locate their manufacturing hubs in Singapore, spanning industries from healthcare precision manufacturing (Mead Johnson unveiled a production R&D centre in Singapore in 2014), and medical imaging (Fujifilm celebrated 40 years in Singapore in 2023), to laboratory instruments (Thermo Fisher Scientific expanded steriles manufacturing and research capabilities in Singapore in 2023), and chemicals (Henkel celebrated 40 years in Singapore in 2023). KLA, a world leader in developing industry-leading equipment and services that advance innovation throughout the electronics industry, celebrated the completion of Phase 1 of its new manufacturing facility in October 2024. They were drawn by the city's strong logistics and supply chain network, robust scientific community and collaboration opportunities, as well as Singapore's advanced technology and R&D capabilities.

But the margin for error is small. The world's biggest economies are in an industrial arms race to anchor key technologies, offering large subsidies that economies like Singapore cannot outbid. At the same time, our resource constraints, from land to carbon, are tightening.

Global manufacturers tell us that their choice of where to site their production facilities is driven by three key considerations – government stability, productivity, and cost competitiveness. In the IMD World Competitiveness Index 2024, where Singapore ranked first overall, we were also top ranked in government efficiency, and business efficiency factors. We were, however, ranked 38th for unit labour costs and 62nd for prices (which include indicators such as consumer price inflation and office rent), out of 67 countries.⁷ While global manufacturers may choose to invest in Singapore for reasons other than cost, how long will they continue to do so if business costs continue to rise at this pace?



Manufacturing firms based in Singapore say they are struggling to justify maintaining their operations here. In SBF's National Business Survey 2023/2024, one in four manufacturing firms said they were considering relocating their operations to another country.⁸ Manpower is a critical problem. While many manufacturing firms have embraced robotics, Artificial Intelligence, Additive Manufacturing and other Industry 4.0 technologies on the shopfloor, many say there are some remaining tasks that cannot be automated that are dependent on humans.

Continue on next page ►

⁶ Manufacturing 2030, a key pillar under the broader Singapore Economy 2030, aims for Singapore to become a global business, innovation, and talent hub for Advanced Manufacturing. As part of this roadmap, the government has set an ambitious target to increase the sector's value-add by 50% over 10 years.

⁷ IMD Country Profiles: Singapore' (As of 28 Oct 2024), <https://imd.org/entity-profile/singapore-wcr/>

⁸ SBF National Business Survey 2023/2024, [https://sbf.org.sg/docs/default-source/advocacy-policy/sbf-research-reports/nbs-2023-2024--final-report-\(final-version\).pdf?sfvrsn=8c6eb618_1](https://sbf.org.sg/docs/default-source/advocacy-policy/sbf-research-reports/nbs-2023-2024--final-report-(final-version).pdf?sfvrsn=8c6eb618_1)

Manufacturing firms also cite challenges in terms of access to industrial land, with tenures being too short to justify the high capital investments necessary to improve productivity. They also cite challenges in navigating the complex regulatory landscape for building and construction, challenges in relying on a pool of capable intermediaries to help them navigate this complex landscape, and regulatory hurdles in adopting green solutions and technology. Additionally, as carbon emissions are becoming an increasingly important consideration in manufacturing plants, more infrastructure support in reviewing our local power grid's sustainability metrics and innovation approaches will be necessary for our firms to stay competitive.

Solutions to some of these challenges are explored in the upcoming chapters. The AFA affirms that retaining a high value-adding manufacturing base is crucial for Singapore's economic diversification and resilience for three key reasons:

1. Manufacturing is economically significant as a key contributor to GDP, forming approximately 19% of our GDP in 2023,⁹ second only to the wholesale trade sector. While employing 12% of the country's workforce¹⁰ and offering wages that are on average 5% higher than the country's overall median,¹¹ the sector is also productive with real value added per worker doubling over the past 15 years.¹²
2. Manufacturing is vital to our economic diversification strategy, which is crucial for our small, open economy. This was demonstrated during the COVID-19 downturn, where the manufacturing sector held strong due to sustained demand for essential goods, even though the services sector suffered considerably.
3. Manufacturing has a multiplier effect on the rest of the economy. When manufacturing thrives in Singapore, there will be positive downstream effects on construction, logistics, retail, modern services, and trade, among other sectors. A study by MTI in 2017¹³ showed that every \$1 million of value added in the manufacturing sector generated \$0.29 million of value added in the services sector, and every 100 new jobs in the manufacturing sector was associated with 27 jobs created in the services sector.

In this era of immense change, Singapore has an opportunity to play a leading role in the next stage of Asia's exciting growth journey. Singapore can exceed its potential by developing and capitalising on its unique strengths, including its strategic location, world-class infrastructure, highly skilled workforce, and pro-business regulatory environment, and focus on differentiating itself as a hub for productivity and innovation.



⁹ Department of Statistics Singapore, <https://www.singstat.gov.sg/publications/reference/singapore-in-figures/economy>

¹⁰ Manpower Research & Statistics Department, Ministry of Manpower, <https://stats.mom.gov.sg/Pages/employment-Summary-Table.aspx>

¹¹ Manpower Research & Statistics Department, Ministry of Manpower, <https://stats.mom.gov.sg/Pages/IncomeTimeSeries.aspx>

¹² Department of Statistics Singapore, <https://tablebuilder.singstat.gov.sg/table/TS/M015761>

¹³ Manufacturing and Services in Singapore' Economy: Twin Engines of Growth and Their Asymmetric Dependencies, <https://www.mti.gov.sg/Resources/feature-articles/2017/Manufacturing-And-Services-In-Singapores-Economy--Twin-Engines-Of-Growth-And-Their-Asymmetric-Depen>

ENGAGEMENT PROCESS



The AfA undertook an extensive engagement process to address key challenges in Singapore’s business landscape. Over a period of nine months, the AfA conducted 25 engagement sessions and consulted over 100 business leaders and public sector representatives across various sectors. These engagements included six main committee meetings, eight focus group discussions, and 11 brainstorming sessions between business leaders and government agencies. A public consultation was also conducted, where business leaders were invited to provide written feedback throughout the course of the AfA.

These engagements allowed business leaders to highlight their manpower challenges with reference to employment passes, source countries, job roles, and overall labour availability and costs. Potential strategies to overcome these issues were also raised, acknowledging possible enhancements to existing growth and transformation schemes, and with a focus on continually developing the capabilities and skills of employees to build a competitive and productive workforce for value creation.

Land availability, renewal of leases and related requirements were also issues raised during the focus group discussions, in view of the limited supply of industrial land in Singapore. As part of the AfA, relevant government agencies had the opportunity to understand and elaborate on the concerns raised, acknowledging the need to facilitate more engagements with the industry on lease renewals, as well as enabling new opportunities in developing sustainable spaces.

Business leaders also gave feedback on Singapore’s regulatory environment, particularly on regulations pertaining to new sectors such as solar development and electric vehicles. Regulations in the built environment sector were also a key area of feedback received, with a view to streamline processes to reduce business costs.

Through these engagement sessions, the AfA gathered crucial insights on how these three pillars – manpower, land, and regulations – intersect and impact overall business competitiveness. The AfA recommendations have thus been shaped by grounding proposed solutions in real-world business needs and experiences, supported by concrete data.

The collaborative approach between the Government and the business community, as exemplified by the AfA, will play a crucial role in shaping policies and initiatives that will drive Singapore’s economic growth and competitiveness in the years to come, particularly in optimising its approach to manpower, land, and regulatory frameworks.



SETTING THE SCENE

Singapore's strategic geographic location, strong industrial harmony and highly skilled workforce offer a distinct competitive advantage in attracting high-value industries. The Government has made significant investments in developing the local workforce through initiatives such as the SkillsFuture Level-Up Programme and the enhanced Career Conversion Programmes. To maintain our position as a leading global business hub, we must continue with these efforts to grow a robust talent pipeline.

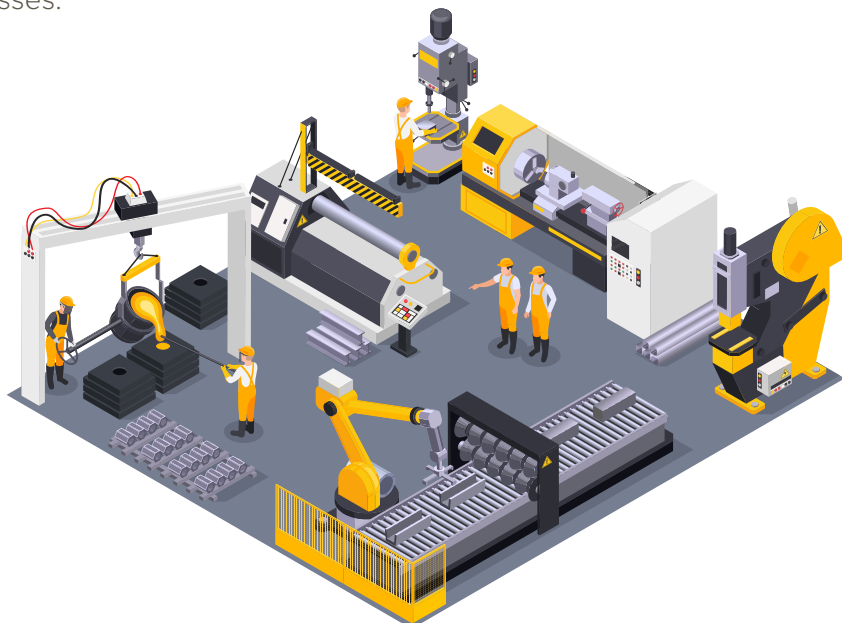
However, our local workforce growth is slowing due to declining birth rates and an ageing population. In 2023, there were 3.2 citizens aged 20-64 years old to every citizen aged 65 and above. In 2030, this ratio is projected to drop to 2.3.

In SBF's National Business Survey on Manpower and Wages published in August 2024, rising manpower costs, a limited pool of high-skilled local labour, and tight foreign manpower policies were cited as the top manpower challenges faced by companies. 61% of businesses cited limited local talent as a challenge, up from 40% the previous year.

Given Singapore's inherent resource constraints, productivity-driven growth is the only sustainable way forward. Continuous improvements in productivity require a fundamental shift from a "business-as-usual" to a "transform is the new norm" mindset. Innovation, resource optimisation, efficiency improvements, and integration of advanced technologies into business operations are crucial for businesses to remain competitive on the global stage. Other countries are doing the same (see Box Story for examples from South Korea and Taiwan).

Even as we press on with transforming the business landscape, we will need to facilitate the growth of productive sectors and firms through continued access to foreign workers. Other than developing our own talent, central to Singapore's success has been our openness to complementary foreign workers, enabling companies to grow here and create quality jobs for locals, and to bring in expertise that supports the next bound of innovation. To support the transition to a higher-quality workforce, we must strengthen the ability of our businesses to attract and retain high-quality foreign workers at all levels and incentivise employers to upskill their foreign workforce. We must also build social acceptance of foreign talent by strengthening integration between locals and foreigners at the workplace.

In addition to global talent, Singapore needs to supplement its workforce with Work Permit Holders (WPHs) in critical roles that are less attractive to local workers or could not be automated through technology. The number of WPHs in Singapore has surpassed the pre-COVID-19 levels in 2019 by 14%. Given our limited capacity, we will need to manage overall numbers, while enabling companies to hire higher-quality WPHs. As we press on with efforts to transform, some businesses may need transitional manpower support, to maintain operational continuity, while transitioning to more productive and technologically advanced processes.



In the following sections in this Chapter, we set out a series of manpower-related recommendations that are intended to help businesses:

- a. Maximise human capital of the local workforce
- b. Expand access to complementary foreign workers
- c. Provide transitional manpower support for firms undergoing transformation
- d. Review manpower regulation requirements to reduce business costs

Box Story:

Managing Manpower in Other Asian Economies

Similar economies, such as South Korea and Taiwan, are also grappling with the need to ensure that productivity growth keeps pace with increasing labour costs. Common strategies to overcome this imbalance include significant investments in education and skills development, promoting technological adoption, and providing Government incentives for business transformation.

In South Korea, leading companies are actively investing in Artificial Intelligence (AI), deep tech and robotics to maintain productivity and offset the impact of South Korea's ageing workforce. The country has also introduced a five-year plan to expand state scholarships for students from countries with high demand for economic cooperation with South Korea – such as Poland (for aerospace and defence industries), and the United Arab Emirates (for its large nuclear energy sector).

Taiwan has modified its regulations for hiring migrant workers in manufacturing, construction, agriculture and long-term care to address its labour shortage. To combat the skilled workforce shortage in semiconductors and machinery making, the Ministry of Labour launched the 'Long-term Retention of Skilled Foreign Workers Program' in 2022, allowing employers to retain foreign workers who have worked in Taiwan for at least six years.

RECOMMENDATIONS

(A) Maximise Human Capital of the Local Workforce

Recommendation 1:

Strengthen support for enterprise and workforce transformation in tandem.

The AfA is of the view that workforce transformation outcomes are best achieved when tightly coupled with enterprise transformation. Boosting productivity as part of workforce transformation is essential for enterprises to maintain competitiveness in the face of rising costs, shrinking margins, and global challenges. The AfA notes that the SkillsFuture Enterprise Credit (SFEC) scheme, introduced in 2020, provides companies with a one-off \$10,000 credit to help them defray the out-of-pocket expenses on qualifying enterprise and workforce transformation programmes. Today there is a wide range of such qualifying programmes¹ including the Productivity Solutions Grant, Enterprise Development Grant, Market Readiness Assistance Grant, Career Conversion Programmes and Support for Job Redesign under the Productivity Solutions Grant.

The AfA is encouraged that some businesses have been proactive in utilising their SFEC, and are requesting for additional support to sustain their ongoing transformation efforts. Since 2020, more than 30,000 enterprises have utilised the SFEC. However, businesses have also provided feedback that it is difficult to navigate the landscape of qualifying programmes. While the current design of the SFEC reduces the application burden for companies, it presupposes that companies are familiar with existing qualifying programmes and does not require companies to couple their enterprise and workforce transformation efforts.



¹The \$10,000 SFEC is over and above the existing support from these Government qualifying programmes.

As the SFEC will expire in June 2025, the AfA agrees that it is timely for the Government to strengthen support for enterprise and workforce transformation to achieve better outcomes.

Businesses propose that as part of this review, the Government could:

- i. Strengthen enterprise and workforce transformation by allowing companies to tap on a pool of trusted advisors/consultants. The Government could work with Trade Associations and Chambers (TACs) to identify a pool of such advisors that could help companies diagnose their needs (including productivity gaps), guide them in developing their transformation roadmaps, and identify suitable enterprise and workforce transformation programmes.
- ii. Allow Government funding to be used for a broader range of expenses related to job-redesign, e.g., spending on workforce solutions and HR tools, capability building workshops, and workshops on Jobs Transformation Maps.
- iii. Extend the SFEC or repurpose the scheme beyond the current expiry in June 2025, taking into consideration the enhancements above.

Recommendation 2:

Utilise untapped labour pools to increase workforce capacity and resilience.

To maximise available labour, the AfA is of the view that more can be done to help businesses better utilise untapped labour pools, including seniors, persons with disabilities, caregivers, and ex-offenders:

- i. Increase the number of small and medium-sized enterprises (SMEs) benefitting from existing schemes. Such schemes include the (i) Part-time Re-employment Grant (PTRG) that supports employers in offering part-time re-employment, flexible work arrangements (FWAs), structured career planning for senior workers; (ii) Employment Credits which offer wage offsets for hiring senior workers, persons with disabilities and ex-offenders; and (iii) Open Door Programme (ODP) that helps employers to hire, train and integrate persons with disabilities. Businesses propose that some of these schemes, such as the PTRG that is currently focused on seniors, could be reviewed to support hiring of other untapped labour pools such as caregivers. In addition, the AfA recommends that TACs can step up awareness of these schemes to increase uptake amongst businesses, especially SMEs. By developing resources to showcase success stories and best practices in job redesign, workforce transformation, and the implementation of FWAs, TACs will support businesses in the hiring of such workers.
- ii. Expand the scope of programmes such as the Career Conversion Programmes (CCPs) to support flexi-work. Building on the recommendation from the AfA on Widening Access to Talent to develop structured programmes to attract seniors and stay-at-home moms to take up hard-to-fill jobs, the AfA recommends expanding the eligibility criteria for programmes that can support flexible work. Specifically, the AfA recommends that CCPs support hiring for flexi-load roles (varied workloads or reduced working hours), to enable businesses to access a wider pool of experienced mid-career local workers who can be reskilled for in-demand job roles. This will help businesses meet their manpower needs in key functions, while also expanding career opportunities for workers.

In addition, businesses shared feedback that the Government could also consider reviewing policies that restrict ex-offenders from working in certain job roles, including as drivers or cleaners in high security areas such as Jurong Island and Changi Airport, to allow businesses to tap on this potential labour pool. The Government has shared that for sensitive areas, such as Jurong Island, the Police does not rule out ex-offenders on a blanket basis and the factors relating to the offence are considered in determining access.

The AfA recognises that stable employment is critical in an ex-offender's reintegration into society. The AfA notes that Yellow Ribbon Singapore (YRSG) – a statutory board under the Ministry of Home Affairs – and Singapore Prison Service have been partnering industry to provide job opportunities for ex-offenders and preparing them for employment and reintegration. To encourage businesses to hire ex-offenders, the Uplifting Employment Credit Scheme was launched on 1 April 2023, to provide employers that hire ex-offenders with wage offsets of up to 20% of monthly income, capped at \$600 per month per employee, for the first nine months of employment. These efforts have contributed towards keeping the recidivism rates low.

Recommendation 3:

Build a stronger pipeline of local corporate leaders to meet companies' need for leadership talent.

As articulated in the Forward Singapore report, we want to support Singaporeans with the potential to stand out as specialists and leaders in their respective fields.

The AfA is of the view that the Government and businesses need to work together to groom more local talent and invest in their career development, equipping them with the key skills and capabilities to take on more senior leadership roles and to meet the talent needs of businesses.

A stronger local leadership bench strength will be crucial in supporting the expansion and internationalisation of our local enterprises, and in anchoring multinational enterprises (MNEs) to base their operations in Singapore. Building this human capital is a strategic move that will enhance both workforce and business competitiveness.

The AfA recommends that the Government and businesses deepen collaboration in two key areas of local leadership development:

- i. Address the gap in overseas work experience among local talent, which is key for advancement into more senior leadership positions. Specifically, the AfA calls upon businesses to tap on the Government's workforce programmes that co-fund overseas postings – such as Monetary Authority of Singapore's International Postings Programme, Enterprise Singapore's Singapore Global Executive Programme and Workforce Singapore's Overseas Markets Immersion Programme – to scale up their leadership development efforts. These overseas stints should be made available to workers at various levels of experience and seniority, as part of structured job rotations and in-house talent development. TACs can also play a role in increasing awareness of such schemes.
- ii. Strengthen synergies and collaboration across leadership networks in Singapore, which will help to deliver greater value to locals in their leadership journey. Networks can look to leverage one another's resources (e.g., by availing programmes to members of other networks) to provide local talent with greater access to a wider variety of resources (e.g., mentoring, masterclasses) and facilitate cross-sectoral networking opportunities. This will serve to deepen their leadership capital and enhance soft skills which are not easily acquired through formal education and training.

Recommendation 4:

Promote the exchange of local and global talent to enable businesses to build a competitive workforce.

To scale and thrive in an evolving and demanding global business environment, companies need to build a strong talent bench by accessing global capabilities while equipping the local workforce with the skills and experience to navigate international markets. Bringing in global talent can help companies better understand foreign business environments as they scale through internationalisation. Similarly, sending local talent for structured overseas rotations provides crucial opportunities for exposure that will equip locals with skill, knowledge, and experience to take on corporate leadership roles eventually.

The Government has launched two Government-to-Government manpower exchange pilots in 2024 – the Tech:X programme with Indonesia, and the Innovation Talent Exchange (ITX) programme with Vietnam. These programmes facilitate young tech professionals from Singapore to work in Indonesia and Vietnam, and those from Indonesia and Vietnam to work here. These programmes will deepen linkages between the tech ecosystems in Singapore, Indonesia, and Vietnam, and enable businesses to access a wider pool of young tech professionals.

The AfA recommends that industry partners, including TACs, partner the Government to increase awareness and utilisation of Tech:X and ITX to meet the talent needs of businesses. For example, TAC-led overseas business missions to Indonesia and Vietnam could include visits to institutes of higher learning where businesses can leverage these programmes to recruit talent. While the current manpower exchange programmes are limited to Indonesia and Vietnam, the AfA recommends that the Government consider scaling the programmes to more markets should they prove successful. This will help to promote the exchange of local and global talent to enable businesses to build a competitive workforce.



CASE STUDY

MaivenPoint: Building a Robust Talent Pipeline for Strategic Growth

MaivenPoint is a Singapore incorporated software-as-a-service (SaaS) solution provider that is the EdTech arm of global data management and data governance leader AvePoint. Represented in 29 cities across 14 countries, MaivenPoint enables educators, students, and organisations to create engaging learning experiences to meet their unique, evolving training and accreditation needs. To support its growth into new markets, MaivenPoint is tapping on available programs to bring in early technology talents from Vietnam as part of a two-year work and learn programme, where SUTD will offer a Master of Science in Technology and Design (Cybersecurity) programme (MTD) and MaivenPoint will provide on-the-job training opportunities. Through this pilot, MaivenPoint hopes to build a dynamic ecosystem that helps regional technology talents better understand Singapore's technology needs, as well as strengthen its pipeline of job-ready technology professionals.

(B) Expand Access to Complementary Foreign Workers

Recommendation 5:

Expand the Non-Traditional Sources Occupation List to enable businesses to access higher-skilled Work Permit Holders.

The Government announced in 2022 that it will continue to raise the qualifying salary and levies for S Pass holders to uplift the quality of S Pass holders to the top one-third of local Associate Professionals and Technicians (APT) wages and ensure a level playing field for locals. To help businesses adjust to the S Pass moves, the Non-Traditional Sources Occupation List (NTS OL)² was introduced to allow Services and Manufacturing firms to hire Work Permit Holders (WPHs) from non-traditional sources³ such as Thailand and Philippines for a select list of occupations which were less localisable.

The AfA recommends an expansion of the NTS OL to help businesses with pressing manpower needs to access higher skilled WPHs in non-Professional, Managers, Executives and Technicians (non-PMETs) roles from more diversified sources. The manpower challenge is especially acute for the Manufacturing sector which faces a constrained manpower supply due to limited source options, and is struggling to cope with demand as it pursues its Manufacturing 2030 ambitions. As such, in consultation with industry stakeholders, the AfA recommends expanding the NTS OL to include a select list of machine operators and labourer roles in the manufacturing sector such as metalworking machine setter operators.

Recommendation 6:

Build workforce resilience by expanding the list of Non-Traditional Sources to include other sources with skilled workers.

Today, businesses in the Services and Manufacturing sectors can hire WPHs from Malaysia, People's Republic of China, and North Asian sources.⁴ They can also hire non-traditional sources WPHs for a select list of occupations under the NTS OL, subject to a minimum qualifying salary of \$2,000.

Businesses have called for an expansion in non-traditional sources to include workers from countries such as Vietnam, to strengthen workforce resilience and business continuity. The AfA recommends reviewing the list of source countries that businesses can hire WPHs from.

In addition, for essential jobs with low localisation and automation potential such as some machine operator and labourer job roles in the precision engineering sector, businesses have shared that the NTS OL provides limited relief due to the qualifying salary of \$2,000, which is above the market rate for most of these job roles. Beyond NTS OL, MOM already allows source country flexibilities to hire for certain essential job roles such as conservancy workers. The AfA recommends building on this and reviewing the areas where further source flexibilities are required. The AfA recognises that access to such flexibilities should be kept tight, with proper gatekeeping of firms that can access them, to prevent over-reliance on low-cost labour that can undermine our drive for higher productivity.

Recommendation 7:

Enable businesses to retain higher-skilled Work Permit Holders and deploy their foreign workers more efficiently.

Businesses have highlighted that the existing maximum Period of Employment (POE) and maximum age policies⁵ for WPHs may have prevented employers from retaining workers who have built up many years of experience and skills, therefore making them more productive compared to fresh hires from abroad. The AfA therefore recommends that the Government review relevant policies on maximum POE and maximum age for WPHs, to support businesses to retain their experienced foreign workers and improve productivity.

The AfA recognises that it is important to help businesses optimise their workforce needs as they grow and diversify into activities across different sectors. Today, the cross-deployment of foreign workers is already allowed within the same sector for firms in the Construction and Process sectors, and between wholly owned companies in the Manufacturing and Services sectors.⁶ This allows businesses to efficiently deploy labour across peaks and lulls.

Businesses have recommended expanding the cross-deployment rules to further help businesses optimise their manpower needs across peaks and lulls by allowing:

- i. Cross-deployment of foreign workers between majority-owned entities across different sectors (e.g., Construction to Process sector) with the same Dependency Ratio Ceiling (DRC), or from a sector with a stricter DRC to one with a looser DRC, e.g., from Services to Manufacturing; and
- ii. Cross-deployment of foreign workers between firms with strategic contractual relationships, e.g., sub-contractors or supply chain partners.

The AfA recognises the need to strike a balance between the potential efficiencies associated with more flexible cross-deployment rules, and risks around circumvention of work pass controls and unclear lines of employer responsibility. The Government will study these recommendations further through pilots with selected sectors or firms.



CASE STUDY

Cyclect and its Cross-deployment for Workforce Optimisation

Cyclect is a multi-disciplinary engineering solutions firm that has a footprint in multiple markets delivering a broad spectrum of engineering and maintenance solutions to clients in diverse industries. More flexible cross-deployment policies will allow Cyclect to optimise the hiring and deployment of skilled foreign workers such as electricians that install, maintain and repair electrical systems used across different sectors, as well as fitters that install and maintain mechanical systems and assemble piping systems that are required in many sectors. In doing so, Cyclect will be able to improve productivity through better utilisation of skilled workers across the peak and lull periods of a project, rationalise its foreign workforce needs, as additional workers need not be brought in for short-term projects, and better manage costs through manpower and time savings with the reduction in new work pass applications.



² The WPHs hired via the NTS OL are subjected to a fixed monthly salary criterion of at least \$2,000 and a sub-Dependency Ratio Ceiling (DRC) of 8%.

³ Non-traditional sources refer to Bangladesh, India, Philippines, Thailand, Myanmar and Sri Lanka.

⁴ North Asian sources refer to Taiwan, South Korea, Hong Kong and Macau.

⁵ Higher skilled WPHs have a maximum period of employment of 22 to 26 years. In addition, the maximum age which WPHs can work till is 60 years old.

⁶ MOM is working with Singapore Tourism Board (STB) and EnterpriseSG to pilot cross-deployment across majority-owned firms in the Food Services and Accommodation Services sub-sectors.

**Recommendation 8:
Develop a Tripartite advisory on workplace integration.**

A harmonious workplace will improve employee engagement and ultimately, the productivity of the workers. Given this, employers have a keen interest and responsibility to promote workplace integration of local and foreign workers. In particular, better integration will also preserve policy space at the economy level for further augmentation of our local workforce with a complementary foreign labour pool.

There are ongoing efforts on this front that have proved to be quite successful. For instance, DBS's Singapore Immersion Programme supports the integration journey of employees that are new to Singapore. Under this programme, foreign employees are assigned Singaporean colleagues as buddies and participate in activities such as heritage walking trails and sharing sessions on Singapore's nation building journey.

SBF and partner TACs, including the American Chamber of Commerce in Singapore, the European Chamber of Commerce in Singapore, and the Singapore International Chamber of Commerce, also organise regular welcome programmes for new Employment Pass holders to engage local stakeholders, for a better appreciation of Singapore's business environment and employment landscape. This programme has been well-received and can be scaled up to a structured initiative for companies that do not yet have such a programme.

The AfA recognises that more can be done to further support companies in their workplace integration efforts. To this end, the AfA recommends working with the Tripartite Partners to explore a Tripartite instrument on Workplace Integration. The Tripartite instrument can aim to equip employers with knowledge on best practices to develop their own workplace integration initiatives.

(C) Provide Transitional Manpower Support for Firms undergoing Transformation

**Recommendation 9:
Enhance the Manpower for Strategic Economic Priorities (M-SEP) Scheme to provide transitional support for businesses undergoing transformation and invest in longer-term talent development for locals.**

The AfA is of the view that productivity-driven growth is the only sustainable way forward given our resource constraints and therefore calls for businesses to continue to transform and raise productivity, by tapping on the many resources, grants and schemes available today. The AfA recognises that business transformation takes time, and some businesses will require manpower flexibilities as they make the transition to a more productive and manpower-lean operating model.

Launched in 2022, the M-SEP scheme supports the growth of businesses that meet the following two conditions:

- i. Condition 1 – Contribute to Singapore's strategic economic priorities through ambitious investment, innovation, or internationalisation activities; and
- ii. Condition 2 – Support the hiring or training of locals.

Companies that fulfil these conditions can obtain additional S Pass and Work Permit quota up to 5% of their base workforce headcount, up to a cap of 50 workers per firm over a period of two years.

The AfA finds the M-SEP scheme useful in providing flexibilities, but notes that take-up of the scheme is low. Today, only 63 of more than 1,000 eligible companies in Singapore are on the M-SEP scheme.

To increase take-up, the AfA recommends that the Government enhances the scheme, while TACs work with Government agencies to increase awareness and encourage take-up of the scheme when supporting their member companies in transformation and upskilling initiatives.



Specifically, the AfA recommends that we could:

- i. Lengthen the duration of the M-SEP support period from the current two years to provide more certainty for companies undergoing transformation;
- ii. Expand access to the M-SEP scheme by allowing companies that tap on a wider range of programmes to qualify for M-SEP; and
- iii. Support eligible companies that commit to sending local employees for structured overseas work programmes with M-SEP quota. Businesses are supportive of new government initiatives⁷ that will allow them to send more local talent on overseas stints. Additional support provided through the M-SEP scheme will allow businesses with limited manpower resources, especially SMEs, to initiate such programmes while ensuring operational continuity.

Businesses have also proposed to increase the M-SEP support to take into consideration the quality of jobs that companies hire or train for under M-SEP Condition 2. The Government will study further enhancements to M-SEP to better support companies' transformation plans.



CASE STUDY

Keystone Cable: Wiring up for Transformative Growth with M-SEP

Keystone Cable is a 35-year-old Singapore-based SME that manufactures and supplies cables for the infrastructure, data communications, and oil and gas sectors. As a participant of Enterprise Singapore's Scale-Up SG programme, which supports companies with high-growth potential, Keystone Cable has invested in new production machines and equipment with automation capabilities in recent years (Condition 1 of the M-SEP scheme). In view of these investments, Keystone Cable has been able to tap on the M-SEP scheme to bring in additional foreign labour to support their increased production capacity. At the same time, these advancements have enabled the company to hire more local engineers to drive its Industry 4.0 digitalisation programmes (Condition 2 of the M-SEP scheme).



⁷ For example, Workforce Singapore's Overseas Markets Immersion Programme and the Economic Development Board's Global Business Leaders Programme.

(D) Review Manpower Regulation Requirements to Reduce Business Costs

Recommendation 10:

Streamline the migrant worker Onboard programme for returning non-Malaysian Work Permit Holders in the Construction, Marine and Process sectors.

The AfA recognises the importance of having regulatory requirements in place to ensure safe migrant worker inflows, whether during peacetime or during a pandemic.

In March 2021, MOM launched the Migrant Worker Onboarding Centre (MWOC) pilot across five Quick Build Dormitories to improve the public health resilience of migrant worker dormitories and better manage future public health outbreaks. The MWOC allowed newly-arrived migrant workers from the Construction, Marine and Process (CMP) sectors to serve their Stay-Home Notice period (before DORSCON Green) and complete their work pass entry requirements, such as enhanced medical examination and the Settling-in Programme (SIP), conveniently at a one-stop centre. In September 2022, MOM consolidated all onboarding operations at a single Onboard centre (OC) at Sengkang West, allowing male non-Malaysian Work Permit Holders (non-MY WPHs) in the CMP sectors to complete their work pass entry requirements all under one roof. The OC remains our key safeguard for safe migrant worker entry during peacetime or during a pandemic, by helping to screen for public health threats and orientate migrant workers to living and working in Singapore.

The AfA recommends streamlining the Onboard programme to essential health-related assessments for returning⁸ non-MY WPHs in CMP sectors, as these workers would have completed the SIP during their previous work tenure in Singapore and would also have good awareness of their employment terms in Singapore. This move could help businesses manage some of their foreign manpower cost by reducing the onboarding cost per affected worker by at least \$75. The residential Onboard programme for returning non-MY CMP WPHs will also be shortened from three days to two days, following the removal of the SIP requirement.

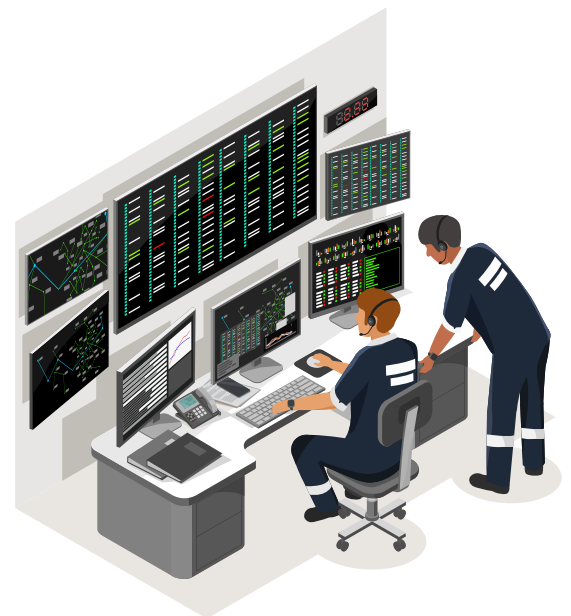
Recommendation 11:

Review mandatory Primary Care Plan for S Pass holders in the Construction, Marine and Process sectors.

The AfA recognises the importance of ensuring that migrant workers have access to quality and affordable healthcare to minimise public health concerns. The Primary Care Plan (PCP) was introduced in April 2022 with the aim of providing quality, accessible and affordable primary healthcare to migrant workers. PCP is beneficial for both employers and workers as it (i) supports proactive public health surveillance, which minimises risk of large outbreaks and work disruption, and (ii) provides cost assurance and protection against unexpected primary healthcare bills.

PCP is currently mandatory for S Pass and Work Permit holders who stay in dormitories that can accommodate >6 persons, or work in the CMP sectors. Businesses recommend exempting S Pass holders who do not reside in dormitories or work near a PCP medical centre, typically visit private clinics near their work or residential areas. Employers may also have existing corporate outpatient health plans for their S Pass holders.

To reduce the overlapping costs for employers paying for PCP coverage alongside corporate outpatient health plans, the AfA recommends that the Government work with the relevant TACs to review the PCP coverage for S Pass holders.



⁸ Returning workers are those who applied for a new Work Permit with a new arrival date and have held a Work Permit before.

SETTING THE SCENE

As an island nation, Singapore has always been conscious of the need to make effective use of its scarce land resources. Optimisation of land use is pivotal for maintaining economic vitality and competitiveness on the global stage.

Compared to our regional competitors, Singapore's unique situation of having manufacturing in the city presents significant challenges in terms of land availability. The high demand for industrial space places pressure on land value and costs, which in turn impacts the overall cost of doing business. Despite land constraints, Singapore has continued to maintain our competitive edge through innovative urban planning and strategic land use policies that aim to maximise the functionality, efficiency and productivity of its limited industrial land and spaces.

Singapore has considered a number of strategies to optimise land use that are comparable to economies facing similar challenges such as Hong Kong, South Korea, and Taiwan (see Box Story). Given our land scarcity challenges, the Government has taken proactive steps to maximise the productive use of industrial land to drive sustained economic growth. JTC Corporation (JTC)'s industrial leases offer companies stability and predictability and enable them to plan their operations, growth strategies and financial investments with confidence. However, the AfA recognises that there is a need to continually refine land lease policies to support businesses as they adapt and seek to thrive in an evolving business landscape.

Effective and efficient utilisation of industrial land and space will remain a cornerstone of Singapore's economic strategy. By learning from global best practices, and leveraging unique and innovative approaches, Singapore continues to navigate the complexities of land scarcity while maintaining its competitive edge in the global market.

In the following sections within this Chapter, a series of tailored recommendations and illustrative case studies are set out, covering how land use challenges can be addressed through optimisation of land use, coupled with strategic investments in technology and sustainable practices. In particular, our recommendations seek to:

- a. Extend industrial land lease tenures to support business needs
- b. Increase productivity of industrial land
- c. Enable new opportunities



Box Story:

Some Examples of Asian Economies' Land Optimisation Strategies

Vertical Expansion: High-density industrial buildings and multi-storey factories are common in land-scarce regions. This approach maximises the use of limited space by building upwards rather than outwards. Shenzhen is a major city renowned for innovation in southern China. Faced with limited industrial land resources, it has turned to vertical factories to promote efficient land utilisation and to propel high-quality manufacturing.

Special Economic Zones (SEZs): Many economies designate specific areas as SEZs and attract businesses by offering incentives such as reduced land costs and streamlined regulatory processes. This creates a more attractive environment for industrial activities. The Hong Kong Government is developing facilities to support the development of advanced manufacturing, such as the Hong Kong Science Park, InnoPark and the Hong Kong-Shenzhen Innovation and Technology Park, to provide infrastructure and support services for advanced manufacturing companies.

Public-Private Partnerships (PPPs): Collaboration between the Government and private sector enables more efficient development and management of industrial land. These partnerships often result in innovative solutions for land use and infrastructure development. For instance, the Hong Kong Development Bureau's plan to build its Northern Metropolis into an advanced manufacturing hub would have mixed land sales mechanisms for the various phases of the development cycle. This includes direct land grants or private treaty grants in the initial phase, and possibly two-envelope public tenders or public-private partnerships later on. These initiatives are in response to the industry's need for more support in the early stages.

Technological Integration: The adoption of smart technologies and digital infrastructure improves the efficiency of industrial operations. This includes the use of Internet of Things (IoT) for better space management and automation to enhance productivity. South Korea is leading in smart factories development, with plans to boost the country's small and mid-sized manufacturing companies, including the goal of establishing 30,000 smart factories. The South Korean Government has also created a support programme to convert old factories into carbon-neutral smart factories.¹

RECOMMENDATIONS – LAND

(A) Extend Industrial Land Lease Tenures to Support Business Needs

Recommendation 1:

Increase lease tenure for greenfield industrial land allocations to account for the longer time required for development works, including the construction of building and infrastructure.

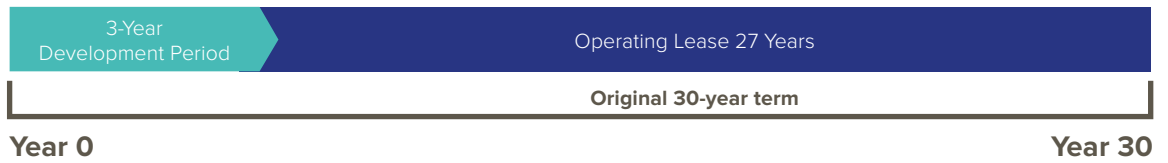
Businesses have shared that they face various challenges that impact the effective period that they can utilise their completed developments. These include longer construction periods alongside rising development costs, which have delayed the readiness of new facilities and shortened the actual productive period for businesses during the lease term.

Recognising these challenges, the AfA recommends providing an additional tenure of up to three years for greenfield industrial land allocations. This additional lease period will help address some of the concerns raised by businesses by covering the development period, and ensuring that businesses have a full 20 or 30-year lease period to amortise their increased construction and development costs and investments in plant and machinery (P&M). This additional lease period will be added to the overall tenure and charged accordingly.

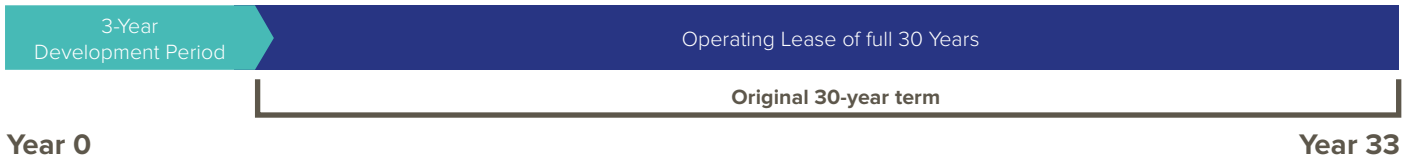
¹ Companies can receive funding of up to USD360,000 if they operate in one of these 6 sectors: automobile, heat treating, fabric, welding, casting, and plastic working manufacturing.

Illustration of the application of longer lease tenure for greenfield industrial land allocations.

Current: Development period is within lease tenure of 30 years. Industrialists have less than 30 years of operating lease.



Recommendation: Additional 3 years to cover development period before the lease tenure of 30 years, i.e., Lease Term **3+30 years**. Industrialists have full 30 years of operating lease.



Recommendation 2:

Longer lease renewal tenures for businesses that invest significantly in productivity and redevelopment, and flexible tenure structures for businesses that have demonstrated strong productivity outcomes and jobs creation.

JTC has historically supported businesses by offering lease renewals to those that demonstrate investments in innovation, automation, productivity and land intensification. This has allowed industrialists to focus on expanding their operations, intensifying land use, and creating high-value jobs, without the disruption of relocation. Lease renewals are assessed based on a company’s economic contribution, productivity, job creation, and land-use optimisation.

For existing industrial leases that qualify for renewal, businesses have requested for policy improvements to enhance site continuity – in the form of longer lease renewals, or the ability to extend their leases under a more flexible lease renewal structure that preserves a sufficient runway to justify periodic capital investments.

The AfA agrees that there is room to provide companies with greater operational stability and a longer timeframe to amortise their investments. The AfA notes that business cycles have grown shorter and that it is important for the Government to preserve flexibility in land use.

One possibility is to extend the typical 20-year lease renewal tenure for companies that commit to invest significantly in productivity and extensive redevelopment.

For companies that may make smaller, periodic investments over the course of their tenure, and are able to demonstrate a solid track record of achieving economic and productivity outcomes with continued business growth, a rolling lease that extends the current lease tenure by ‘x’ years may be explored.

These options could provide companies, whose productivity and land-use optimisation exceed industry norms, the assurance they need for the long-term viability of their investments.

Additionally, the AfA recommends institutionalising a longer-term framework to periodically review lease renewal policies, in consultation with Trade Associations (TACs) such as SBF. These associations could assist the Government by gathering data from their members (e.g., profit and loss statements, capex investments, loan amounts, and repayment schedules) to inform a holistic review of lease renewal policies. This data-driven approach would help ensure that lease tenure policies balance sustainable business growth with the need to optimise land allocation and enhance land productivity.

Recommendation 3:

Increase awareness and outreach on JTC's lease renewal process and criteria.

The AfA acknowledges that the Government has been actively supporting businesses that demonstrate continual investment in innovation and competitiveness with well-considered measures, and by offering lease renewals that enable these businesses to remain on their existing sites.

However, the feedback from businesses, especially SMEs, is that they find the lease renewal process daunting and have difficulties fully understanding and synthesising the available information on the JTC website.

The AfA agrees that further efforts can be made to raise awareness of lease renewal policies and increase outreach to businesses. The clarity and accessibility of the information could be enhanced, potentially through infographics, illustrations and more detailed explanations in the lease renewal handbook on JTC's website. This will help businesses better navigate the process and understand the considerations and criteria involved.

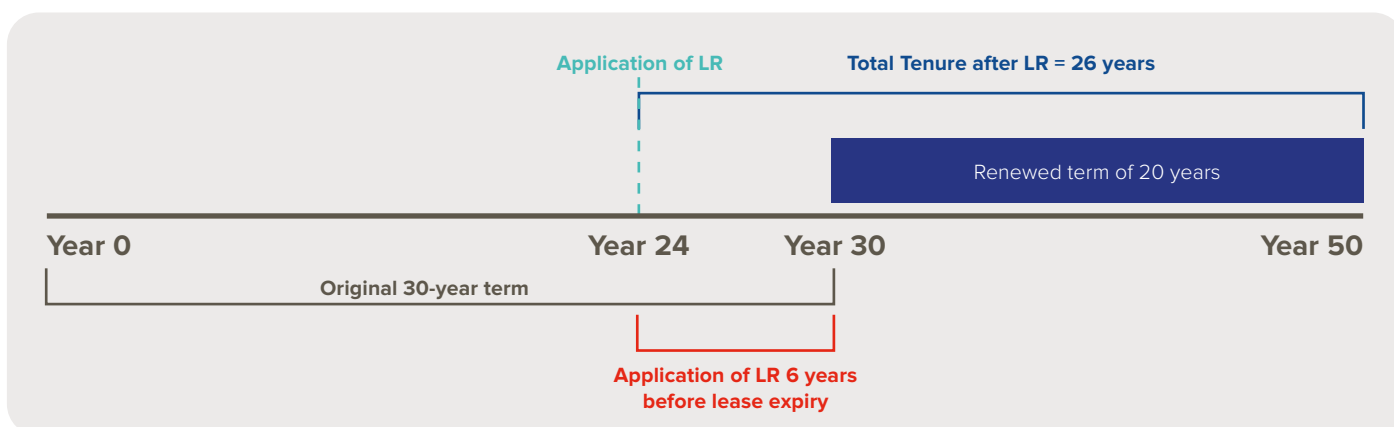
The AfA has identified some of the information on lease renewal policies that businesses have requested for better clarity on, that could be included on JTC's website:

i. When businesses can apply for lease renewal, and total length of tenure after lease renewal is obtained

Businesses have asked for clarity on when they can approach JTC for their lease renewal applications. Today this is typically six years before, and no later than three years before, the expiry of the existing lease. New lease terms will commence upon the expiry of the current lease. Companies that need assurance of tenure when looking to invest exceptionally huge amounts into their plant and machinery (P&M) can initiate discussions on lease renewal as early as the half-way mark of their current lease tenure. JTC has provided the following illustrations as examples and will include these in the lease renewal handbook.

Illustration on when businesses can apply for lease renewal – typical lease renewal case where company submits their application 6 years before lease expiry.

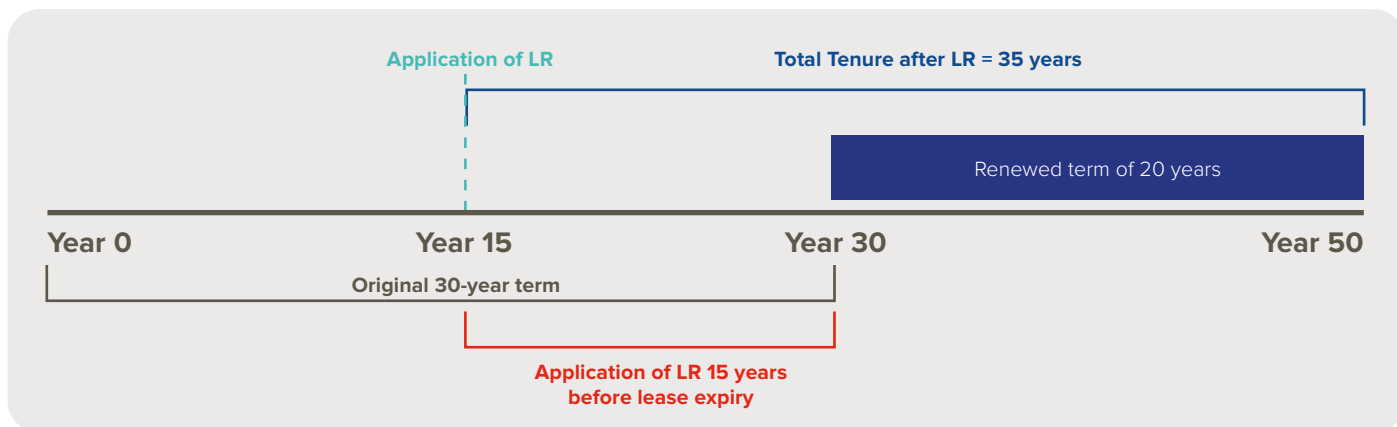
Company A has a 5,000sqm (0.5 Ha) site at Tuas that is expiring in 6 years' time. Company A submits the lease renewal application with its business plan to automate some processes, refresh some of its production lines, and purchase \$2,000,000 worth of new P&M and \$1,000,000 net book value of existing P&M (i.e., \$600 psm of land).



Since Company A submits the lease renewal application 6 years before current lease expiry, it will have a runway of 26 years to amortise its investment.

Illustration on exceptional basis where a company needs certainty on their lease tenure as they are making significant investments, where on a case-by-case basis the application can come in close to the half-way mark.

Company B has a 5,000sqm (0.5 Ha) site at Tuas that is expiring in 15 years' time, but Company B wishes to expand its business and plans to invest exceptionally large investment of \$10,000,000 to purchase new plant and machinery (P&M) (i.e., \$2,000 psm of land).



Since Company B is planning to put in significant investments and requires certainty of longer runway on the lease, it submits the lease renewal application and will have a runway of 35 years to amortise its investments.

ii. Key criteria considered for lease renewal

Businesses have asked JTC to share more information on the factors being considered in lease renewal applications, to help companies in their application. The infographics below are intended to provide such clarity.

Renewal of Industrial Lease

Considerations for Lease Renewal

Renewed lease term is **up to 20 years** (from the expiry of the current term), subject to the following:

- JTC’s assessment of business and redevelopment plans
- Lessee’s fulfilment of these plans at the end of the investment period
- Government’s long-term redevelopment plans for the site

- 1 Business & Redevelopment Plans**

Lessee’s plans assessed based on economic contribution, creation of good jobs and other factors
- 2 Proposed Usage**

Usage meets URA’s 60:40 space utilisation rule (i.e. 60% for industrial use, 40% for ancillary use)
- 3 Government’s Redevelopment Plans**

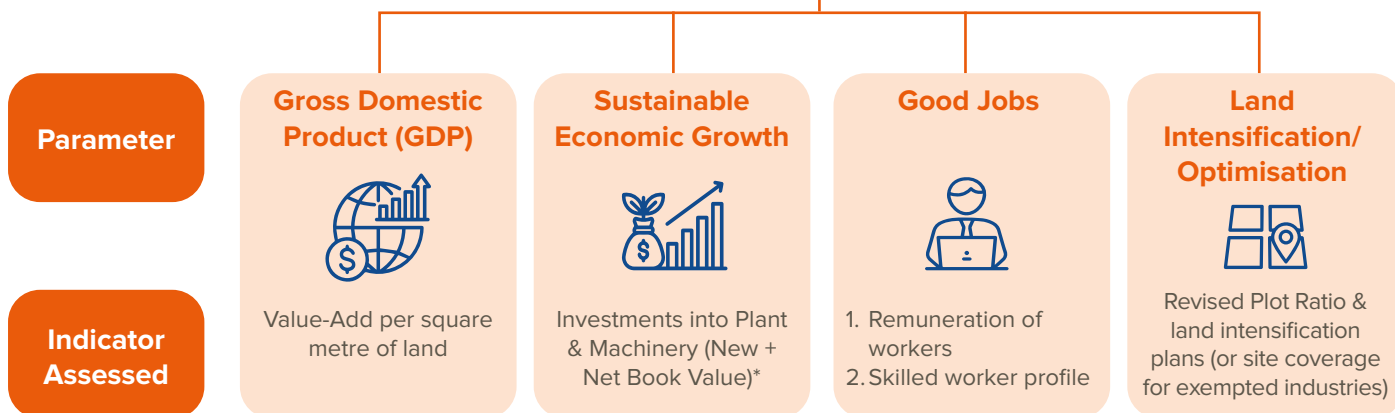
If the site is affected by redevelopment plans, lease renewal may not be possible
- 4 Breach of Lease Terms & Conditions**

Lessees are required to rectify any breaches prior to application for lease renewal
- 5 Size and Suitability of Renewal Site**

Proposal should maximise the floor space usage. If there is excess space, lessee could consolidate operations

Renewal of Industrial Lease

Assessment of Business Plans

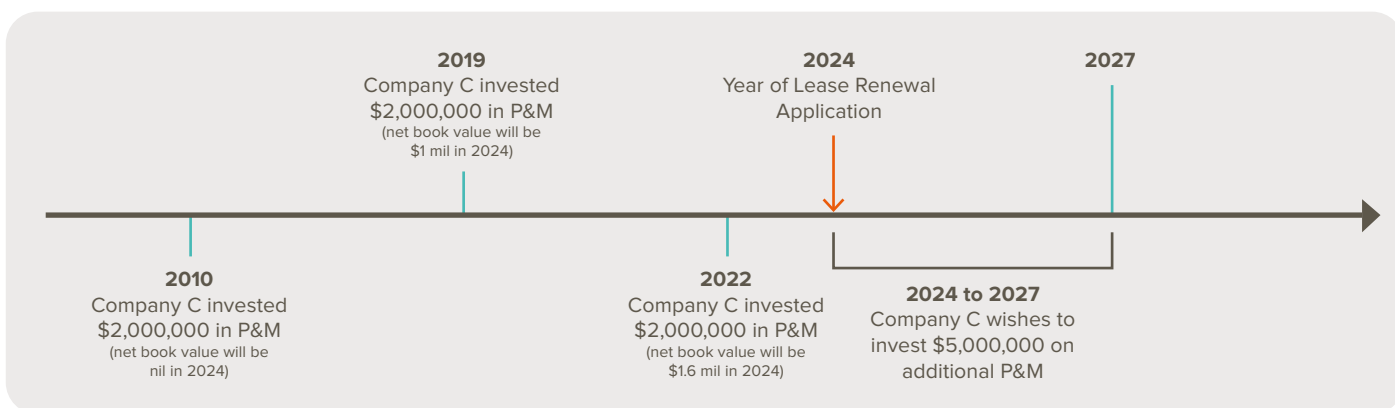


*In support of industrialists who continuously invest. JTC recognises the Net Book Value of the existing Plant & Machinery.

iii. How net book value of P&M investments are considered when assessing lease renewals

Some businesses have shared that they are under the impression that JTC considers only new committed investments at the point of applying for lease renewal. The AfA understands that this is not the case and in fact, JTC supports and recognises continual investments by taking into consideration the net book value of companies' investments into P&M. JTC has provided an illustration as an example of what will be included in the lease renewal handbook to clarify this.

Illustration of how JTC considers net book value of a company when assessing lease renewal applications.



Assuming the equipment life of all the P&M are 10 years and taking into consideration depreciation of the P&M, the net book value of Company C in 2024 is **\$2,600,000**. When assessing Company C's lease renewal application, JTC will take into consideration both the net book value of \$2,600,000 and new plant and machinery of \$5,000,000, totaling up to \$7,600,000 in plant and machinery (i.e., \$1,520 psm of land).

Aside from making improvements to how industrial land lease information is presented and shared online, the AfA agrees that more outreach should be done to address business queries, quell misperceptions, and gather feedback for policy review. SBF and other TACs can partner with JTC for more regular industry engagement sessions to share about land policies and processes, and to provide a platform for industrialists to engage JTC on industrial land issues.

Recommendation 4:

Expand industrial lease renewal criteria to include auditable investments in innovation, R&D and value of intellectual property (IP), and value-added of co-located related companies.

Shorter business cycles and technology advancements will require businesses to innovate and transform to stay competitive. The AfA acknowledges that we should recognise businesses that actively invest in innovation, R&D, development of IP and digital transformation, and the land lease renewal criteria should reflect this.

The AfA therefore recommends that the Government consider broadening the lease renewal assessment by factoring in:

- a. Auditable investments in innovation and R&D projects;
- b. Value of IP attained; and
- c. Value-add of related companies co-locating at the same site

This expanded list of considerations for lease renewal will encourage businesses to prioritise innovation and transformation, ensuring that they remain relevant, resilient and competitive. It also demonstrates Government’s commitment to supporting businesses that invest in advanced technologies and collaborative innovations, fostering a more dynamic and future-ready industrial landscape. The expanded criteria will complement the existing focus on economic value generation,² good jobs creation and land optimisation, and align the evaluation process with the evolving demands of industry.

Recommendation 5:

Provide short-term extensions to support companies affected by estate redevelopment plans.

The AfA notes the feedback from companies affected by estate redevelopment plans, and that some may face delay in securing their replacement facilities and thus need additional time beyond the advance notice given to the affected lessees.

The AfA proposes that in such cases, the Government could consider companies’ application for a short-term lease extension to facilitate relocation, provided the extension ends before the commencement of development works, and does not affect the redevelopment timeline.

To ensure companies do not delay their relocation, this approach should be limited to companies that have firmed up their relocation sites, and are able to provide the necessary supporting documents. This would allow lessees more time to relocate to their new premises and prevent land from being unoccupied and unutilised over an extended period of time. An illustration of how this might work in practice is shown below:

Information that JTC may require from a company affected by estate redevelopment plans to demonstrate its intention to move, when requesting for short-term extension of its lease to facilitate relocation.

Upon companies’ request for short-term extension of its lease, JTC would require company to provide supporting documents and justification. Some examples are illustrated below:

<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="background-color: #28a745; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin-right: 10px;"> ✓ </div> <div style="background-color: #d3d3d3; padding: 5px; border-radius: 5px;"> <p>Company D has secured a replacement site, but TOP of replacement site is delayed.</p> <p><u>Supporting documents provided:</u></p> <ul style="list-style-type: none"> New lease/tenancy agreement of replacement site Written notification from contractor/developer of delay in TOP </div> </div>	<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="background-color: #28a745; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin-right: 10px;"> ✓ </div> <div style="background-color: #d3d3d3; padding: 5px; border-radius: 5px;"> <p>Company D has not secured a replacement site, but has been trying for a period of time.</p> <p><u>Supporting documents provided:</u></p> <ul style="list-style-type: none"> Communications between company and marketing agents (or any other similar documents) Proof of submission of tender for publicity launched sites </div> </div>
<div style="display: flex; align-items: center;"> <div style="background-color: #dc3545; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin-right: 10px;"> ✗ </div> <div style="background-color: #d3d3d3; padding: 5px; border-radius: 5px;"> <p>Company D has not secured a replacement site and does not have plans to do so.</p> </div> </div>	

² The definition of “economic value” used in the evaluation includes value-add (comprising wages, interest cost, depreciation, rent, taxes and profit), as well as remuneration of workers and skilled worker profile.

Recommendation 6:

Review industrial land lease policies that may adversely affect companies' access to financing that is collateralised on land.

Businesses have shared that bank credit policies have generally become more conservative since the COVID-19 pandemic. For instance, for bank loans collateralised on industrial land with a 20-year lease renewal period, banks have reduced the repayment buffer, requiring the loans to now be repaid over a shorter period. This credit tightening, coupled with the current high-interest rate environment, has made it increasingly challenging for businesses to service their loans.

Additionally, businesses have raised concerns that JTC's lease contract clauses, such as the assignment prohibition period and Refund of Land Rent Assistance (ROLA), introduce encumbrances that affect financial institutions' willingness to accept industrial properties as collateral, and impact the amount of financing businesses can secure.³

The AfA recognises that the Government already has risk-sharing schemes with participating financial institutions (PFIs) to help eligible enterprises access financing under the Enterprise Financing Scheme (EFS). The AfA notes that EFS does not seek to change the terms of the loans from PFIs and that the prerogative for determining loan terms still rests with PFIs. The AfA further recognises that recommendations 1 and 2 to lengthen lease tenures could help address some of the financing challenges that businesses face.

In addition to the above measures, the AfA proposes that the Government consider reviewing some of the industrial land lease contract clauses to lift some of the encumbrances on industrial land for events such as foreclosure by banks. For instance, the Government could consider granting a waiver to lift the initial assignment prohibition period which would allow the banks to proceed with a mortgagee sale during the prohibition period and recover their loan.

Businesses have also suggested waiving the ROLA if companies are in financial distress or when banks foreclose on the property. More in-depth consultation with companies is required to fully understand the implications of this proposal. This will help to ensure that any policy adjustments will effectively balance the need to support businesses to access financing, and the need to maintain the integrity of industrial land use regulations.

(B) Increase Productivity of Industrial Land

Recommendation 7:

Allow potential relocation to another industrial land site in support of redevelopment and land intensification.

Aside from policies to facilitate access to land, the AfA agrees that uses of existing industrial land should be intensified to support sustained economic growth and the diverse needs of businesses. This could be in the form of increasing plot ratios, so that the Gross Floor Area (GFA) of a plot of land is maximised, creating more space for businesses to expand, and increasing land productivity. The AfA notes that a sizeable proportion of industrial properties today are developed to a plot ratio that is lower than what the Masterplan⁴ allows for, leaving room for further land intensification for industrial use.

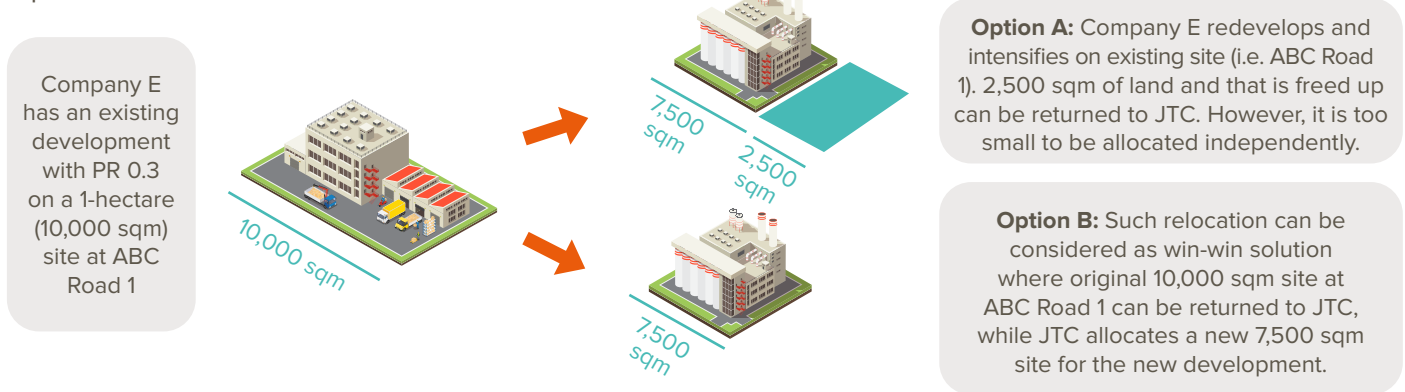
The AfA notes that some companies may find that intensifying their current land at the point of lease renewal is not the most effective option due to constraints such as site limitations, nature of their industry and/or dispersed locations of their current operations. The AfA sees merit in facilitating a relocation to another industrial land plot of an appropriate size to suit lessees' needs if it results in land savings and enhances land productivity. Such relocations will be subject to the availability of a suitable land plot and should be considered on a case-by-case basis. This is demonstrated in the illustration below:

³ Refund of Land Rent Assistance (ROLA) was introduced in Jan 2020. JTC supports industrialists at posted rates which are lower than the domestic market rates, in return for their commitment to use the land productively for the entire lease tenure. Therefore, where the original industrialist is no longer the predominant owner on site, or sells the site (i.e., assigns to another user), the unutilised portion of this land rent assistance is to be recovered by JTC. ROLA amount for each contract is stipulated clearly in the contract between JTC and the lessee.

⁴ URA Master Plan (as of 28 Oct 2024), <https://www.ura.gov.sg/Corporate/Planning/Master-Plan>

Illustration on possible relocation to another land in support of redevelopment for land intensification as a win-win solution.

As part of Company E's business plans for lease renewal, they would like to redevelop the site to optimise their operations and consolidate operations from other sites. Upon redevelopment, they would only need 7,500 sqm of land.



As part of Company F's business plans for lease renewal, they would like to expand their operations. However, the current site (5,000 sqm) is insufficient to support the expansion plans. The company has shared that they would require at least 8,000 sqm (in total) for their expansion plans to be feasible. The neighbouring plots of the existing site are also not available for allocation to the company.

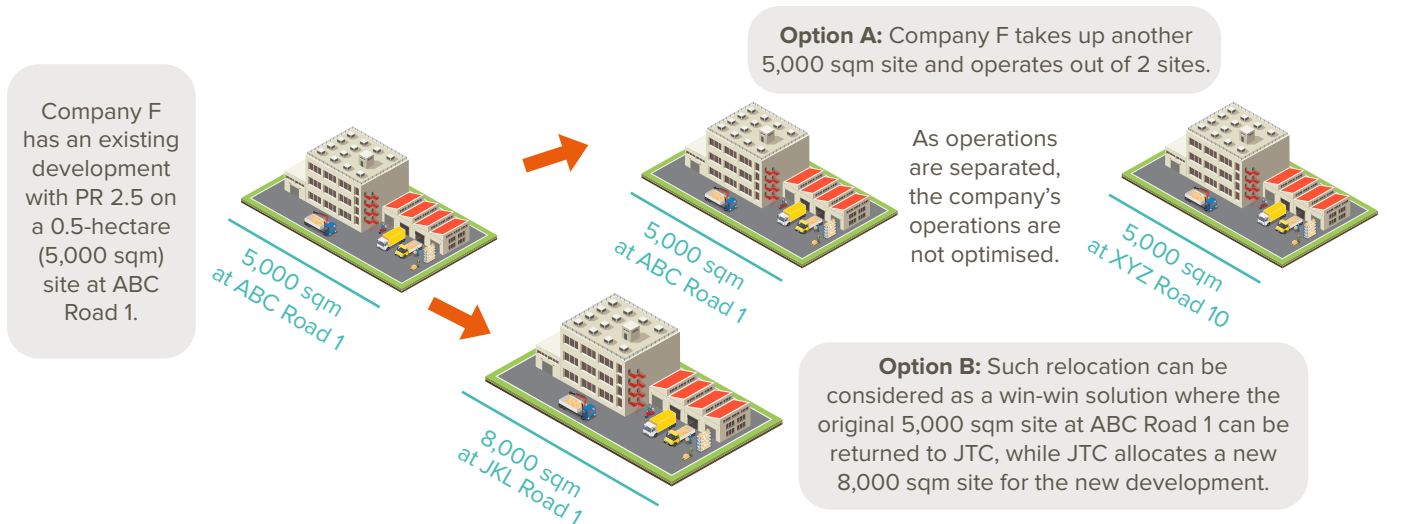
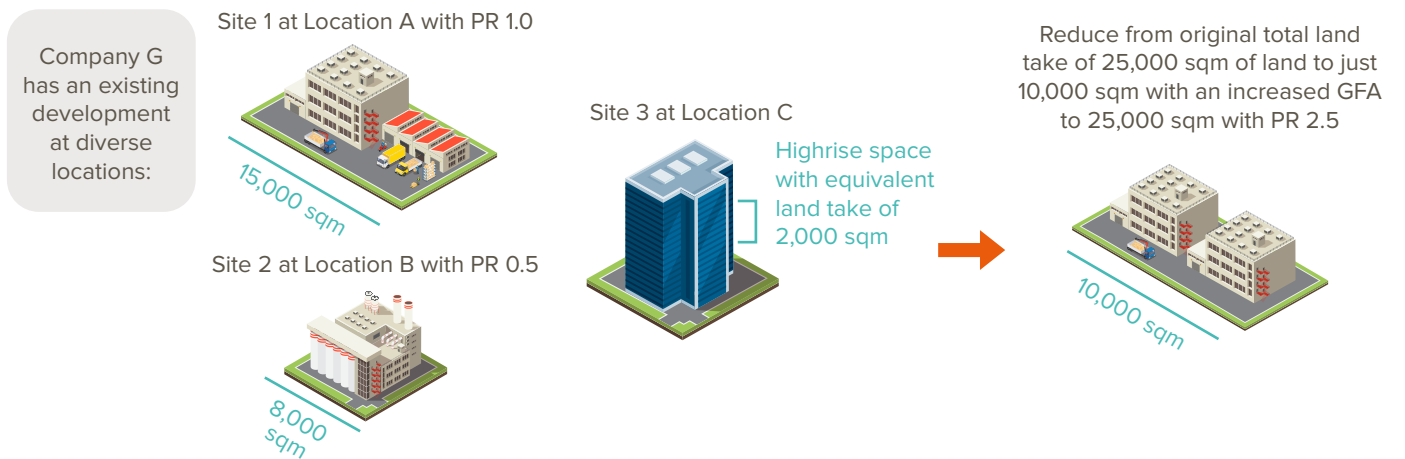


Illustration on possible relocation to another plot of land in support of consolidation as win-win solution.

Some companies may take the opportunity during their lease renewal to explore consolidating their operations which are at dispersed locations to optimise their operations. Facilitating the relocation to another industrial land plot of an appropriate size to suit the company's needs should result in land savings that enhances land productivity.



Recommendation 8:

Study schemes to encourage industrial land intensification such as allowing end-users to sublet above the current 30% subletting cap in exchange for investments in land intensification.

The AfA recognises that currently, companies that redevelop and intensify their current site for their own use can tap on the Land Intensification Allowance (LIA), administered by EDB.⁵ This would help defray costs incurred by the companies when intensifying their site in support of their business expansion needs.

The AfA acknowledges there are some industrialists who may want to redevelop and intensify their current site but may not have an immediate use for the additional space that is unlocked. Such industrialists will not qualify for the LIA. The AfA notes that some businesses have proposed that lease policies could be reviewed to allow industrialists to sublet their premises above the 30% subletting cap. Allowing a higher subletting quantum for businesses that invest in redevelopment and intensification of their site would support the larger goal of land intensification and enable otherwise unutilised space to be put to productive use.

The AfA notes however that there is a need to strike a balance between encouraging land intensification and safeguarding the policy intent of ensuring that scarce industrial land is deployed to meet the needs of end-users for their industrial activities rather than for generating rental income. Furthermore, given the possible significant capital expenditure associated with land intensification, an in-depth study will need to be conducted to evaluate the feasibility of such a scheme.

Recommendation 9:

Work with TACs to facilitate partnerships between companies to maximise space usage.

The AfA acknowledges that some companies may want to be co-located for better use of land. Some companies may face challenges in renewing their leases because they were unable to meet the higher plot ratio requirements although they are able to meet the other lease renewal criteria. One option is for companies to form a strategic partnership to collectively meet the higher plot ratio lease renewal criteria and make better use of available industrial space.

The AfA proposes that TACs could study how to potentially facilitate such strategic partnerships and help companies with putting together a joint-lease renewal application on one of their existing plots with a land intensification proposal. Such requests would need to be assessed on a case-by-case basis.



⁵ The LIA is available to businesses in the manufacturing and logistics sectors. LIA recipients are granted an initial tax allowance of 25% and annual allowances of 5% on qualifying capital expenditure incurred for the construction or renovation/extension of qualifying building or structure. Upon TOP, annual tax allowances of 5% are granted until total allowance amounts to 100% of qualifying capital expenditure.

Recommendation 10:

Provide infrastructure support for companies looking to expand operations overseas.

Singapore companies are increasingly exploring opportunities to expand their operations overseas to tap into new markets, optimise costs, and enhance their global competitiveness. As part of efforts to optimise scarce land in Singapore, the AfA agrees that more can be done to support companies looking to expand or relocate some parts of their operations overseas.

Today, JTC has developed intermediate facilities such as Woodlands North Coast to support companies in retaining their headquarters and Research & Development activities in Singapore, while relocating their main manufacturing arm overseas, in particular, Johor. For such cases — instead of the typical 60% industrial, 40% ancillary space split of Gross Floor Area — companies are allowed to set aside only 30% for industrial use and 70% for ancillary activities such as Headquarters, Research & Development, Product Design, Prototyping and Aftersales Services.

The AfA encourages JTC to continue to roll out more of such spaces should there be sustained strong demand. The AfA further encourages SBF and TACs to increase awareness of the availability of such facilities with businesses and gather feedback on ways to enhance these facilities to meet business needs.

Specific to the Johor-Singapore Special Economic Zone (JS-SEZ), AfA proposes that the Government explore the possibility of partnering with its Malaysian counterpart to establish a one-stop centre for regulatory approvals and processes such as business registration and work permits. To complement this, SBF is also looking to work with relevant business associations in Malaysia to support companies with business facilitation services, such as legal consultancy, to help them with setting up operations in the Special Economic Zone.



CASE STUDY

How SICK uses the intermediate facility at Woodlands North Coast to support its regional operations

SICK Product Center Asia Pte. Ltd. is a wholly-owned subsidiary of SICK AG, a German manufacturer of sensors and sensor solutions which are core components in factory, logistics and process automation, which support tasks such as detection, measurement, monitoring & control, protection, network & integration, identification and position determination.

SICK relocated to 1 North Coast (1NC) in November 2021 to facilitate the expansion of their Regional Competency Centre and Regional Product Centre. SICK houses their Product Center Asia at their 1NC premises in Singapore, focusing on the R&D, product design and training of sensors, while situating their manufacturing operations in Johor Bahru. The Regional Competency Centre provides advanced level application support for systems and conducts regular product training for its subsidiaries in Asia. The Regional Product Centre handles the manufacturing operations in Ulu Tiram, Malaysia, as well as R&D, product design and procurement. They currently have only two other sets of Competency Centres and Product Centres worldwide, one in USA serving the American market and the other in Germany serving the European market. SICK currently occupies 6 units at Levels 7 and 8 of 1NC. SICK had benefitted from the flexi-zoning to accommodate more of its R&D and prototyping teams, acquiring more high-skilled staff and providing additional amenities for staff wellbeing, all of which could not have been done in a typical industrial setting.

SETTING THE SCENE

A facilitative and progressive regulatory environment is critical for business competitiveness, and Singapore has made great strides in fostering this over the years. Our good governance and high regulatory standards, key features that reduce business uncertainty, are some of the reasons why companies like to do business in Singapore.

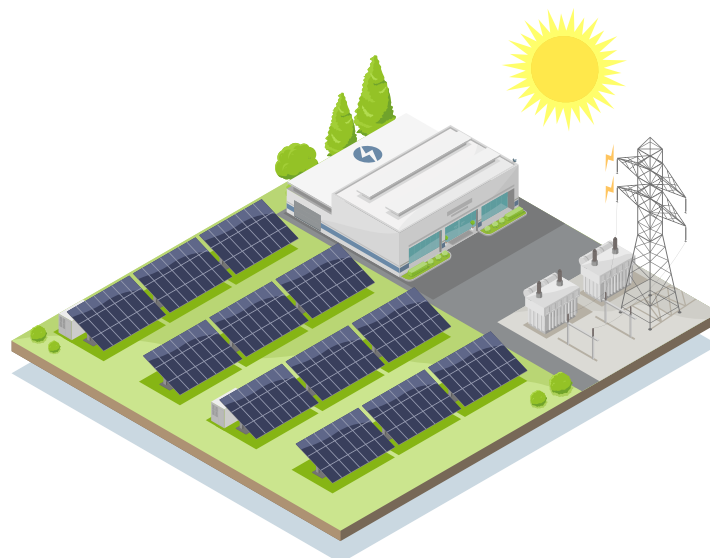
Singapore's approach to regulatory efficiency is distinguished by the Government's proactive stance in engaging the business community to gather feedback, and to continually improve and refresh regulatory procedures through committees such as the Pro-Enterprise Panel (PEP), to ensure that businesses from mature and nascent sectors alike receive the necessary support.

While regulatory agencies avoid over-regulation, rules and regulations have inevitably grown over time. As technology advances and businesses increasingly adopt innovative infrastructure and solutions, it has become even more important to ensure that Singapore's regulations keep pace with the latest industry developments, and do not impose undue compliance costs that deter business activities, especially in new and emerging sectors.

The Government recognises evolving business needs and has stepped up efforts, by setting up the Inter-Ministerial Committee (IMC) on Pro-Enterprise Rules Review in April 2024, chaired by Deputy Prime Minister and Minister for Trade and Industry Mr Gan Kim Yong, to drive cross-cutting, systemic regulatory issues that can bring about tangible benefits for businesses. The AfA augments this effort through its proactive involvement of the business community to gather industry feedback, deliberate policy trade-offs, and co-create practical solutions with the Government to address regulatory pain points.

The Government has also been proactive in supporting initiatives that future-proof the nation. An example is Singapore's green transition effort, where the Government has invested resources to support local businesses to adopt green business practices and technologies in making the transition, and for entrepreneurs to seize business opportunities in nascent sectors such as solar. This shapes Singapore as a regional green hub, through a focus on the sustainability transition, by offering various incentives and grants aimed at promoting green business practices and technologies. While several measures have been taken to drive solar deployment, such as the adoption of innovative solutions to address existing space constraints (e.g., the floating solar photovoltaic system at Tengah Reservoir), there is an opportunity to review our regulatory processes to further accelerate industry adoption of solar, and other green solutions, especially as businesses become increasingly receptive to implementation.

In this chapter, we also focus on other recommendations to address common pain points surfaced by businesses across multiple sectors. These include fostering a more pro-business, pro-innovation fire safety regulatory regime, streamlining processes and building capabilities to support compliance in the Built Environment sector, and providing a dedicated touchpoint for businesses to navigate complex regulatory issues.



RECOMMENDATIONS

(A) Regulatory Support to Facilitate the Green Transition

Recommendation 1a:

Adopt a Whole-of-Government (WOG) approach to address regulatory issues related to the green transition, such as solar deployment.

Today, solar developers must obtain multiple approvals from various agencies, including the Urban Redevelopment Authority (URA), Building and Construction Authority (BCA), Land Transport Authority (LTA), and National Parks Board (NParks), for solar-related projects. This process can be time-consuming and costly, as some of these regulations are still evolving. In some instances, approvals may be delayed due to uncertainty about which decision-making agency businesses should engage. These challenges may be particularly pronounced for SMEs, which may lack the resources needed to engage multiple agencies and swiftly obtain approvals.

To address these challenges, the AfA recommends identifying a lead Government body to champion, drive, and coordinate rules and regulatory reviews in the solar sector. The AfA recognises the benefits of such an approach to harmonise and simplify regulations, or discuss trade-offs, to help ensure that businesses have greater regulatory clarity. The AfA notes that there are existing platforms that could potentially serve this purpose, such as the Inter-Ministerial Committee on Climate Change (IMCCC)¹ and the Carbon and Energy Transition Working Group (CETWG)². There are also existing examples of interagency collaboration³ that can be built on. Furthermore, the AfA notes that PEP launched the Green Economy Regulatory Initiative (GERI)⁴ in 2022 – a whole-of-government effort to support innovation in the green economy, especially nascent sectors. Businesses that have new, impactful ideas but face regulatory hurdles, can submit their proposals for consideration to be trialled through regulatory sandboxes.

The AfA recommends that the Energy Market Authority (EMA) take the lead to coordinate and work with various regulatory agencies (e.g., BCA, MND, URA, PUB, SCDF, SLA) to leverage these platforms for solar deployment matters. This coordinated approach could better streamline processes, reduce bureaucratic hurdles, and accelerate the adoption of green technologies. This will augment ongoing efforts, such as EMA's work with SP Group to streamline solar application and turn-on processes. By centralising oversight, the Government can ensure greater policy coherence across different agencies, potentially leading to more rapid and widespread adoption of solar energy. In the longer term, this model could also be applied beyond solar to support other sustainable solutions.

¹ The IMCCC is chaired by Mr Teo Chee Hean, Senior Minister and Coordinating Minister for National Security, to enhance WOG coordination on climate change policies to ensure that Singapore is prepared for the impact of climate change.

² The CETWG is an inter-agency workgroup that oversees the development, implementation and tracking of progress for carbon mitigation measures.

³ One example of interagency collaboration is through the System of Systems – Synergies & Optimisation (SoS-SO) on solar deployment under the Urban Solutions and Sustainability (USS) Technical Advisory Workgroup (TAW) Platform. The key focus of the SoS-SO solar deployment platform is to identify and overcome techno-economic hurdles to advance solar deployment in coordination with agencies such as BCA, EMA, JTC, and SCDF. For example, the SoS-SO platform is currently studying the feasibility of large-scale solar canopies deployment across multiple existing used areas such as roads and open drains.

⁴ GERI is a whole-of-government effort to accelerate innovation in the green economy. Building on a network of existing sandbox programmes, this initiative supports businesses in seizing new green growth opportunities and developing green products and services. Projects in the following key areas may be trialled on an expedited timeline through regulatory sandboxes: carbon services and trading; circular economy (plastics recycling and e-waste recycling solutions); CO₂ to aggregates; electric vehicles; energy (solar, energy storage systems and smart grid solutions); hydrogen; sustainable aviation and maritime; and sustainable tourism. For more information on GERI, please refer to this link: <https://www.mti.gov.sg/PEP/GERI>.

Recommendation 1b:

Exercise regulatory flexibility to facilitate the exploration of untapped spaces for solar deployment.

A whole-of-government approach should also be complemented by regulatory agility and flexibility. This can be applied to encourage industry solar adoption to support Singapore's green transition. The AfA recommends:

i. Facilitating the exploration of untapped spaces for floating solar farms

Given Singapore's limited land, it is important to explore untapped spaces for solar deployment, beyond rooftops. For example, sea spaces and reservoirs could potentially be used for floating solar panels, after taking into account environmental and supporting infrastructure considerations (such as grid connections).

The AfA notes that there has been industry interest to set up floating solar farms. However, in general, Temporary Occupation Licences (TOLs) on dead sea spaces for floating solar farms are offered on an annual renewal basis. As this does not match the usual solar Power Purchase Agreement (PPA) tenure of approximately 20 years, the AfA recommends that the Singapore Land Authority (SLA) review this annual renewal framework.

Today, SLA will consider requests for alienation of sea space on longer leases of 10 years or more for floating solar farms, in consultation with other relevant agencies such as EMA, with the upfront premium to be assessed by the Chief Valuer's Office. This will provide more certainty for longer-term solar deployment. For operators that require longer tenures but are not prepared to apply for alienation of sea space, the AfA notes that SLA has indicated that it is prepared to review the current annual TOL renewal model, as a signal of Singapore's readiness to support business growth in important areas such as the energy transition.

ii. Reviewing the Land Betterment Charge for enhancements in the value of land arising from solar farm development

The Land Betterment Charge (LBC) is a tax on the increase in value of land arising from a chargeable consent (e.g., planning permission), given in relation to a development of any land. It came into effect on 1 August 2022 and consolidates the Development Charge, Differential Premium and Temporary Development Levy, and is administered by SLA.

The AfA acknowledges that the fundamental purpose of the LBC is to ensure the return, to the community, of an appropriate proportion of economic benefits from the grant of rights to develop or otherwise use land. However, businesses have raised concerns that the assessed LBC can be prohibitively high especially in the case of deploying solar on temporarily vacant land to maximise renewable energy generation in land-scarce Singapore. Businesses have shared that the assessed LBC for six years amounts to over 40% of the capital expenditure, making such solar developments commercially unviable.

In addition, businesses have shared that the computation of the LBC currently does not factor in the fact that the temporarily vacant lands allocated for solar farm development can be recovered by land bank agencies at any time for other purposes.

Businesses recognise that the Government may be concerned that without correctly valuing the land, solar developers may earn supernormal profits by benefiting from a low land price while charging high electricity prices. However, businesses have shared that this scenario is unlikely as the domestic solar market is highly competitive with relatively low barriers to entry. Such a competitive market will drive prices down as savings are shared with consumers and businesses through lower virtual power purchase agreement (VPPA) prices.

Businesses therefore propose that as part of the effort to incentivise domestic renewable energy generation, the Government should review the computation of the LBC for solar development – in particular, for deployment on temporarily vacant land. The AfA is encouraged that the Government is aware of the issue and is currently actively reviewing the matter.



Recommendation 1c:

Encourage adoption of commercial Electric Vehicles (EVs) by (i) reviewing the driver classification system for EVs, and (ii) studying the possibility of increasing tonnage restrictions on heavy goods vehicles.

Due to the weight of the EV battery, many light commercial EVs have unladen weight exceeding 2,500 kg and require a driver with Class 4 license to operate. This poses a challenge to businesses, given the shortage and manpower cost of this group of Class 4 drivers. The AfA recommends (i) reviewing the driver classification system for EVs or studying if the assumptions on the correlation between the skills required to operate a vehicle and the vehicle's weight, which are based on internal combustion engine (ICE) vehicles, apply in the same way to EV vehicles.

Furthermore, the AfA recommends (ii) studying the possibility of increasing tonnage restrictions on heavy goods vehicles (HGVs), to encourage their electrification. Currently, Heavy Good Vehicles (HGVs) have a tonnage of up to 16,000 kg and for electric waste compactor trucks, their tonnage needs to account for the EV battery which is heavy, thereby reducing the volume of waste that can be carried. This could disincentivise the electrification of such vehicles.

The AfA is encouraged that agencies such as the Land Transport Authority (LTA) (under the Ministry of Transport (MOT)) and the Traffic Police (TP) (under the Ministry of Home Affairs (MHA)) have expressed openness to consider the recommendations. TP/MHA are conducting a long-term review of the driving licence regime for electric Light Goods Vehicles (eLGVs). In the interim, TP/MHA will evaluate appeals for exemptions from the Class 4 driver licence requirement on a case-by-case basis, to allow overweight eLGVs to be operated by Class 3 driver licences. TP/MHA will continue to work with LTA/MOT to see if there is a need to review this issue for vehicle types other than LGVs.



Recommendation 1d:

Encourage adoption of green infrastructure and technology through building-level incentives for industrial projects.

Today, adoption of green infrastructure and technology tends to be taken at the individual tenant level, rather than at the building level with landlords and tenants collectively. This piecemeal approach could lead to inefficiencies, as well as present disincentives to adoption due to a lack of economies of scale, or lack of awareness of green solutions. To increase the adoption of green solutions in buildings, the AfA is of the view that there is scope to explore (i) sandboxing Industrial Green Building Committees by working with industrial building owners; and (ii) tying lease renewals to the adoption of sustainability-related investments. This would be especially beneficial to SME tenants that may not have the resources and scale to put in place practical and fit-for-purpose solutions related to green infrastructure and technology. These moves would also help generate greater impetus for landlords and tenants to come together and jointly identify green solutions that tenants can adopt through a “plug-and-play” approach. This could be particularly salient for the greening of brownfield locations and older buildings. Where there is scope to do so, incentives could also be considered to support the piloting of suitable solutions.

The AfA further recommends that a feasibility study be conducted on the development of a green industrial zone where SMEs can access renewable energy and other forms of shared sustainable infrastructure. This would support SMEs in their green transition compliance and increase their competitiveness by allowing them to meet buyer demands. The establishment of such a green industrial zone could also elevate Singapore's reputation as an attractive destination for multinational enterprises (MNEs) by providing them with the assurance that local suppliers can help them achieve their environmental and decarbonisation goals.



CASE STUDY

Punggol Digital District as a Green Estate

An example of an estate-level project with green infrastructure and sustainability technology adoption is Punggol Digital District (PDD). Spanning 50ha, with progressive completion from 3Q2024, PDD is Singapore’s largest mixed-use Green Mark Platinum District, which employs at-scale sustainable practices in energy efficiency, water efficiency, material and waste management, environmental planning, green buildings and transport.

PDD'S DISTRICT-WIDE SUSTAINABILITY

17 GREEN MARK PLATINUM AND 3 SLE BUILDINGS

CLIMATE RESPONSIVE DESIGN WITH ENERGY EFFICIENT EQUIPMENT

INTEGRATION WITH OPEN DIGITAL PLATFORM

CYCLING ROUTE, END-OF-TRIP FACILITIES & EV CHARGING LOTS

MAP LEGEND

Mitigation of Urban Heat Island Effect

- 1 Retention of existing greenery with 100% landscape replacement
- 2 North-south orientation with natural ventilation
- 10 High performance facades

Mass-Engineered Timber Buildings

- 3 JTC MET Building @ 86 Punggol Way
- 12 SIT Food Court

Green Commute

- 5 Seamless connectivity for pedestrian movement
- 6 Integrated public transport options

Greener Operations

- 4 District cooling system
- 7 Natural daylighting with smart-lighting controls
- 8 Water-sensitive urban design and rainwater harvesting

Solar

- 9 Smart grid with solar panels

Circular Economy

- 11 Pneumatic waste conveyance system

Cycling route

Recommendation 1e:

Strengthen communication and engagement platforms between regulators and businesses on the green transition.

As the adoption of sustainability practices and the green transition are relatively new areas, the AfA proposes setting up regular platforms between industry and regulatory agencies to encourage dialogue. The AfA notes that there are ongoing engagement channels which can be leveraged or strengthened to improve dialogue and communication (see Box Story).

The AfA also encourages agencies to regularly benchmark their regulatory practices with competing jurisdictions to ensure that Singapore remains competitive, and that our companies are not disadvantaged in the green transition. TACs can play a role in supporting such dialogue and in making resources that provide regulatory guidance to companies more widely available. This would complement the other recommendations to drive industry adoption and to streamline regulatory frameworks related to the green transition.

Box Story:

Efforts by Regulators to Engage the Industry on the Green Transition

Energy Market Authority (EMA) – To facilitate solar deployment over the years, EMA has worked closely with industry stakeholders on regulatory issues faced. For example, earlier this year, EMA engaged key solar developers and building owners to better understand the opportunities and challenges faced when deploying solar on private building rooftops. EMA will continue to work closely with relevant agencies to address feedback received from solar developers on various regulatory issues.

Building and Construction Authority (BCA) – For the Built Environment sector, BCA has been working and engaging closely with sector stakeholders, including through TACs such as the Singapore Green Building Council (SGBC), Singapore International Facility Management Association (SIFMA), Singapore Contractors Association Limited (SCAL), and Real Estate Developers' Association of Singapore (REDAS), to drive greater adoption of sustainability practices. For example, BCA conducted extensive industry consultations in the formulation of the latest edition of the Singapore Green Building Masterplan (SGBMP), the development of Green Mark schemes, as well as for the recently announced Mandatory Energy Improvement (MEI) regime. BCA is also working closely with industry partners and Institutes of Higher Learning to demonstrate and encourage greater deployment of alternative cooling technologies.

Singapore Civil Defence Force (SCDF) – For issues pertaining to fire safety, the SCDF organises two main platforms for the review of fire safety matters – the (a) Fire Safety Standing Committee, and the (b) Fire Code Review Committee – with diverse representation from the industry, academia, and other government agencies with deep knowledge and understanding of the local building landscape and regulations. For specific reviews which need specialised knowledge or additional expertise (such as overseas experts), SCDF also forms ad-hoc workgroups consisting of relevant industry experts. These workgroups will report back to the Fire Code Review Committee. One such workgroup was formed this year to identify and assess new and emerging building materials and technologies on their fire safety potential or hazards. This serves as a feedback channel, allowing the SCDF to be updated on new industry developments for early evaluation.

National Climate Change Secretariat (NCCS) – Further to these efforts, the National Climate Change Secretariat (NCCS) officially launched a public consultation on Singapore's decarbonisation journey to solicit views and increase awareness of Singapore's net-zero 2050 ambitions, Singapore's transition towards a low-carbon economy, and national decarbonisation measures. Businesses call on the Government to better coordinate efforts to engage the industry on green transition plans, pulling together relevant development and regulatory agencies. This could be done at the sectoral level to better respond to the challenges and opportunities that businesses face on the ground.



(B) A More Pro-business, Pro-innovation Fire Safety Regulatory Regime

Recommendation 2a:

Allow for more cost-effective fire-safety alternatives for solar panel installation.

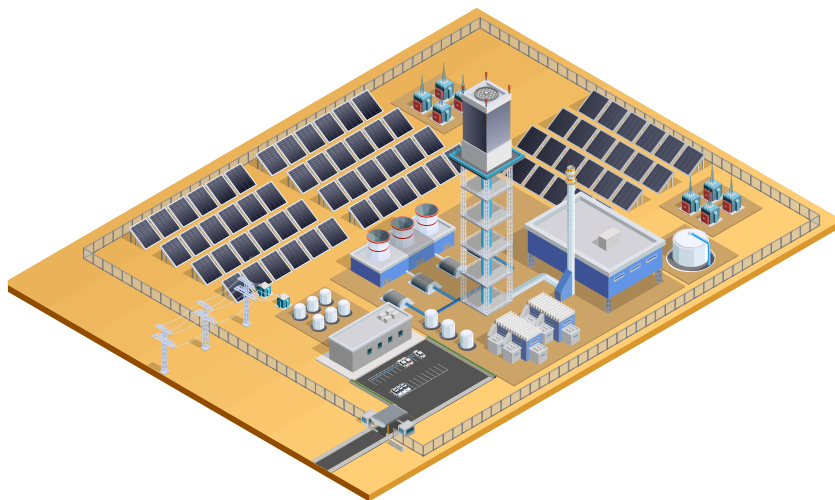
The AfA recognises that allowing for more cost-effective fire-safety alternatives for solar panel installation can be a key move to improve industry solar adoption.

Today, roof-mounted solar photovoltaic (PV) panels must comply with fire safety rules such as a one-hour fire-rated separation for metal roofs and a 2.5m access aisle for PV panels installed near the edge of the roof in the absence of a perimeter parapet/railing.⁵ While businesses recognise and uphold the importance of fire safety, these requirements impact the financial viability of PV panel installation, as they increase project costs by approximately 40% when compared against the cost of the PV system, significantly extending the time taken for the project to financially break even.

The AfA agrees that there is scope to consider alternative means of achieving acceptable fire separation, and that agencies could facilitate test-bedding of alternative, innovative, and cost-effective materials to meet fire safety requirements, by tapping on resources such as the SCDF's Fire Research Centre.

The AfA is encouraged that SCDF has been actively collaborating with the industry, academia and relevant agencies through its Fire Code review platforms to review the fire code, to enable the industry to consider more cost-effective fire-safety alternatives.

While pushing for regulatory agility, the AfA notes that overseas fire incidents involving solar PVs have highlighted the risk of fire spread and the danger of roof collapse with PVs, and the current requirement for a one-hour fire-rated separation between the PV panels and the occupied space beneath aims to mitigate such risks, especially for premises without any sprinkler system to extinguish or suppress the fire. Nonetheless, the AfA lauds SCDF's commitment to work closely with stakeholders to identify cost-efficient alternatives that maintain safety standards. A set of revised fire safety requirements will be released to the building industry in March 2025.



Recommendation 2b:

Encourage industry adoption of Energy Storage Systems (ESS) for deployment in more spaces such as building basements.

To ensure the success of Singapore's solar deployment efforts, we must maintain energy grid reliability and address the intermittency of solar energy systems. Singapore has started deploying ESS, such as the 285 megawatt-hour ESS on Jurong Island in early 2023. Given land and space constraints, we will increasingly need to deploy such ESS indoors and in building basements. The AfA recommends encouraging the adoption of such alternative deployment methods and providing greater regulatory clarity to facilitate the deployment of ESS.

⁵ SCDF Fire Code (as of October 2024), <https://www.scdf.gov.sg/firecode/table-of-content/chapter-10-requirements-for-special-installations/clause--10.2>

The AfA notes that currently, ESS are permitted for indoor deployment, but there are restrictions on the size and location of such systems. For example, deployment is typically allowed only on the ground floor to allow easy fire service access. The AfA recommends that the SCDF could adopt a calibrated approach and consider alternative locations or deployment on a case-by-case basis, especially if the fire safety risk is mitigated through newer ESS technologies that present a much lower fire hazard. For example, the use of flow batteries, aqueous batteries, or lithium or sodium ion batteries with lower thermal runaway risk could be grounds for allowing deployment of the ESS at more locations including underground, above ground, and on rooftops. The AfA agrees that it will be important for relevant fire safety rules to be calibrated to address risks while preventing undue compliance burden. The AfA recommends that SCDF continue working closely with the Singapore Battery Consortium (SBC) and other industry stakeholders to assess technological evolutions in ESS safety, and to review the Fire Code accordingly.

To this end, the AfA is heartened that SCDF has taken into consideration industry feedback, including through the AfA, and recently reviewed the basement ESS regulations. Prior to its review, basement ESS deployment was disallowed under international standards and Singapore's Fire Code due to fire and safety risks. As part of efforts to better optimise the use of underground spaces, SCDF has incorporated new fire safety requirements into the Fire Code that would facilitate ESS deployment in basements. The AfA notes that the new requirements provide regulatory clarity on basement ESS adoption and are among the first of their kind in the world, showcasing Singapore's leadership in innovative urban planning and safety standards.

Recommendation 2c:

Balance fire safety regulations with business compliance cost concerns by (i) reviewing the process for replacement of fire-rated equipment and infrastructure, (ii) reviewing requirements for smaller sites, (iii) introducing additional support such as pre-submission building plan checks and consultation services, and (iv) involving Registered Inspectors early in the approval process.

The AfA acknowledges the challenge for rules to constantly keep pace with technological changes and recognises that nascent areas might bring new risks and a new set of policy considerations. The AfA therefore recommends adopting a calibrated approach to balance business compliance cost concerns with fire safety risks. In particular, the following areas could be further studied.

- i. Review the process for replacement of fire-rated equipment and infrastructure. There are strict fire safety requirements in place for fire-rated equipment and infrastructure such as solar panels and fire doors. As more of these are deployed by companies, they will need to be replaced over time due to wear and tear, and the cost and time involved for individual inspection of each replacement under the current rules can be substantial. The AfA is encouraged that SCDF will review the certification process for such replacements, especially in the case of like-for-like replacements with the exact same specifications.
- ii. Review requirements for smaller sites, e.g. in conserved shophouses, shophouse infill plots, or sites with footprint under 1000 sqm. Smaller sites, such as conservation shophouses or those with footprints less than 1000 sqm, present unique opportunities and challenges in space utilisation.

From a fire safety perspective, the AfA appreciates SCDF's commitment to fire safety and their willingness to work collaboratively with businesses. SCDF's waiver platform offers valuable design flexibility, allowing Qualified Persons (QPs) to propose innovative solutions tailored to each project's specific needs. This case-by-case assessment ensures that fire safety measures are both effective and practical, considering the unique characteristics of each building.

For example, for premises facing challenges in providing two exit staircases, SCDF allows for alternative modes of compliance, such as ensuring low occupant load and/or putting in place sprinkler systems. This flexibility allows businesses to maintain safety standards while optimising space usage. The AfA is pleased to note that SCDF has taken a flexible approach to setback requirements, including the ability to reduce separation distances (potentially to zero) with the use of fire-rated separating walls.

- iii. Introduce pre-submission building plan checks. Businesses propose that SCDF could introduce an optional pre-submission review, similar to URA's Gross Floor Area checks, for a fee. This could help identify potential non-compliance early and provide solutions. This approach would reduce the likelihood of costly rework later in the process, and promote a more integrated consideration of waivers, prescriptive designs, and fire engineering studies.

The AfA notes that SCDF has been operating a self-regulation system since September 1998, where plans of fire safety works are approved within five working days based on the statutory declaration by QPs that the plans are code compliant. The AfA also notes that currently, businesses can consult SCDF for free. More businesses could tap on SCDF's free service to seek clarifications regarding their project, before appointing a competent QP at a fee to perform an optional pre-submission review.

- iv. Involve Registered Inspectors (RI) early in the inspection and approval process. An RI is a person who is registered under the Fire Safety Act to be qualified and competent to inspect fire safety works in buildings, and to ascertain the degree of compliance of fire safety requirements. Building owners are required to engage RIs to inspect and certify their projects as part of the overall approval process. As building codes become increasingly complex, SCDF should consider allowing the early involvement of RIs to collaborate with architects from the outset. Unlike SCDF staff who are subject matter experts in fire safety technicalities, QPs must navigate a broad spectrum of regulatory requirements from various agencies and might not be up-to-date with the latest policy changes. Early collaboration with RIs would minimise the risk of oversight and ensure a more thorough review process.

The AfA notes that SCDF already strongly encourages developers/building owners/applicants to engage RIs at the soonest opportunity, i.e., after the plans have been approved by SCDF. There might be a need to level up the capabilities of QPs and increase awareness of the importance of involving RIs early on in the process. This approach would also address the undesirable practice of trying to seek waivers for fire safety requirements from SCDF, following RI site inspections of the completed non-compliant fire safety works.





CASE STUDY

SCDF's Pro-Enterprise Efforts to Support Businesses

Over the years, SCDF has taken significant steps to put in place a pro-business regulatory framework, while addressing fire safety risk concerns. For example:

- The Fire Safety Act currently allows for a simplified fire safety compliance process in the case of Minor Alterations or Additions (MAA). This helps to save costs and time, as compared to the full plan submission process.
- SCDF has a tiered submission fee structure where fire safety works that require a lesser level of regulatory effort to process and check are subject to lower fees. This has resulted in cost reductions of approximately 40% per project, with estimated annual industry-wide savings of \$500,000.
- SCDF has worked closely with other regulatory agencies to review and simplify the QP certification process where feasible. For example, to better support businesses, SCDF reviewed the requirements for EV charging stations with LTA/MOT and included some of the fire safety requirements under LTA's regulations. Under the revised regulations, QPs need not be engaged for the installation of EV charging stations located outside petrol stations, thereby reducing compliance cost and providing a leaner administrative process.
- SCDF calibrates the specific upgrading works required based on the type and scope of renovations being planned. Building owners can also work with SCDF on a practical timeline for the works (e.g. coinciding the upgrading works with tenants' lease expiry).

In November 2023, SCDF was awarded the Pro-Enterprise Survey (PES) Award at the 2023 PEP-SBF Awards Ceremony for being among the top three agencies regarded by businesses to have performed well in all five PES components: Pro-Enterprise Orientation, Review of Rules and Regulations, Clarity of Communication, Customer Responsiveness and Compliance Costs. SCDF's performance for the PES has grown from strength to strength, since partnering with MTI on pro-enterprise efforts from 2009. At the same 2023 PEP-SBF Awards ceremony, SCDF was also conferred one of two Pro-Enterprise Partners Awards for being prompt with responses to feedback to support businesses through regulatory hurdles. SCDF will continue its stakeholder involvement efforts to review how it can regulate in an effective and pro-business manner.



Recommendation 3:

Streamline regulatory and approval processes to support businesses in building and infrastructure works.

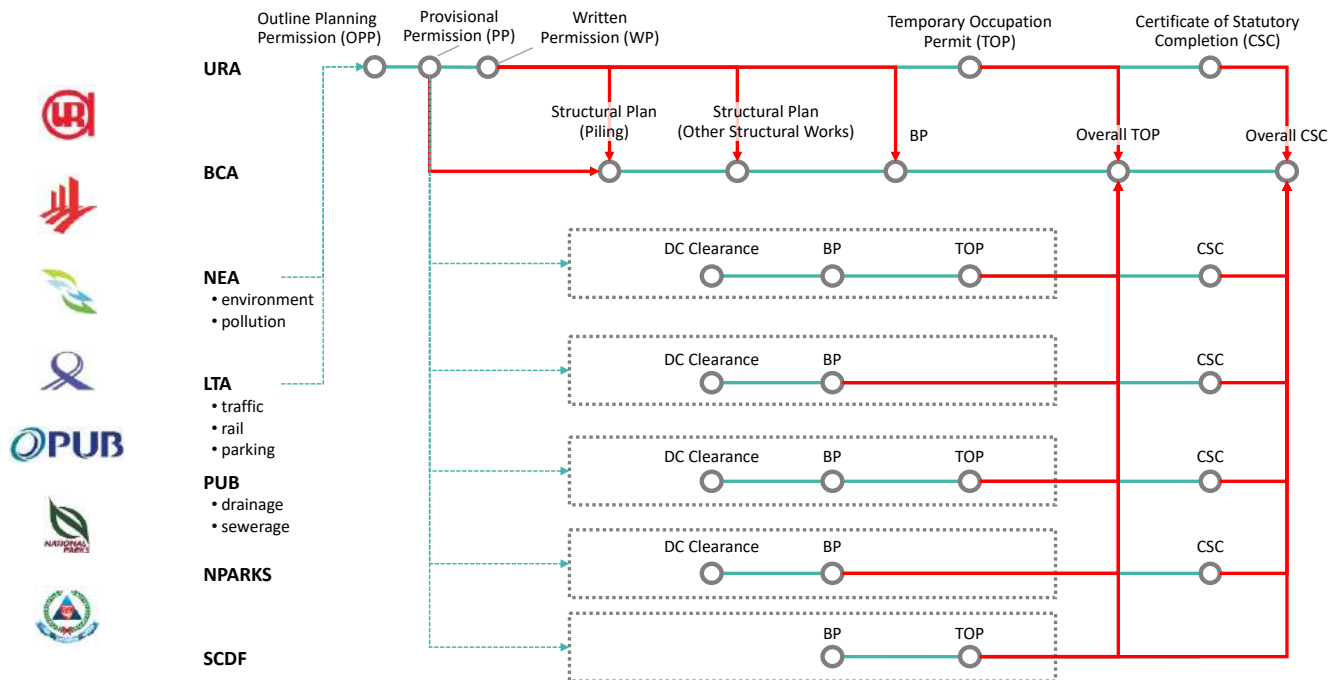
Businesses recognise the need to transform, including the need to upgrade infrastructure and buildings to keep pace with innovation and growth. However, lengthy regulatory processes, such as extended approval timelines and complex compliance requirements, can inflate operational expenses and delay transformative projects. The AfA is of the view that there is scope to further streamline regulations, particularly in the Built Environment sector, to reduce compliance costs and facilitate business transformation plans.

For example, BCA and URA, together with other regulatory agencies, have jointly introduced the new CORENET X platform which will redesign and streamline regulatory processes across multiple agencies for building works, from the planning to the completion stage.

With CORENET X, agencies will issue a consolidated response to each submission from the project team. Service standards for agencies to respond to the industry will be established, where agencies will aim to provide a consolidated response within 20 working days for each gateway submission, and limit the number of Written Directions (WDs) (unless the resubmission introduces new changes or contains non-compliance despite the earlier WDs issued). These moves will be a step up from the status quo, and will help businesses save time and costs with a more streamlined regulatory approval process.

Box Story:

Current regulatory approval process with more than 20 approval touchpoints across 7 regulatory agencies.



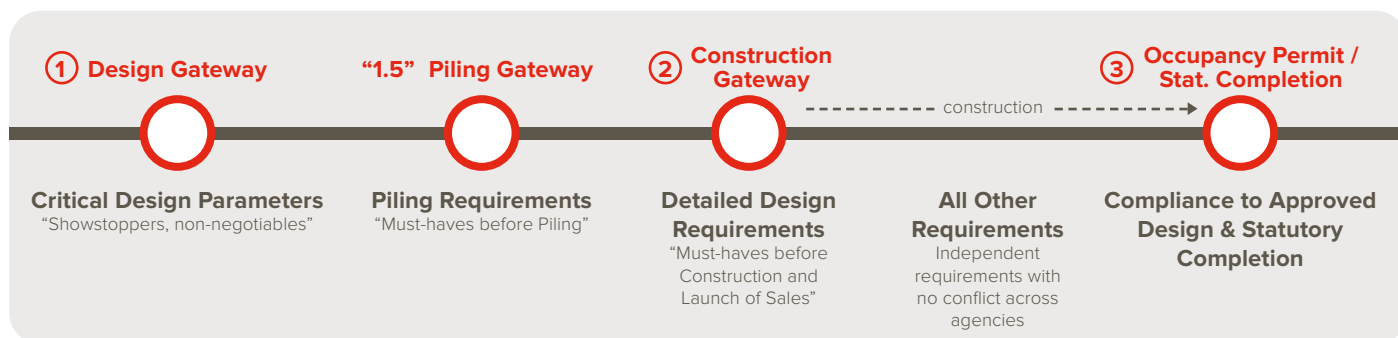
LEGEND:

- general flow for a specific agency
- no cross-agency dependencies for gates within this box
- - - - - possible cross-agency dependencies (e.g. QPs usually wait for URA PP before they apply for DC from other agencies.)
- mandatory cross-agency dependencies (e.g. URA PP is necessary before BCA grants Structural Plan (Piling) approval)

OPP: Outline Planning Application
 BP: Building Plan
 DC: Development Control

PP: Provisional Permission
 TOP: Temporary Occupation Permit
 CSC: Certificate of Statutory Completion

The new regulatory approval process for building works (RABW) under CORENET X streamlines more than 20 approval touchpoints from 7 regulatory agencies into three key approval gateways.



While CORENET X will streamline the submission process, the AfA acknowledges that it will also entail a corresponding change in businesses' work processes, and would require accompanying change management within companies. The AfA encourages more businesses to prepare internally for CORENET X, such as signing up for relevant training courses, and upskilling their project teams' digital capabilities and digital readiness. In tandem with this, agencies should continue to monitor industry readiness closely, and work with companies to get ready as CORENET X is progressively rolled out.



More information and available resources on CORENET X can be found on the CORENET X webpage, at <https://www1.bca.gov.sg/regulatory-info/building-control/corenet-x>.

Recommendation 4:

Improve the competency and service quality of intermediaries involved in building and construction works, i.e. Qualified Persons (QPs), to reduce abortive work and manage costs.

QPs refer to Architects and Professional Engineers, including Licensed Electrical Workers⁶ (Licensed Electrical Engineers), registered under their respective professional boards, who are appointed by the developer to prepare plans of the building works or to supervise the carrying out of building and installation works.

In the course of building and infrastructure projects, building owners and developers often rely heavily on QPs to interpret regulations and ensure compliance. Mistakes made by such intermediaries during the regulatory approval process can prove costly, as this could lead to abortive work and unnecessary iterative processes with agencies. The AfA recommends improving the competency and service quality of these intermediaries through the following initiatives:

- i. Improve transparency of past performance of intermediaries and manage sub-par intermediaries. This could be done through providing more information to help service buyers make more informed decisions, such as a public rating system, or via additional training for intermediaries who have demonstrated a lack of adequate knowledge.
- ii. Strengthen capability development programmes for intermediaries to refresh their knowledge of latest regulatory standards, such as through regular seminars on new regulations by agencies, to facilitate continual learning and upskilling.

⁶ There are three classes of Licensed Electrical Workers: (i) Licensed Electricians, (ii) Licensed Electrical Technicians and (iii) Licensed Electrical Engineers. Licensed Electrical Engineers must be registered as Professional Engineers and are therefore considered as QPs. In a typical new building project, a QP (Electrical) is required to certify the design and installation of the lightning protection system. The other two grades of LEWs, Licensed Electricians and Licensed Electrical Technicians, cannot certify lightning protection systems. They mostly provide services to consumers like homeowners or commercial premises in renovation and maintenance work.

Taken together, these moves will provide greater transparency to businesses, deter misconduct, and uplift the quality of intermediaries. Nonetheless, the AfA acknowledges that there are important considerations to account for. For example, a public rating system, while offering greater transparency to service buyers, could be subjective. The AfA also notes that there are existing efforts to deter QP misconduct. For example, since 2023, BCA has been publishing the list of QPs that have contravened BCA's administered laws and regulations on its website. This information is updated on a quarterly basis, and remains on BCA's website for 3 years.

The AfA also recognises that there are existing efforts that can be leveraged, to facilitate the continual learning and upskilling of QPs. Agencies can build on these existing resources to better train and educate the industry on their regulatory intent, and provide more real-life case studies to ensure alignment in interpretation of the rules.

The AfA encourages businesses and intermediaries to do more to participate in these efforts, to ensure that their understanding of current regulations is up to date.

Box Story:

Resources for QPs and businesses on Built Environment regulations

For the Built Environment sector, interested parties can sign up to a mailing list at <https://www.corenet.gov.sg/general/Subscribe.aspx> to receive the latest circulars published by regulatory agencies. Some examples of BCA's other existing efforts to engage and uplift the quality of QPs include:

- Courses for QPs developed by BCA's Inter-Agency Coordinating Committee (IACC), to increase QPs' knowledge of agencies' requirements, and improve the quality of regulatory submissions.
 - BCA's IACC is an existing industry-facing platform, that facilitates the resolution of conflicting or competing regulatory requirements for building works. It comprises the following agencies: BCA, URA, NParks, the Housing and Development Board (HDB), National Environment Agency (NEA), Public Utilities Board (PUB), LTA, SCDF, JTC Corporation (JTC), Infocomm and Media Authority (IMDA), EMA, and MOM, as well as the following Trade Associations and Chambers (TACs): the Association of Consulting Engineers (ACES), Institution of Engineers Singapore (IES), Real Estate Developers' Association of Singapore (REDAS), Singapore Contractors Association Limited (SCAL), and Singapore Institute of Architects (SIA).
- The IACC engagement efforts with the industry also include the IACC seminar, held once every two years. At these seminars, the IACC educates the industry and public development agencies on the regulatory intent of set requirements. It also refers to real cases tabled at its monthly IACC resolution meetings and shares key learning points at the seminars. These materials are made publicly available via an industry circular following the seminar as well.
- BCA organises an annual industry sharing session on Building Plans and Temporary Occupation Permit (TOP) regulatory updates. This session serves as a platform for BCA to engage QPs, Builders, and Developers, for them to better understand and gain greater clarity on BCA's regulatory requirements.

The AfA is encouraged that BCA and the Ministry for National Development (MND) also recently convened the Taskforce for Architectural and Engineering Consultancies in September 2024, in order to further strengthen and support Built Environment sector consultants. Co-chaired by Minister in the Prime Minister's Office and 2nd Minister for National Development Ms Indranee Rajah and Chairman of Surbana Jurong Group Mr Chaly Mah, the Taskforce will explore ways to improve talent inflow, retain and raise capabilities, and propagate more sustainable industry practices.

Recommendation 5:

Review building-related information that is collected by agencies and made available to businesses, and explore setting up a central directory for businesses to facilitate access to digitised copies of building plans and other building-related information (such as electrical and power plans, and past approvals granted by regulators).

Businesses provided feedback that it was challenging to get a holistic view of a building's information easily, as various pieces of information resided with different parties (e.g. government agencies, QPs, building owners). Leveraging technology for regulatory compliance would support Singapore's Smart Nation initiative. By digitising information records and improving access to expert guidance, we can support businesses with regulatory compliance.

The AfA notes that some agencies already make such information publicly available. For example, BCA makes available the information and plans submitted to BCA for approval on its website: <https://www.bca.gov.sg/pps>. However, the AfA is of the view that there is scope to study this further, so businesses need not approach different agencies in a fragmented manner. The AfA is heartened that agencies are open to the idea of setting up a central directory in the long term, which could consolidate building-related information, or direct building owners to where they can purchase such information from respective information owners.

The AfA recognises that some information is not required to be submitted to agencies today (e.g. changes to building layout that do not require regulatory submissions). Collecting such information could subject businesses to additional costs and regulatory burden. At the same time, new technologies (e.g., artificial intelligence, automated submissions, cloud technologies) could potentially be harnessed to reduce the submission burden. As such, more time would be required to study the trade-offs involved.

(D) Dedicated Touchpoint for Businesses to Navigate Complex Regulatory Issues

Recommendation 6:

Create a dedicated service to help businesses navigate complex regulatory issues through a Pro-Enterprise Centre.

Today, touchpoints like SME Centres provide businesses with advice on government programmes, but there is scope to enhance their capacity and capability to deal with regulatory issues. The AfA recommends providing an advisory touchpoint for businesses facing regulatory issues, to offer additional support beyond what SME Centres provide today. TACs can support such a service, which could in turn tap on the experience of current or former/retired civil servants who are familiar with the work of regulatory agencies. This would also be consistent with adopting a WOG approach to address regulatory issues, in line with Recommendations 1a and 1b of the Regulations Pillar.

The AfA is encouraged that the Government has taken up its feedback and has announced in September 2024 the establishment of the Small and Medium-Sized Enterprises Pro-Enterprise Office (SME PEO) under Enterprise Singapore, which will be ready by 1Q 2025. This new office will serve as a dedicated one-stop business-facing entity to assist SMEs with their regulatory feedback and to support SMEs in navigating WOG rules and regulations, especially for nascent or cross-cutting areas. This includes assisting businesses with regulatory issues on the green transition, as aforementioned in this report.

Specifically, the SME PEO will:

- a. Triage and direct regulatory feedback received from businesses to relevant Government agencies for review and reply;
- b. Establish and track WOG service standards on regulatory issues; and
- c. Monitor feedback resolution outcomes and analyse feedback to identify systemic regulatory issues for early review and resolution.

The SME PEO will leverage the 10 SME Centres operated by various TACs for feedback, complementing the work of SME Centres to offer a more holistic suite of services to SMEs. The PEO will be supported by officers across the public service, so that the office is equipped with the requisite capabilities and knowledge of industry trends and regulatory policies.

The AfA looks forward to the work of SME PEO to better support businesses in their regulatory journey.

CONCLUSION

The global economy will be increasingly fragmented and complex, and the next phase of our economic journey will be fraught with challenges. The AfA has translated our ambition for Singapore to excel as a pro-enterprise, highly competitive economy into action-oriented recommendations. This will help us to advance key policy moves and push new frontiers. In developing the recommendations under each of the three Pillars – Manpower, Land and Regulations – the AfA was guided by the need for the recommendations to be needle-moving, to include a mix of solutions with short- and long-term impact, and to be inclusive in addressing the needs and pain points of all businesses including SMEs. A summary of the recommendations across the three pillars is shown in the tables below.



Manpower

Maximise Human Capital of the Local Workforce

1. Strengthen support for enterprise and workforce transformation in tandem.
2. Utilise untapped labour pools to increase workforce capacity and resilience.
3. Build a stronger pipeline of local corporate leaders to meet companies' need for leadership talent.
4. Promote the exchange of local and global talent to enable businesses to build a competitive workforce.

Expand Access to Complementary Foreign Workers

5. Expand the Non-Traditional Sources Occupation List to enable businesses to access higher-skilled Work Permit Holders.
6. Build workforce resilience by expanding the list of Non-Traditional Sources to include other sources with skilled workers.
7. Enable businesses to retain higher-skilled Work Permit Holders and deploy their foreign workers more efficiently.
8. Develop a Tripartite advisory on workplace integration.

Provide Transitional Manpower Support for Firms Undergoing Transformation

9. Enhance the Manpower for Strategic Economic Priorities (M-SEP) Scheme to provide transitional support for businesses undergoing transformation and invest in longer-term talent development for locals.

Review Manpower Regulation Requirements to Reduce Business Costs

10. Streamline the migrant worker Onboard programme for returning non-Malaysian Work Permit Holders in the Construction, Marine and Process sectors.
11. Review mandatory Primary Care Plan for S Pass holders in the Construction, Marine and Process sectors.



Land

Extend Industrial Land Lease Tenures to Support Business Needs

1. Increase lease tenure for greenfield industrial land allocations, to account for the longer time required for development works including the construction of building and infrastructure.
2. Longer lease renewal tenures for businesses that invest significantly in productivity and redevelopment, and flexible tenure structures for businesses that have demonstrated strong productivity outcomes and jobs creation.
3. Increase awareness and outreach on JTC's lease renewal process and criteria.
4. Expand industrial lease renewal criteria to include auditable investments in innovation, R&D and value of intellectual property (IP), and value-added of co-located related companies.
5. Provide short-term extensions to support companies affected by estate redevelopment plans.
6. Review industrial land lease policies that may adversely affect companies' access to financing that is collateralised on land.

Increase Productivity of Industrial Land

7. Allow potential relocation to another industrial land site in support of redevelopment and land intensification.
8. Study schemes to encourage industrial land intensification such as allowing end-users to sublet above the current 30% subletting cap in exchange for investments in land intensification.
9. Work with TACs to facilitate partnerships between companies to maximise space usage.

Enable New Opportunities

10. Provide infrastructure support for companies looking to expand operations overseas.



Regulations

Regulatory Support to Facilitate the Green Transition

- 1a. Adopt a Whole-of-Government (WOG) approach to address regulatory issues related to the green transition, such as solar deployment.
- 1b. Exercise regulatory flexibility to facilitate the exploration of untapped spaces for solar deployment.
- 1c. Encourage adoption of commercial Electric Vehicles (EVs) by (i) reviewing the driver classification system for EVs, and (ii) studying the possibility of increasing tonnage restrictions on heavy goods vehicles.
- 1d. Encourage adoption of green infrastructure and technology through building-level incentives for industrial projects.
- 1e. Strengthen communication and engagement platforms between regulators and businesses on the green transition.

Continue on next page ►

A More Pro-business, Pro-innovation Fire Safety Regulatory Regime

- 2a.** Allow for more cost-effective fire-safety alternatives for solar panel installation.
- 2b.** Encourage industry adoption of Energy Storage Systems (ESS), for deployment in more spaces such as building basements.
- 2c.** Balance fire safety regulations with business compliance cost concerns by (i) reviewing the process for replacement of fire-rated equipment and infrastructure, (ii) reviewing requirements for smaller sites, (iii) introducing additional support such as pre-submission building plan checks and consultation services, and (iv) involving Registered Inspectors early in the approval process.

Process Streamlining and Capability Building to Support Compliance in the Built Environment Sector

- 3.** Streamline regulatory and approval processes to support businesses in building and infrastructure works.
- 4.** Improve the competency and service quality of intermediaries involved in building and construction works, i.e. Qualified Persons (QPs), to reduce abortive work and manage costs.
- 5.** Review the building-related information that is collected by agencies and made available to businesses, and explore setting up a central directory for businesses to facilitate access to digitised copies of building plans and other building-related information (such as electrical and power plans, and past approvals granted by regulators).

Dedicated Touchpoint for Businesses to Navigate Complex Regulatory Issues

- 6.** Create a dedicated service to help businesses navigate complex regulatory issues through a Pro-Enterprise Centre.

Overall, the recommendations across the Manpower, Land, and Regulations Pillars reflect a comprehensive approach to enhancing Singapore's business competitiveness. The Government and the private sector both leaned forward and worked hand-in-hand to formulate the recommendations with a common goal in mind. This report is testament to the commitment of senior private and public sector leaders who were willing to invest valuable time and resources to develop concrete recommendations to uplift our business competitiveness.

By addressing key challenges in workforce development, land optimisation, and regulatory efficiency, these initiatives aim to create a more dynamic and resilient business environment and strengthen Singapore's position as a leading global hub for innovation, sustainable growth, and economic opportunities in an increasingly competitive landscape.

ACKNOWLEDGEMENTS

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Dr. Bicky Bhangu	President (South East Asia, Pacific and South Korea), Rolls-Royce	Manpower
Ms. Susan Chong (Land Pillar Lead)	Founder and Chief Executive Officer, Greenphyto Pte Ltd	Land
Ms. Carol Goh	Deputy Chairman, Meiban Group	Land
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Contributing Trade Associations and Chambers

Association of Process Industry (ASPRI)
 Association of Singapore Marine and Offshore Energy Industries (ASMI)
 Container Depot and Logistics Association (CDAS)
 Real Estate Developers' Association of Singapore (REDAS)
 Restaurant Association of Singapore (RAS)
 Singapore Chinese Chamber of Commerce & Industry (SCCCI)
 The Singapore Contractors Association Limited (SCAL)
 Singapore Furniture Industries Council (SFIC)
 Singapore Indian Chamber of Commerce & Industry (SICCI)
 Singapore Logistics Association (SLA)
 Singapore Malay Chamber of Commerce & Industry (SMCCI)
 Singapore Manufacturing Federation (SMF)
 Singapore Precision Engineering & Technology Association (SPETA)

Contributing Agencies

Building and Construction Authority (BCA)	Ministry of Trade and Industry (MTI)
Economic Development Board (EDB)	Ministry of Transport (MOT)
Energy Market Authority (EMA)	National Climate Change Secretariat (NCCS), Prime Minister's Office (PMO)
Enterprise Singapore (EnterpriseSG)	Public Service Division, Prime Minister's Office (PMO)
Infocomm Media Development Authority (IMDA)	Singapore Civil Defence Force (SCDF)
JTC Corporation (JTC)	Singapore Land Authority (SLA)
Land Transport Authority (LTA)	Traffic Police, Singapore Police Force (SPF)
Ministry of Home Affairs (MHA)	Urban Redevelopment Authority (URA)
Ministry of Manpower (MOM)	
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