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SG GREEN

SINGAPORE GREEN BUILDING COUNCIL

BEYOND THE BUSINESS CASE FOR GREEN BUILDINGS

INSIDE:

A CHANGING BUSINESS CASE: SUSTAINABLE BUILDINGS DRIVE MARKET TRANSFORMATION ACROSS THE ASIA PACIFC

Pg 4

ECO-NOMICS OF GREEN INVESTMENTS

Pg 22

SGBC MEMBERSHIP

SINGAPORE GREEN BUILDING COUNCIL MEMBER

The Singapore Green Building Council (SGBC) enables sustainability across the building and construction value chain, championing capability development and innovative solutions that support industry transformation through Membership, Certification and Outreach. Together with a growing network of Member organisations united by a commitment to green building and sustainability, SGBC drives impactful change to the built environment.

SINGAPORE GREEN BUILDING COUNCIL

SG GREEN

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CONTENTS

A CHANGING BUSINESS CASE: SUSTAINABLE BUILDINGS DRIVE MARKET TRANSFORMATION ACROSS ASIA PACIFIC

Pg 4

BRIDGING THE GREEN GAP: INSIGHTS INTO SINGAPORE'S SUSTAINABLE BUILT ENVIRONMENT

Pg 10

THE BUSINESS CASE TO GO 25

Pg 16

ECO-NOMICS OF GREEN INVESTMENTS

Pg 22

TWENTY YEARS OF GREEN BUILDING EXCELLENCE

Pg 28

STRATEGIC RETROFITTING & REPOSITIONING FOR FUTURE-FIT BUILDINGS

Pg 34

UNLOCKING CAPITAL FOR GREEN FINANCE TRANSFORMATION

Pg 40

REIMAGINING THE FUTURE IN TIMBER: LESSONS FROM OSAKA WORLD EXPO 2025

Pg 46

TURNING AGING BUILDINGS INTO STRATEGIC ASSETS

Pg 52

BUILDING ON SUSTAINABLE PRODUCTS

Pg 58

MESSAGE FROM THE EDITORIAL TEAM

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For decades, the conversation around sustainable buildings has been anchored in the business case: a compelling narrative of energy savings, operational efficiencies, and asset value enhancement. While this rationale has been crucial in driving initial adoption, it is no longer sufficient. If we are to meet the challenges of our time - climate change, resource scarcity, and social equity – our thinking must evolve.

The built environment is not merely a collection of assets; it is the very fabric of our communities and a testament to our legacy. It is where we live, work, learn, and heal. This understanding shifts our responsibility from one of mere efficiency to one of active stewardship. It calls for buildings that have to be greener, healthier and better for occupants while enhancing biodiversity and strengthening community resilience.

In Singapore, we are already witnessing this paradigm shift. 20 years of greening buildings in Singapore through the BCA Green Mark Scheme has resulted in annual energy savings that can power one million 4-room HDB flats per year. More recently, the Go 25 national movement aims to raise greater awareness on managing daily cooling consumption to reduce the environmental impact of buildings while maintaining a comfortable and productive indoor environment.

This issue of SG Green showcases the various ways the built environment sector is going beyond the business case for green buildings:

- A Changing Business Case: Get insights on the changing business case for green buildings in the Asia Pacific region from a new World Green Building Council report
- Bridging the Green Gap: A new joint report by the Singapore Green Building Council and Schneider Electric reveals a need for stronger momentum within Singapore's sustainable built environment and the opportunities afforded by new technologies.
- Strategic Retrofitting & Repositioning for Future-Fit Buildings: Building the business case for retrofitting & repositioning

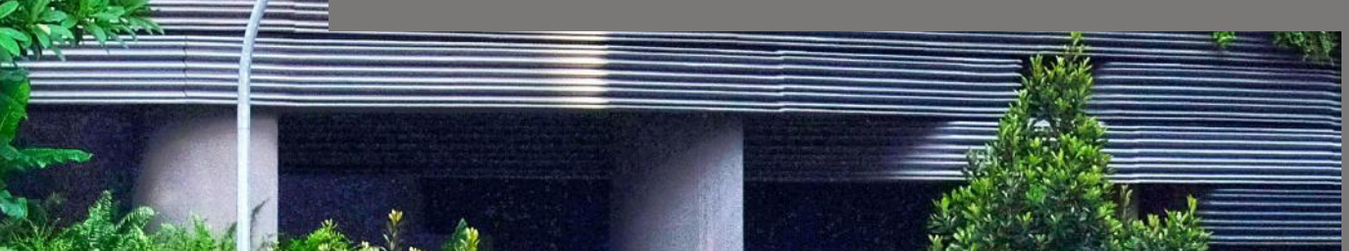
The journey beyond the business case is not a solitary one. It requires the collective effort of policymakers, developers, architects, engineers, and occupants. It requires that we measure success not only in financial returns but in planetary and human wellbeing.`

As you explore the insights within these pages, we invite you to join us in reimagining the role of our sector. Let us move together from a focus of cost to one of value; from compliance to purpose; and from leadership in business to leadership in legacy.

Yours Sincerely,
SG Green Editorial Team

A CHANGING BUSINESS CASE: SUSTAINABLE BUILDINGS DRIVE MARKET TRANSFORMATION ACROSS THE ASIA PACIFIC

Get insights on the changing business case for green buildings in the Asia Pacific region from a World Green Building Council report developed in partnership with AGC Asia Pacific, CapitaLand, GreenA Consultants, Henderson Land and JLL



THE NEW REALITY: SUSTAINABILITY AS MARKET STANDARD

The Asia Pacific region stands at a defining moment in real estate. With over half of commercial office space in the region now achieving green building certification, the business case for sustainable buildings has evolved from future projection to current market reality. As the world's fastest-growing economic region, the Asia Pacific will soon host many of the planet's future megacities, presenting extraordinary opportunities alongside significant climate risks.

The "A Changing Business Case: Transforming Asia Pacific's Property Market Through Sustainable Buildings: Insights from Singapore and Hong Kong" report published on 10 July 2025 builds on the World Green Building Council's (WorldGBC) Beyond the Business Case report published in 2021, applying its global insights to the Asia Pacific context. It draws on examples from Singapore and Hong Kong to demonstrate how aligning regulation, capital, and corporate ambition accelerates market transformation.

SEVEN DRIVERS OF VALUE

The business case for green buildings rests on seven interconnected value drivers:

1. Enhanced Asset Value - Premium valuations and stronger market positioning
2. Reduced Risk Exposure - Protection against physical and transitional climate risks
3. Stronger Investment Returns - Superior financial performance and IRRs
4. Lower Operating Costs - Significant utility and maintenance savings
5. Improved Access to Finance - Green loans offering 5 basis point rate reductions
6. Improved Occupant Outcomes - Enhanced productivity and wellbeing
7. Social and Environmental Benefits - Contribution to climate goals and community resilience

These drivers reflect a holistic view of value creation, aligning commercial success with sustainability leadership and resilience. Real estate accounts for around 68 percent of global wealth, making it the world's largest asset class. Buildings account for 32 percent of global energy use and are responsible for 34 percent of energy-related CO2 emissions worldwide, underscoring their critical role in climate action.

QUANTIFIED VALUE ACROSS THE REGION

Green-certified buildings in Asia Pacific consistently outperform conventional assets, delivering higher rental and occupancy rates, lower operating costs, and improved access to capital. With over half of commercial office space in the region achieving green certification, investor confidence in sustainable real estate is underpinned by measurable returns and operational efficiencies. The business case for sustainable buildings in the Asia Pacific is real, quantifiable and strengthening each year.

Green-certified buildings consistently outperform conventional assets across all key metrics in terms of Market Performance:

- JLL (2024) reports that 74 percent of corporate real estate leaders are willing to pay premiums for green-certified spaces
- 87 percent of occupiers aim for fully green-certified portfolios by 2030
- Singapore leads with ~90 percent of Grade A offices certified, commanding 4-9 percent rental premiums
- Bangkok and Manila see 4-11 percent premiums for scarce certified spaces
- CBRE reports a 2 percent occupancy advantage for green buildings (83 percent vs. 81 percent for uncertified peers)

Green-certified buildings also outperform conventional assets in terms of Operational Efficiency:

- Singapore's BCA Green Mark Platinum certified buildings achieve >50 percent energy savings versus 2005 baselines
- IGBC-certified buildings in India demonstrate 20-30 percent energy savings and 30-50 percent water savings
- Enhanced resilience against resource constraints and rising utility prices

The consistent market outperformance of certified green buildings builds a compelling foundation for the growth of green finance and sustainable investment trends in the Asia Pacific.

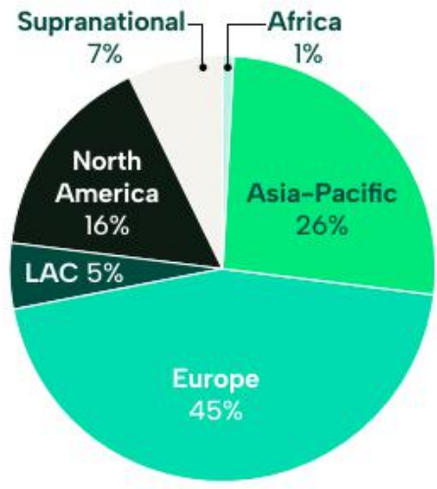


Fig. 3. Asia Pacific was the second largest source of 2024 GSS volume.
Source: Climate Bonds Initiative (2025), Sustainable Debt Global State of the Market 2024

INVESTMENT TRENDS

Green finance is expanding rapidly across Asia Pacific, creating new opportunities to fund sustainable projects. Companies committed to decarbonisation are increasingly turning to green loans and green bonds to access capital and support their transition.

According to a 2024 report by McKinsey & Company, achieving net zero emissions in the building sector requires an average annual investment of USD 1.7 trillion between 2020 and 2050 — less than 2 percent of global investment flows. The challenge is not a lack of capital but redirecting capital towards sustainable outcomes.

A Changing Business Case

Financial markets are increasingly recognising climate risk as financial risk, reshaping capital flows into real estate:

- Banks are implementing climate risk assessments.
- Insurers are repricing based on resilience.
- Bond markets are providing preferential terms for green buildings.

This shift signals that sustainable buildings are becoming the only financially viable option for long-term value creation. Properties that secure green financing, such as sustainability-linked loans (SLLs), often benefit from interest rate reductions of around 5 basis points. Meanwhile, green bonds are driving investment, with USD 587.6 billion in green bond issuance in 2023 - a 15 percent increase from the previous year, comprising 67.5 percent of all sustainable debt issuance.

The Climate Bonds Initiative (2025) reports that the global market for green, social, and sustainability (GSS) bonds and sustainability-linked loans (SLLs) reached USD 6.9 trillion by the end of 2024. Of this, green bonds accounted for USD 3.5 trillion, with Asia ranking as the second largest market for new issuances, just behind Europe. In 2024 alone, USD 671.7 billion in green bonds were issued globally, marking a 9.4 percent year-on-year increase.

With most buildings that will exist in 2050 already built, there is a significant need to retrofit existing stock, driving demand for sustainable finance to reduce emissions at scale. Retrofit markets are expanding quickly in dense urban centres such as Tokyo, Seoul, and Hong Kong, where limited new-build space and tightening ESG compliance are accelerating the shift.

A Changing Business Case

Projects accessing green financing often achieve higher internal rates of return (IRRs) than conventional property improvements. The Asian Development Bank (ADB) applies a 12 percent financial IRR benchmark for green retrofit projects, indicating that initiatives supported by concessional or blended finance typically meet or exceed this threshold for viability.

The growth of green finance for buildings in Asia Pacific reinforces the business case for sustainable buildings while creating a virtuous cycle of investment and performance. Beyond immediate benefits, there is a risk management perspective: green performance strengthens long-term value preservation by reducing financial, operational, and reputational risks.

RISK MANAGEMENT

Green buildings help reduce exposure to physical and transitional risks as climate impacts intensify and regulatory expectations tighten across the Asia Pacific. The region's vulnerability to climate change creates urgent risks for conventional buildings while presenting significant opportunities for resilient assets. For instance, the World Meteorological Organization (2024) reports that people in Asia Pacific are six times more likely to experience climate disasters than those in other regions.

Green buildings provide enhanced protection against climate risks through

- Improved building envelope performance, reducing vulnerability to extreme temperatures and weather events.
- Enhanced structural integrity, protecting against storm and flood damage.
- Efficient systems that minimise operational disruption during infrastructure stress.
- Water conservation and storage systems that maintain functionality during supply interruptions.

During extreme events, resilient buildings experience less downtime, maintain higher value, and often benefit from insurance advantages. As severe weather events become more frequent, these operational advantages translate into measurable financial outperformance.

As governments across the Asia Pacific tighten building codes and set ambitious climate targets, green buildings that meet recognised standards are better positioned to comply with emerging regulations, reducing the risk of:

- non-compliance penalties
- costly future retrofits
- market obsolescence

Examples include the mandatory energy performance reporting regimes in Tokyo and Seoul, which ensure that certified buildings are aligned with policy expectations, along with the increasing adoption of carbon pricing mechanisms in key markets, which will penalise inefficient, high emission assets while rewarding high-performing buildings.

As the Asia Pacific region progresses toward net zero, assets that fail to demonstrate sustainability performance risk becoming "stranded". Green buildings mitigate this risk through strong environmental performance, easier emissions reporting and a readiness for evolving regulatory frameworks.

By integrating advanced sustainability standards, green buildings offer a strategic advantage in a market reshaped by climate commitments and investor priorities.

Read the full report here.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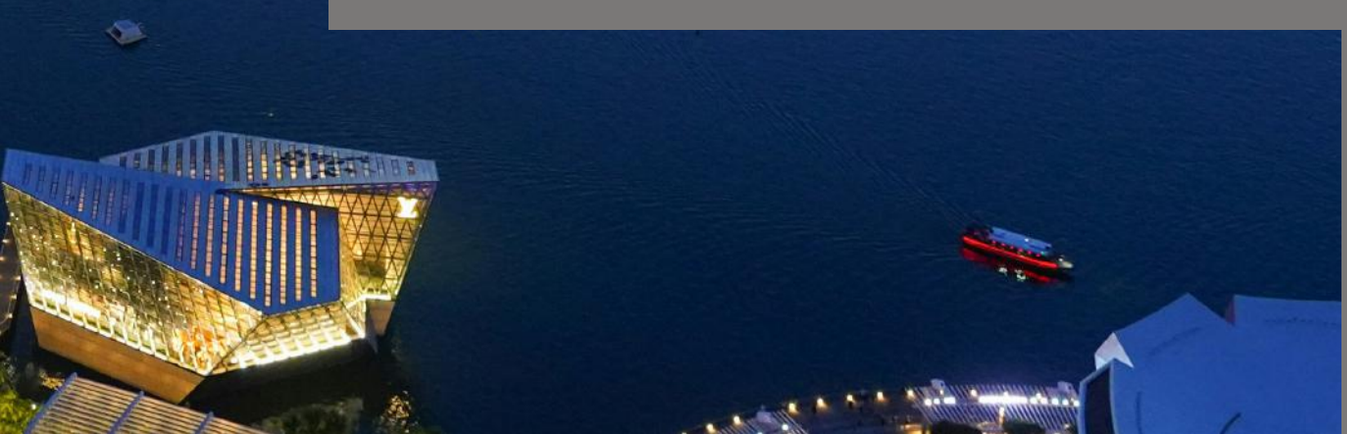
BRIDGING THE GREEN GAP: INSIGHTS INTO SINGAPORE'S SUSTAINABLE BUILT ENVIRONMENT

A new joint report by the Singapore Green Building Council and Schneider Electric reveals a need for stronger momentum within Singapore's sustainable built environment and the opportunities afforded by new technologies.



Singapore has made significant progress in recent years towards its net zero targets. As at last year, 61 percent of Singapore's buildings had been greened and 25 percent of new developments met Super Low Energy standards.

The country has set an ambitious target of greening 80 percent of its buildings (by gross floor area) by 2030. What is needed over the next five years to hit that goal?

Findings from a recent report titled "Awareness to Action: Insights for a Greener Built Environment" – a joint effort by Schneider Electric Singapore and the Singapore Green Building Council – suggest business leaders are ready to adopt green buildings but may need a bit more of a push.

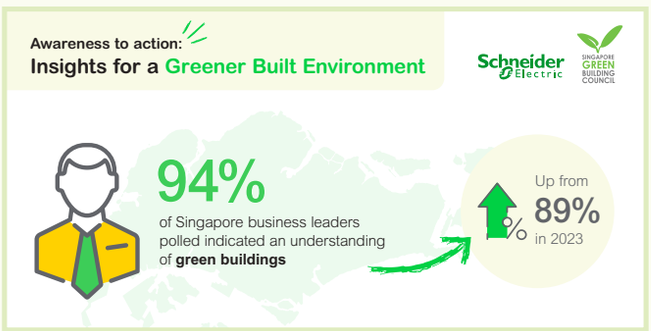
Drawing from a survey of 505 senior business leaders, the report delves into attitudes to and levels of green building adoption as well as challenges that need to be overcome.

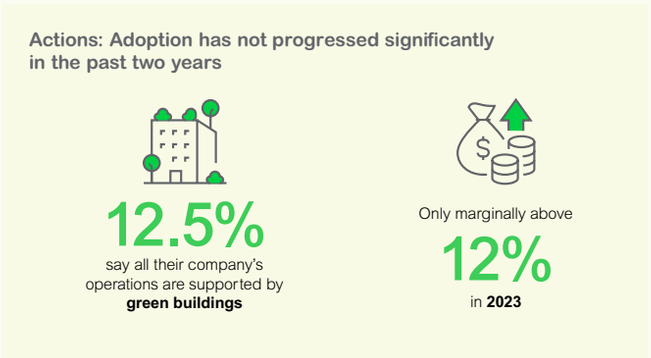
The report, officially published during the Singapore-International Green Building Conference 2025 on 9 July 2025, also compares their responses against those of a similar group surveyed in 2023 to measure progress and identify new opportunities to advance green buildings in Singapore.

AWARENESS ON THE RISE

One of the most encouraging findings in this year's report is the rise in green building awareness among Singapore's business leaders: 94 percent of business leaders now indicate at least a general understanding of green buildings, up from 89 percent in 2023.

This reflects sustained momentum in green education and the growing prominence of sustainability across the corporate agenda.





Despite this increase in awareness, however, the pace of adoption remains slow. Only 12.5 percent of surveyed leaders are fully employing green buildings in their operations – a marginal increase from 12 percent in 2023.

This pace of adoption is a reflection, to some extent, of a maturing of the green building movement. Basic green building technologies have been adopted by willing companies, and the next phase of adoption may require greater effort on multiple fronts.

The gap between knowing and doing remains significant, and bridging it will be critical to meeting 2030 targets.

STRENGTHENING INTENTIONS

The outlook for Singapore's built environment industry is nevertheless positive. Nearly 74 percent of business leaders plan to increase green building adoption over the next two years, which is a significant jump from 52 percent in 2023.

These intentions are being driven not just by a desire to reduce energy consumption and cut costs but also by pressure from employee, regulatory, shareholder and customer expectations.

The percentage of business leaders citing employee expectations as a push factor for green building adoption has risen to 8percent in 2025 from 3 percent in 2023.

As younger generations enter the workforce, environmental responsibility is becoming a prerequisite for talent attraction and retention. Companies that invest in green workplaces are increasingly seen as employers of choice.

At the same time, regulatory momentum is picking up. Upcoming changes such as the Mandatory Energy Improvement (MEI) scheme signal a tightening compliance landscape. Building owners and tenants alike will need to meet higher efficiency standards or risk falling behind.

Customer and shareholder expectations are also rising, particularly in sectors that are integrated into international supply chains.

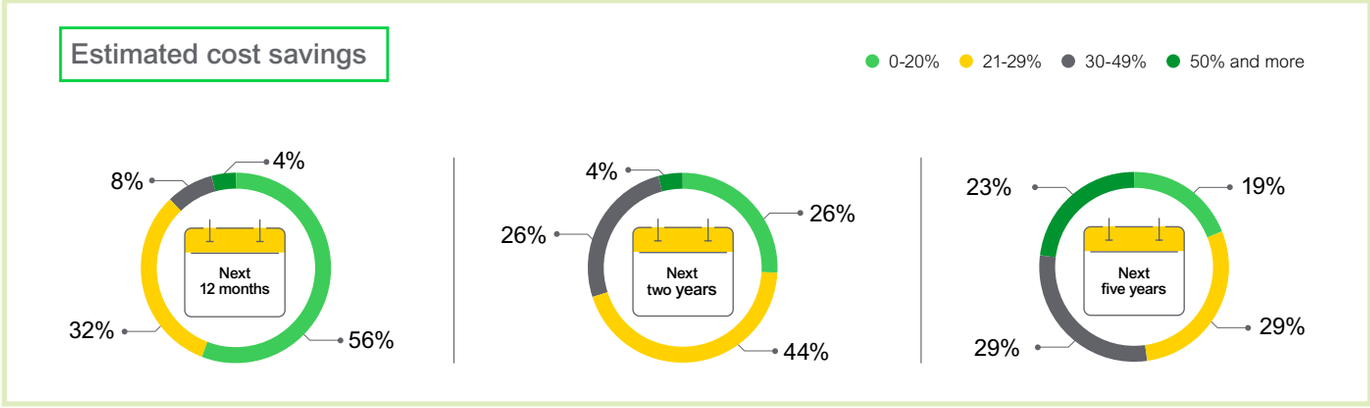
With sustainability reporting becoming mandatory in many global markets, green building certification is emerging as a credibility marker for responsible businesses.

ADDRESSING BARRIERS

The gap between intention and action can be explained somewhat by cost concerns. Roughly 36 percent of business leaders cited cost as the top barrier to green building adoption.

This ratio is much lower than the 61 percent citing cost as the top barrier in 2023, though. In fact, green building technologies have matured to the extent that they can very quickly generate a return on investment.

Data from Schneider Electric's Sustainability Research Institute shows retrofit investments for commercial buildings can yield carbon and energy bill savings of 15 - 80 percent.



Business leaders also expect savings to continue increasing over time: Over the next 12 months, 44 percent of survey respondents expect to achieve cost savings of more than 20 percent from the use of energy efficiency and sustainability technologies.

As cost concerns subside, a newly emerging barrier for companies in Singapore appears to be the difficulty of relocating to a greener building. A quarter of survey respondents cited this as a top barrier in 2025, up from just 7 percent in 2023.

This finding suggests that an increasing number of business leaders operating from leased premises are faced with the uncomfortable choice of having to move so they can increase their rates of green building adoption.

While all new builds in Singapore are now green-certified, much of the commercial and industrial sector still operates from older and non-certified spaces.

For Singapore to progress on its green building goals, greater emphasis therefore needs to be placed on retrofitting existing buildings.

STRATEGIC RECOMMENDATIONS

The findings of the report indicate that it is time for both the public and private sector to look beyond cost savings from green building technologies and towards other benefits.

Policymakers can afford to raise the bar for emissions reductions while companies should consider any expenditure on green building technologies as an investment in building long-term strength.

Four in five companies have reduced emissions by more than 10 percent using green building technologies, and we can expect emissions reductions to improve as technologies improve.

Digital twins, artificial intelligence-based energy optimisation, smart sensors and real-time monitoring systems are all helping to enhance operational efficiency and create better workplace environments.

While the report indicates that building owners find it more challenging to incorporate such technologies into older buildings, retrofitting is a better choice for the environment.

Retrofitting should thus be made a national priority, with sustained regulatory momentum and sufficient public funding as keys to unlocking the potential of this approach.

Targeted funding, shared case studies, and industry-wide knowledge exchange may also help demystify retrofitting for more stakeholders.

Of course, the success of Singapore's green building journey hinges not just on policy or technology. There is a growing need for multidisciplinary professionals skilled in sustainability, engineering, digital systems and building management.

Retrofitting projects, in particular, require integrated expertise that cuts across conventional roles. With evolving green building standards and technologies, the talent pool must grow in both size and skillsets.

THE FUTURE FOR GREEN BUILDINGS

Reaching our national green building target by 2030 will require moving swiftly from awareness to execution – prioritising retrofits, investing in skilled talent and leveraging advanced technologies.

With the right mix of policy support, industry leadership, and cross-sector collaboration, Singapore can not only meet its green building goals but also set a global benchmark for sustainable urban development.

Read the full report here.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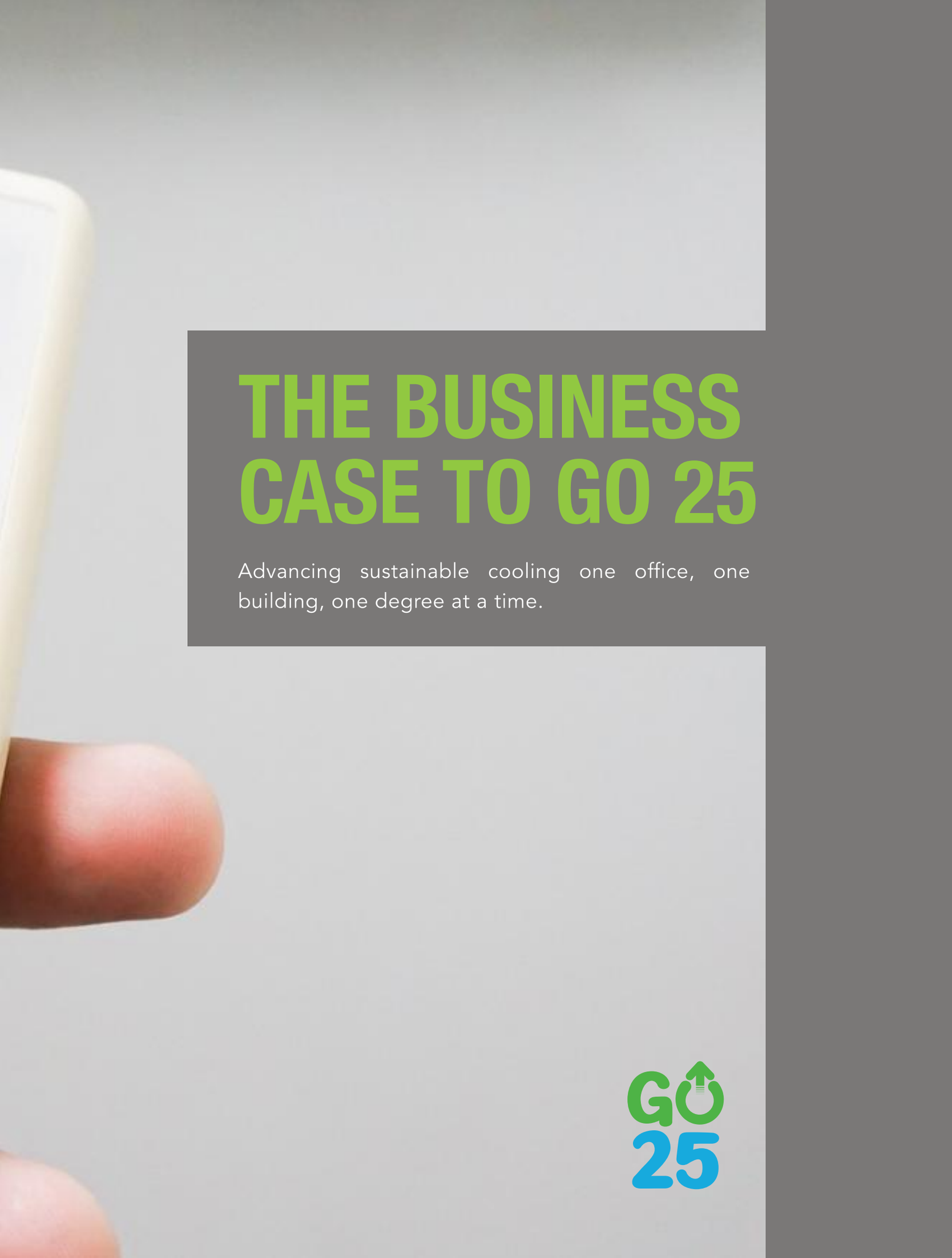
TOO WARM
TOO COOL
ECONO COOL
FAN
FAN-DRY
POWERFUL COOL
VANE
MODE
SELECT
TIME
RESET



THE BUSINESS CASE TO GO 25

Advancing sustainable cooling one office, one building, one degree at a time.

GO 25

Singapore's commercial buildings face a critical sustainability challenge: despite our tropical climate, most offices maintain frigid indoor temperatures between 21–22°C—far colder than both international best practices and occupant preferences. This overcooling paradox consumes 40–50 percent of a building's total energy use, yet research shows it undermines productivity, health, and sustainability goals.

The Go 25 movement, a joint initiative by the Singapore Green Building Council (SGBC) and the Ministry of Sustainability and the Environment (MSE), supported by the National Environment Agency (NEA), and the Building and Construction Authority (BCA), is a key effort to advance sustainable cooling behaviours across our society. Setting air-conditioned indoor temperatures at around 25°C – identified as the ideal balance between comfort and environmental responsibility – is the first step toward this sustainable future.

SINGAPORE'S INDOOR TEMPERATURE PARADOX

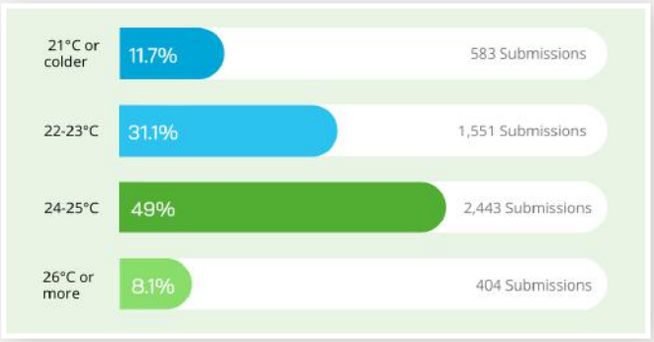
Despite Singapore's recommended indoor temperature standards of 24-26°C, field studies reveal that actual temperatures in office buildings are maintained at much lower levels. This conventional wisdom of 'colder is better' is costing your business in three key areas: unnecessary energy expenditure, reduced productivity, and increased environmental impact.

Research from the UC Berkeley SinBerBEST team showed that Singaporean office workers experience optimal comfort and productivity at indoor temperatures of 25–26°C – significantly warmer than current practices5. But what do employees and tenants actually want?

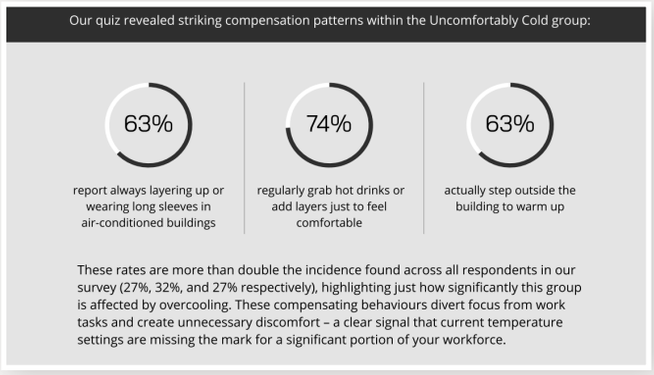
TEMPERATURE TRUTHS: SINGAPORE'S INDOOR COMFORT REALITY CHECK

In May 2025, the Go 25 Indoor Comfort Quiz was launched as an online personality quiz to engage with users on temperature profiles and raise awareness of Go 25. The Quiz employed a dual-purpose methodology that balanced scientific rigour with engaging user experience, and measured thermal sensation, clothing preferences, coping behaviours, and temperature preferences through questions adapted from established thermal comfort research. More than 5000 responses were recorded and aggregated into the Go 25 Indoor Comfort Snapshot officially published on 9 July 2025.

With this robust dataset, analysis unveils three distinct temperature preference groups, confirming scientific research that Singaporeans generally prefer temperatures closer to 25°C.



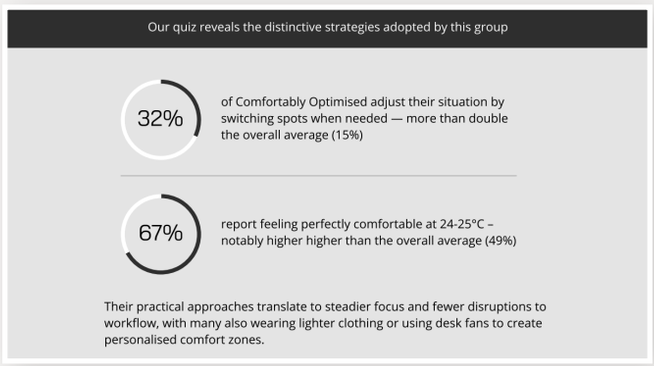
Uncomfortably Cold



These individuals struggle in overcooled environments despite their best attempts to adapt. The quiz responses revealed striking compensation patterns within the Uncomfortably Cold group: 63 percent report always layering up or wearing long sleeves in air-conditioned buildings, 74 percent regularly grab hot drinks or add layers just to feel comfortable, and a remarkable 63 percent actually step outside the building to warm up.

These rates are more than double the incidence found across all respondents in our survey (27 percent, 32 percent, and 27 percent respectively), highlighting just how significantly this group is affected by overcooling. These compensating behaviours divert focus from work tasks and create unnecessary discomfort - a clear signal that current temperature settings are missing the mark for a significant portion of your workforce.

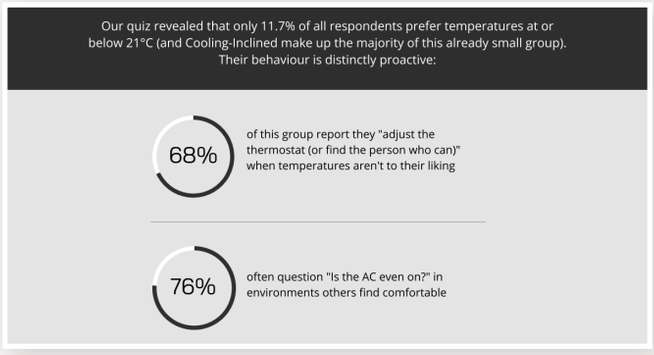
Comfortably Optimised



Preferring temperatures around 25°C, these individuals have mastered personal adaptation for optimal comfort. Quiz data reveals their distinctive strategies: within this group, 32 percent of Comfortably Optimised adjust their situation by switching spots when needed, and a significant 67 percent report feeling perfectly comfortable at 24-25°C – notably higher than the 15 percent and 49 percent respectively across all respondents.

Their practical approaches translate to steadier focus and fewer disruptions to workflow, with many also wearing lighter clothing or using desk fans to create personalised comfort zones. Their preference aligns perfectly with Singapore's recommended temperature standards, representing the sweet spot where comfort meets sustainability.

Cooling-Inclined



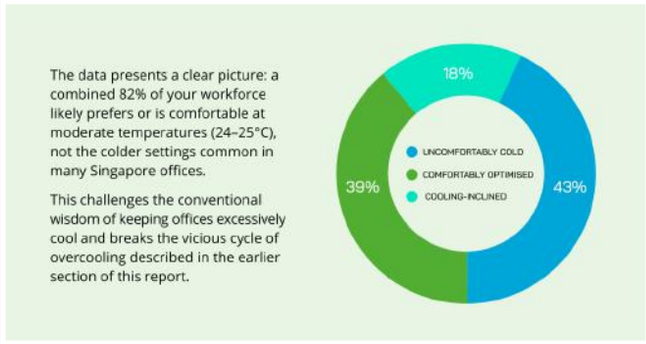
The active minority from the quiz data tends to favour significantly lower temperature settings. 11 percent of all respondents prefer temperatures at or below 21°C. Their behaviour is distinctly proactive: 68 percent of this group report they "adjust the thermostat (or find the person who can)" when temperatures aren't to their liking, and 76 percent often question "Is the AC even on?" in environments others find comfortable.

While representing a smaller percentage of occupants, their comfort preferences can significantly influence workplace temperature decisions, sometimes leading to settings that feel too cool for the majority. These individuals genuinely thrive in cooler conditions, but their preferences may unintentionally impact others' comfort and building energy use.

The data presents a clear picture: a combined 82 percent of your workforce likely prefers or is comfortable at moderate temperatures (24–25°C), not the colder settings common in many Singapore offices. This challenges the conventional wisdom of keeping offices excessively cool and breaks the vicious cycle of overcooling in the built environment.

These quiz insights provide the foundation to build the business case to Go 25.

THE BUSINESS CASE FOR 25°C



Setting your office temperature to 25°C delivers three measurable business advantages: reduced operational costs, improved employee performance, and enhanced staff wellbeing. For decision-makers, the investment is minimal while the returns are substantial and immediate.

With buildings accounting for approximately 20 percent of Singapore's carbon emissions, excessive energy use through overcooling represents both a financial and reputational risk to your business. As our quiz revealed, this overcooling often caters to just 18 percent of occupants – the Cooling-Inclined – while driving up costs for everyone.

A structured study conducted by the Centre for Environmental Sustainability (CfES) commissioned by SGBC demonstrates significant energy savings from modest temperature adjustments. The research found that raising air- conditioning setpoints by 1°C (within the 23°C–25°C range) in an office setting reduces cooling energy use by up to 12 percent. For a typical 3,000 square metre office space, this translates to annual savings of around $6,400 with no discernible discomfort to occupants.

These findings are consistent with the quiz results, which show that 82 percent of occupants are comfortable at moderate temperatures, supporting the case for sustainable cooling practices. As sustainability becomes increasingly important to stakeholders, addressing overcooling represents a tangible way to demonstrate environmental leadership while reducing operational costs. The scale of potential savings is substantial. As energy costs continue to rise, adjusting energy usage delivers a return on investment that few other operational changes can match.

The most compelling impact that committing to a higher indoor temperature can have is on employee health. A study by the Tokyo Metropolitan University not only revealed that Singaporeans' actual comfort temperature is around 24.8°C, but also found that symptoms like fatigue and drowsiness were significantly higher at 21-22°C compared to 25-26°C.

These symptoms decreased significantly in warmer environments of 25-26°C, and only 15 percent of people reported feeling cold (down from 47 percent). These scientific findings align closely with our quiz results, where 39 percent of respondents fall into the "Uncomfortably Cold" group who struggle in overcooled environments. For businesses, this translates to reduced absenteeism, fewer productivity losses, and potentially lower healthcare costs.

MAKE COMFORT SUSTAINABLE

The 25°C Advantage: By the Numbers

Benefit Area	Current Practice (21-22°C)	Optimised at 25°C	Potential Impact
Energy Consumption	Baseline	Falls 12% when raising temperature by 1°C Falls 32% when complemented with fans	Reduced operating costs, smaller carbon footprint
Symptom Reports	47% report cold discomfort	15% report cold discomfort	Fewer sick days, higher engagement
Performance	Baseline	• Improved concentration and alertness: 10% faster reaction time • Higher occupant satisfaction: 10% higher	Enhanced productivity and decision-making

Maintaining appropriate temperatures isn't just about comfort — it's about creating conditions where employees can thrive physically.

These advantages make 25°C not just an environmental choice, but a sound business decision. More information and implementation guidance to Go 25 can be found in the full Go 25 Indoor Comfort Snapshot, available for free on the Go 25 website.

Complementing the Go 25 Indoor Comfort Snapshot, the Go 25 Industry Guide for Building Operations – developed in collaboration with C&W Services (S) Pte Ltd – is also available to help facilities managers and building operators to deliver practical implementation strategies, including:

- Technical recommendations for system optimisation
- Real-world case studies of successful transitions
- Step-by-step checklists for gradual temperature adjustment

Aligned with national sustainability goals and green building standards, the Industry Guide aims to help optimise cooling systems and facility operations, supporting building managers, engineers, and operators to more efficiently Go 25.

A smarter, more sustainable indoor climate starts at 25°C. Join us in setting the right temperature and adopting optimal cooling practices for comfort and impact.

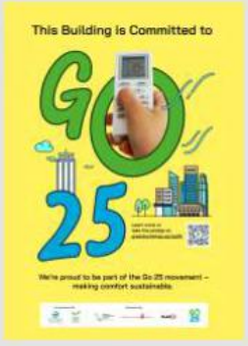
Taking the Pledge is Simple

Making your commitment official takes just minutes:

1. Visit the 'Go 25' website at https://go.gov.sg/go25
2. Complete a short form registering your organisation's commitment
3. Receive immediate access to the Go 25 Toolkit
4. Implement at your own pace with ongoing support resources

Your Go 25 Toolkit

Upon taking the pledge, you'll receive a ready-to-use toolkit containing:



- **Official Go 25 Decal** – Display your commitment proudly in your premises
- **Campaign Infosheet** – Share the transition and benefits of 25°C with stakeholders
- **Social Media Template** – Showcase your leadership across digital platforms
- **Digital Poster Template** – Communicate effectively in offices and public spaces
- **Aircon Decal** – A visual cue to remind staff to Go 25
- **Email Template** – Engage your staff with ready-to-use internal communications

A Community of Support

Your pledge connects you with a network of like-minded organisations committed to sustainability. As a Go 25 participant, you'll receive ongoing resources, movement updates, and opportunities to share best practices with fellow pledge partners. Other recognition includes having your company logo featured on the Go 25 website and opportunity to spotlight your success story after implementation, showcasing your sustainability achievements.

Ready to make comfort sustainable at 25°C?

Pledge now at go.gov.sg/go25

ECO-NOMICS OF GREEN INVESTMENTS

Defining Returns on Sustainability for CapitaLand Investment

BACKGROUND – THE GREEN HURDLE FACED BY ASSET MANAGERS

As sustainability becomes a key pillar of long-term value creation in real estate, CapitaLand Investment (CLI) has developed a proprietary Return on Sustainability (RoS) framework to rigorously assess the financial impact of green capital expenditure.

The framework aims to assist with financial justification for green investments in buildings and help asset managers to better address commonly face questions such as, 'What is the ROI or payback period?', 'How can I justify this to investors?', or 'How do I address high upfront improvement costs?'.

While the answers for certain green interventions, such as energy-efficient lighting upgrades, are quite straightforward due to a short payback, it can be significantly more challenging to justify interventions with much longer payback periods.

The RoS framework was designed as a data-driven, decision-making tool, evaluating eight key variables that influence financial performance of green investments in real estate: green capital expenditure (capex), utility savings, carbon cost reductions, rental premiums, longer leasing durations, lower interest rates, reduced insurance premiums, and enhanced asset valuations. By quantifying risks and returns, this model equips asset managers with a holistic view of the tangible value that sustainability initiatives can unlock.

The framework provides a tool to asset managers for analysing the potential ROI for green capex investments, both at asset and portfolio levels. This could be utilised to aid business decision-making during budget formulations, asset enhancement initiatives, green capex allocations, redevelopment cost-benefit assessments, RECs / carbon offsets purchase decisions and other similar projects where the value of green investments needs to be justified.

STATE OF CURRENT RESEARCH

There has been consistent research in the market on quantifying the green premiums for sustainable buildings. Most of these studies are typically based on a Hedonic Pricing model using regression analysis, comparing rental premiums between green and non-green buildings while keeping constant factors such as location, age, amenities, specifications, etc. In practice however, due to the multiplicity of market factors, it can be difficult or even nearly impossible to isolate the impact on asset rental premiums due solely to the building's green factors.

On-the-ground customer engagement reveals that while tenants generally qualitatively appreciate the value of green buildings and may at times even exclude non-green buildings from their consideration set, it is hard to directly link any rental uplift to how green a building is. Some current studies also rely upon surveys or market data, and do not have access to the underlying financial models of actual assets to assess the impact of green capex and other factors. These are the gaps that the RoS framework aims to fill.

RETURN ON SUSTAINABILITY FRAMEWORK – ASSET LEVEL METHODOLOGY AND RESULTS

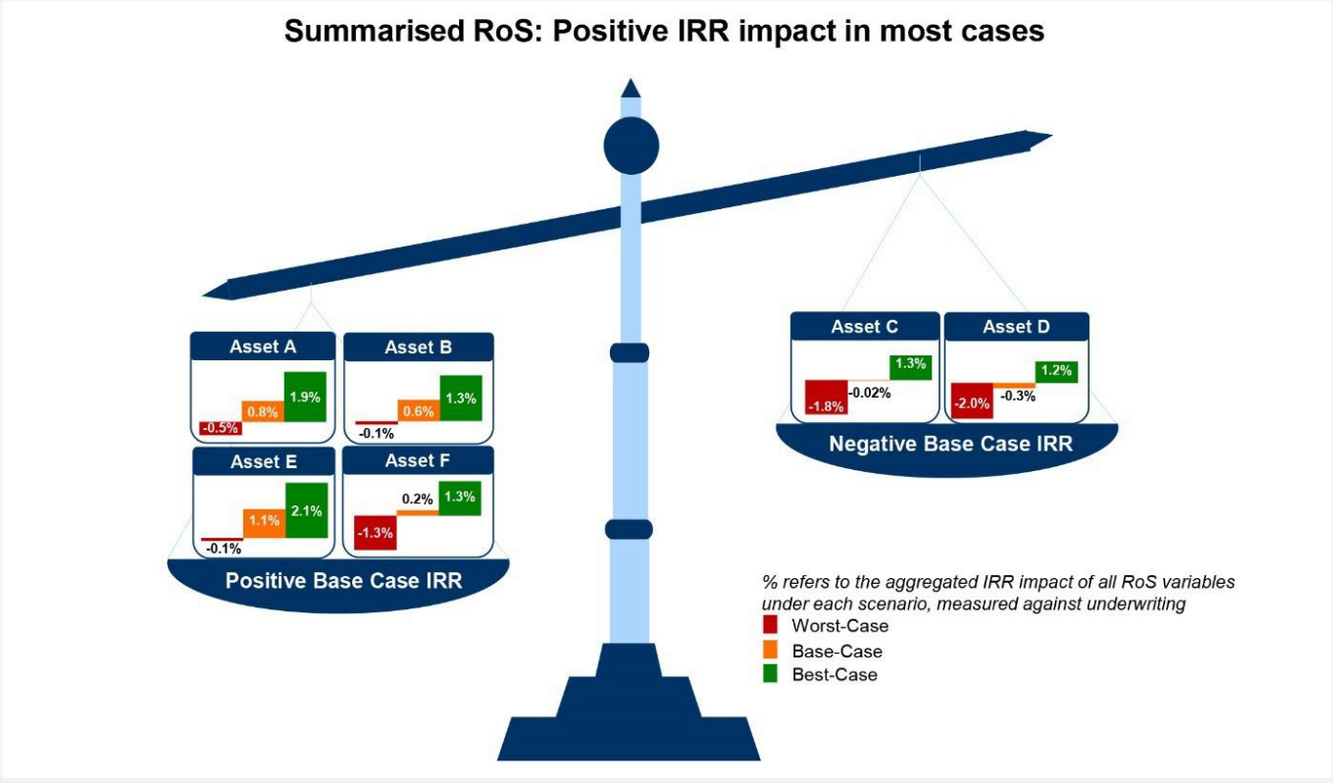
To approach this subject from a broader perspective, aside from rental premiums associated with green capex, a list of levers that could impact an asset's Internal Rate of Return (IRR) was identified. The levers were assessed based on the magnitude of impact on returns and likelihood of occurrence. A scenario / sensitivity analysis was conducted outlining three distinct cases – Best, Base, and Worst – to evaluate IRR impact under different conditions. The input variables were defined based on inputs from both CLI's proprietary data and market sources.

Six existing assets owned and managed by CLI were chosen for the analysis. In order to mimic a regional portfolio under a private equity fund, the assets chosen are commercial offices and business parks located in Australia, India, Japan, and Singapore. Each asset's current financial model was updated, incorporating these variables under the different scenarios. The IRR impact of each variable was then assessed independently as well as in conjunction with all other variables to form a holistic analysis.

As summarized in Figure 1, for all but two assets, the Base-Case was sufficient to generate a net positive impact on IRR. In the Best-Case, we observed a returns uplift of up to 2.1 percent. However, the Worst-Case erosion of returns also stretched to 2 percent for one asset.

Although not currently included in the asset-level framework, Renewable Energy Certificate (REC) / carbon offset costs can be considered on a case-by-case basis. RECs / carbon offsets can be purchased to fill the gap against stated public carbon targets. This will negatively impact returns without a change in the asset condition.

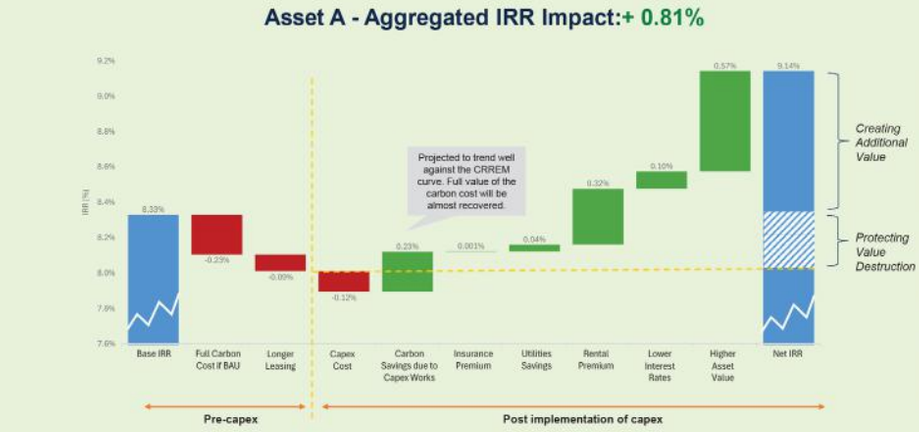
Figure 1: Summary of RoS Impacts Over the Six Test Case Assets



Note: Negative values indicated erosion where the allocated green capex is not sufficient to offset higher carbon costs, longer leasing and higher insurance premiums.

Source: CLI Group Sustainability, CLI Group Research, July 2025

Figure 2: Performance of Four Assets Under Base-Case Conditions



For illustration purposes, Figure 2 shows the IRR waterfall chart in the Base-Case for four assets. From left to right, each chart starts with the base IRR as per the current financial model of the asset. In the case of no greening efforts, returns will drop due to carbon costs incurred as well as longer leasing duration for the asset.

Incurring a green capex will further drop the returns. However, there will then be an uplift in returns contributed by all other variables based on the Base-Case assumptions.

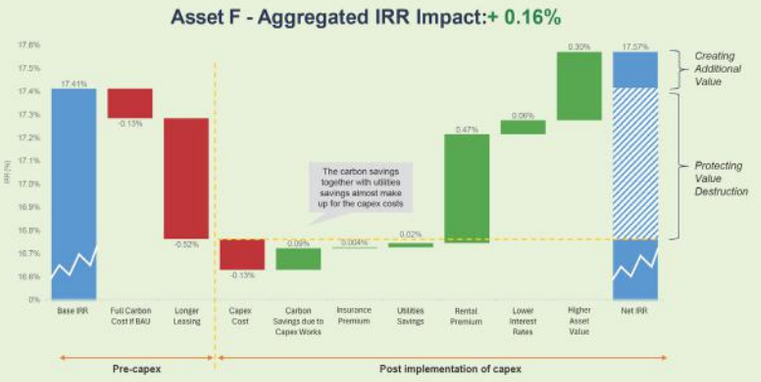
The net IRR bar on the extreme right shows the protection of value destruction by the levers with a positive impact on returns, and a further uplift from additional value for certain assets.

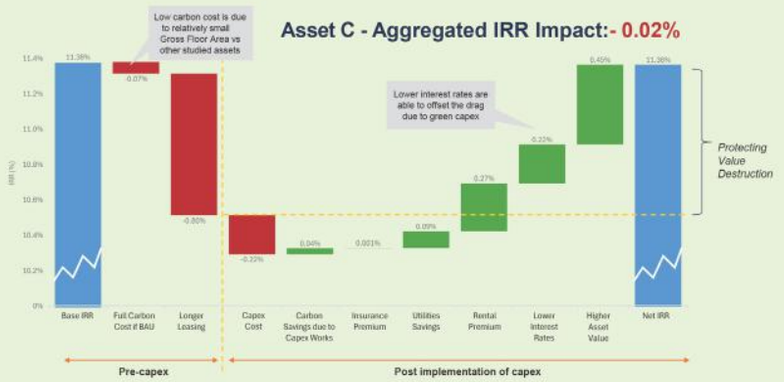
Overall, there are clear patterns that can be observed over the six assets. Several factors are shown to have negligible / minor impact throughout all studied Base-Cases:

- Insurance premium, while positive, varies from +0.0004% to +0.004%.
- Interest rate, while positive, varies from +0.02% to +0.22%.

Other factors have mixed trends depending on the context of the asset:

- Carbon savings are positive, varying from +0.003% to +0.23%.
- Full carbon cost under Business as Usual (BAU), varying from -0.34% to -0.004%.





The regularly dominant factors are :

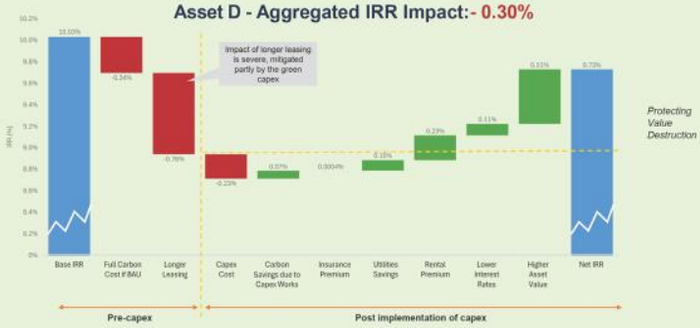
- Rental premium, positively impacting the IRR from +0.14% to +0.74%.
- Higher asset valuation, positively impacting the IRR from +0.25% to +0.57%.

Longer leasing duration, reducing the IRR from -0.80% to -0.03%.

The impact of each factor for every asset will be different based upon the unique characteristics of the asset and the nature and deployment of the capex.

For example, more modern or recently renovated assets would expect to see a lower utilities savings as compared to older assets assuming an equal amount of capex spent.

Legend:
Indicates that the graph does not start from zero

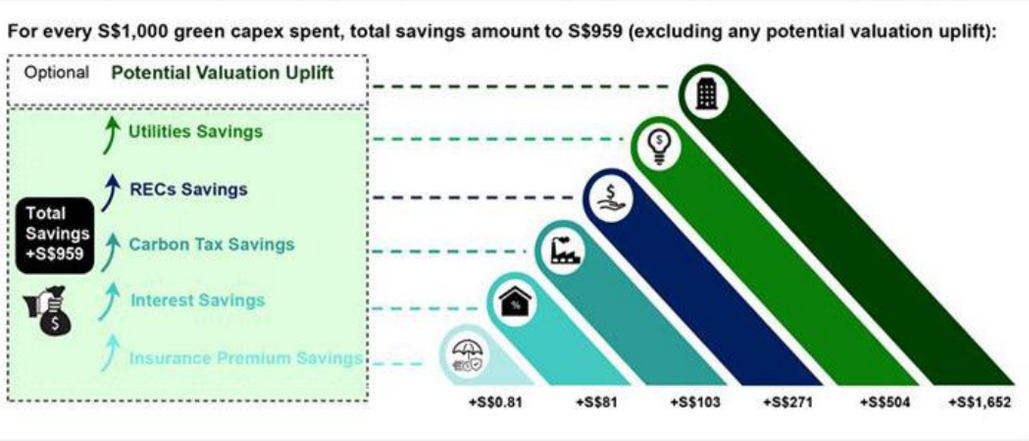


RETURN ON SUSTAINABILITY FRAMEWORK – PORTFOLIO LEVEL METHODOLOGY AND RESULTS

Building upon the asset-level analysis framework above, another methodology is proposed for evaluating RoS at portfolio level. This adaptation acknowledges that it may not be practical to update individual financial models for IRR impact on a large number of assets in a portfolio, hence requiring a simpler 'break-even' analysis that can be used easily by portfolio managers and sustainability professionals. Consequently, while the core concept remains consistent, several impact factors have been modified for portfolio-scale application.

A bottom-up study was separately carried out to assess the capex required to meet CLI Sustainability Master Plan (SMP) targets for over 350 assets owned by CLI across the world. The exercise output was included within the portfolio-level analysis. For example, for every S$1,000 of green capex, the associated utilities, carbon tax and RECs savings, among others, were assessed. The analysis found

Figure 3: Normalised Impact of Calculated Base-Case Portfolio Benefits Per S$1,000 of Green Capex Allocation



Source: CLI Group Sustainability, CLI Group Research, July 2025

that the portfolio-wide capex allocated for greening assets is nearly fully recovered from savings across utilities, RECs, carbon tax, and interest rate reduction. The potential valuation uplift, while significant, is difficult to isolate and has been listed as an 'Optional' factor.

CONCLUSION

The RoS framework, when applied to existing assets within the sample portfolio, shows that there is generally a positive impact on IRR from the implementation of green capex.

Not all assets will necessarily see an improved IRR. However, even in such cases, green capex protects against asset value destruction.

Applications across multiple assets and sensitivity analysis demonstrates that factors such as rental premium, higher asset valuation, and increased leasing time will generally dominate the impact on IRR while factors such as reductions in insurance premiums and interest rates will generally have a minor impact.

The portfolio-level methodology can be adopted to assess the portfolio-wide impact and can prove to be a more practical and quicker way to assess the financial feasibility of green capex investments. When applied to CLI's global portfolio, the capitalised value of utilities savings, carbon tax savings, reduced RECs purchased, and interest rate savings was able to almost entirely make up for the upfront capex investment.

RECOMMENDATIONS

It is acknowledged that these results, whether at asset-IRR level or the portfolio-breakeven level, can vary significantly depending on various factors including type of asset, location, customer preferences and policy regime among others.

The purpose of this framework is to provide a tool to asset managers for analysing the potential ROI for green capex investments, both at asset as well as portfolio levels. This could be utilised to aid in business decision-making during budget formulations, asset enhancement initiatives, green capex allocations, redevelopment cost-benefit assessments, RECs / carbon offsets purchase decisions and other similar projects where the value of green investments needs to be justified.

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TWENTY YEARS OF GREEN BUILDING EXCELLENCE

20 years of greening buildings in Singapore has resulted in annual energy savings that can power one million 4-room HDB flats per year

The Hive @ NTU
Nanyang Technological University
Green Mark 20th Anniversary Partner

National Library Board Building
Green Mark 20th Anniversary Building Project

Singapore's green building efforts play a pivotal role in supporting our national target to achieve net zero emissions by 2050. At the sectoral level, the Built Environment sector has been actively contributing to Singapore's Nationally Determined Contributions (NDC), which is our international commitment under the UN's Paris Agreement to reduce carbon emissions. The various strategies to mitigate the effects of climate change are summarised under the Singapore Green Plan (SGP), which includes our Singapore Green Building Masterplan (SGBMP) as part of the "Energy Reset" Pillar.

The BCA Green Mark certification scheme was launched 20 years ago with just 17 certified buildings in 2005. It was conceptualised by the Building and Construction Authority (BCA) and Built Environment sector stakeholders who were part of the BCA Green Mark Advisory Committee, which was chaired by SGBC Founding President Er. Lee Chuan Seng. The Green Mark scheme is a green building rating system designed to evaluate a building's environmental impact and performance, and provides a comprehensive framework for assessing the overall environmental performance of new and existing buildings to promote sustainable design and best practices in construction and operations in buildings.

Today, Singapore boasts 2,590 Green Mark-certified buildings as of March 2025, which collectively save over 4.2 billion kWh energy annually – equivalent to powering 1 million 4-room HDB flats and S$1.3 billion in cost savings per year. The carbon emissions offset by these buildings is about 1.7 million tCO2e annually, equivalent to replanting a forest over 13 times the size of Singapore or removing more than 396,000 internal combustion engine cars (non-electric cars) off the roads.

These achievements were celebrated on 11 July 2025 during the SGBC Gala Dinner 2025, attended by more than 800 representatives from the Singapore built environment sector. The significant support and contributions of 20 firms and building projects to Singapore's green building journey were also recognised during the celebration.

GREEN MARK 20TH ANNIVERSARY BUILDING PROJECTS

- Republic Plaza
- City House
- Environment Building
- Keppel Bay Tower
- Ocean Financial Centre
- Singapore Pools Building
- Mapletree Benoi Logistics Hub
- National Library Building
- ITE College East
- Republic Polytechnic
- United World College of South East Asia – East Campus

GREEN MARK 20TH ANNIVERSARY PARTNERS

- City Developments Limited (CDL)
- CapitaLand
- Mapletree Investments Pte Ltd
- Keppel Ltd.
- Lendlease
- JTC Corporation
- Housing & Development Board (HDB)
- Nanyang Technological University (NTU)
- National University of Singapore (NUS)

ECONOMIC AND SOCIAL BENEFITS OF GREEN BUILDINGS

The compelling business case for BCA Green Mark certification is firmly established in Singapore's built environment sector. Commercial buildings achieving the highest Green Mark Super Low Energy certification demonstrate remarkable performance metrics, typically recovering sustainability investments within just 5-6 years while delivering substantial 59 percent average energy savings. Market data from Cushman & Wakefield further validates the financial advantages, revealing that Green Mark-certified CBD properties command rental premiums of up to 12 percent compared to non-certified buildings, while maintaining consistently stronger occupancy rates - a clear indicator of growing market preference for sustainable workspaces.

A 2024 article by Savills also cited research studies that proved the business case for Green Mark: Keppel REIT has all its Singapore office assets bearing the highest BCA GM Platinum Award, which has allowed Keppel REIT to enjoy a 99 percent occupancy rate for its Singapore properties. A 2025 research study by CBRE also named Singapore as the 3rd highest in Asia Pacific in terms of attracting higher occupancy rates. This trend is driven by businesses' growing commitment to sustainability goals, with many willing to pay more for environmentally responsible spaces. Building owners with higher GM ratings find themselves at a competitive advantage, particularly when seeking refinancing or green loans.

Beyond these financial benefits, Green Mark-certified buildings deliver measurable improvements in occupant health and wellbeing. In 2017, BCA and the National University of Singapore (NUS) conducted comprehensive research on certified Green Mark buildings, revealing that occupants experienced significantly better indoor environmental conditions compared to those in non-certified buildings.

The study demonstrated measurable improvements in temperature control, humidity levels, air quality, and overall occupant satisfaction. Other research findings also showed that green buildings maintained lower concentrations of PM2.5, bacteria, and fungi compared to conventional buildings. Occupants reported statistically significant reductions in health-related symptoms, including headaches, unusual fatigue, and skin irritation. These findings substantiate the direct correlation between green building design and occupant wellbeing.

The findings from this study were embedded into the Health and Wellbeing section of the GM:2021 criteria and best practices. This will ensure that projects coming in for Green Mark certification and attaining the Health and Well Being section will deliver superior performance in Indoor Air Quality (IAQ).

Environment Building
Green Mark 20th Anniversary Building Project

Republic Polytechnic
Green Mark 20th Anniversary Building Project

GOING GLOBAL

With two decades of experience, Singapore has built substantial expertise in greening buildings. With the help of BCA's international arm, BCA International (BCAI), Singapore green consultants and firms have successfully exported their capabilities to help overseas stakeholders in their green and sustainability aspirations.

Local sustainability consultants such as G-Energy Global and GreenA Consultants have successfully globalised their expertise, with notable achievements including Wisma BCA Foresta, HQ of PT Bank Central Asia Tbk, Indonesia's first Green Mark Super Low Energy (SLE) certified building, and Sobha One in Dubai, a new premium luxury condominium estate that is the Middle East's first Green Mark Platinum SLE development.

THE WAY AHEAD

Singapore is committed to reducing national emissions to about 45 to 50 $MtCO_2e$ by 2035 from the projected 60 MtCO2e in 2030. With buildings accounting for over 20 percent of Singapore's emissions, the Built Environment sector is an important piece of the puzzle to achieving Singapore's climate ambitions under the Singapore Green Plan 2030 and beyond.

Technology plays a key role in this transition to enable the rapid development and deployment of solutions to encourage the switch to low-carbon alternatives and drive transformational change. The 2018 Super Low Energy (SLE) Building Technology Roadmap outlined broad strategies to help the industry design and develop cost-effective SLE buildings. Since then, SLE projects have gained traction locally with over 180 projects.

NUS SDE 4
National University of Singapore
Green Mark 20th Anniversary Partner

Against the backdrop of an evolving global landscape, it is timely to assess emerging trends, technologies, and innovations, to lay the foundation for Singapore's next set of ambitious decarbonisation goals beyond 2030. To this end, SGBC partnered BCA with support from A*STAR's Consortium Operation & Technology Roadmap team to refresh the 2018 SLE Building Technology Roadmap.

The roadmap serves as a guide for industry stakeholders to identify key future-ready solutions and strategies that reduce whole life carbon emissions in building projects, to prepare Singapore's built environment and its firms for a low-carbon future. It builds on the foundations laid in the 2018 edition but has been refreshed and expanded in scope to take a "Whole Life Carbon" approach in identifying the latest developments to harness to reduce both operational and embodied carbon in the built environment sector.

Since January 2025, SGBC and BCA have engaged over 60 Built Environment sector firms, government agencies, technology providers, and Institutes of Higher Learning, to identify more than 50 key technologies and strategies (existing and emerging) to help building owners decarbonise their building portfolios. Across both operational and embodied carbon reduction, a key recommendation is that the greatest carbon savings potential in the building lifecycle lies in the project conception and design stages. Fundamental choices about building orientation, materials, and space utilisation determine immediate embodied carbon lock-in while shaping decades of operational practices and carbon emissions.

The draft roadmap and draft solutions list can be found here.

Republic Plaza
Green Mark 20th Anniversary Building Project

Punggol Digital District
JTC Corporation
Green Mark 20th Anniversary Partner

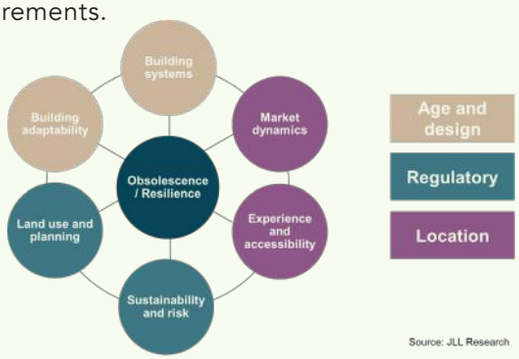
STRATEGIC RETROFITTING & REPOSITIONING FOR FUTURE-FIT BUILDINGS

Building the business case for retrofitting & repositioning

As Asia Pacific's built environment continues expanding rapidly, most of today's buildings will remain operational through 2050. Commercial real estate stakeholders across APAC face intensifying pressure from aging building stock, evolving occupier demands, stricter sustainability requirements, and changing urban dynamics. These challenges make strategic approaches to mitigate obsolescence risks essential for sustaining and creating value.

What is obsolescence?

JLL's Opportunity through Obsolescence[1-2] research identifies three key dimensions in which buildings become obsolete: functional needs, location, and regulatory requirements. Within these dimensions, six specific drivers emerge: building adaptability, building systems, urban experience, market dynamics, urban policies, and sustainability requirements.



The Singapore Building and Construction Authority (BCA) has introduced stringent energy efficiency regulations targeting the top 25% most energy-intensive buildings. These properties must now conduct mandatory assessments and implement energy-saving measures or face financial penalties. This regulatory framework establishes compelling incentives for proactive energy retrofits and achieving minimum building performance standards to minimize regulatory and sustainability obsolescence risks. With energy efficiency standards tightening and carbon reporting becoming mandatory, the performance gap between high-performing and at-risk buildings will continue widening.

A SPECTRUM OF OPPORTUNITIES TO CREATE LONG-TERM VALUE

Strategies that mitigate exposure to obsolescence risks exist along a gradient of intensity from minor refurbishments to complete replacement. Each approach requires different capital commitments and delivers varying transformative impacts.

The appropriate strategy depends on both operational and financial considerations. This spectrum aligns with different investment approaches, from core-plus strategies involving medium retrofits of relatively recent buildings to opportunistic plays involving deep retrofits of historic buildings in specific submarkets.

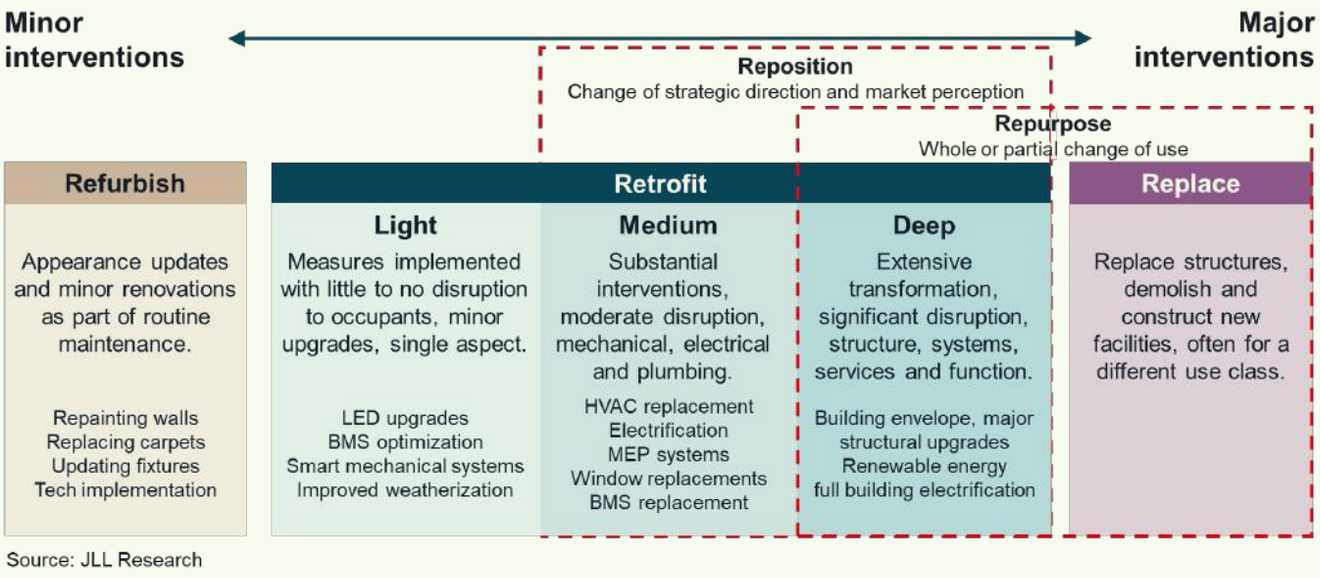
RETROFITTING MOMENTUM

Retrofitting momentum accelerates throughout APAC as institutional investors and asset owners acknowledge the critical importance of addressing obsolescence systematically. JLL's recently published APAC Investor Sustainability Survey 2025[3] revealed that 54% of commercial real estate investors regionally employ medium or comprehensive retrofits as their principal strategy for mitigating obsolescence risk across their portfolios.

According to global research conducted by JLL and Economist Impact[4], approximately 69% of senior executives indicate their organizations have redirected business activities from new construction toward retrofitting over the preceding three years. Singapore demonstrates leadership in this transition, with 81% of survey participants reporting heightened retrofitting demand—substantially exceeding the global benchmark.

Although moderate retrofitting approaches predominate across most asset classes internationally, the industrial and logistics sector exhibits stronger inclination toward comprehensive retrofits. Energy efficiency enhancements constitute the primary catalyst, with over half of respondents identifying reduced operational expenses and carbon target alignment as fundamental motivating factors.

Despite upfront costs often serving as a barrier, strategic retrofits, particularly energy efficiency retrofits present compelling economics across all property types. JLL Opportunity through Obsolescence research finds that medium retrofits can achieve 30-40% energy savings, while deep retrofits can deliver up to 60% reduction in energy consumption. It was also found that savings per dollar of capital spent are generally 1.7 times higher when invested earlier in a building's life cycle.

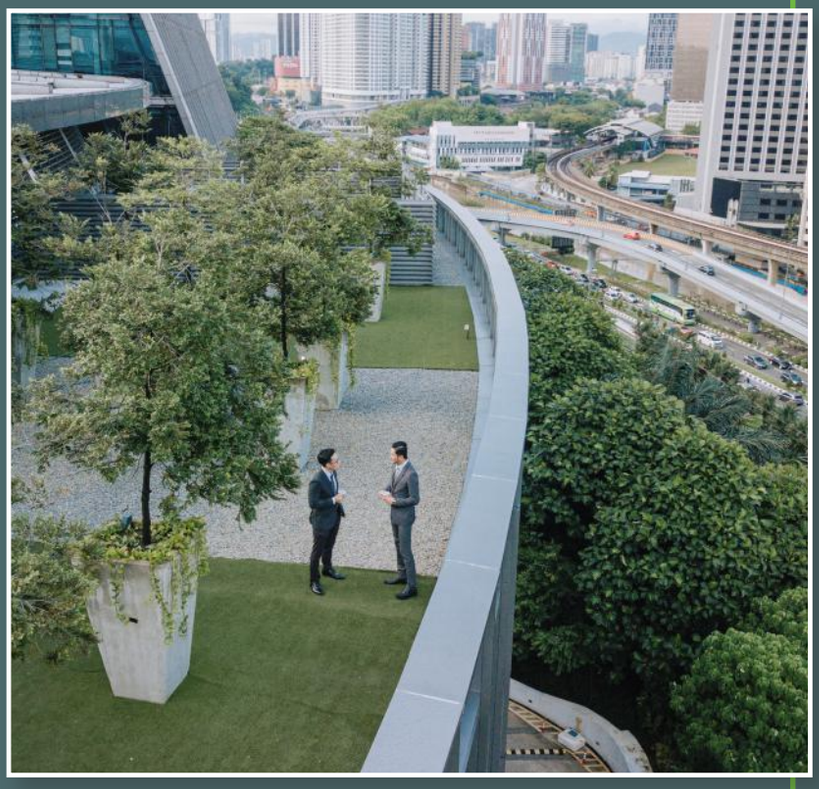


Source: JLL Research

RETROFIT CASE STUDY BY JLL: MEDIUM RETROFIT DELIVERS ENERGY SAVINGS IN SINGAPORE

A medium retrofit of a commercial building in Singapore's CBD delivered significant sustainability improvements through comprehensive cooling system upgrades. The project involved chillers replacement, cooling upgrade and smart BMS integration. Even with minimally invasive interventions, this medium retrofit overcame structural challenges and space constraints to achieve 21% energy reduction (from EUI 190 to 150 kWh/m²/yr) and deliver S$600,000 in annual savings. It also enabled the building to achieve the Green Mark 2021 GoldPLUS certification.

Beyond cost savings, retrofits deliver significant human-centred benefits. 52% of APAC respondents identify improved workplace experience as a key retrofit benefit. Sydney, Singapore, and Tokyo particularly emphasised these benefits, highlighting how retrofitting serves both environmental and social objectives.



RETROFIT CASE STUDY BY JLL: DEEP RETROFIT SUCCESS STORY IN MUMBAI OFFICE PARK

An office park in Mumbai spanning 1.3 million square feet underwent a comprehensive renovation which included facade and lighting upgrades, HVAC systems overhaul, and rooftop solar PV installation. More wellness and sustainability features were also added, such as outdoor seating, sports facilities and enhanced greenery. Results were substantial: 45% increased occupancy, 26% higher rental values, and 18% growth in asset value. This retrofit demonstrates how sustainability-focused deep retrofits can dramatically improve commercial property performance while extending the lifespan of aging assets.

Yet, significant challenges remain, including capital constraints amid economic uncertainty, technical complexity that increases costs and risks, and evolving work patterns that complicate investment decisions. Successful retrofitting strategies must therefore balance immediate improvements with long-term flexibility, creating adaptable spaces that can evolve alongside changing market requirements while delivering measurable sustainability gains.

THE CASE FOR ASSET REPOSITIONING

Asia Pacific markets exhibit unique characteristics that significantly influence repositioning strategies. Established markets including Australia demonstrate optimal positioning for repositioning initiatives, benefiting from reduced vacancy rates, favourable supply-demand dynamics and supportive planning frameworks.

Singapore demonstrates exceptional conditions rendering repositioning particularly compelling. While repositioning presents challenges across numerous international markets, Singapore's properties rank among those achieving "premium valuations yet approaching break-even thresholds" regarding construction expenditure for repositioning initiatives. Given Singapore's constrained land availability and elevated construction expenses, strategic repositioning represents an increasingly viable alternative to new development projects.

Despite substantial initial capital requirements, repositioning generates attractive investment yields while transforming portfolios susceptible to obsolescence. Subject to prevailing market conditions, macroeconomic factors, and geographic positioning, these strategic interventions can convert deteriorating assets into durable investment vehicles.

REPOSITIONING CASE STUDY: HISTORIC GUANGZHOU FACTORY TO MODERN OFFICE

A1950s textile factory in Guangzhou was transformed into a 2,200 sqm flagship retail store and office space. The building was revamped in an approach that preserved its industrial heritage while modern features were added, including skylights, smart lighting controls, rooftop gardens, end-of-trip facilities and energy-efficient systems. By repositioning and renovating this existing asset, the client reduced construction time by 50% and avoided over 1 million kg of CO_2 emissions compared to a new construction.

UNLOCKING ASSET POTENTIAL

The current economic uncertainty makes investing in existing properties through asset enhancement projects an attractive alternative to new development. With lower capital requirements and risk, strategic upgrades mitigate obsolescence while improving yields—creating resilient portfolios that can navigate market fluctuations. Forward-thinking asset owners can transform obsolescence challenges into competitive advantages through several approaches:

1. **Conduct comprehensive obsolescence assessments** across functional, locational, and regulatory dimensions to identify specific vulnerabilities and opportunities.
2. **Develop phased intervention roadmaps** that balance immediate improvements with long-term transformation goals, particularly for portfolios with assets of varying ages and conditions.
3. **Prioritise early-cycle interventions** to capitalize on the multiplier effect for savings per dollar spent on earlier retrofits versus delayed action.
4. **Align retrofit strategies with target tenant requirements**, focusing on the specific features and performance metrics that drive value in each sector and submarket.

Creating resilient and distinctive assets involves addressing sustainability issues while anticipating regulatory changes and longer-term urban growth trends. Those who act stand to benefit by bringing buildings up to newer standards ahead of market shifts, transforming at-risk assets into high-performing, future-ready spaces.

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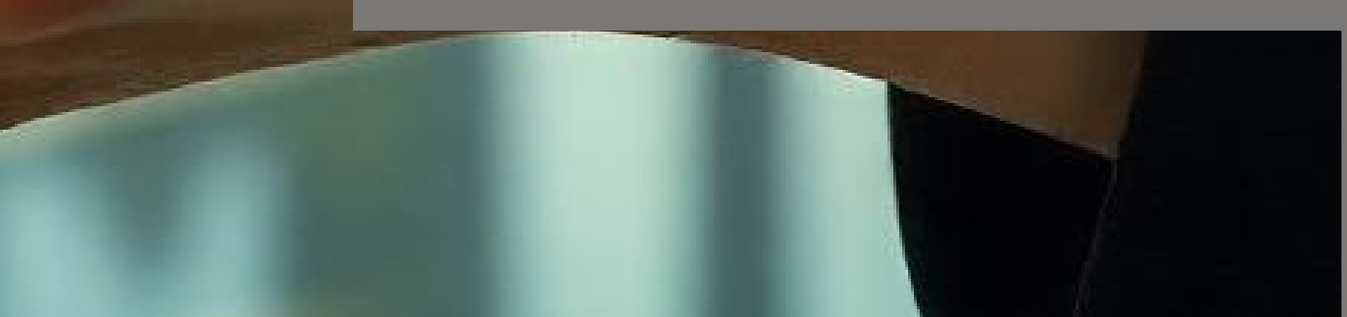
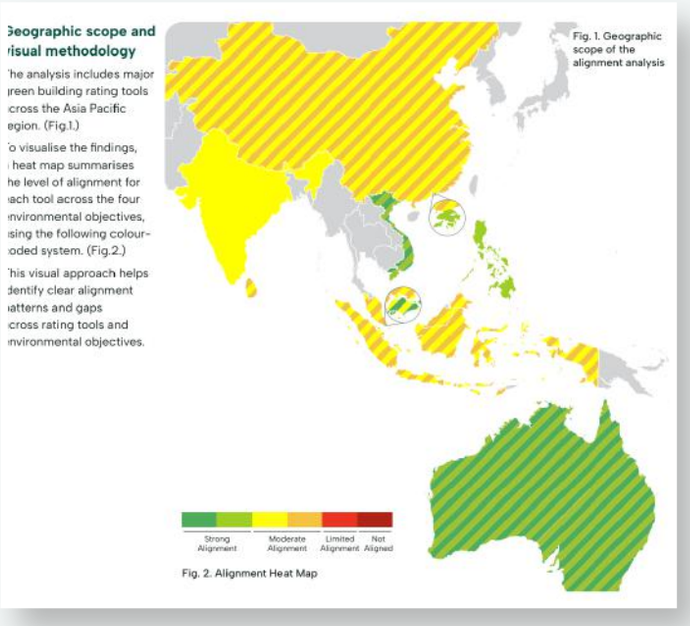
[1]Opportunity through obsolescence: Repositioning and redevelopment strategies for at-risk assets and portfolios
[2]Opportunity through obsolescence: Protecting and creating value in properties and places at risk of stranding temperatures.
[3]APAC Investor Sustainability Survey 2025: Seizing the green opportunity amidst uncertainty
[4]Radical Retrofit: adapting cities for a resilient future

UNLOCKING CAPITAL FOR GREEN FINANCE TRANSFORMATION

Aligning Asia Pacific Green Building Rating Tools to the ASEAN Taxonomy for Sustainable Finance





The intersection of sustainable buildings and sustainable finance represents one of the most critical pathways for achieving climate goals across the Asia Pacific. With buildings responsible for 34 percent of global carbon emissions and real estate accounting for approximately 68 percent of global wealth, the need to align green building standards with sustainable finance frameworks has never been more urgent.

This groundbreaking collaboration between World Green Building Council (WorldGBC) Asia Pacific Network and OCBC presents a comprehensive approach to bridging the gap between technical building performance and financial market requirements. The initiative comprises the Insights Report providing strategic foundations, a detailed implementation report, and a comprehensive technical annex, creating an unprecedented resource for the industry to unlock capital for green finance transformation.

THE INSIGHTS REPORT - FOUNDATION FOR CHANGE

Published on 11 July 2025 at the SGBC Gala Dinner 2025, the Insights Report establishes the strategic foundation for this transformation. The analysis reveals a compelling narrative: green building rating tools and sustainable finance frameworks are more aligned than many realise, yet significant opportunities remain untapped.

"By establishing clear links between national schemes and regional guidelines, we can help unlock global capital flows and scale up investments in decarbonisation and green building projects, said Mr. Chee Hong Tat, Minister for National Development in his speech delivered during the SGBC Gala Dinner 2025, ***"It also provides valuable insights into our Built Environment sector's readiness, highlights emerging opportunities, and outlines how policy, industry, and financial levers can accelerate the adoption of sustainable finance."***

Investors

The comprehensive mapping of 14 major rating systems across 11 countries demonstrates moderate to strong alignment between Asia Pacific green building tools and the ASEAN Taxonomy for Sustainable Finance. Tools such as Green Star, BCA Green Mark, LEED v5, BEAM Plus, and BERDE consistently show strong performance across environmental objectives and Do No Significant Harm (DNSH) safeguards.

Country / region	Rating tool	Alignment
Australia / Pacific	Green Star Buildings	
Australia / Pacific	Green Star Performance	
SG / Asia	Green Mark 2021	
SG / Asia	Green Mark 2021 In Operations	
China	GB/T 50378-2019 (New Buildings)	
China	GB/T 51141-2015 (Existing Buildings)	
HK	BEAM Plus New Buildings v2.0.2025	
HK	BEAM Plus Existing Buildings v3.0, Beta0	
India	IGBC Green New Buildings Rating System v3.0 Sep 2016	
India	IGBC Green Existing Buildings Operations and Maintenance (O&M) v2 Nov 2023	
Indonesia	Greenship New Buildings 1.2	
Indonesia	Greenship Existing Buildings 1.1	
Malaysia	GBI Non-Residential New Construction	
Malaysia	GBI Non-Residential Existing Building	
Malaysia	GreenRE Non Residential v4	
Malaysia	GreenRE Existing Non Residential Buildingv3.3	
Malaysia	MyCREST Operation and Maintenance v2.0	
Malaysia	MyCREST Design and Construction v2.0.1	
Philippines	BERDE Buildings v5.0.0	
Sri Lanka	Green SL Rating System for New Constructions v2.1	
Sri Lanka	Green SL Rating System for Existing Buildings v 1.0	
Vietnam	LOTUS New Construction v4 draft 29.04.2025	
Vietnam	LOTUS Buildings In Operation v1 2019	
USA / International	LEED BD+Cv5	
USA / International	LEED O+Mv5	
International	EDGE v3 01.12.2024	

Areas of Strong Alignment:

- Climate Change Mitigation: Rating tools excel at promoting energy performance that exceeds national building codes, with many incorporating renewable energy use and carbon limits

- Resource Resilience: Most tools contain robust components addressing water conservation, waste minimisation, and materials reuse
- Impact Reporting: Strong correspondence with Green Loan/Green Bond Principles reporting requirements

Critical Gaps Identified:

- Climate Risk Assessment: Most rating tools lack comprehensive climate risk assessment mechanisms
- Carbon Accounting: Explicit carbon accounting for Scope 1, 2, and 3 emissions remains underdeveloped
- Ongoing Performance Verification: Long-term monitoring and recertification requirements vary significantly
- Climate Adaptation: The weakest alignment area, despite Asia Pacific's high exposure to climate risks

THE ASEAN TAXONOMY ADVANTAGE

The ASEAN Taxonomy's pragmatic approach offers significant advantages over other frameworks. Its dual structure, combining a Foundation Framework for broad application with a Plus Standard for science-based criteria, allows inclusivity while encouraging advanced performance. Critically, the taxonomy explicitly recognises credible green building certifications as valid evidence of meeting sustainability criteria.

This recognition represents a constructive step toward leveraging existing market infrastructure, though the current scope remains limited and requires expansion to fully capture the diversity of credible rating systems across the region.

UNLOCKING TRILLIONS FOR CLIMATE ACTION

As Mr. Mike Ng, Group Chief Sustainability Officer of OCBC notes: "What began as a technical exercise has evolved into something far more significant, a roadmap for unlocking the trillions of dollars needed to decarbonise our built environment."

The analysis demonstrates that leading rating systems already possess the technical rigour that financial markets demand, while taxonomies like ASEAN's provide the standardised language that capital markets require. The convergence of these two powerful forces creates an unprecedented opportunity to mainstream sustainable building practices across the region.

MARKET IMPACT AND INVESTMENT OPPORTUNITIES

The report reveals immediate opportunities for taxonomy-aligned financing, particularly for projects certified under top-performing rating tools. These buildings already demonstrate:

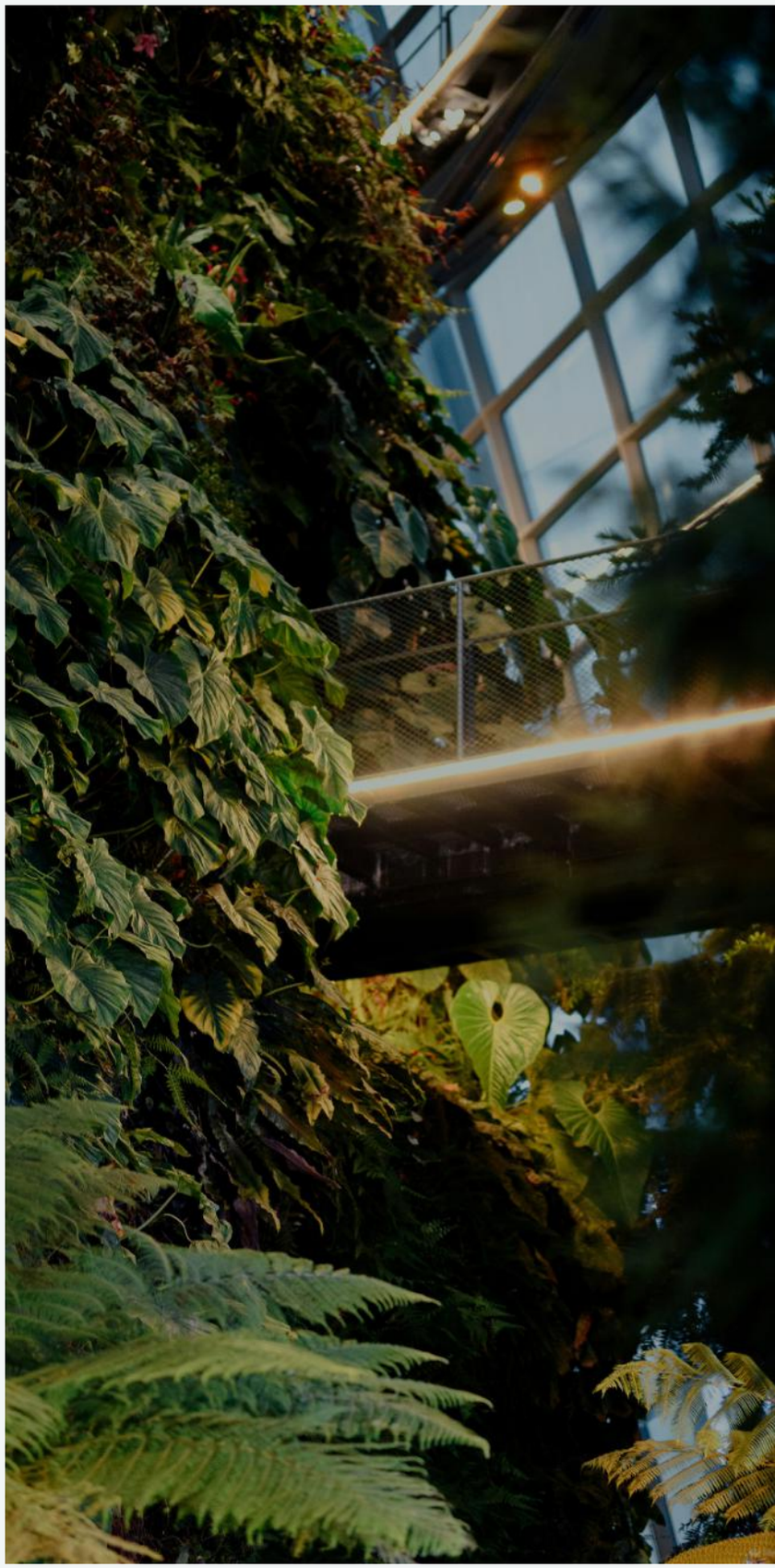
- High energy performance
- Integration of renewable energy systems
- Comprehensive resource management strategies
- Measurable environmental impact reporting

However, the analysis also identifies emerging frontiers - including lifecycle carbon accounting, climate adaptation measures, and post-certification performance tracking - where continued evolution will strengthen the bridge between building performance and financial frameworks.

THE CRITICAL ROLE OF COLLABORATION

The report reveals immediate opportunities for taxonomy-aligned financing, particularly for projects The report emphasises that achieving this vision demands stronger collaboration between three key stakeholder groups:

- **Policymakers** can refine and align sustainability criteria, introduce incentive and penalty mechanisms, and strengthen implementation pathways.
- **Banks and financial institutions** can support taxonomy-aligned investment with greater transparency and accountability, reducing the complexity that currently blocks progress.
- **Green Building Councils (GBCs)** can lead the charge in aligning rating tools, lowering compliance burdens, and supporting data-driven impact measurement.



A VISION FOR THE FUTURE

"The transition to a low-carbon, climate-resilient built environment is not inevitable – it requires intentional action, strategic collaboration, and unwavering commitment. This report serves as both a foundation for that work and an invitation to join a movement that will reshape the future of our built environment," emphasised Ar. Benjamin Towell, Executive Director of OCBC's Global Wholesale Banking Sustainability Office.

Through this coordinated effort, the Asia Pacific region can take the lead in shaping a global built environment that is sustainable, investable, and resilient—underpinned by trusted tools and transparent taxonomies. When rating tools align with taxonomies, and taxonomies explicitly recognize those tools, the result is a streamlined pathway for sustainable investment where capital can flow more efficiently into impactful projects.

The full Insights Report can be read here.

LOOKING AHEAD: IMPLEMENTATION AND TECHNICAL GUIDANCE

The forthcoming technical annex, "Detailed Mapping of APAC Rating Tools to the ASEAN Taxonomy," will be published in September 2025, providing deeper insights to support practical implementation across the region. This comprehensive resource will offer:

- Detailed credit-by-credit mapping for each rating tool
- Specific guidance for financial institutions on taxonomy compliance
- Recommendations for rating tool enhancement
- Frameworks for ongoing performance verification

REIMAGINING THE FUTURE IN TIMBER: LESSONS FROM OSAKA WORLD EXPO 2025

Discover how timber is redefining sustainability at the Osaka World Expo 2025 - where innovation meets eco-conscious design.

Timber is holding up a vision for a regenerative, circular, and low-carbon future at the Osaka World Expo 2025. With the theme, "Designing Future Society for Our Lives", wood has emerged as a message across the site: renewable, responsibly sourced, modular, and scalable.

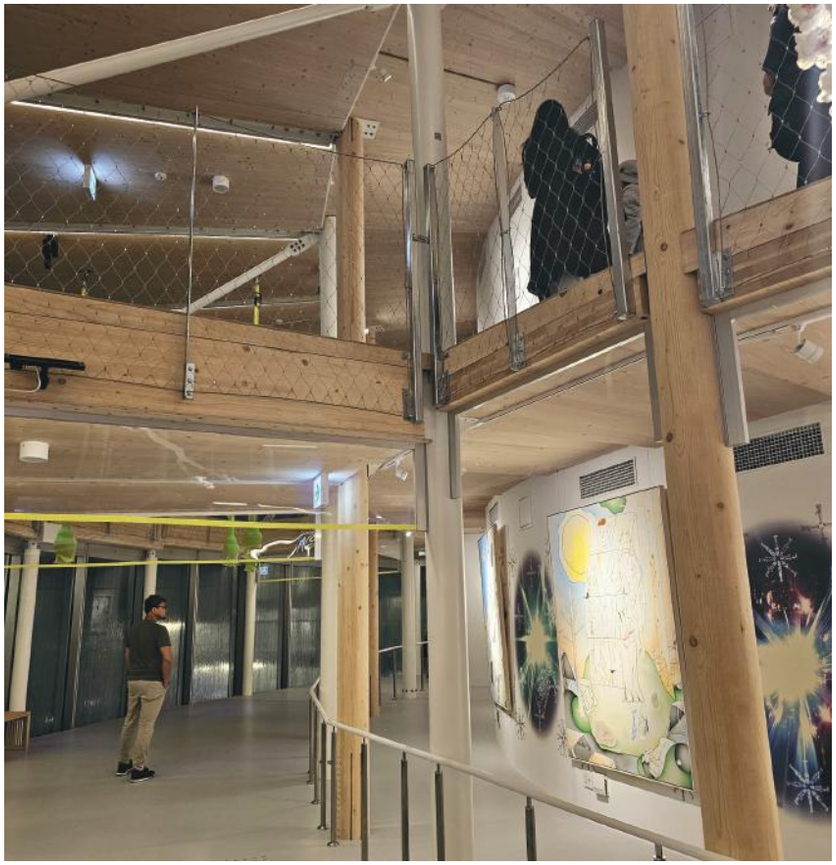
The Expo is proof at scale for the innovative design solutions timber can offer cities facing climate and resource challenges. Several pavilions and structures draw on Programme for the Endorsement of Forest Certification (PEFC) certified wood, ensuring traceability, legality, and sustainable forest management at every stage of the supply chain.

JAPAN'S GRAND RING: TIMBER INNOVATION MEETS CIRCULARITY

Nothing better captures this timber renaissance than Japan's "Grand Ring." This 2-kilometre wooden canopy encircling the Expo's national pavilions is now the world's largest wooden architectural structure. Its monumental structure brings together over 61,000m² of timber, including cedar and cypress sourced domestically and 7,000 m³ of PEFC-certified Scots pine.

Crucially, the structure is conceived from the outset for a second life: once the six-month Expo concludes, it will be completely dismantled, with its component parts repurposed for new buildings or civic infrastructure, setting a new precedent for temporary mega-structures and making it a world model for circular construction at scale. This lifecycle approach is rooted in its commitments to safeguarding the forests through policies that require transparent supply chains and ongoing carbon reduction. With more than 28 million visitors expected, the Grand Ring demonstrates how international events can set new benchmarks for unity, transparency, and environmental stewardship: lessons with significance for large-scale events across the globe.

Timber goes beyond its traditional role as a building material at the Expo, with Japan introducing Mokuito - a pioneering fabric spun from wood fibre - that was used for all Expo staff uniforms. This textile is produced from thinned wood sourced from Sustainable Green Ecosystem Council (SGEC) and PEFC-certified forests in Japanese prefectures like Okayama and Miyazaki. Mokuito fabric is natural, biodegradable, and chemical-free, embracing circular economy principles in apparel. This innovative use of certified forestry products highlights timber's versatility, signaling new horizons in sustainable materials that extend into fashion and lifestyle sectors.



pavilion's afterlife has already been considered: the structural elements are intended to be dismantled and reassembled into energy-efficient housing or civic buildings within Japan.

One of the most structurally ambitious timber projects at Expo 2025 comes from the Czech Republic. The spiral form of their pavilion coils around a central column, made almost entirely from cross-laminated timber (CLT). It includes 800 m^3 of PEFC-certified Sylva™ CLT produced by NOVATOP, and 155 CLT panels in its walls, making it one of Japan's tallest CLT buildings. Prefabricated in the Czech Republic and assembled on-site, the timber system is designed for reverse engineering. The building can be dismantled and reconstructed, offering true lifecycle design and adaptability.

Austria's "Composing the Future" pavilion blends technology and craft in its use of timber, with a central spiral sculpture inspired by Beethoven's "Ode to Joy", rising dramatically through the exhibit space. Built from PEFC-certified spruce sourced from responsibly managed Austrian forests, the entire structure received PEFC Project Certification.

A simple idea underpins its complex geometry: build once, use often. Designed for disassembly, the components are joined with screws, allowing easy separation and reuse. The pavilion serves as a hub for music, sustainable architecture, and digital creativity while embodying architecture that minimises waste and maximises reuse potential.

The U.S.A. Pavilion incorporates PEFC-certified structural timber alongside its carbon-conscious design exhibitions. While less structurally focused on timber than its counterparts, it reflects the spread of certified sourcing as a new standard for public projects on the global

PAVILIONS OF THE FUTURE: GLOBAL SHOWCASES IN PEFC-CERTIFIED TIMBER

Bringing together nations on a single stage, the pavilions at Expo 2025 exemplify how certified timber is shaping the future of sustainable architecture. From bold structural feats to intricate cultural expressions, several projects turn the Expo's theme into tangible, climate-conscious design explorations. Together, they prove that responsibly sourced wood can deliver global innovation, beauty, and a lasting blueprint for low-carbon building.

The Italian pavilion, themed "Art Regenerates Life", combines timber innovation with an adaptable, future-ready philosophy. Over 85 percent of the structure's 742 m^3 of timber is PEFC-certified. This includes laminated beams, engineered wood, and plywood components, much of which is sourced locally from Japanese Sugi (cedar) forests. The stage. The use of PEFC-aligned materials demonstrates a growing willingness in the U.S. building sector to align procurement with international forest and material certification systems.

MALAYSIA: LEADERSHIP BEYOND THE PAVILION

Malaysia's National Timber Certification Council (MTCC), which oversees the Malaysian Timber Certification Scheme (MTCS), played a vital role in fostering international dialogue on the role of certification in sustainable development. In a "Pocket Talk" hosted at the Malaysian Pavilion, MTCC highlighted how MTCS, endorsed by PEFC, aligns with Japan's Clean Wood Act and supports legal, transparent, and sustainable timber trade. This conversation is particularly important for emerging markets and trade partnerships where proof of legality and forest sustainability is increasingly a procurement requirement.

THE OSAKA EXPO SHOWS THE WAY

Expo 2025 asks us to reframe the role timber can play in a sustainable future. Expo contributors reaffirm timber's role in tomorrow's-built environment: responsibly sourced, traceable, and circular.

Collectively, these Osaka Expo projects highlight critical lessons for Asia-Pacific's sustainable built environment:

- Circularity built in: Whether mega-structures like Japan's Grand Ring or modular prefabricated pavilions, disassembly and material reuse are embedded, setting a foundation for truly circular construction.
- Transparency and traceability: PEFC certification harmonised across regional schemes such as SGEC in Japan and MTCS in Malaysia ensures responsible supply chains, essential for credibility and market confidence.
- Material innovation and versatility: Timber's role extends beyond beams and panels into textiles, illustrating a multifaceted approach to sustainability.
- Policy-enabled transformation: Legislative frameworks like Japan's Clean Wood Act provide crucial regulatory backing, advancing green building imperatives from voluntary to mandated practice.

The Expo's emphasis on design for disassembly particularly answers Singapore's calls for greater adoption of Design for Manufacturing and Assembly (DfMA) and circular construction methodologies. The Osaka Expo 2025 redefines timber as a catalyst for resilient, low-carbon urban futures, offering inspiration for concrete, replicable examples to accelerate decarbonization and circular material flows. The willingness to experiment, collaborate regionally, and pilot new material applications offers lessons that are both immediately actionable and future-facing for the green building sector in Asia Pacific and beyond.

Article contributed by:
Programme for the Endorsement of Forest Certification (PEFC)

TURNING AGING BUILDINGS INTO STRATEGIC ASSETS

How smart retrofits offer value beyond compliance

Delta Singapore Office Building at 17 Kallang Junction

In today's regulatory and market landscape, green transformation has become a critical strategic decision for building owners and developers.

For many commercial buildings in Singapore, particularly those with aging infrastructure, the opportunity to retrofit is not simply about reducing environmental impact but also a chance to drive meaningful business outcomes. Smart retrofitting with energy-efficient systems helps reduce costs, align with national sustainability targets, and increase long-term asset value.

THE ENERGY ISSUE

Energy inefficiency is often hidden in plain sight. Many commercial buildings in Singapore operate with outdated lighting systems, legacy HVAC equipment, and a lack of automation. These inefficiencies quietly inflate operating costs over time. By introducing energy-saving technologies, building owners can cut their electricity usage by up to 30 percent.

For instance, replacing conventional lighting with LED fixtures and installing motion sensors can immediately reduce waste. More advanced upgrades, such as integrating energy management systems or upgrading to demand-based HVAC control, bring additional value. These systems use sensors and data analytics to optimize energy use according to occupancy levels and time of day. This is also aligned with Singapore's Go 25 movement, which encourages organisations to adopt sustainable cooling practices by setting indoor air-conditioning temperatures at 25°C or higher, reducing both energy demand and carbon emissions. Not only do they reduce energy bills, but they also extend equipment life and lower maintenance costs. This approach converts invisible waste into measurable business benefits.

Singapore's sustainability policies are among the most forward-looking in the region. The Green Mark certification scheme by the Building and Construction Authority (BCA) has become a recognised benchmark for sustainable building practices. Retrofitting to achieve Green Mark standards is not just a matter of corporate responsibility. It is a practical way to qualify for significant financial incentives and prepare for carbon-related regulations. Eligible projects may qualify for substantial support through Singapore's green building incentive schemes, including funding under the Green Mark program. With the carbon tax expected to increase from SGD 25 to SGD 80 per ton of emissions by 2030, building owners who act early can position themselves to meet requirements while reducing long-term exposure to rising costs.

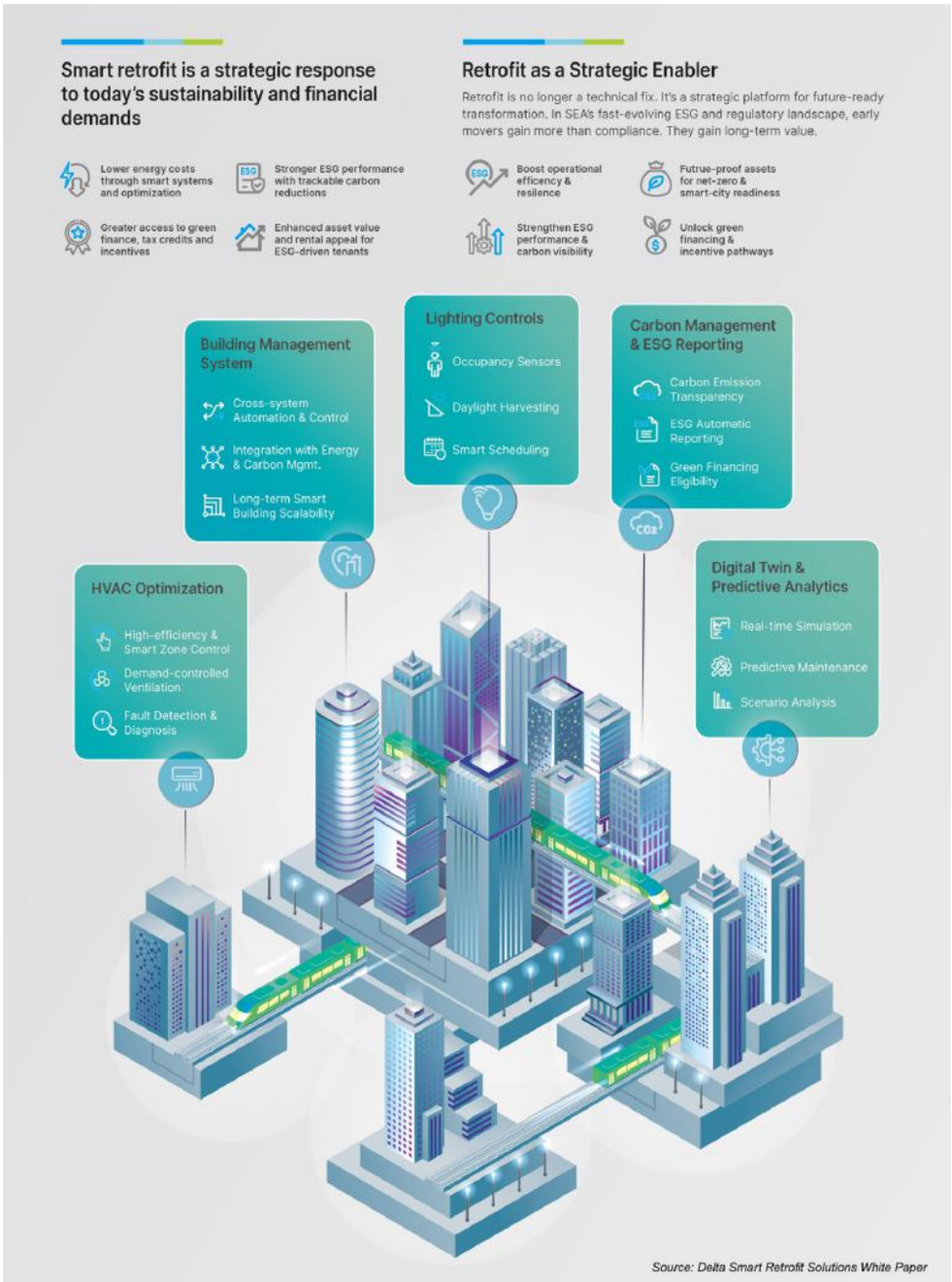
Delta Electronics, a global leader in power and thermal management with a portfolio of IoT-enabled green technologies, delivers smart building automation systems that enable real-time carbon tracking and performance benchmarking. These tools give building managers clear visibility of their Scope 1 and 2 emissions, helping them make informed decisions to reduce their carbon footprint. For asset owners, such insights are essential for meeting upcoming disclosure requirements and qualifying for ESG-linked financing, which can offer more favorable lending terms. In a climate-conscious market, the ability to measure and manage environmental performance is becoming a decisive factor in staying competitive.

ECO IS THE WAY

A retrofitted building is not only cheaper to operate, but it is also more attractive to tenants and investors. Environmental consciousness among corporate tenants has grown sharply. Many multinational companies now require leased spaces to meet certain green standards. Properties that hold certifications like Green Mark Gold or Platinum can charge higher rents, often five to eight percent more, while maintaining stronger tenant retention.

Delta Taiwan Ruiguang Building II is now certified as a Zero Carbon Building

Turning aging buildings into strategic assets

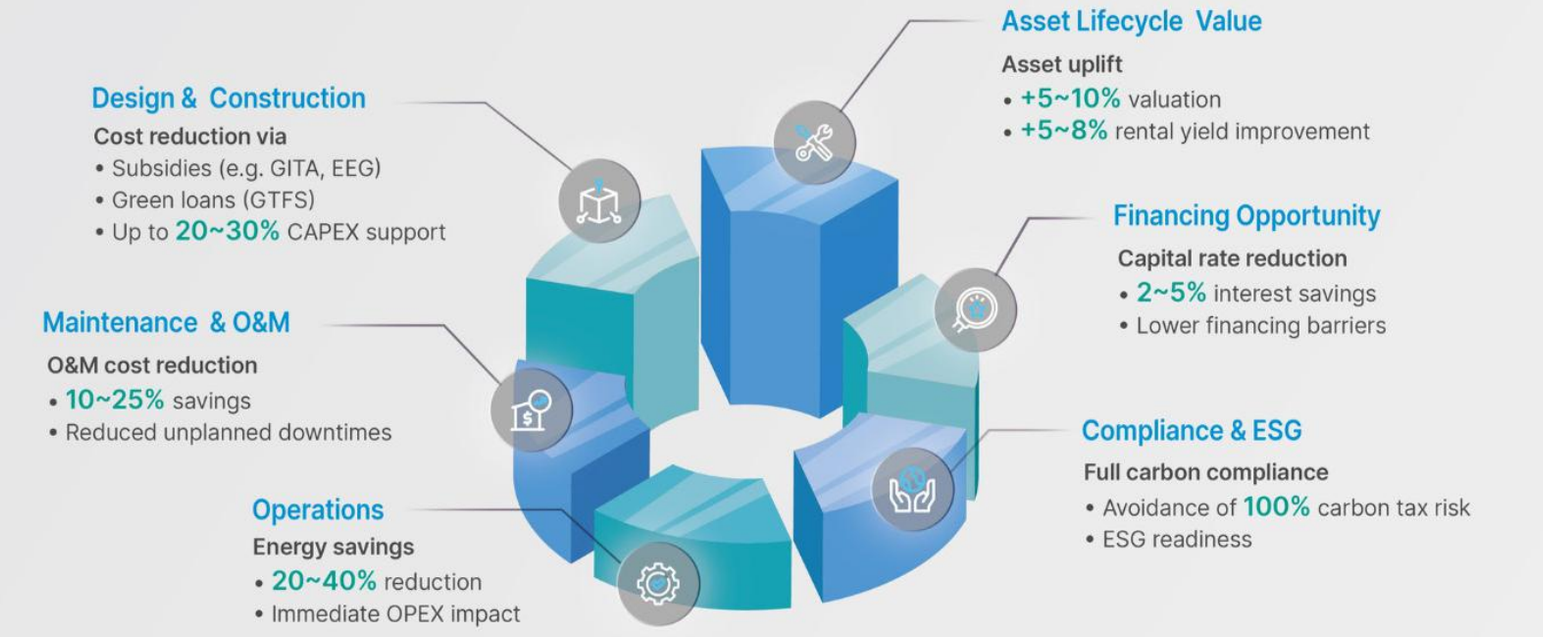


Green retrofitting also plays a role in boosting overall asset valuation. As ESG becomes a key factor in investment decisions, real estate portfolios with lower carbon intensity and improved energy performance are increasingly favoured. Building management systems, predictive maintenance tools, and digital dashboards help deliver consistent occupant comfort and operational transparency. These features not only improve day-to-day functionality but also enhance the building's reputation in a competitive market.

CASE IN POINT: DELTA'S BLUEPRINT FOR REVIVING A 15-YEAR-OLD ASSET

Consider a 15-year-old commercial office tower in Singapore facing high energy costs, aging infrastructure, and the need to meet Green Mark standards. With an annual electricity usage of around 2.5 million kilowatt-hours, the building presented an opportunity for energy and operational improvements.

Using a retrofit approach, Delta would deploy 1,000 IoT-enabled LED fixtures, upgrade the HVAC system with over 300 sensors, and implement a building energy management platform. Predictive maintenance capabilities could also be added to reduce long-term operational risks.



Source: Delta Smart Retrofit Solutions White Paper

This approach could reduce energy consumption by approximately 396,000 kilowatt-hours annually. That's a 25 percent improvement in overall energy performance. The building could become eligible for BCA's Super Low Energy certification and other grants. Combined with projected savings and incentives, the retrofit could achieve a payback period of just under four years.

RETROFITTING TODAY FOR THE DEMANDS OF TOMORROW

The case for green transformation is clear. Smart retrofits provide immediate cost savings, reduce carbon risk, and future-proof buildings for a market that values sustainability. With rising expectations from regulators, tenants, and investors, now is the time for building owners to act. Retrofitting is not simply an environmental initiative. It is a strategic move that strengthens asset performance and unlocks long-term financial value.

"Across the region, governments are actively encouraging green building compliance through attractive incentives," said Jimmy Wan, Country Manager, Delta Electronics Singapore and Malaysia. "In Singapore, Malaysia, and Thailand, building owners who align with these frameworks can see faster returns on investment, gain priority access to subsidised green financing, and strengthen their ESG performance. All of these are benefits that also enhance investor confidence."

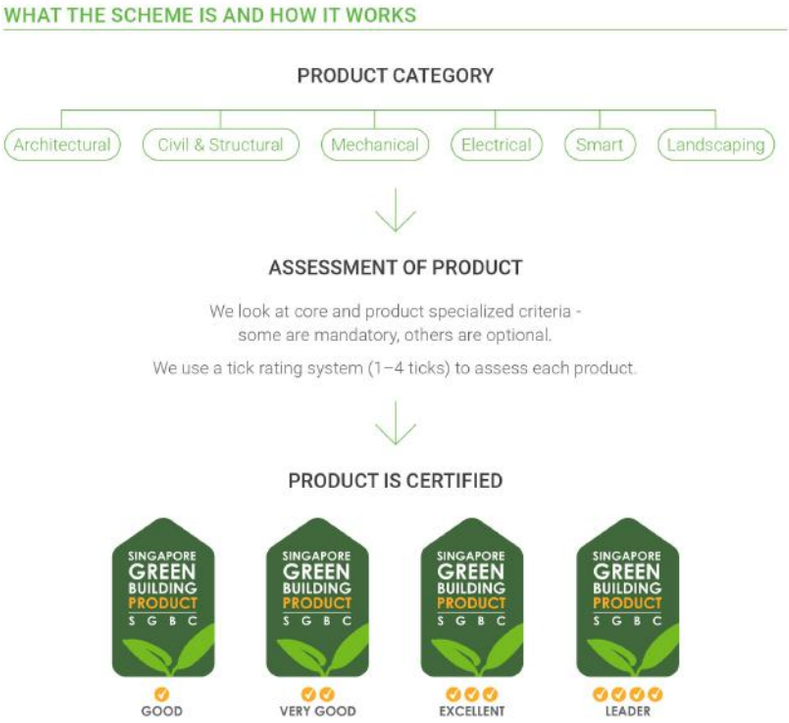
Delta's retrofit approach combines technical expertise with practical execution, helping customers achieve measurable impact without disrupting operations. From lighting upgrades to full-scale smart system integration, Delta provides a scalable roadmap tailored to each project's needs.

Whether the goal is certification, cost control, or compliance, the business case for green transformation continues to grow stronger.

Article contributed by:
Delta Electronics

BUILDING ON SUSTAINABLE PRODUCTS

SGBC administers the Singapore Green Building Product (SGBP) certification scheme to recognise green building products and facilitate sustainable procurement.



In order to achieve the vision of a low-carbon and energy-efficient future, the environmental performance of each and every building product cannot be left to chance since buildings are permanent structures in place for decades at a time. As such, the materials used in its construction play important roles in ensuring that the building's footprint and impact on its surrounding environment is as small as possible. Green building materials certified for their environmental performance, coupled with sound green building design and technology along with an emphasis on sustainability, will definitely go towards creating buildings which are greener and healthier for both occupants and the environment.

While the national-level Green Mark Scheme sets the bar for green buildings in Singapore, achieving sustainability excellence involves more. This is where SGBC's comprehensive certification programmes come in. Complementing the Green Mark Scheme, SGBC certifications delve deeper, focusing on the individual components that impact a building's overall environmental performance.

The Singapore Green Building Product (SGBP) scheme is a certification for green building products and materials. While the Singapore Green Building Council is the owner of the SGBP certification scheme, its wholly owned subsidiary, SGBC Pte Ltd, is the certification body responsible for the evaluation of SGBP applications. The SGBP is developed based on scientific and engineering principles that is built upon the collective knowledge and expertise of the building and construction industry. The scheme advances the built environment to one that is greener and more carbon-efficient while facilitating sustainable procurement. It helps to ensure that sustainability targets are met while providing transparency and credibility to the products we choose to use when building green into spaces and places.

METHODOLOGY & ASSESSMENT CRITERIA

The SGBP certification scheme is one of the key standards and benchmarks for green building products in the building and construction industry. Products and materials certified by the SGBP are highly recognised under the Green Mark Scheme, Singapore's national green building rating tool administered by the Building and Construction Authority (BCA), which allows certified products to accrue points that count towards a project's Green Mark rating. The more highly rated a product is under the SGBP Scheme (i.e., the more ticks it has achieved), the more points are awarded towards the Green Mark rating.

SGBP Certification Scheme is also widely accepted by regional green building rating tools for its coverage of product's sustainability performance. Examples include GreenRE, a rating tool set up by the Real Estate & Housing Developments' Association (REHDA) of Malaysia, and LOTUS, Vietnam Green Building Council's rating tool. The SGBP complies with many of the requirements in ISO 14024 Environmental labels and declarations — Type I environmental labelling.

SGBC is always working to improve our SGBP's quality and usability. The SGBP Certification Scheme is similar to internationally leading eco-labels, such as Cradle2Cradle, DECLARE, Global Green Tag, Good Environmental Choice Australia, Korea Environmental Industry and Technology Institute. Future versions of the SGBP may provide additional recognition for products that excel in addressing social issues, circular economy, and low embodied carbon, and reorganise the Scheme's governance to allow for products certified under our Scheme to be recognised under other eco-labels.

The SGBP certification scheme has been accorded accredited status by the Singapore Accreditation Council (SAC). This recognition signifies the scheme's adherence to the stringent ISO/IEC 17065 standard, a global benchmark for certification bodies. The accreditation underscores the SGBC's commitment to rigorous standards and transparency in promoting sustainable building products.

ADDRESSING EMBODIED CARBON

The built environment is responsible for 40 percent of global carbon emissions, with embodied carbon emissions being especially critical. Embodied carbon, or the carbon emissions associated with the full supply chain of all materials and systems put into any built environment project, is different from operational carbon in that the latter can be improved over the lifetime of a building. If embodied carbon emissions are not addressed before the building project moves past the design stage, there is no way for building owners to reclaim lost carbon savings once the building is constructed and subsequently used.

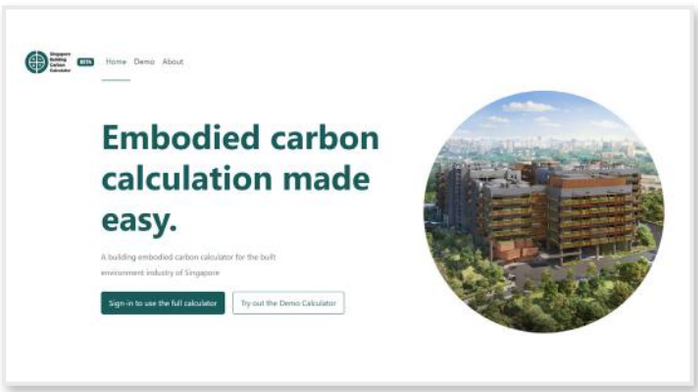
The breakdown of carbon emissions for buildings is typically 30 percent embodied carbon emissions versus 70 percent for carbon emissions due to building operations. In Singapore, where the lifespan of buildings tend to be shorter due to urban renewal, the embodied carbon emissions of buildings can constitute up to 40 percent of the total carbon emissions over the lifespan of the building. The upfront emissions from materials and products used to construct buildings and infrastructure, and those installed later during maintenance and renovation, usually represent a significantly greater source of embodied carbon than all other stages in the lifecycle.

In collaboration with the Building and Construction Authority (BCA) and SGBC, JTC Corporation commissioned National University of Singapore – Energy Studies Institute (NUS-ESI) to develop unified embodied carbon calculators for the Singapore built environment sector. These are customised for local industry use and includes key features such as localised aggregated emission factor values for critical building materials and mechanical equipment. The calculators enable accounting for upfront carbon with adapted carbon emission factors to reflect the carbon footprint of building and infrastructure projects within the local context. Usage of the calculators would provide the industry with the tools to make informed decisions on material and product selections to reduce the carbon footprint of projects for use under the Sustainable Construction section of the Code for Environmental Sustainability of Buildings (Edition 4.0) and the Green Mark 2021 Whole Life Carbon Section.

Two Calculators are available for industry use:

- **Architectural and Civil & Structural Materials Carbon Calculator**
  - To help calculate the embodied carbon emissions arising from architectural and C&S products
- **Mechanical & Electrical Equipment Carbon Calculator**
  - To help calculate the embodied carbon emissions arising from mechanical and reticulation products

This comprehensive approach will enable building project teams to obtain a more complete picture of a building's whole-life carbon performance, ultimately contributing to certification as well as disclosure requirements.



Read on to find out more about industry-ready green building products and green building services put forward by SGBC Member organisations, showcased at the SGBC Pavilion @ BEX Asia 2025.

ACD Filtration Pte Ltd

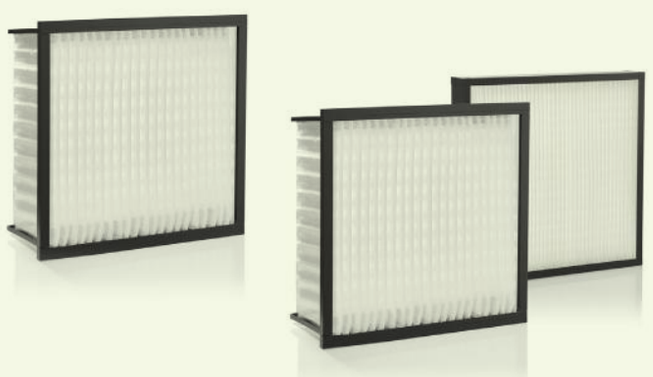
ACD Filtration Pte Ltd Founded in October 2008. ACD Filtration has been serving a diverse customer base, specialising in supply & distribution of high-quality air filtration products.

With the advanced 3D media design and patented embossing technology, BLU Hybrid filters offer extended filter life with reduced operating costs. Through the unique filter media with integrated prefilter layer, the filters deliver top-level efficiency, minimal pressure drop and exceptional dust holding capacity.

Fully synthetic, moisture and microbe resistant - it's the ideal choice for demanding HVAC and industrial applications.

Website: www.acdfiltration.com.sg

SGBP-certified Product(s) - Air Filter (F8/ MERV-A 14)



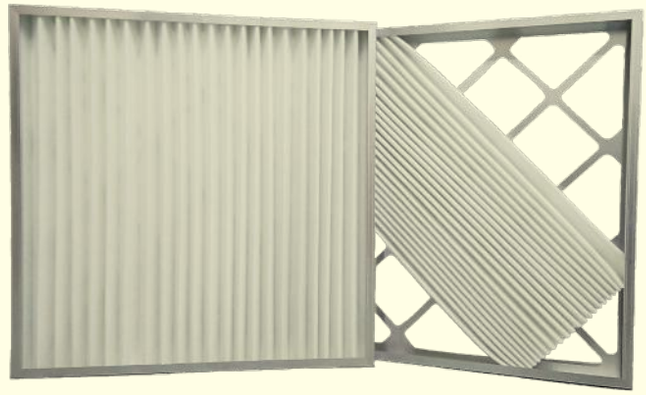
Airmaze Corporation Pte Ltd

Airmaze Corporation Pte Ltd was incorporated in 2015 as a world-class air quality management innovator, specialising in air filtration, air treatment and green technologies, meeting air-related needs and challenges.

With vast experience and technical knowledge, Airmaze's dedicated team supports clients regionally with effective solutions, efficient production, top-class products made in compliance with international testing methods, coupled with friendly and quality customer service. Airmaze provides one-stop air filtration solutions, ranging from case studies on air-related issues, manufacturing and supplying full range of air filters (pre to high range products), to installation works and after-sales services.

Website: https://www.airmazecorp.com/

SGBP-certified Product(s) - Auto-Coil Cleaning System



Airverclean Pte Ltd

Airverclean Pte Ltd was formed in 1990, specialising in a wide range of Air Purification Filtration System for Commercial Air Handling Units and Kitchen Exhaust Applications.

Its focus is "Better Indoor and Outdoor Air Quality", with its RydAiR UVGI, Bi-polar Ionization (BPI), PCO (Photo Catalytic Oxidization) improve IAQ, Industrial and commercial Electrostatic Precipitator solutions helping to remove unpleasant contaminants before they are released into the environment, creating safer and healthier environments for all occupants.

Website: https://www.airverclean.com

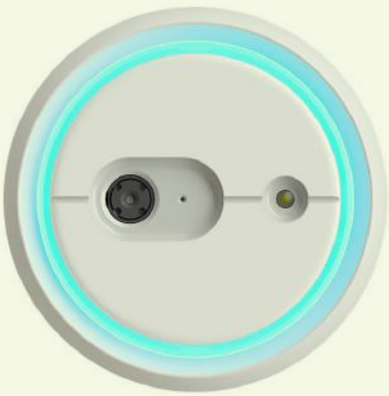
SGBP-certified Product(s) – Indoor Air Quality (UVGI)

Distech Controls Inc

Distech Controls connects people with intelligent building solutions through our forward-thinking technologies and services.

Distech Controls partners with customers to deliver innovative solutions that can provide better health, better spaces, and better efficiencies. Our passion for innovation, quality and sustainability guides our business, which serves multiple market segments through worldwide business divisions, service offices and a superior network of Authorised System Integrators and Distributors.

Website: https://www.distech-controls.com/



Laticrete South East Asia Pte Ltd

LATICRETE Singapore offers a wide range of top-notch products for various construction needs like tiling, waterproofing, flooring, and facades. Their lineup includes adhesives, grouts, waterproofing materials, coatings, and more for new projects or renovations.

Providing not just quality products but also full support with training and warranties, LATICRETE ensures lasting and dependable installations. Their products meet strict local and international standards, making them suitable for residential, commercial, and industrial purposes. Committed to innovation, sustainability, and easy application in tough conditions, LATICRETE is known for its reliable solutions that excel in the industry.

Website: https://se.laticrete.com/

SGBP-certified Products – Waterproofing, Pre-packed Mortar, Tile System, Floor Finishes, Paints System

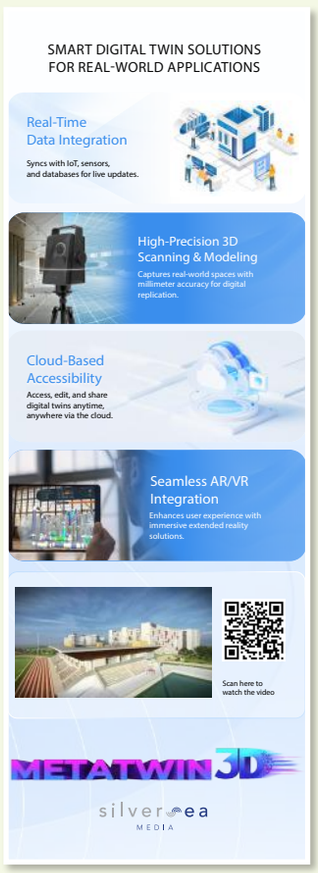
Signify Singapore Pte Ltd

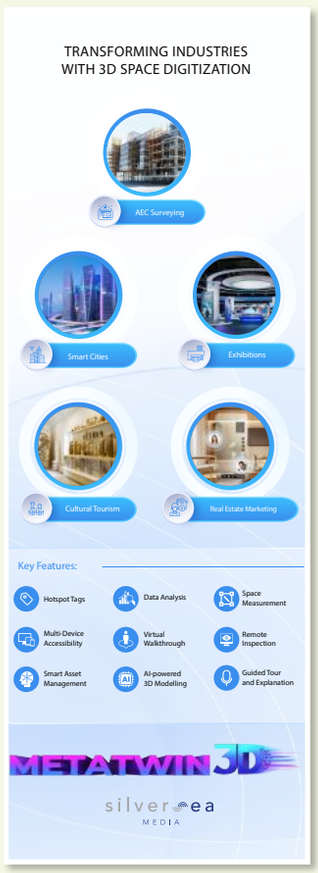
Signify is the world leader in lighting. We provide professional customers and consumers with quality products, systems and services. And our connected lighting offerings bring light and the data they collect to devices, places and people - redefining what light can do and how people use it. Our innovations contribute to a safer, smarter more sustainable world.

Signify has been leading the lighting industry with innovations that serve professional and consumer markets for more than 125 years. Its energy efficient lighting products, systems and services enable customers to enjoy a superior quality of light, make people's lives safer and more comfortable and businesses more productive.

Website: https://www.signify.com/en-sg

SGBP-certified Product(s): Occupancy Sensor
SGBS-certified Services: EPC Lighting Retrofit (L4)





Silversea Media Pte Ltd

Silversea Media is an award-winning pioneer in immersive technology, delivering innovative experiences in XR training, metaverse platforms, and digital twin applications. Our flagship MetaTwin 3D Platform leverages AI, 3D modeling, and Extended Reality (XR) to help businesses visualise, simulate, and interact with digital environments. Serving industries such as education, real estate, events, retail, tourism, public safety, and industrial operations, we empower organisations to accelerate digital transformation.

Silversea Media offers a suite of immersive technology solutions under its MetaTwin product line—Augment, Space, Object, and Immerse—designed to accelerate digital transformation across industries. Our services span digital twin creation, XR solutions, AI-powered metaverse development, and 3D spatial visualizations, enabling clients to simulate, monitor, and interact with virtual environments in real time. Whether it's for virtual property tours, smart factory operations, immersive learning, or digital showrooms, Silversea Media delivers scalable and interactive experiences that enhance engagement, improve decision-making, and streamline operations.

Website: https://www.silversea-media.com/



SNS Hardware Pte Ltd

SNS is a local brand with close to two decades of experience in high pressure laminates, specialising in surfaces that balance aesthetics and functionality, with a strong focus on sustainability, safety, and long-term wellbeing — especially for families and children.

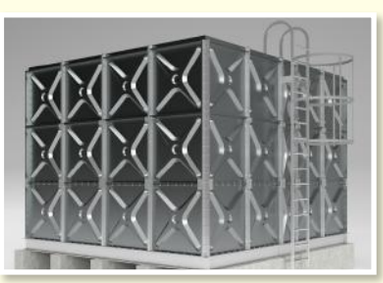
Known for their commitment to environmentally conscious practices and people, SNS is one of the first in the industry to achieve the highest rating under the Singapore Green Building Product (SGBP) certification scheme for high pressure laminates.

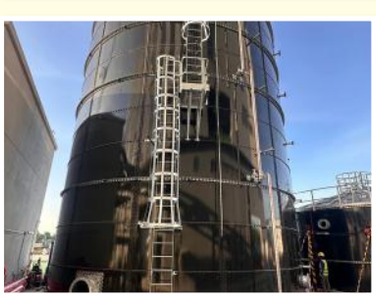
At its core, SNS is about helping people build better spaces — ones that are always safe, and always beautiful

Website: https://sns.sg/

SGBP-certified Product(s): High Pressure Laminate







Super Tower Industries Pte Ltd

SUPER TOWER is a leading manufacturer and sole supplier of high-quality cooling towers and a wide range of water tanks—including GRP, stainless steel (SS304/SS316), HDG, GFS, and enamel-coated types—recognized with CTI and SGBC certifications. Leveraging smart factory automation, robotic welding, and laser precision, we ensure exceptional quality and durability.

SUPER TOWER's advanced solutions, including Digital Intelligent Twin Management and Smart EC Fans, optimise performance and energy efficiency. The company also offers comprehensive services such as repair, maintenance and refurbishment for both cooling towers and water tanks across various industrial and commercial sectors.

Website: https://www.supertower.com.sg

SGBP-certified Product(s): Cooling Tower

GO 25

Make comfort sustainable

Find out more about the Go 25 movement at go.gov.sg/go25

Co-organised by:

Ministry of Sustainability and the Environment — SINGAPORE

SINGAPORE GREEN BUILDING COUNCIL

Supported by:

Building and Construction Authority

BuildSG

National Environment Agency

As part of:

GO Green SG