

Singapore's Sustainable Business Landscape

Making the Deep Green Journey



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Foreword

Citizens, business executives and country leaders know that the climate crisis is one of the biggest challenges we will face in our lifetime. How can we make the changes needed to avert a catastrophe? We must face the problem head on and be clear about what it will take to transform to a green economy.

In this report, we look at sustainability leadership in the Singapore business world, comparing what leaders are thinking here with others across 16 global regions and 11 industries. Results suggest there is a long way to go to achieve the carbon transformation we are aiming for, but there are many positives to build on as stepping stones toward that future.

The most important part of offering a comparative survey is to better understand today's baseline so we gain clarity on the best path forward. What are the green leaders getting right? Where are we behind the curve?

As we debate investments around ESG in earnest, we hope that this report and its lessons help you to see the importance of sustainable strategy, culture and organisational change as the path to green outcomes.

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Introduction

Globally, as the climate crisis grows ever more urgent, a new breed of business leadership has emerged: one that views sustainability as more than a compliance concern. Beyond just ‘green’, these business leaders are taking their companies ‘deep green’, placing sustainability at the heart of business strategy and leveraging related opportunities to drive stronger performance.

For the past two years, Cognizant has tracked how sustainability in business has been evolving as an essential part of strategic development. In our latest global report, we worked with Oxford Economics to survey 3,000 executives across 16 regions and 11 industries – including 170 in Singapore – to examine their sustainability practices, challenges, and vision for the path ahead. (For our global report, see [“Deep Green: How data, technology and collaboration will drive the next phase of sustainability in business”](#).)

We know on the ground that Singapore is moving to become a global leader in green finance and smart city transformation through government initiatives, and in the application of technologies such as additive manufacturing toward sustainability initiatives. However, our survey results show there are many areas where Singapore is lagging global progress. Progress in renewable energy and circular

economy can be hastened. Singapore’s SME-centred business landscape struggles to allocate budgets toward hiring sustainability expertise and funding ESG initiatives.

While cost and market uncertainty are seen as barriers toward greater sustainability in Singaporean business, global counterparts are investing more quickly with the expectation their ESG progress will drive new financial rewards.



Signs are positive for Singapore to move quickly in the years ahead. Government leadership in Singapore is strong, with initiatives like Enterprise Singapore’s \$180M ESG scheme to help 6,000 Singapore companies on their green transition amongst more than 30 funds and programs targeting energy, water, waste management, and more. To take best advantage, local enterprise leaders can learn from today’s global best practice to empower their efforts. By focusing on skill development, incentive structures, and capturing data to support targeted decision making, Singaporean business leaders will find a path toward the Deep Green future they need.

A photograph of a tropical wetland or pond. In the foreground, there are dense green plants with long, narrow leaves. The water is calm, reflecting the sky and the surrounding greenery. Numerous lily pads float on the water's surface. In the background, there is a dense forest of palm trees and other tropical vegetation under a clear blue sky with some light clouds.

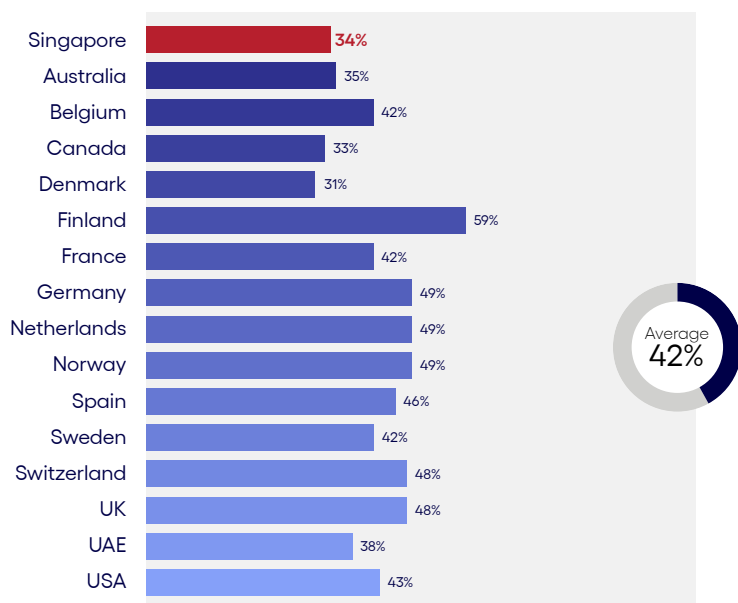
Unique imperatives drive Singapore's green mission

In our survey, we analysed the results of 323 questions to uncover where Singaporean businesses were outliers – either ahead or behind – compared with the global average across all surveyed countries.

Broadly, we see that 42% of global respondents (see fig. 1) agreed they have achieved their targets over the past two years, while only 34% of Singaporean business leaders agreed – the lowest amongst all nations surveyed. As for forward planning, only 40% of Singapore's respondents (see fig. 2) believe they have targets and budgets in place for planned improvements on environmental initiatives, also the lowest compared with a global mean of 49%.

Figure 1

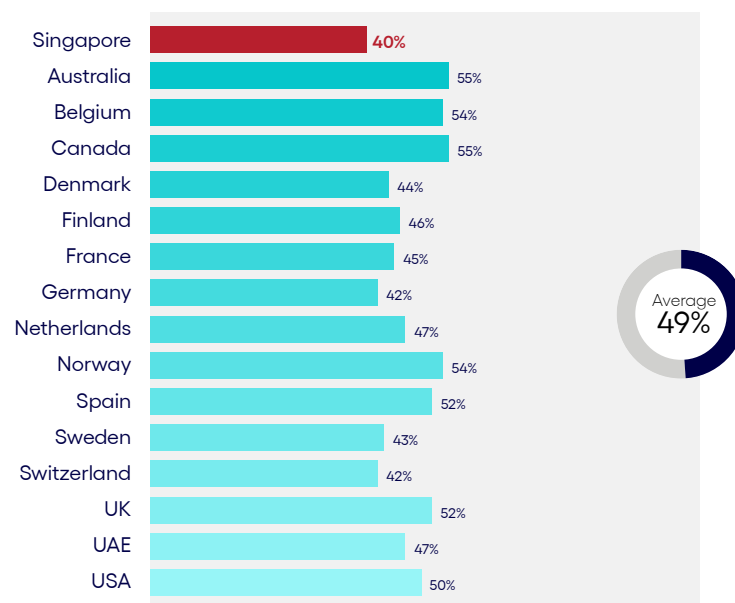
Have achieved their ESG targets over the last two years



The current readiness suggests a great deal of work lies ahead. Singapore faces unique challenges, and holds strong opportunities in building momentum around its ESG capabilities. There are three areas, in particular, where the survey results speak to Singapore's most critical green imperatives.

Figure 2

Have targets or budgets set for improving environmental initiatives



Longer view needed for SME economy

Singapore's survey results suggest a widespread reluctance to invest in upgrades and innovations that are seen as unnecessary to short-term requirements in an uncertain market. As a nation with a 96% SME driven economy, there is a stronger preference toward conserving cash reserves and sticking with existing solutions.

Singapore is at or near the bottom of all nations surveyed on driving business initiatives into products and services that help customers conserve energy, or improve recycling opportunities, or even investing in more fuel-efficient vehicles. Numbers are quite low globally across all these areas, but for Singapore the numbers are still sitting back in starting blocks territory.

On the question of which challenges inhibit progress toward achieving sustainability goals, 39% of Singapore respondents (see fig. 3) saw the cost of specialised new technologies as too expensive, compared with 31% globally – it was the highest such rating in the survey.

Interestingly, while almost three-quarters (74%) of respondents globally (see fig. 4) believe next generation technologies will make it easier to achieve sustainability targets, Singapore was the least convinced at 67%. Across technologies such as Internet of Things, Artificial Intelligence, and cloud/edge computing, Singapore was below the global mean for applying such options toward enhanced sustainability performance. Again, we believe this is a reflection of both budget constraints and a lack of expertise to demonstrate their transformative value.

Figure 3

Stated specialised technology required for ESG as being "too expensive"

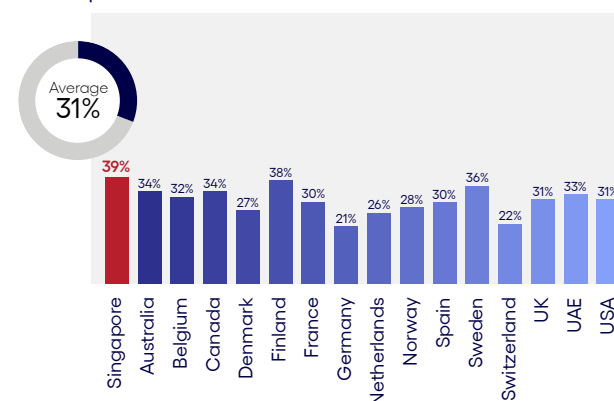


Figure 4

Agree that specialised technologies will make it easier to achieve sustainability targets

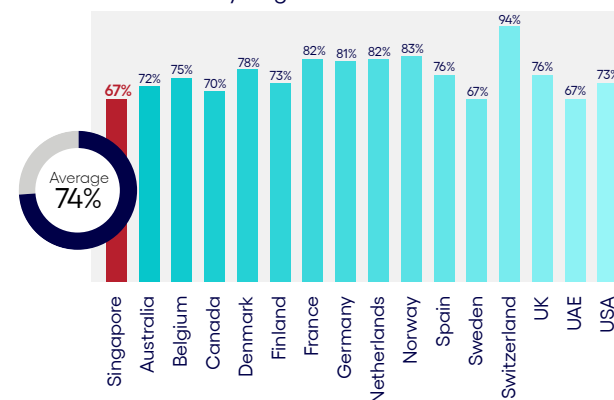
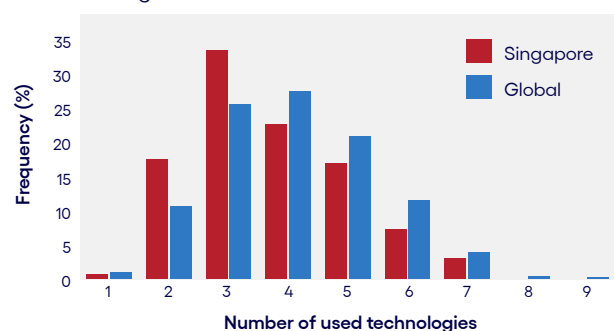


Figure 5

Singapore are less likely than their global counterparts to deploy a diverse range of technology solutions to solve ESG challenges



Promote ESG leadership to progress green mission

Singapore businesses are generally on a similar trajectory to their global counterparts, just behind on progress and capacity to execute. This can be caused not only by hazy sentiments in the market, but also a struggle to find quality leadership that can drive the right ESG decision making.

We can see this leadership problem in the survey results. 47% of Singapore respondents (see fig. 6) are finding it difficult to convert long-term sustainability targets into short-term actions, while less than half (46%) have integrated their environmental goals in an overall corporate ESG strategy (see fig. 7). On both counts these were amongst the worst results globally. Singapore was also a negative outlier on having the capability to report data on the performance of sustainability initiatives in a timely and reliable manner, with 44% compared to the global mean of 49% (see fig. 8).

Figure 6

Had difficulty in converting targets to actions

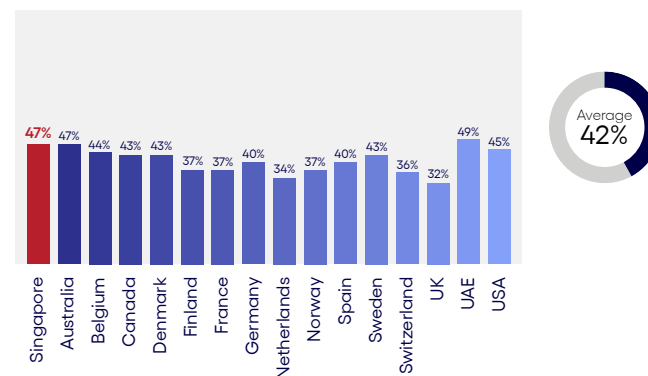


Figure 7

Integrated their environmental strategy is into broader strategy

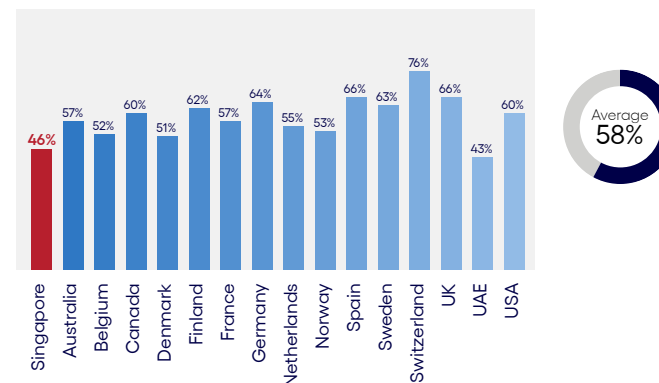
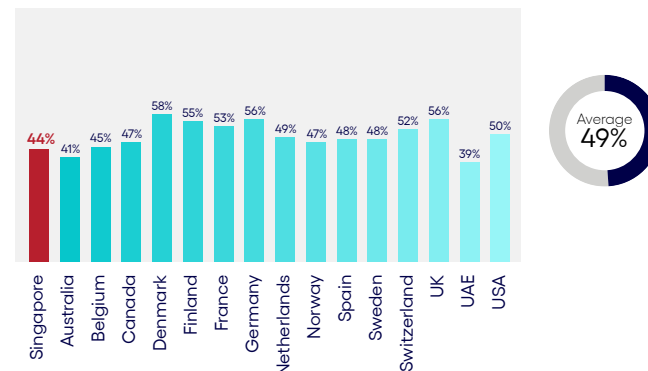


Figure 8

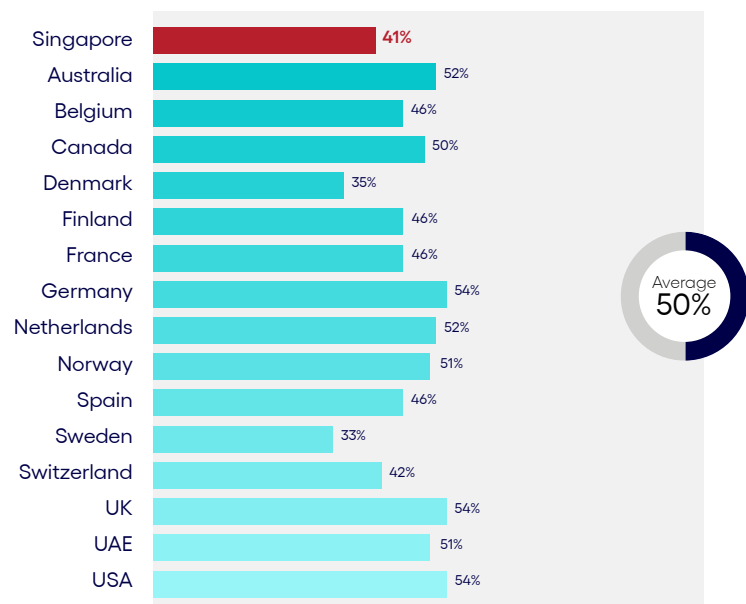
Provide timely, reliable data on performance of sustainability initiatives



These problems could be caused in part due to a lack of clear sustainability leadership structure, in terms of both the need for more dedicated staff and the need for improved reporting lines. We see that in Singapore, the Chief Sustainability Officer (CSO) or equivalent is directly accountable for delivery in 41% of responses, but 50% globally (see fig. 9). With a dedicated CSO in 28 out of the 50 largest primary-listed companies on the Singapore Exchange today, enterprises are making grounds on sustainable development.

Figure 9

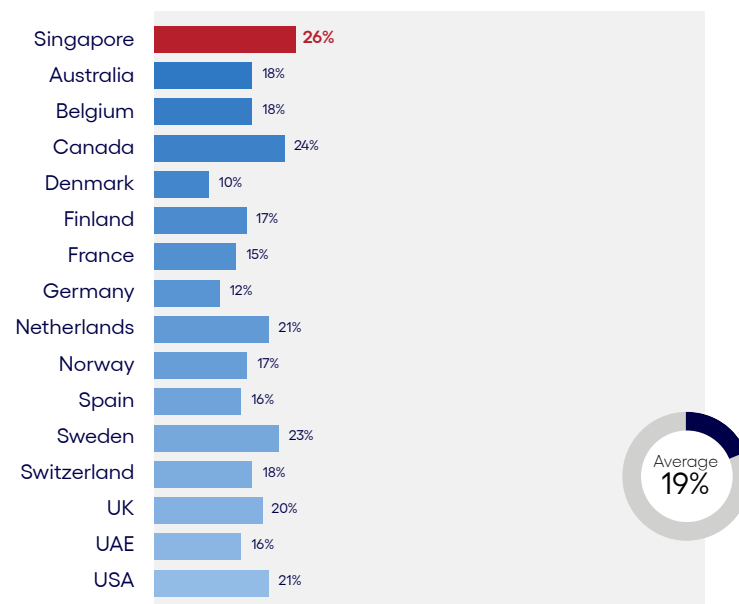
Where the sustainability lead is accountable for delivery



One positive trend is 26% of Singapore respondents see a need for environmental health and safety aligned facilities manager roles (see fig. 10) to be in demand from today until 2025. The highest result for any nation. This particular role will fit into some key building and transport areas that Singapore is eager to pursue through some of the Government support measures discussed below.

Figure 10

Felt a significantly increased demand for the environmental health and safety role in their organisation



Physical challenges demands innovation

Singapore faces unique challenges when it comes to pursuing a greener future. The nation's small land capacity places critical restrictions on the capacity for self-sufficiency in renewable energy production. Building density also makes it difficult for the Government or for corporations to find new premises built to the latest environmental standards. Instead, a slower path of retrofit-based transformation is required to achieve long term success.

These limits may contribute to some of the 'wait and see' mindset, but in other areas they speak to a leadership in some key transformational technologies that could help Singapore with its specific needs. In our results, we see positive outlier trends in Singapore respondents' use of solar panels on buildings and in transitioning delivery fleets to EVs.

While in some areas of technology Singapore appeared behind, it was ahead of the curve in using technologies like 3D printing (see fig. 13), which could play a significant role in advanced manufacturing and construction. The Singapore Government has set a goal to transform 80% of buildings into green conversions by 2030, driving exploration of tech that could assist on precisely this journey.

Figure 11

Use of solar panels on buildings

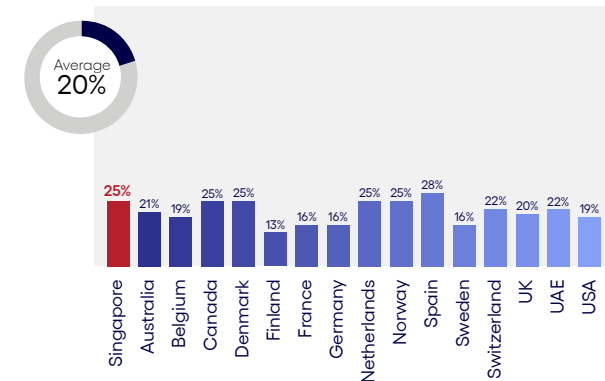


Figure 12

Transitioning to fleet of electric vehicles

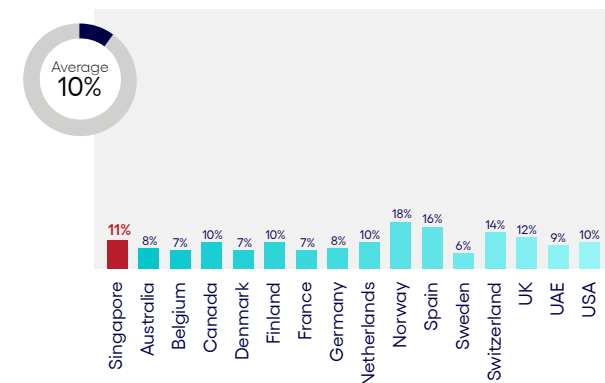
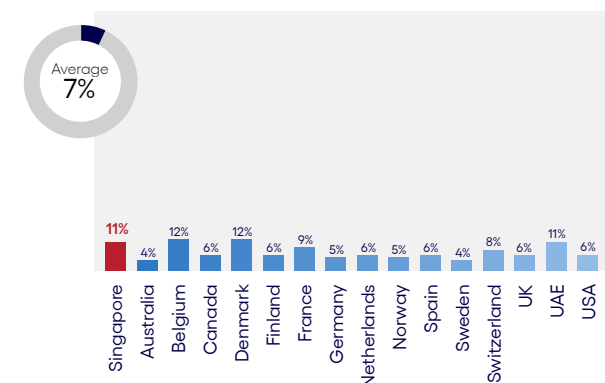


Figure 13

Use of 3D Printing



Embracing analytics as bedrock for success

You cannot manage what you do not measure, and every facet of achieving sustainability targets demands accurate data measurement and analysis to get from where we are today and into a successful tomorrow. Sustainability leadership must work closely with technology teams to build true ESG data platforms that offer insights businesses can trust.

Today's green leaders are identifying, benchmarking and measuring their performance and are beginning to demand the same from their suppliers. Opportunities of the future will require almost every enterprise to do the same to meet both regulatory and contractual obligations.



Looking ahead: Charting a greener path

While it has been a hard road to pursue for many Singapore businesses, the Government has been taking action on a number of fronts that could see many numbers start to shift quickly.

Singapore aspires to become a hub for the green fintech ecosystem. With the issuance of SGD\$35 billion in 'green bonds', the funds raised will support Singapore's sustainable finance initiatives and provide investors greater confidence that funds would be aligned with the nation's increasingly aggressive ESG agenda. Government investments into

automation, data analytics, smart connected systems, and additive manufacturing are all well underway.

The results of these moves are not yet reflected in our survey results. We see 40% of Singapore respondents agree that R&D and innovation efforts are incentivised to deliver improvements in sustainability compared with 50% globally (see fig. 14). Additionally, 55% of Singapore respondents believe they have analytic tools to generate insights on areas to improve sustainability – versus global respondents at just 46%. So the ability to drive sustainability success is looking strong in Singapore.

Figure 14

Have incentives in place for innovation efforts

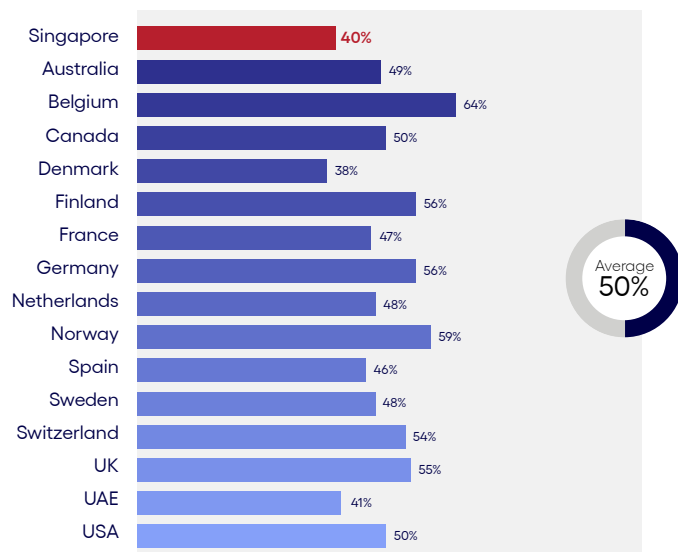
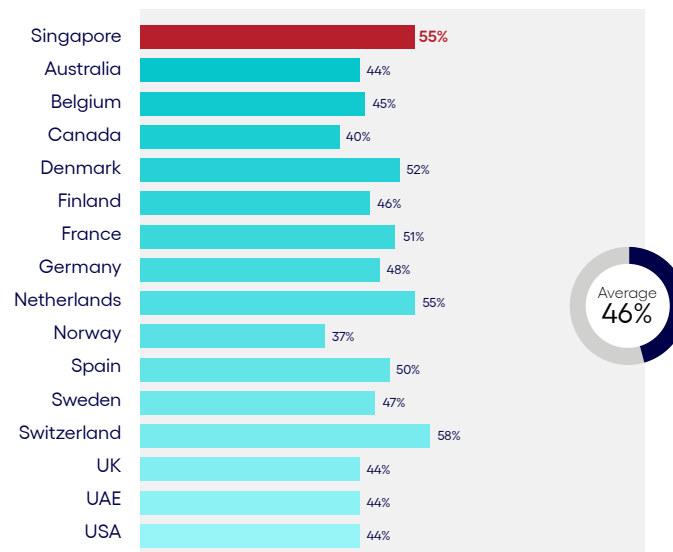


Figure 15

Have analytical tools in place to improve sustainability



R&D and innovation incentives are now in place across many sectors. To give the country's net zero target for 2050 actionable support, the Singapore Green Plan 2030 is directly focused on low-carbon and clean energy sectors, while 30 new funding schemes are serving sustainable finance, water technology, waste management and more. Initiatives range from rolling out 60,000 EV charging points and 300,000 smart water meters, to the Singapore Green Labelling Scheme (SGLS), to applying analytics to banking, transportation and public sector industries to better understand and report on energy consumption and waste management.

Change is in the early stages, but government incentives look like they will convert to results in the years ahead. Reporting mandates are in place for listed companies, but a great deal of change may only come about once SMEs are also hit with such requirements and are forced into action.

As a critical trade hub, Singapore requires resilient supply chains to ensure the smooth flow of trade both into and out of the country. This is well suited to the top-down approach taken by the Government to devise and demonstrate best practices that can then flow through the private sector and into individual households. This will help ensure an orderly transition to a greener economy without disrupting economic priorities.



Critical challenges to success

Green skills need role elevation

The survey results show a need for clear green leadership within the C-suite. Decision making power and accountability must be aligned around the sustainability function in order to create clear strategies that build real momentum. Bold decisions are required, and disruptive changes will be resisted. Ensuring ESG leaders are empowered is crucial to their success.

We see the pressure is on CSOs to deliver outcomes, and yet they are not empowered to have a seat at the strategy and budget table. All this points to the need for leadership models to evolve. By striking the right balance in distributing responsibilities and accountability, businesses can improve the quality of their sustainability outcomes.

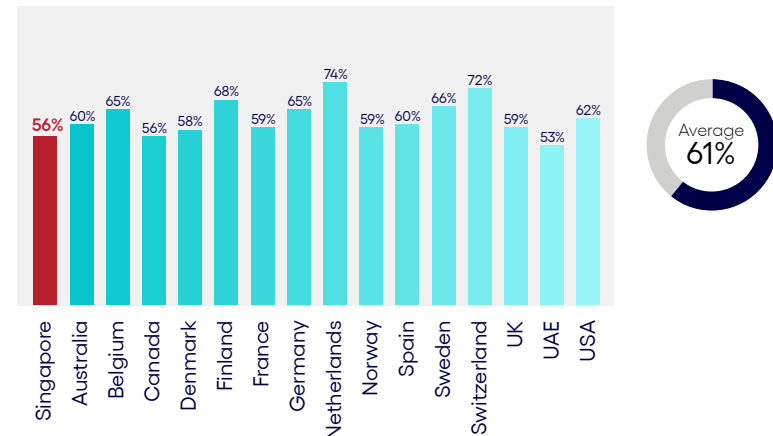
Crucially, the Singapore Government sees the importance of developing local talent in this area, now offering a range of training initiatives to upskill mid-career individuals and develop a green talent pipeline.

Green business cultures are a necessity

Expertise in leadership will provide the scaffolding, but cultural transformation is essential to building a greener future for business. Survey results show that while a majority of Singapore business leaders (56%) believe staff have a strong awareness of the company's efforts on environmental issues (see fig. 16), this is behind the global mean (61%).

Figure 16

Staff awareness of organisational ESG efforts



Singapore also saw some of the lowest scores (see fig. 17) on employees knowing how they can contribute to the company's sustainability mission (58%) and less than half of respondents (see fig. 18) believe their staff are convinced by the authenticity of the company sustainability strategy (48%). Most telling of all, Singapore has the lowest belief that a business has a strong culture of environmental sustainability at 51% compared with the global mean of 66% (see fig. 19).

At close to half of respondents at their worst, these cultural factors do start from a good base. But we see that global green leaders seem to be achieving a deeper sense of their sustainability mission throughout their organisations. Driving greater momentum is a whole of organisation requirement, so leaders need to continue to encourage their teams to embrace the sustainability mission and find ways to incentivise positive engagement.

Figure 17

Employees that know how to contribute to organisational ESG initiatives

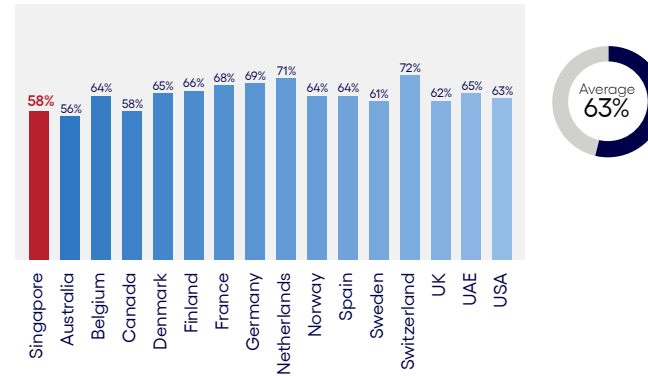


Figure 18

Employee satisfaction with authenticity of organisational sustainability strategy

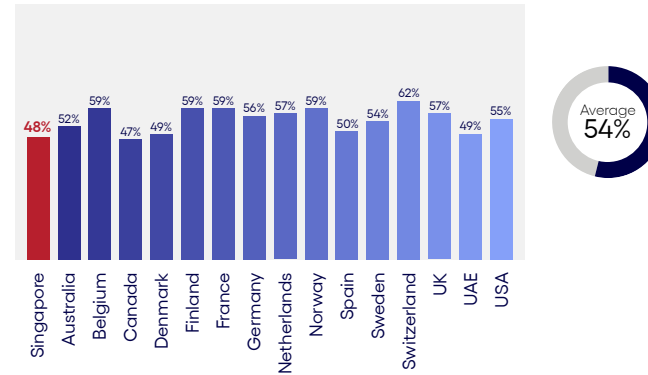
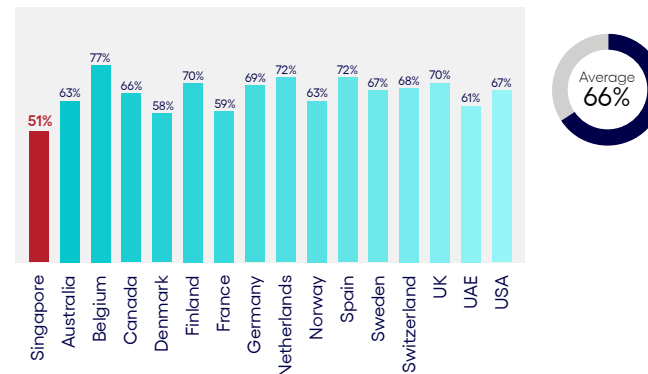


Figure 19

Organisations with a strong sustainability culture





Mechanisms for momentum

Government incentives will hasten progress

The Singapore Government has great vision for 2030 and 2050 environmental targets, with many incentives entering the market to support businesses on this journey across many industry sectors.

In these early stages, we see that few Singaporean organisations have mandatory reporting and compliance demands, which leaves many taking a slow approach to sustainability so far. But as regulators continue to push to meet Government targets, we may see more requirements

arrive to accompany the existing incentives. It is far easier for organisations to begin an ESG transformation ahead of enforcement if the changes are to be as smooth and effective as possible.

With so many incentives on offer from the Government, there are great benefits to be found in exploring the funding options available. This can help overcome the funding hurdle many are concerned about, allowing for a slingshot of support that can quickly put businesses back on par with their global peers.



Green buildings: a transformation catalyst?

As mentioned previously, Singapore is targeting a conversion initiative to make 80% of all buildings meet green standards by 2030. Putting the right technologies in place to measure buildings and their carbon footprints will be important to build the baseline insights for understanding what needs to be done and what changes are needed to achieve such an aggressive target.

This will place great demand on the application of smart technologies, from Internet of Things devices throughout premises to Artificial Intelligence systems to analyse what's happening and assist in transformation planning. Monitoring energy usage in lift systems, lighting, temperature control, waste and water, requires objective data which is critical to understanding where the problems lie and knowing each change is having the desired impact.

More broadly, this focused push for more sustainable buildings can help to reset broader business cultures on the road to wider changes that achieve further ESG targets into the future.



Recommendations for Singapore business leaders





1. Pursue green capital

Fears of the short-term financial pain of green transformation are fair when the efficiency gains and growth opportunities may be further down the path. But the Singapore Government is showing great leadership in offering many green finance options to enable these changes. It is incumbent on leaders to investigate and leverage any suitable funds to speed their ability to leap toward the benefits through such support.

Beyond the Government assistance, green capital is also becoming more widely available across the financial sector, so pursuing the requirements of the available Government funds may also help to meet the demands of accessing green loans as well.

The work of sustainability does not have to be a solitary pursuit. Exploring collaborations and partnerships, whether with government agencies or consultancies, can play a key role in pursuing green capital. Creating internal 'green squads' can also offer flexible forms of leadership in finding tactical and strategic opportunities throughout your organisation.

2. Tackle expertise gaps head on

Strict quotas on foreign talent are limiting access to top tier sustainability expertise, but for organisations keen to lead this could still play an important avenue toward building internal skills for long-term benefits. Learning from global best practice will help to build fast iteration capability and maximise access to green capital.

Local context remains crucial to success, so taking advantage of the Government green skills programs can enhance internal capabilities alongside to take best advantage of expertise brought in via consultancy or senior hires.

Structures for talent management may take many different forms and may focus on specific goals. For example, the demand for ESG experts is booming across professional services and different industries, especially talents who can understand metrics and data. It will be essential for analysis to lead directly toward new product development that is underpinned by analytical rigour, ethical clarity and transparent reporting processes.

Given the ESG industry is evolving so quickly, the next generation workforce will need to be adaptable and continue to hone their skill sets to keep up with the evolving sustainability theme.





3. Gamification of the ESG mission

Data will play a central role in all aspects of ESG progress. Mapping baselines, planning changes, tracking progress, and measuring success. With clear, trackable numbers involved and incentive-based transformational objectives, there are opportunities to ‘gamify’ many aspects of progress in order to embrace the competitive spirit of internal teams and business partners.

Just as the Government is offering incentives, businesses can explore their own incentive structures to ensure that change is not seen as a burden but as a new opportunity for success. It can be powerful to include actions in the personal lives of staff in this gamification program to build a deeper sustainability mindset that becomes almost second nature.

4. Build data capability

Developing a robust data management platform to capture accurate, auditable and actionable intelligence is fundamental to achieving all of the above sustainability aims. Many enterprises will need to build out a complete data foundation to understand their real environmental impacts and begin the process of managing them.

For example, machine learning algorithms can be used to identify patterns and trends in ESG data, which can help companies identify areas where they need to improve their performance.

Beyond the big question of carbon emissions, true ESG accountability will need to measure impacts on biodiversity, water usage, and other natural resources throughout the supply chain. This means augmenting sustainability strategy with a data strategy that tracks all impacts and delivers customisable dashboards to suit the needs of different stakeholders.

Alongside building out the right technological capabilities, having an advanced data and analytics foundation will give Singapore business leaders the tools to shape their environmental impacts, mitigate risk and discover new opportunities throughout the value chain.

A Deep Green future for every business

Businesses in Singapore are seeking a path forward to meet both economic and environmental needs. We feel sure they will find that path. The Government is offering powerful leadership to support organisations on their journey. Driven by ingenuity, a collaborative spirit and the courage to change, business leaders will meet the call for radical transparency, authenticity and resilience, in tune with the prevailing winds of change.

It won't be long before the ideas of "sustainability" and "business" become one and the same, as the two become intertwined in a deeply green world.



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Constance holds a Master in Risk Management from Monash University and a Postgraduate Diploma in Cloud Computing from Caltech University. She has also certifications in Cybersecurity by Harvard University, Fintech by the University of Oxford and Big Data and Social Analytics by Massachusetts Institute of Technology.

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