

# SUSTAINABILITY GUIDEBOOK FOR SMEs

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 ROAD TO NET ZERO

BRITCHAM SINGAPORE IS

**CO<sub>2</sub>**  
NEUTRAL  




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# PREFACE

This Sustainability Guidebook, authored by members of BritCham Singapore, is designed as a quick read for Small and Medium-sized Enterprise (SME) owners to understand the concept of Environmental, Social and Governance (ESG) and implications for them as business leaders in shaping the future roadmap of their organisations.

A sustainable business should be considered a resilient business, opening opportunities for efficiency, risk management, growth and new markets. Conversely, those that fail to act risk losing competitive advantage, facing regulatory penalties, and struggling to secure financing or talent. This guidebook aims to introduce an understanding of sustainability and ESG, and how SMEs can get started.

This guidebook includes:

- the growing importance of sustainability and the role it plays among SMEs.
- the benefits and values that sustainability, carbon commitments, ESG actions, and similar initiatives can bring to SMEs.
- quick wins that SME owners can achieve using the tools and references mentioned in this guidebook.
- an appendix filled with information on each of the ESG pillars.

We would like to acknowledge and thank the BritCham Sustainability & Resilience, and Start-up, Entrepreneur and Small Business committee members for their time, contributions, and insights in constructing and editing this guidebook, as well as the Editorial Board, co-authors and their respective organisations, and our partners.

# ESG FOR SMEs: THE BUSINESS CASE

*Sustainability should be viewed as a business imperative for SMEs. Through the opportunities outlined in this section and the risks of not doing anything, integrating ESG principles is not just about compliance - it is a strategy for resilience, growth, and long-term success.*





# ESG FOR SMEs: THE BUSINESS CASE

Sustainability should be viewed as a business imperative for SMEs. Through the opportunities outlined in this section and the risks of not doing anything, integrating ESG principles is not just about compliance - it is a strategy for resilience, growth, and long-term success.

As part of global supply chains, SMEs are not only affected by local risks but also by disruptions in other countries — whether from extreme weather, shifting regulations, or changing customer demands — making it essential to integrate sustainability and resilience into their business strategies. Many SMEs in Singapore also operate in neighbouring Southeast Asian and Asian countries, which are increasingly experiencing extreme weather events that disrupt supply chains. For example, floods have impacted semiconductor production in Malaysia and vehicle manufacturing in Thailand.

A comprehensive climate assessment should include evaluating indirect impacts and planning for potential disruptions. SMEs can use checklists to perform quick self-assessments to identify potential risk hotspots, review business insurance coverage, and strengthen contingency planning processes.



**In Singapore, SMEs make up 99% of our businesses and employ 71% of our total workforce. Beyond the important economic role they play... they are also instrumental in the development of local infrastructure and strengthening of community resilience.**

*- Extract from Keynote Speech by Minister Grace Fu on "A New Vision for the Growth of SMEs" at the 17th Asia-Pacific Economic Cooperation (APEC) Small and Medium Enterprises Summit in Lima, Peru 2024 <sup>[1]</sup>*



As multinational corporations (MNCs) and larger companies work to decarbonise their supply chains, SMEs must enhance their sustainability capabilities to remain competitive and relevant. Given their significant economic contribution—accounting for 48% of Singapore's Gross Domestic Product and employing 71% of its workforce<sup>[2]</sup>—SMEs must align with ESG standards to safeguard their reputation and demonstrate responsible business practices.

<sup>[1]</sup> <https://www.mti.gov.sg/Newsroom/Speeches/2024/11/Keynote-Speech-by-Minister-Grace-Fu-on-A-New-Vision-for-the-Growth-of-SMEs-at-the-17th-Asia-Pacific>

<sup>[2]</sup> <https://hubble.build/financial/case-studies/exploring-factors-singapore-growth-2022-sme-trends-in-factoring-industry-environment>



## Building Resilient SMEs Through ESG Practices

### Risk Mitigation and Resilience:

- Climate change presents risks for businesses of all sizes. By adopting sustainability measures early, SMEs can adapt to these changes and build resilience.
- Assessing risks and vulnerabilities at a country level enables SMEs to prepare for transition risks, policy shifts, technological advancements, and physical risks like extreme weather.
- Future-proofing their operations ensures SMEs remain competitive and robust against uncertainties.

### Competitive Edge and Reputation:

- SMEs that integrate ESG practices gain a competitive advantage and strengthen their corporate reputation.
- Building trust with customers, employees, and stakeholders fosters loyalty and long-term relationships.
- As environmentally and socially conscious consumers grow in number, SMEs prioritising ESG are more likely to attract and retain their support.

### Business Opportunities:

- ESG initiatives can unlock opportunities for SMEs to innovate and grow.
- Global shifts (e.g., net-zero commitments, sustainable finance, stricter supply chain requirements) create opportunities for forward-thinking SMEs.
- By embedding sustainability from the outset, SMEs can explore new products and services aligned to more sustainable solutions such as clean energy, adoption of circular economy principles, and social impact initiatives.
- Sustainable innovation not only offers growth potential but also helps SMEs differentiate themselves against competitors and position them as leaders in the sustainable business landscape.
- ESG investments lead to cost savings (e.g., energy efficiency, waste reduction) and new revenue streams (e.g., accessing sustainability-linked financing).

### Stakeholder Expectations:

- Investors, customers, and regulators increasingly expect companies to disclose their ESG efforts.
- SMEs that demonstrate strong ESG commitments can enhance their corporate reputation, build brand loyalty, and attract capital or financing.
- Customers' commitment to decarbonisation often means that there is additional pressure put on decarbonising their supply chain. That includes a large percentage of SMEs.



## Compliance:

- Many countries require mandatory sustainability reporting.
- Complying with evolving regulations ensures long-term sustainability and resilience.

## Risk of Inaction:

- MNCs are actively seeking sustainable suppliers — SMEs that fail to adapt risk being excluded from supply chains and losing key customers.
- Non-compliance with evolving ESG regulations could lead to legal penalties, loss of funding opportunities, or restricted market access.
- Younger generations and skilled professionals increasingly seek purpose-driven work. SMEs that ignore sustainability may struggle with recruitment and retention, putting long-term growth at risk.

Striking the right equilibrium between profits and sustainability is crucial. Many SMEs lack technical expertise and access to ESG specialists to develop a complete business transition strategy; getting started doesn't have to be complex or costly. Simple steps which are suggested in this document can lay the foundations. Government grants and partnerships with larger MNCs can further bridge the gap, helping SMEs build their sustainability capacity and implement cost-effective ESG strategies while maintaining profitability.

More information on grants and incentives can be found in the **Useful Tools & References** section, including an **ESG due-diligence checklist**.



# ESG & SUSTAINABILITY 101 FOR SMEs

*Environmental, Social and Governance (ESG) is a framework that evaluates how a business performs beyond financial results. It includes specific and practical criteria covering areas like reducing environmental harm, treating employees and communities ethically, and operating with transparency and good governance.*





# ESG & SUSTAINABILITY FOR SMEs

Business performance is now assessed through the lens of both sustainability and ESG. These terms are often used together, but they have different meanings.

Sustainability is a long-term strategy that aims to balance economic growth, social well-being, and environmental protection to ensure a business remains resilient and future-ready.



**Small and medium-sized enterprises (SMEs) that embed sustainability in their value proposition will be well-positioned to tap into green economy opportunities and future-proof their business.**

*- Mr Kok Ping Soon, Chief Executive Officer, SBF 2023 <sup>[3]</sup>*



Environmental, Social and Governance (ESG) is a framework developed to measure a business' non-financial performance through specific actionable criteria. As well as being used to steer business decisions, investors and stakeholders can use ESG to assess risks and opportunities.

When ESG is embedded into a company's core operations, it supports long-term sustainability and helps create lasting value for both internal teams and external stakeholders, including the wider environment.

ESG covers multiple topics, including lowering environmental impact, ensuring fair treatment of workers and communities, and upholding strong governance practices.



## ENVIRONMENTAL

Environmental considerations involve assessing a company's impact on the natural environment, including aspects such as carbon emissions, energy efficiency, water usage, biodiversity, waste management, and overall environmental footprint.



## SOCIAL

Social considerations focus on a company's relationships with its stakeholders including employees, customers, suppliers, and communities. This encompasses areas such as labour practices, diversity and inclusion, human rights, community engagement, and product safety.





## GOVERNANCE

Governance considerations assess the quality of a company's leadership, board structure, transparency, accountability, risk management practices, and adherence to ethical standards. Taken together, ESG considerations enable companies to manage risks, enhance their reputation, foster innovation, attract investors, and contribute to long-term financial performance and environmental and societal well-being.

**With SMEs making up over 90 percent of businesses in Singapore, responsibility for sustainability does not lie solely with large corporations. Smaller businesses play a crucial role in both the local economy and global supply chains.**

In the later sections of this document, we will explore the importance and benefits of ESG for SMEs and outline specific tools and guidelines they can utilise.



**SMEs account for 99% of all enterprises in Singapore, and their ability to embrace sustainability will be key to creating a sustainable future here and in the region.**

*- Koh Kar Siong, Group Head of Corporate and SME Banking, DBS 2023<sup>[4]</sup>*



## ESG in Asia

Several factors have driven the growing interest in and demand for ESG initiatives in Southeast Asia and the Asia Pacific region. Regulatory developments have been a significant catalyst, pushing forward ESG momentum through measures such as stewardship codes, ESG risk management guidelines, the establishment of steering committees, and cross-industry collaborations. Beyond regulations, financial institutions and investors have played a pivotal role in advancing the ESG agenda.

ESG practices in Asia have long been shaped by investors from the EU and the US. More recently, Asian investors themselves have started allocating more funds to ESG assets and issuing their own sustainability requirements.

At the same time, Asia is facing increasing physical climate risks such as sea level rise, flooding, heavy rainfall, and wildfires. These events can disrupt operations and reduce profitability.

Consequently, there is growing urgency and progress in decarbonising the built environment and addressing emissions across the value chain, including Scope 3 emissions.

<sup>[4]</sup>[https://www.dbs.com/newsroom/DBS\\_and\\_SSG\\_partner\\_to\\_help\\_SMEs\\_develop\\_sustainability\\_capability\\_and\\_capacity\\_to\\_thrive\\_in\\_the\\_green\\_economy\\_sg](https://www.dbs.com/newsroom/DBS_and_SSG_partner_to_help_SMEs_develop_sustainability_capability_and_capacity_to_thrive_in_the_green_economy_sg).

## SGX mandates

Singapore stands out as a leader within Asia and Southeast Asia for embedding and mandating climate-related disclosures for publicly listed companies. In 2021, the Singapore Exchange (SGX) introduced requirements for issuers to align their climate-related disclosures with the International Sustainability Standards Board (ISSB) sustainability disclosure standards. Starting with the financial year 2022, all issuers must include climate reporting in their sustainability reports under a "comply or explain" framework.

This shift has important consequences for SMEs. Many supply goods or services to large companies, both listed and unlisted, and these clients are now expecting more sustainability-related data from their suppliers.

This data includes carbon footprints, climate risk disclosures, employment practices, and governance standards. These requirements are intended to ensure alignment with the reporting standards established by the Accounting and Corporate Regulatory Authority (ACRA) and SGX. As a result, SMEs must prepare to meet these expectations to remain competitive and compliant in an evolving regulatory landscape.

**Details and more information for each of the ESG pillars can be found in the [Appendix](#) section.**





# MATERIALITY

*Materiality is a key concept in sustainability reporting. It helps you decide what issues to report, based on what is important to your business and to the people who are affected by it.*





# MATERIALITY

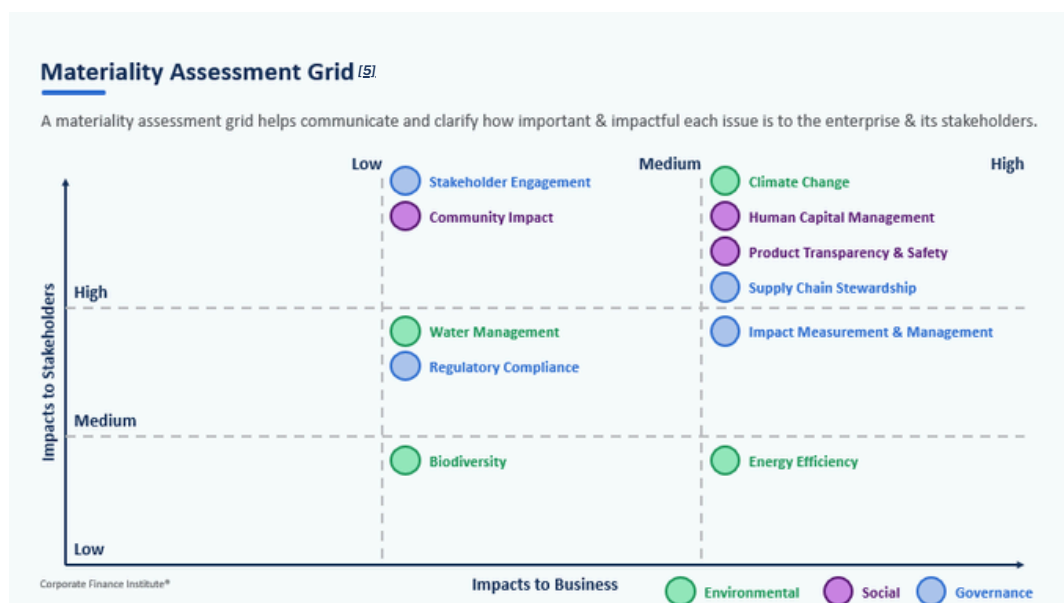
Materiality is a key concept in sustainability reporting. It helps you decide what issues to report, based on what is important to your business and to the people who are affected by it.

For SMEs, materiality is key to effective sustainability reporting. It helps identify the most relevant issues, so efforts are focused where they matter most. This makes reporting clearer, more efficient, and more meaningful for the business.

The key steps in determining and assessing materiality are defined under "Getting Started" (1. Materiality Assessment).

## An example of key topics encompassed in each ESG theme:

|               |                                 |                                       |   |  |  |
|---------------|---------------------------------|---------------------------------------|---|--|--|
| ENVIRONMENTAL | CLIMATE CHANGE                  | Climate change risk and adaptation    | Greenhouse gas (GHG) emissions                | Energy usage                                 |  |
|               | POLLUTION                       | Pollution of air, water and soil      | Harmful substance usage                       | Plastic taxes                                |  |
|               | WATER & MARINE RESOURCES        | Water usage                           | Marine resource usage                         | Water taxes                                  |  |
|               | BIODIVERSITY & ECOSYSTEMS       | Biodiversity and ecosystem management | Deforestation rules                           |  |  |
|               | RESOURCE USE & CIRCULAR ECONOMY | Responsible supply chain management   | Waste management                              | Circular products                            | Waste taxes  |
| SOCIAL        | OWN WORKFORCE                   | Human resource management             | Health and safety management                  | Inclusion and diversity                      |  |
|               | WORKERS IN THE VALUE CHAIN      | Human rights                          | Access to equal opportunities                 | Reward/employment conditions                 | Wage taxes & incentives  |
|               | AFFECTED COMMUNITIES            | Community relations                   | Indigenous communities' rights                |  |  |
|               | CONSUMERS & END-USERS           | Data Privacy & information security   | Product access and safety                     | Privacy and access to information            |  |
| GOVERNANCE    | BUSINESS & CONDUCT              | ESG Strategy & Governance             | Nomination diversity & remuneration of boards | Internal controls                            | Tax policy, tax governance & transparency. Board remuneration. |
|               |                                 | Ethical Conduct & Culture             | Corruption and bribery                        | Political engagement and lobbying activities |  |



[5] <https://corporatefinanceinstitute.com/course/materiality-assessment/>



# GETTING STARTED

*Starting on the ESG journey can be daunting, but with the right tools, SMEs can systematically integrate sustainability practices into their operations.*



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Starting on the ESG journey can be daunting, but with the right tools, SMEs can systematically integrate sustainability practices into their operations. One useful resource to guide SMEs is the Enterprise Singapore Sustainability Playbook for Enterprises, as mentioned on [page 29](#).

Below is a list of high-impact initial tasks to help you kick-start your ESG journey.

## 1. Materiality Assessment

Complete a materiality assessment to understand the sustainability issues which are relevant to your business. This means ranking the issues of your business and issues deemed important to your stakeholders, which can be displayed in a matrix like the example on [page 13](#). To do this, we suggest you set up a report for record purposes which can be maintained and developed in the future. In the report, outline what you did and found for each of the following steps:

### Step 1:

Create a list of your business activities & key stakeholders as this will help you on Step 2.

### Step 2:

Write down ESG issues based on your business areas which could expose your business to risk and/or present opportunities.

SASB can be used as a tool for this:

<https://sasb.ifrs.org/standards/materiality-finder/>

### Step 3:

For each ESG issue, score them (for example out of 10) for relevance, risk and opportunity:

- How relevant it is to your business, thinking on:
  - *Does the ESG issue affect your operations or strategy?*
  - *Could the ESG issue be linked to any rules or regulation, reputational or financial risk?*
  - *Does the ESG issue present any opportunities for cost savings, innovation, or opportunities to differentiate from your competitors?*
- The level of risk it could have on to your business.
- The level of opportunity it could present to your business.

### Step 4:

Identify the material topics by ranking the ESG issues in order of their overall scores, from highest to lowest.



## 2. ESG Due Diligence Checklist

Using the materiality assessment above, and ESG related topics encountered as a business, develop an ESG due diligence checklist. You may use the example provided on [page 20](#) as a starting point. View this as an internal document for now, so including difficult questions can be beneficial.

## 3. Carbon Footprinting

Start estimating your carbon footprint, by creating a calculation sheet. You can follow the worked through example on [page 22](#), focusing on **“Part 1: Setting the baseline and validating it”** to start with. The most useful elements of this is understanding where your biggest emissions are.

Further enhancement: you may go further by following Part 2 and Part 3, to set reduction targets, monitoring and reporting if you wish.

## 4. Prepare Reporting

It could be useful to have external versions of the above 3 tasks ready for sharing to clients. This will demonstrate your preparedness in addressing ESG matters. You will wish to review what you divulge to clients, and choose to hold back on ESG issues you are still establishing. However, transparency is important for what you do provide.

## 5. Revisit Annually

Update the above reporting each year, considering developments in the business. Unless there is a change of business, the materiality assessment will still be valid, and the due diligence checklist and carbon footprint might just need updating. You may also wish to take further action to improve the business’s position on certain ESG issues or such as reducing your carbon footprint.





# QUICK WINS

*ESG improvements are not always costly or complex. There are quick wins that are low-cost, practical, and can make a noticeable impact, especially when benchmarked against competitors.*





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ESG improvements are not always costly or complex. There are quick wins that are low-cost, practical, and can make a noticeable impact, especially when benchmarked against competitors.

Here's a list of ideas:



## ENVIRONMENTAL

- Estimate your carbon footprint.
- Switch to energy-efficient lighting/consider renewable energy sources.
- Track and reduce energy and water usage.
- Go paperless (or reduce printing).
- Reduce waste and improve recycling.
- Choose vendors with better environmental practices or credentials.



## SOCIAL

- Improve employee wellbeing such as flexible working hours, regular check-ins or mental health support.
- Develop a simple Code of Conduct to clarify expectations in the workplace around respect, diversity, inclusion, and fair treatment.
- Support the local community such as by giving employees time to volunteer or sponsoring an event.
- Conduct an anonymous staff feedback survey and review findings to spot issues early and show responsiveness.



## GOVERNANCE

- Complete an initial materiality assessment, identifying the sustainability issues most important to your business.
- Complete an ESG due diligence checklist, to obtain and record your understanding of your practices.
- Create a basic ESG or sustainability policy, which could just show intent and direction to start with.
- Assign ESG responsibilities to someone in the business.
- Ensure policies on anti-corruption, data privacy, and ethics are in place, which could be adapted from templates to begin with.
- Start ESG reporting to summarise actions in a short internal or public-facing document once a year.
- Review supplier contracts, adding basic ESG expectations (e.g., no child labour, ethical sourcing).

# ESG DUE-DILIGENCE CHECKLIST





# ESG DUE-DILIGENCE CHECKLIST

## GENERAL

- ☐ How many years has your business been operating?
- ☐ Where is your business headquartered?
- ☐ Does your business operate in multiple countries? If yes, please list out the countries you operate in.
- ☐ What is the total headcount of your business?
- ☐ Does your business use sub-contractors? If yes, please list who these are and where are they located.
- ☐ Is your business audited by a third party?

## ENVIRONMENTAL

- ☐ Has your business conducted a baseline assessment of its carbon/GHG footprint and implemented any measures to make any reductions? E.g. switching to renewable energy.
- ☐ Has your business calculated any of its Scope 1, Scope 2 and / or Scope 3 GHG emissions?
- ☐ Does your business report any ESG metrics, e.g. carbon/GHG emissions, diversity etc.?
- ☐ Has your business set any targets for reduction of carbon/GHG emissions? If so, do you have a process in place to monitor these and are you making any progress against targets?
- ☐ Are you aware of your business being exposed to any significant climate-related physical and transition risks as a result of the sector or geography that it operates?
- ☐ Does your business take responsibility for the environmental impact of its products throughout their lifecycle?
- ☐ Does your business have a policy for reducing landfill waste, e.g. avoiding single-use items, enhancing recycling?
- ☐ Does your business take any actions to ensure where it uses any packaging, that is sustainable?
- ☐ Has your business faced any environmental issues within its supply-chain within the past 5 years?

## SOCIAL

- ☐ Has there been any significant employee turnover in your business in the past 3 years? If yes, what has been the main reason behind it?
- ☐ Does your business have any policies or procedures in place to identify, assess, and address risks across the organisation and in its supply chain concerning human rights, labour standards, and modern slavery or human trafficking? E.g. does the company comply with International Labor Organisation standards?
- ☐ How do you/does your business ensure all staff employed are treated fairly?
- ☐ How do you/does your business ensure the health and safety of your employees?
- ☐ How do you/does your business ensure the workplace is free from bullying and harassment?
- ☐ Does your business have a DEI (diversity, equity and inclusion) policy?

## GOVERNANCE

- ☐ Does your business have an ESG policy?
- ☐ Does your business have a sustainability report or make any sustainability disclosures?
- ☐ Have you, your business or anyone involved in your business ever been convicted or subject to penalties from non-compliance with legal or regulatory frameworks?
- ☐ Does your business obtain any environmental or social certifications?
- ☐ How do you ensure your business is conducted ethically including the prevention of bribery, fraud and conflicts of interest? Do you have a written policy?
- ☐ Is your business located in a jurisdiction with extensive regulations for environmental risks and health and safety?
- ☐ Has your business been in any form of adverse news?
- ☐ Does your business have an IT and cyber security policy?

Using this checklist as an 'internal only' starting point means that you can consider how you might respond to some of the more difficult questions before you go public with your sustainability strategy. Below are some common 'red flags' to consider as you work through the checklist, based on the answers you provide.



### **The business has no ESG policy**

- A lack of transparent ESG policies will make it difficult to assess the potential social and environmental risks your business may face.



### **There is evidence of greenwashing**

- A business may promote itself using terms like 'green,' 'eco-friendly,' 'sustainable,' 'organic,' or 'fair trade' without providing credible evidence, certifications, or transparent reporting to support these claims. It may also use packaging or branding that gives a misleading impression of environmental responsibility, even when its actual practices do not align.



### **There are no specific employee policies or there are questionable labour practices**

- All workers, including those with language barriers or illiteracy, should have a clear understanding of their rights. The information should be communicated to all in a way that they comprehend.



### **Lack of traceability for raw materials, goods, or products**

- Your company should be able to trace the origin of its products, including all internal production stages and any third-party facilities involved in the process.



# CASE STUDY: CARBON FOOTPRINT CALCULATIONS



# CASE STUDY: CARBON FOOTPRINT CALCULATIONS

"EcoPrint" is an SME which operates a small printing business. Here's how EcoPrint can identify, collect data, measure its emissions and set emission reduction targets.

## Part I: Setting the baseline and validating it

This is a multi-step process that covers the following:

### 1. Define Organisational and Operational Boundaries

- **Organisational Boundary:** Include all operations under EcoPrint's control, such as the main office, printing facility, and delivery vehicles.
- **Operational Boundary:** Focus on direct emissions from delivery vehicles (Scope 1), indirect emissions from purchased electricity (Scope 2), and other indirect emissions from business travel and waste disposal (Scope 3).

### 2. Identify Emission Sources

- **Scope 1:** Fuel combustion from delivery vehicles.
- **Scope 2:** Electricity consumption for office lighting, computers, and printing machines.
- **Scope 3:** Emissions from business travel (e.g. flights, car rentals), waste disposal, and supply chain activities (e.g. paper and ink production).

### 3. Collect Relevant Data

- **Fuel Consumption:** Record fuel purchases for delivery vehicles
  - Assume: 5,000 litres of diesel per year.
- **Electricity Usage:** Gather electricity bills for the office and printing facility.
  - Assume: 70,000 kWh per year (50,000 kWh for office and 20,000 kWh for printing equipment).
- **Business Travel:** Track travel logs, including distances travelled and modes of transportation.
  - Assume: 10,000 km by car (petrol) and 5,000 km by air travel.
- **Waste Disposal:** Maintain records of waste disposal volumes and methods.
  - Assume: 10 tons of waste sent to landfill.
- **Supply Chain:** Collect data on the amount of paper and ink purchased.
  - Assume: 20 tons of paper purchased.



## 4. Apply Emission Factors

- Use emission factors from reliable sources such as the GHG Protocol, International Energy Agency for electricity and United Kingdom's DEFRA factors to convert activity data into GHG emissions. Alternatively use: [My climate carbon footprint calculator](#) or Carbon Trust calculator.
- All units need to be converted to a common measurement, such as metric tons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e).

## 5. Calculate Emissions

- **Scope 1:** Enter details into free online Calculation Tool, such as MyClimate Calculator. This will apply the correct emission factors and provide a total CO<sub>2</sub>.
- **Scope 2:** Enter electricity usage to calculator which will apply the emission factor for the local electricity grid and provide a total CO<sub>2</sub>.
- **Scope 3:** Enter details for business travel, waste disposal, and supply chain activities into the calculation tool which will apply the correct emission factors and provide a total CO<sub>2</sub>.

The screenshot shows the MyClimate website's car emissions calculator. At the top, there's a navigation bar with links for Career, About us, Contact, and Global English. Below this is a progress bar with three steps: Calculate (active), Choose, and Pay. The main heading is "CO<sub>2</sub> emissions calculator for your car". The instructions say: "Calculate your car carbon emissions and make a contribution to climate protection:". The form includes fields for "Distance traveled" (10000 km) with increment/decrement buttons, "Fuel type" (Petrol), and "Fuel consumption" (6.83 Liters/100km). A checkbox is checked for "I know the consumption amount and I want to enter it directly.". Under "Car Type", "Compact car" is selected. A pink "CALCULATE" button is present. The results section, titled "Your Trip:", shows "Calculation of a distance of 10,000 km, Fuel: Petrol" and "CO<sub>2</sub> amount: 2.8 t".

myclimate  
shape our future

Career About us Contact Global English

Calculate Choose Pay

### CO<sub>2</sub> emissions calculator for your car

Calculate your car carbon emissions and make a contribution to climate protection:

Distance traveled

10000 km

+1000 +500 +100 =0

Fuel type

Petrol

Fuel consumption

6.83 Liters/100km

☒ I know the consumption amount and I want to enter it directly.

Car Type

☒ Compact car

☐ Mid-range car

☐ Luxury / SUV / Van

**CALCULATE**

Your Trip:

Calculation of a distance of 10,000 km, Fuel: Petrol

CO<sub>2</sub> amount: 2.8 t

## Calculations of EcoPrint Carbon Footprint

- **Scope 1 (Direct Emissions)**
  - *Delivery Vehicles:*  $5,000 \text{ litres} \times 2.68 \text{ kg} \mid \text{CO}_2/\text{litre} = 13,400 \text{ kg CO}_2$
- **Scope 2 (Indirect Emissions)**
  - *Electricity Usage:*  $70,000 \text{ kWh} \times 0.5 \text{ kg} \mid \text{CO}_2/\text{kWh} = 35,000 \text{ kg CO}_2$
- **Scope 3 (Other Indirect Emissions)**
  - *Car Travel:*  $10,000 \text{ km} \times 6.83 \text{ litres}/100 \text{ km} = 2,800 \text{ kg CO}_2$
  - *Air Travel:*  $5,000 \text{ km} \times 0.15 \text{ kg CO}_2/\text{km} = 750 \text{ kg CO}_2$
  - *Waste Disposal:*  $10,000 \text{ kg} \times 1.2 \text{ kg CO}_2/\text{kg} = 12,000 \text{ kg CO}_2$
  - *Paper Production:*  $20,000 \text{ kg} \times 1.5 \text{ kg CO}_2/\text{kg} = 30,000 \text{ kg CO}_2$
  - *Total Scope 3 Emissions:*  $2,800 \text{ kg CO}_2 + 750 \text{ kg CO}_2 + 12,000 \text{ kg CO}_2 + 30,000 \text{ kg CO}_2 = 45,550 \text{ kg CO}_2$
- **Total Emissions:**
  - *Scope 1:*  $13,400 \text{ kg CO}_2$
  - *Scope 2:*  $35,000 \text{ kg CO}_2$
  - *Scope 3:*  $45,550 \text{ kg CO}_2$
  - *Total Emissions:*  $93,950 \text{ kg CO}_2$

*Use these emissions as the baseline. For simplicity purposes, only CO<sub>2</sub> sources are considered for the case study.*

## 6. Validate and Verify Data

- **Internal Review:** Conduct an internal review of the collected data and calculations to ensure accuracy.
- **External Validation:** Consider third-party validation to verify the baseline emissions. This adds credibility and ensures compliance with standards.

## Part II: Setting reduction targets, identifying actions to achieve them

Develop emission reduction targets by following these steps:

### Rank Contributors to Emissions Inventory

- **Identify Major Sources:** Analyse the emissions inventory to determine the largest contributors. For EcoPrint, this will be Scope 2 emissions from electricity consumption and Scope 3 emissions from supply chain activities.
- **Prioritise:** Rank these sources based on their impact on total emissions. Focus on the top contributors first.



## Identify Possible Actions

- Scope 1: Fuel Combustion
  - Upgrade Vehicles: Consider investing in fuel-efficient or electric delivery vehicles.
  - Optimise Routes: Use route optimisation software to reduce fuel consumption.
- Scope 2: Electricity Consumption
  - Energy Efficiency: Upgrade to energy-efficient lighting and equipment.
  - Renewable Energy: Switch to renewable energy sources for office electricity.
- Scope 3: Business Travel, Waste Disposal, Supply Chain
  - Business Travel: Encourage virtual meetings and choose lower-emission travel options.
  - Waste Management: Implement recycling programs and reduce waste generation.
  - Supply Chain: Source sustainable materials and engage suppliers in sustainability initiatives.

## Set Reduction Targets

- Bottom-Up Approach: Calculate potential emission reductions from each action. Set realistic targets.
- Example Targets:
  - *Scope 1: Reduce fuel combustion emissions by 20% within 5 years or transition to electric delivery vehicles within 10 years.*
  - *Scope 2: Achieve a 15% reduction in electricity consumption emissions within 5 years.*
  - *Scope 3: Reduce emissions from business travel, waste disposal, and supply chain activities by 10% within 5 years.*
- Guidance Around Developing Targets:
  - Engage Stakeholders: Involve key stakeholders in the target-setting process to ensure buy-in and relevance.
  - Use Science-Based Methods: Where possible, align targets with science-based methods to ensure they are ambitious and credible.
  - Consider Feasibility: Ensure that targets are realistic and achievable given the company's resources and capabilities.
  - Set Short-Term and Long-Term Goals: Establish both short-term (e.g., 1-2 years) and long-term (e.g., 5-10 years) targets to ensure continuous improvement.
  - Review and Revise: Regularly review and revise targets based on progress and changing circumstances.

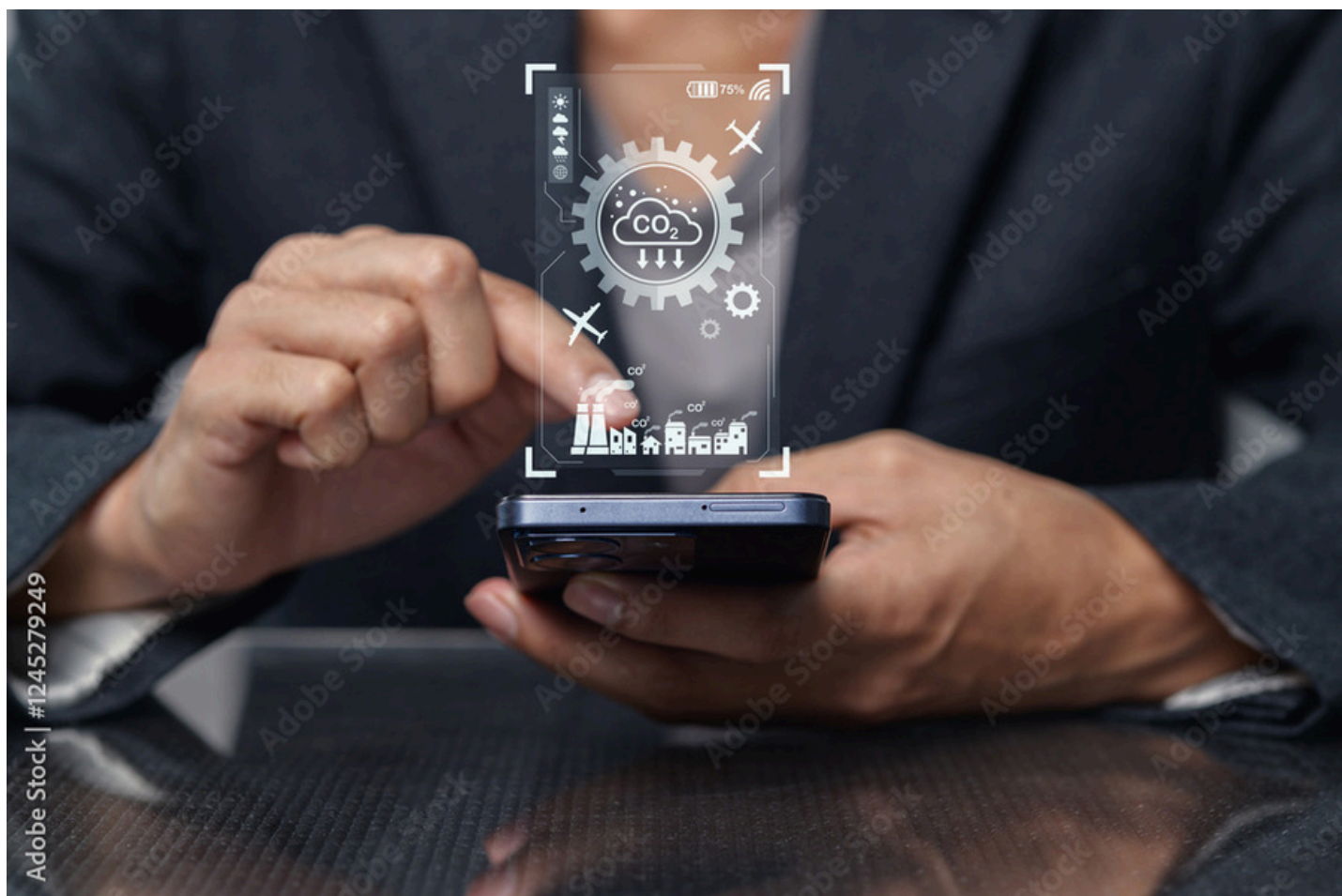
## Part III. Monitoring and reporting

### Track Progress:

- Establish procedures for regular data collection, assign responsibilities to team members, and set a timeline for reporting.
- Regularly monitor emissions and progress towards targets. Use key performance indicators (KPIs) to measure success.
- Adjust Actions: If certain actions are not yielding expected results, adjust strategies accordingly.

### Report:

- Internal Reporting: Share progress with internal stakeholders to keep everyone informed and engaged.
- External Reporting: Consider external reporting to stakeholders, such as customers and suppliers, to demonstrate commitment to sustainability.





# USEFUL TOOLS & REFERENCES



# ANNEX 1: RESOURCES FOR YOU



## Guides

### **Enterprise SG - Sustainability Playbook for Enterprises**

### **SGX Sustainability Knowledge Hub**

### **ACCA - Sustainability reporting SME guide**

### **ACCA and CAANZ – Supporting SMEs to achieve sustainability.**

### **Enterprise Singapore - SME Sustainability Hub**



## Tools to embark on projects for improvements and meeting targets

### **Science-Based Target Initiative (SBTi)**

Understand how to set science-based targets for your sector.

### **SME Climate Hub Tools**

Tools to develop targets, business strategies to meet targets, illustrate reporting needs.

### **ASEAN SME Climate Change Guide**

Tools to assess climate risk, engage management, develop internal monitoring frameworks.

### **Singapore EDB incentives & grants**

Find support for your projects.

### **Singapore Energy Efficiency Grant**

Find support for your projects.

### **Singapore Eco Certifications**

Check if certifications are relevant to your products.

### **Workforce Singapore's Career Conversion Program for Sustainability Professionals**

### **Eden Greenspace**

Non-profit platform for offsetting residual carbon emissions.



## Tools for building awareness

### **ESG Foundation - ESG Healthchecker**

A quick questionnaire to learn the high level ESG concerns and assess how your business fares.

### **List of Sustainability Courses by Enterprise Singapore**

Courses for you and your team to build awareness, such as these sustainability courses by Singapore Institute of Directors:

### **Environmental, Social & Governance Essentials**

### **Advanced Programme on Sustainability for Listed Entity Directors**



## Tools for identifying relevant areas of intervention

### **SASB Materiality Map and Finder**

A quick map to highlight key ESG issue areas based on sectors (the freely accessible map is linked, and there is a more detailed version that requires registered access).

### **ISEAS Annual ASEAN Climate Survey**

Review to understand which markets have consumers who care about climate action.

### **Carbon Trust - Carbon Footprint Calculator for SMEs (more suitable for UK companies)**

Know your GHG emissions footprint, identify emissions hotspots.

### **My Climate Carbon Calculator**

Know your GHG emissions footprint, identify emissions hotspots.

## Sector specific references

### **REAL ESTATE:**

### **Global Real Estate Sustainability Benchmark (GRESB Benchmarking)**

### **LEED Rating System - USGBC**

### **WELL Rating System - IWBI**

### **FMCG:**

### **Enabling SME Resilience in FMCG Supply Chains by PwC**

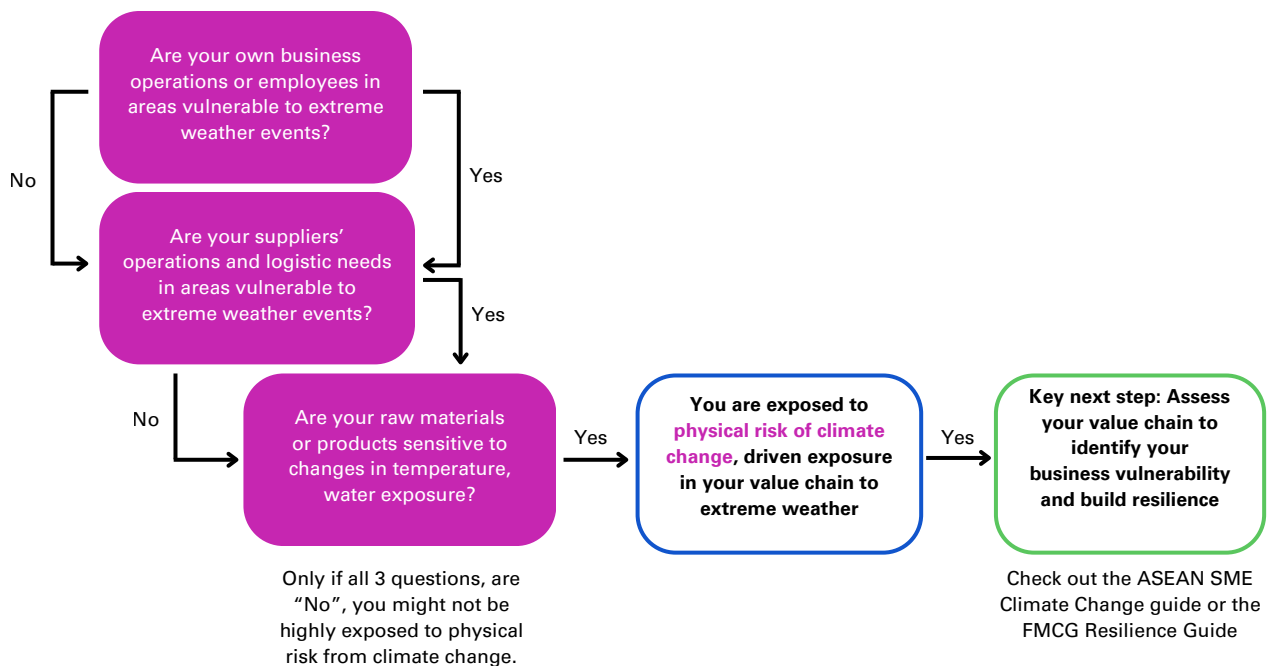
*Note: website links as of 7 July 2025, they may be changed post this date.*



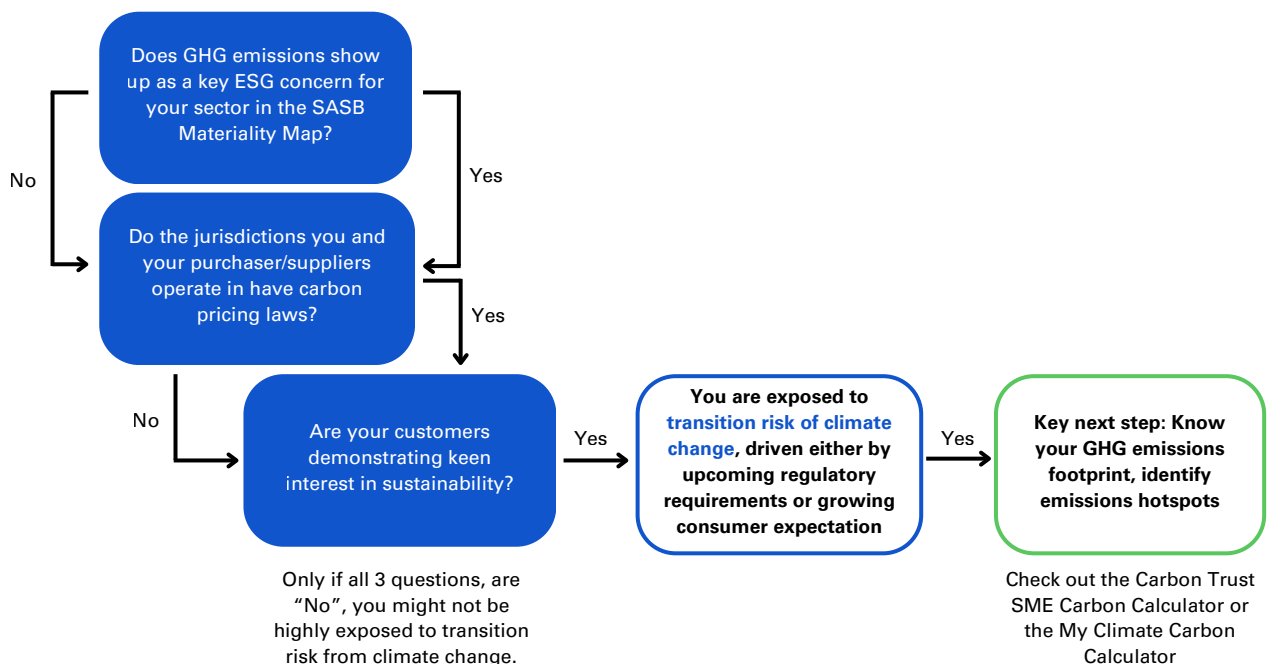
# ANNEX 2: FLOWCHARTS TO IDENTIFY CLIMATE CHANGE RISKS

The charts below may be helpful in navigating the initial ESG issues identified in your materiality assessment to navigate what are important topics to your business and to identifying topics for first step intervention, in particular around climate change.

## Exposure to physical risk



## Exposure to transition risk



# ANNEX 3: ESG PILLARS EXPLAINED

## The E “Environmental”

Under the Environment pillar, carbon emissions, whether direct or indirect, are classified into three categories or "Scopes" (1, 2 and 3) under the Greenhouse Gas (GHG) Protocol set out by the World Resources Institute.

### Scope 1 emissions

are direct GHG emissions from sources that are owned or controlled by the reporting organisation (e.g. fuel combustion in company-owned vehicles or equipment).

### Scope 2 emissions

are indirect GHG emissions from the generation of purchased electricity, steam, heating, or cooling consumed by the reporting organisation.

### Scope 3 emissions

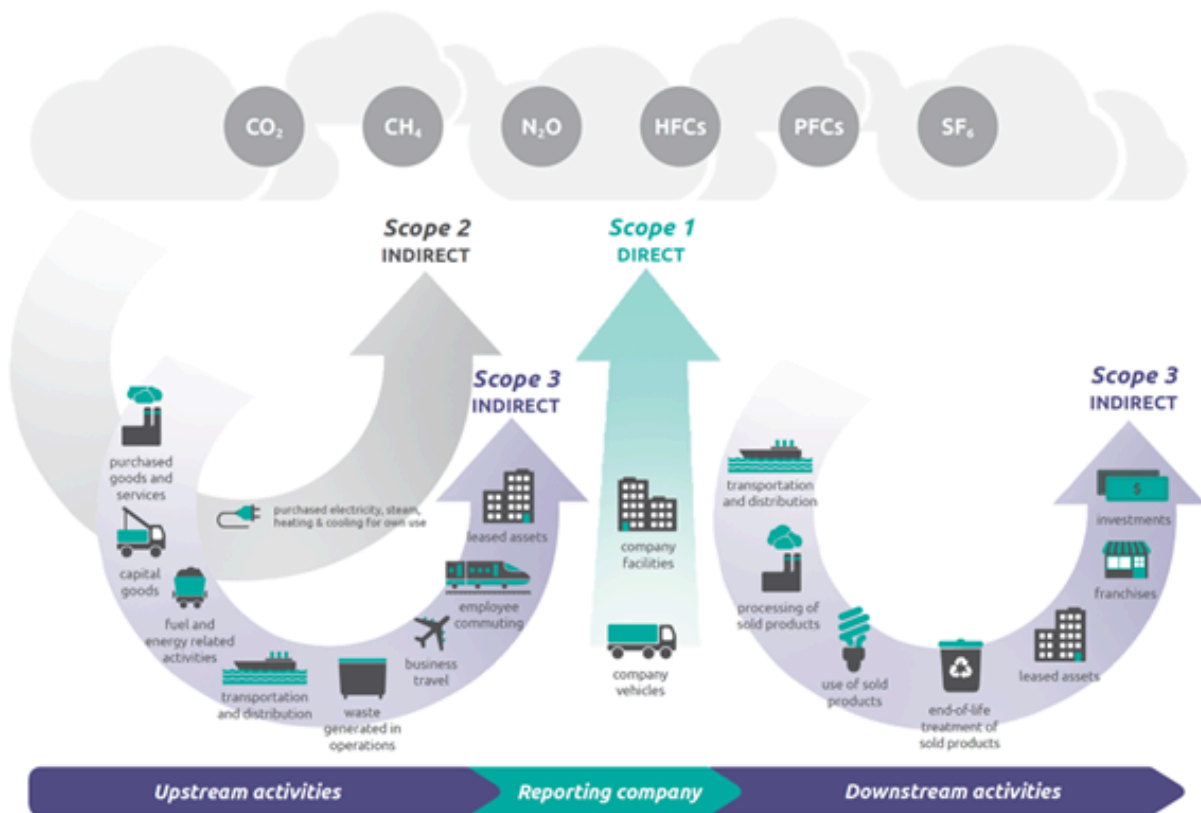
are all other indirect emissions that occur in the value chain of the reporting organisation. These include emissions from purchased goods and services, employee commuting, business travel, waste disposal, and the use of sold products, among others.

For organisations, especially SMEs, beginning their ESG journey, conducting a comprehensive carbon footprint inventory is an essential first step. This includes emissions generated directly by the business as well as those embedded across its supply chain. Such an inventory helps establish a baseline for sustainability reporting, develop roadmaps, and identify meaningful initiatives to reduce environmental impact.

For example, SMEs often find that their largest source of emissions comes from electricity consumption (Scope 2), especially when operating from commercial or industrial buildings. In Singapore, there are many opportunities to improve energy efficiency, such as switching to LED lighting or upgrading to more efficient air-conditioning systems.

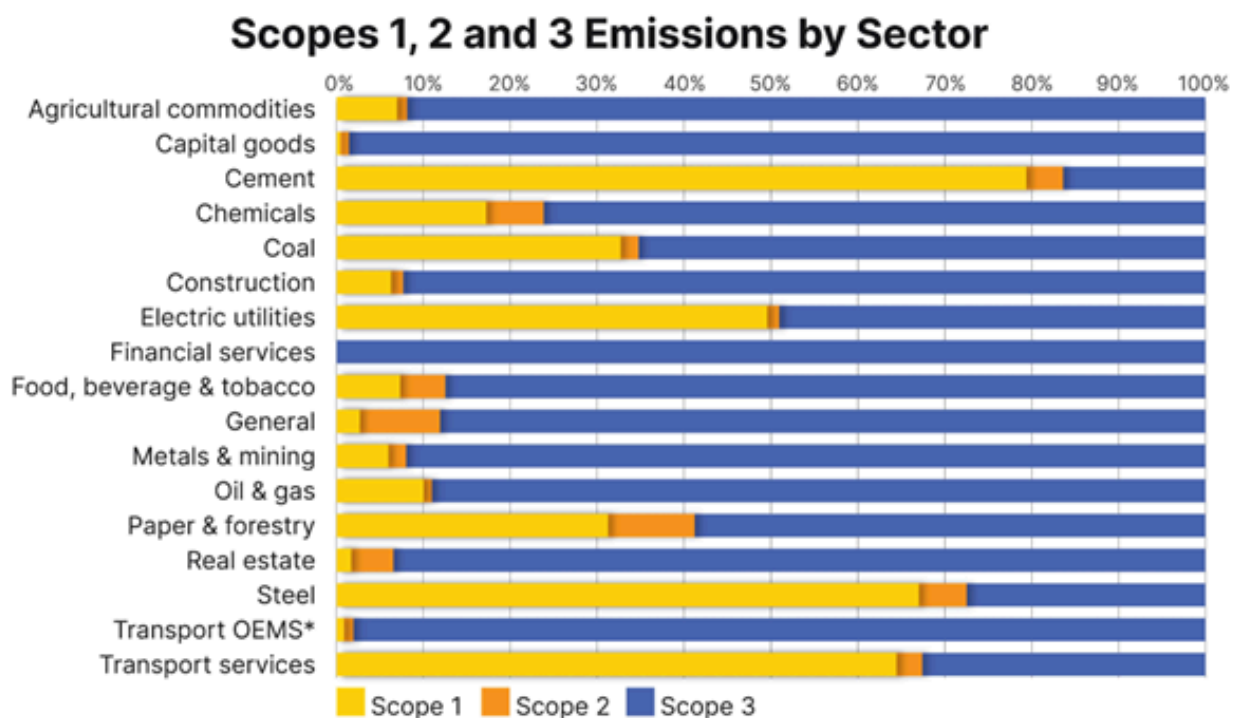
Once an organisation has a clear picture of its emissions across all three scopes, it can begin implementing targeted measures to reduce its carbon footprint. In addition to carbon emissions, other key environmental considerations include water use and waste generation. Both can be addressed through efficiency improvements and circular economy principles, such as the 3Rs: Reduce, Reuse, and Recycle.





Source: [Greenhouse Gas Protocol](#) | [World Resources Institute \(wri.org\)](#)

The percentage mix of scopes 1, 2, 3 vary by sector and industry, as shown in the diagram below. Scope 3 emissions are notoriously challenging to account for and typically a business will focus on Scopes 1 & 2 initially, then take the time to carefully consider Scope 3, possibly with external help.



Source: CDP Technical Note - Relevance of Scope 3 Categories by Sector, January 2023  
 \*Original equipment manufacturing services

IEEFA

## The S “Social”

Under the Social Pillar, companies report on how they manage their relationships with people —both within their organisation and in the broader communities where they operate. This includes their policies and practices related to employee development, labour standards, workplace health and safety, and engagement with local communities.

They report on product liabilities regarding the safety and quality of their product. They also report on their supply chain labour and health and safety standards and controversial sourcing issues. Where relevant, companies are also expected to report on how they provide access to their products and services to underprivileged social groups.

How can a company manage its relationships with its workforce, the societies in which it operates, and the political environment?

This question drives the "S" in ESG investing—highlighting the importance of people, equity, and social impact in sustainable business practices.. A number of social factors can affect a company's financial performance, ranging from short- to long-term challenges:

- How can a company's workforce requirements and composition present problems for the organization in the future? Labour strikes or consumer protests can directly affect a company's profitability by creating a scarcity of skilled employees or controversy that is damaging to a corporation's reputation.
- What risks come with the safety implications of a product or the politics of a company's supply chain? Corporations that ensure their products and services do not pose safety risks, and/or minimise the exposure to geopolitical conflicts in their supply chains, tend to face less volatility in their businesses.
- What future demographic or consumer changes could shrink the market for a company's products or services? Complex social dynamics, from surges in online public opinion to physical strikes and company boycotts by different groups, affect long-term shifts in consumer preferences. Decision-makers can consider these as important indicators of the company's potential.



## The G “Governance”

Under the Governance Pillar, Corporate Governance is the process and structure for overseeing the business and management of a company. Corporate governance has become more complex as the scale and complexity of companies have grown and as ownership has become more dispersed.

As a result, the role of the board of directors has become more important. The board is responsible for representing the owners of the company and for holding management teams accountable for running the business in the interest of its owners. The effectiveness of the board depends on whether good corporate governance practices are applied. Increasingly, investors are expecting companies to disclose their corporate governance structures and processes so that external investors and other stakeholders can understand where the company stands on the spectrum of good governance.

In practice, corporate governance comes down to two A's: **accountability** and **alignment**.

As governance at its core is about people, the key to exercising effective governance is having the right people with relevant skills and experience around the boardroom table, as well as having the right board culture to enable each of them to contribute effectively to boardroom debate.

Good practices for the Governance Pillar:

- Have policies and procedures implemented, e.g. *Code of Conduct, Ethics Policy, Terms of Reference etc.*
- Fair and transparent executive pay, e.g. *an established policy.*
- Board independence and expertise, e.g. *what is your board composition.*

Common issues relating to governance:

- Bribery and corruption.
- Executive pay.
- Board diversity and structure.
- Trade association, lobbying and donations.
- Tax strategy.

How do Boards embed sustainability into their company's operations?

- Consider sustainability issues as part of a company's strategic formulation.
- Determine the material ESG factors.
- Oversee the management and monitoring of the material ESG factors.

The board's close interaction with management will enable the board to satisfy itself on the way sustainability governance is structured and functioning through the various levels of management. The board has ultimate responsibility for a company's sustainability reporting.



THE BRITISH CHAMBER OF COMMERCE SINGAPORE HAVE BEEN FOCUSING ON MAKING PROGRESS TOWARDS CARBON NEUTRALITY, HOLDING SECTOR-SPECIFIC SUSTAINABILITY CONVERSATIONS, WORKING WITH PRIVATE AND PUBLIC SECTOR ORGANISATIONS TO SUPPORT WORK IN THIS AREA.

FIND OUT MORE: **[NETZERO.BRITCHAM.ORG.SG](https://netzero.britcham.org.sg)**



The **Sustainability Guidebook for SMEs** is developed as part of the British Chamber of Commerce Singapore Sustainability Initiative