

In collaboration with  
Kearney and Observer  
Research Foundation



# Decarbonizing Supply Chains: A Scope 3 Playbook for India

WHITE PAPER

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# Contents

Foreword	03
Executive summary	04
Introduction	05
1 Decarbonizing supply chains: Challenges in India	11
2 Scope 3 emissions reduction: A playbook for India	15
A holistic framework for Scope 3 emissions reduction	16
2.1 Step 1: Create Scope 3 baseline and develop data strategy	17
2.2 Step 2: Set science-based and business targets	20
2.3 Step 3: Develop upstream/downstream carbon reduction strategy	21
2.4 Step 4: Define organizational enablers	30
2.5 Step 5: Build roadmap and business case	33
3 Enabling the Scope 3 transformation: Ten imperatives for government action	35
Conclusion	40
Contributors	41
Endnotes	42

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# Foreword



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In an era defined by global interconnectivity and growing environmental concerns, the imperative to address climate change has never been more pressing. The journey towards decarbonization is not merely a moral or environmental obligation, but is essential for securing the collective future of humankind. The global challenge of climate change calls for collective and concerted action, transcending geographical boundaries and industry sectors. At this pivotal juncture in human history, it is evident that the path forward must be one guided by sustainability and environmental stewardship. In this endeavour, the role of businesses and supply chains cannot be overstated.

This report by the World Economic Forum, Kearney and Observer Research Foundation (ORF) presents a vital blueprint for Indian businesses, policy-makers and stakeholders. It underscores the critical importance of tackling Scope 3 emissions, which constitute a significant proportion of a company's carbon footprint but often remain unaddressed due to their complex, interconnected nature.

Specifically, given India's rapid industrialization and its burgeoning economy, the need to align

economic growth with environmental responsibility has never been more pronounced. This report reflects our commitment to equipping Indian organizations with the knowledge, strategies and tools needed to navigate the multifaceted challenge of decarbonizing their supply chains. We firmly believe that businesses in India can play a transformative role in reducing emissions and fostering a sustainable future for the world.

The journey to decarbonize supply chains can seem daunting, but it is a journey that businesses must undertake with conviction. By adopting the strategies outlined in this playbook, companies can not only mitigate environmental impacts but also unlock myriad benefits. These include cost savings, enhanced brand reputation and the ability to thrive in an increasingly environmentally conscious global marketplace.

We would like to extend our gratitude to the dedicated researchers, experts and organizations who have contributed their knowledge and insights to this report. Their collective expertise has been instrumental in creating a comprehensive guide that is tailored to the unique challenges and opportunities in India.

# Executive summary

In a world increasingly grappling with the consequences of climate change, the imperative to reduce carbon emissions has never been more pronounced. The nexus of business and environmental responsibility, particularly in the context of supply chains, forms a critical battleground in the fight against climate change. This report by the World Economic Forum, Kearney and Observer Research Foundation represents a pioneering and comprehensive effort to guide Indian businesses, policy-makers and stakeholders in the ambitious journey to reduce Scope 3 emissions – a category of emissions that has often eluded concerted action.

The playbook is anchored in the belief that, in a rapidly developing country like India, businesses have the power to be the architects of both economic growth and environmental transformation. Indian companies face a range of challenges in their Scope 3 decarbonization agenda, including the preponderance of small and medium-sized suppliers who lack awareness of the topic; the lack of proper data management systems; and the relatively nascent maturity of the Scope 3 concept in the country.

The framework laid out in this report is designed to empower Indian companies to understand, quantify and reduce their Scope 3 emissions in a structured and strategic manner. This playbook is based on the principles of sustainability, environmental responsibility and ethical procurement practices, and is tailored to India's unique context.

The framework includes the following five steps:

- 1. Create a Scope 3 baseline and develop a data strategy:** A solid, comprehensive baseline forms the foundation for the Scope 3 journey. Businesses must understand the sources and categories of emissions across the value chain. Simultaneously, they must develop a robust data strategy that outlines how data on Scope 3 emissions will be collected, measured and reported. Accurate data is the bedrock of informed decision-making.
- 2. Set science-based and business targets:** Businesses must establish clear and ambitious emissions reduction targets and align them with global climate goals and their own sustainability goals. A balance between science-based goals

and those that make business sense is essential to drive commitment and ensure long-term compliance.

- 3. Develop an upstream/downstream carbon reduction strategy:** Businesses must identify strategic, high-priority areas for emissions reduction within the supply chain. This entails collaboration with supply chain partners to align efforts, promote sustainable practices and minimize emissions collectively.
- 4. Define organizational enablers:** To ensure successful implementation, businesses must identify and put in place the necessary enablers – governance, technology, communication, talent management, and policies and processes.
- 5. Build a roadmap and a business case:** Having taken the preceding steps, businesses must construct a clear and actionable roadmap that outlines the steps, milestones and timelines for achieving their Scope 3 emissions reduction targets. Along with the roadmap, they must craft a compelling business case that highlights the financial, environmental and reputational benefits of pursuing Scope 3 emissions reduction.

The journey to decarbonize supply chains is not a solitary one. It requires the collaboration of businesses, governments, non-governmental organizations and the broader community. In particular, the government can play a pivotal role in driving Scope 3 emissions reduction by laying out a clear policy and regulatory framework, driving public awareness, offering financial incentives/ support to emissions reduction projects, driving public procurement leadership, supporting research and development (R&D), enabling collaboration and partnerships, supporting capacity building and knowledge transfer, ensuring long-term policy certainty and ensuring global commitment and support to the Scope 3 agenda.

The Scope 3 emissions reduction journey holds the promise of not only reducing carbon emissions but also ushering in a future where business prosperity and environmental stewardship are mutually reinforcing. Together, Indian businesses can decarbonize supply chains and help build a sustainable, resilient and thriving future for India and the world.

# Introduction

## Mission 2070: The India net-zero roadmap

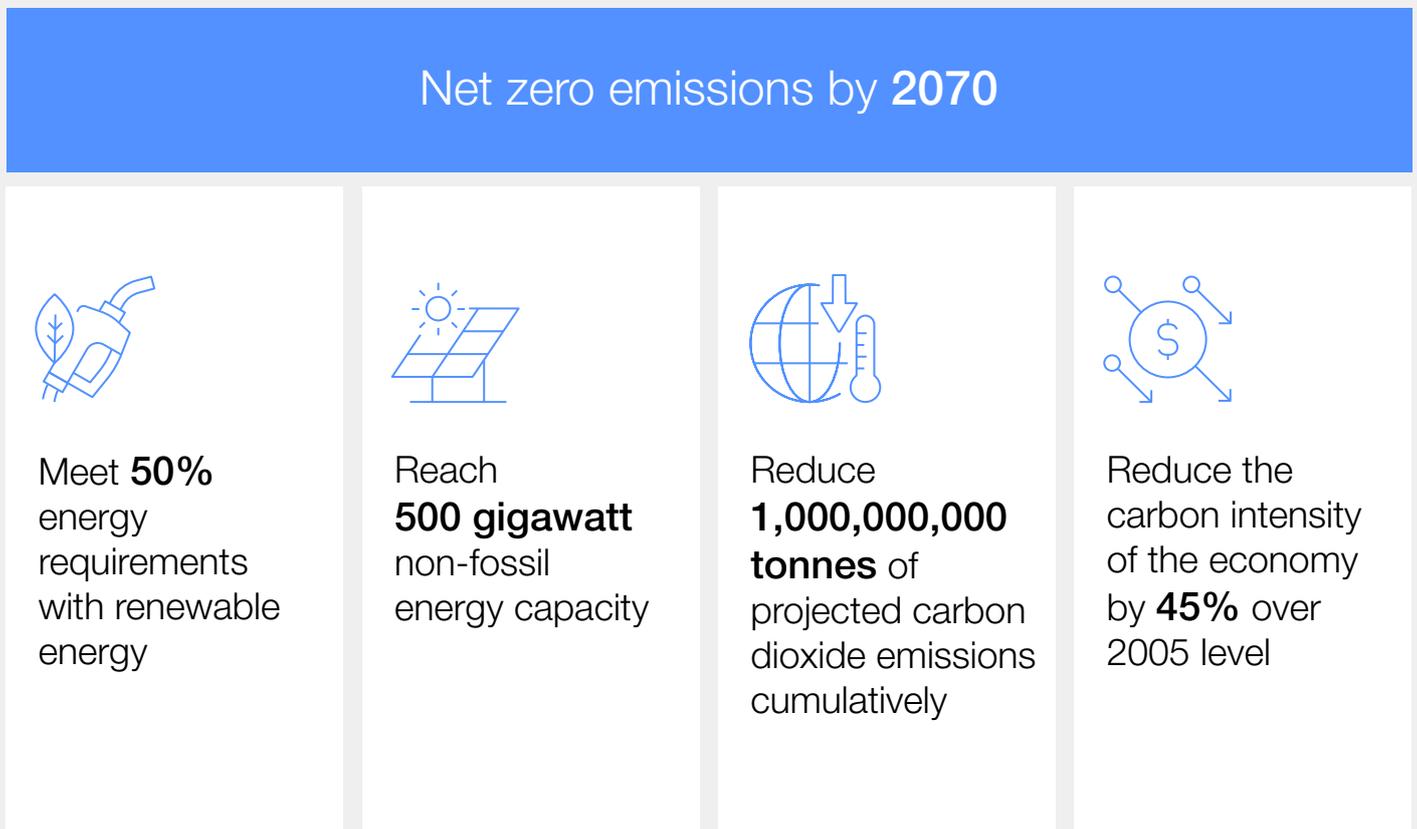
India is in a phase of rapid planned development. As the country grows richer, its energy and material consumption grow as well. On its current trajectory, this growth could imply a significant expansion of India's greenhouse gases (GHG) footprint – something that neither India nor the world can afford. However, this is not a given. Unlike most developed nations whose growth over the past many decades has been built on high GHG-footprint infrastructure, India has a unique opportunity to leapfrog this journey through low/no emissions technologies.<sup>1</sup> India's LED (light emitting diode) programme that replaced incandescent bulbs with more energy-efficient LED bulbs for a large population is a good example of the country leaping ahead with cleaner technology.

India today has an opportunity to take bold action to enable economic prosperity and avert the worst

impacts of the changing climate. Supported by the right economic framework, these actions can put India – and the world – on a path to realizing strong, equitable and shared growth.

In line with this objective, the government of India set a target to achieve net zero emissions by 2070 at the United Nations' climate change conference, the 26th Conference of Parties (COP26) in Glasgow in 2021. To align the nation's efforts with the declared goal, the government updated its Nationally Determined Contribution (NDC), which it had initially submitted to the United Nations Framework Convention on Climate Change (UNFCCC), to reflect four carbon and energy milestones that it aims to achieve by 2030 on the road to net zero emissions by 2070. Together, these five goals are referred to as "Panchamrit", or "five nectar elements".<sup>2</sup>

FIGURE 1 Panchamrit: India's net zero by 2070 target and four key milestones for 2030

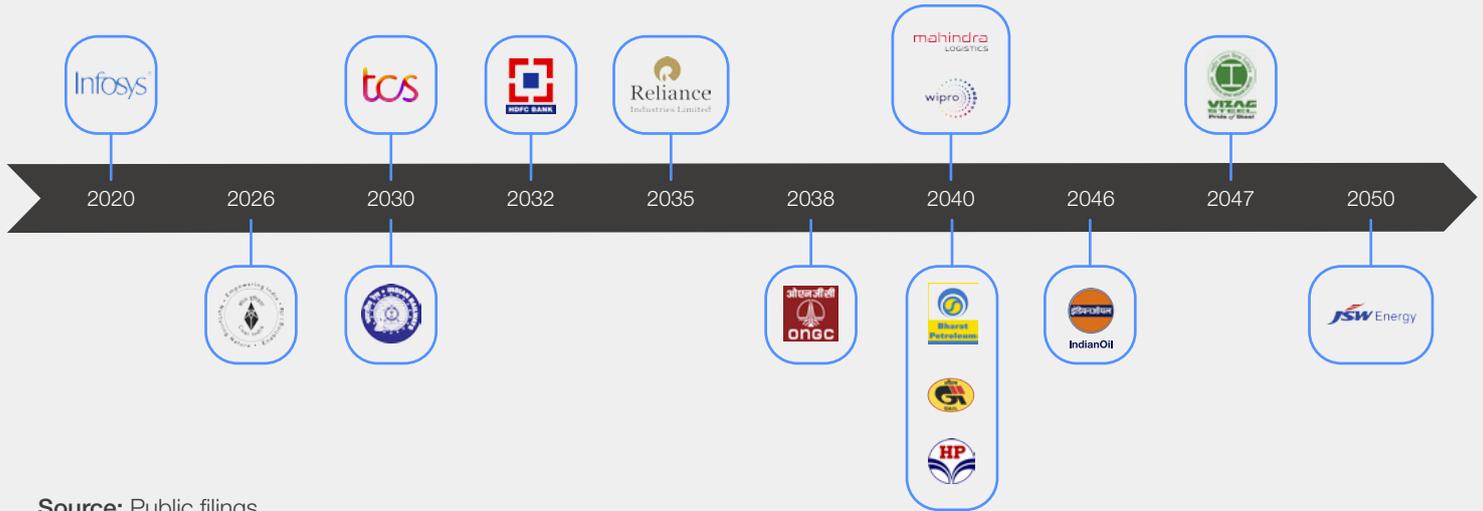


Source: Press information Bureau.

The government's commitments are already reflected in the targets of Indian public sector undertakings (PSUs) and state-controlled organizations. For instance, the Indian Railways, which contributes 4% of India's total transportation emissions,<sup>3</sup> has pledged to achieve net zero emissions by 2030.<sup>4</sup> Similarly, other PSUs such as Bharat Petroleum, Coal India, Gas Authority of India, Hindustan Petroleum, Indian Oil, Oil and Natural Gas Corporation and Rashtriya Ispat Nigam have declared their own net zero targets.<sup>5</sup>

In India's private sector, while many corporate leaders such as Adani Transmission, HDFC Bank, JSW Energy, Mahindra Group, Reliance, TCS and Wipro have already set and published net zero targets, the Scope 3 element of these targets is not always consistently framed.<sup>6</sup> While the Indian government has not yet mandated any sector or group of companies to set specific emissions reduction targets, more and more Indian companies are expected to announce net zero targets thanks to growing pressure from both investors and global buyers.

FIGURE 2 Net zero target timeline for select Indian companies



Source: Public filings.

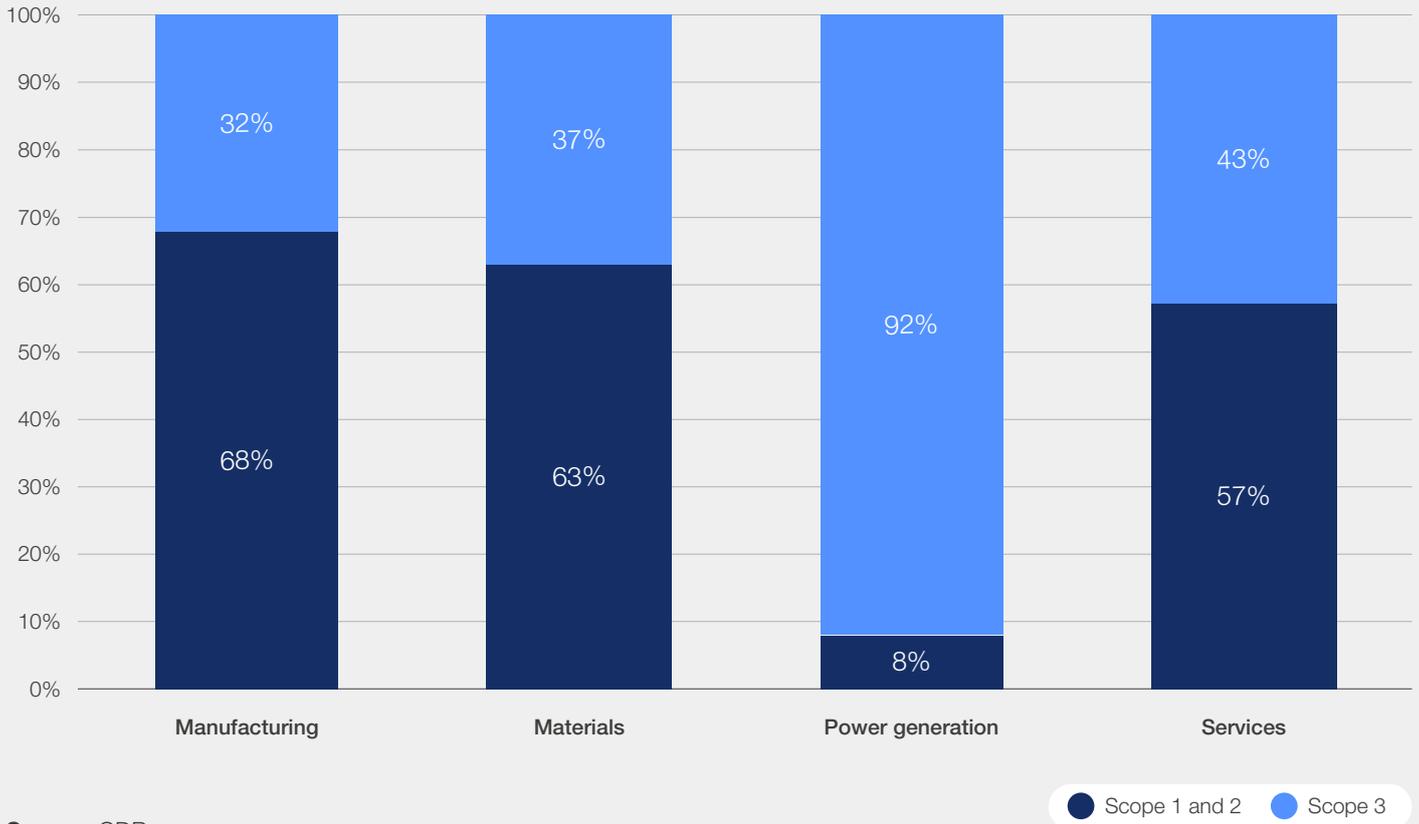
## Scope 3 emissions reduction: The Indian context

Scope 3 emissions refer to emissions caused during the indirect upstream and downstream operations in a company's value chain.<sup>7</sup> These are often the largest part of an organization's carbon footprint and tend to be the hardest to account for and manage, as they fall outside of the organization's direct control. Accounting for Scope 3 emissions requires detailed

information collecting and sharing exercises with suppliers and distributors whose direct emissions contribute to a company's Scope 3 emissions.

As Scope 3 emissions include the direct emissions of all supply chain partners, they constitute a significant share of total emissions across industries.

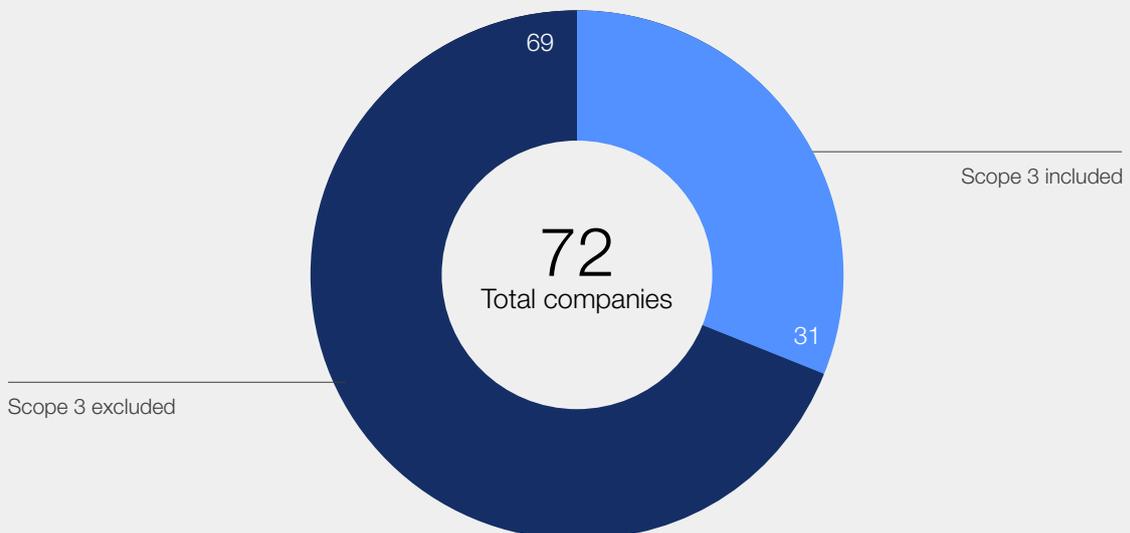
FIGURE 3 | Percentage breakup of industry-level emissions



The proportionate contribution of Scope 3 emissions to total emissions makes a compelling case for the use of Scope 3 emissions reduction as a significant lever to reach companies' net zero targets. However, carbon disclosure data

suggests that Indian companies do not yet actively report Scope 3 emissions. Of all the Indian companies reporting emissions data to the Carbon Disclosure Project (CDP), only 31% report Scope 3 emissions.

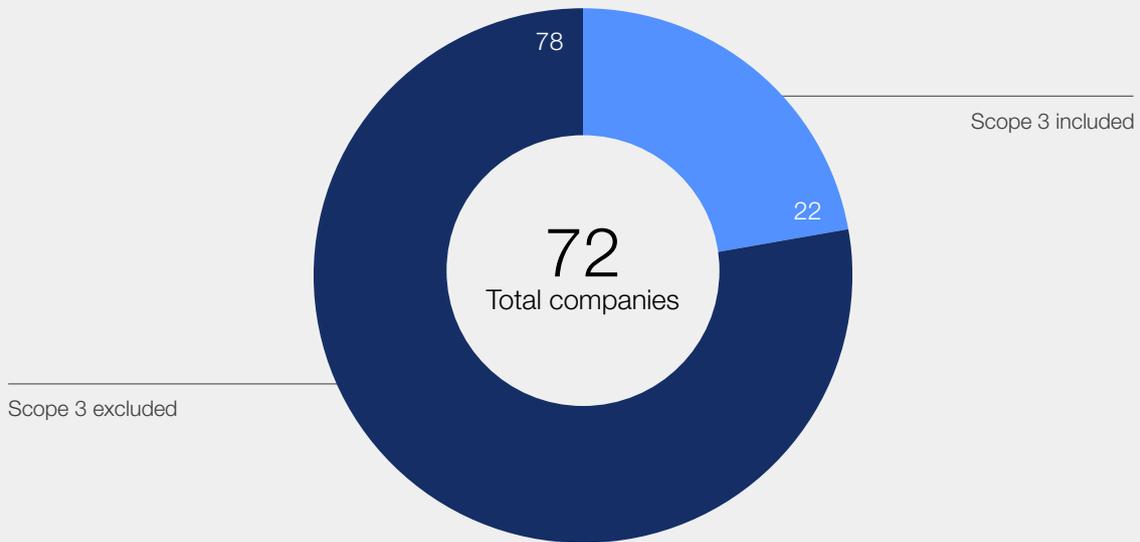
FIGURE 4 | Percentage of Indian companies that include Scope 3 in emissions reports



Within this set, only 22% of companies that report emissions data have set scope 3 targets compliant with the Science Based Targets initiative (SBTi). This lack of measuring, reporting and targeting of Scope 3

emissions leads to alternative interpretations of net-zero targeting. This is significant particularly because most of the Indian energy PSUs that have set net-zero targets have only accounted for Scope 1 and 2 emissions.

FIGURE 5 Percentage of Indian companies that have Scope 3 in SBTi targets

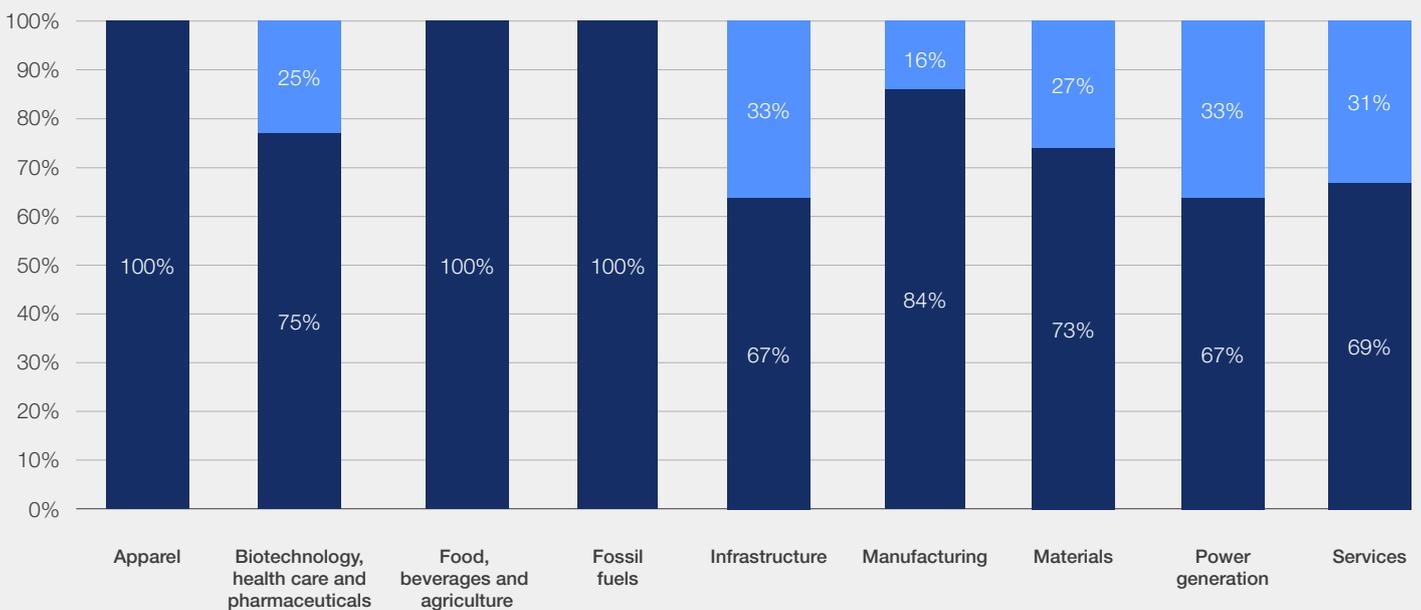


Source: CDP.

Most Indian companies in the apparel, food and beverages, agriculture and fossil fuel-based energy sectors either do not report or report partially on their Scope 3 emissions.<sup>8</sup> The infrastructure and power generation sectors have

33% of the companies reporting Scope 3, the highest across sectors. This is followed by the services and materials sectors where 31% and 27% of companies report Scope 3 emissions, respectively.

FIGURE 6 Percentage breakup of Indian companies reporting Scope 3 emissions, grouped by industry



Source: CDP.

● Not reporting ● Reporting

Companies are already under growing investor pressure to demonstrate that they are taking responsibility for their full climate impact,<sup>9</sup> and even countries are facing increasing international pressure to be transparent about Scope 3

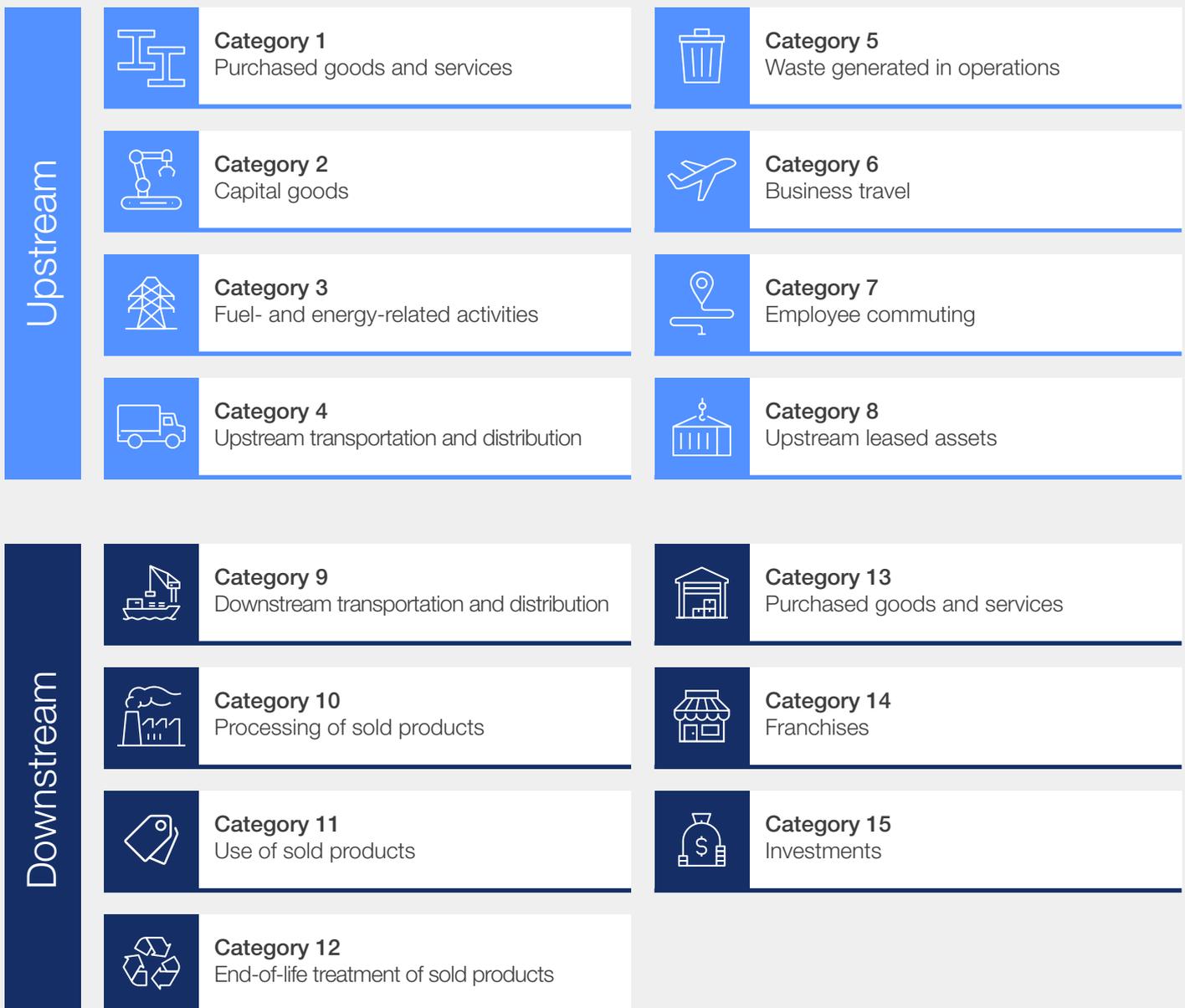
emissions, which may fall outside their direct control but remain within their sphere of responsibility. In this context, it is a critical imperative for companies across industries to frame a proactive approach to Scope 3 emissions reduction.

## The 15 categories of Scope 3: The role of procurement in emissions reduction

The Greenhouse Gas Protocol (GHG Protocol) breaks down Scope 3 emissions into 15 major categories. Categories 1 to 8 deal with upstream emissions while categories 9 to 15 deal with the

downstream emissions in a company's value chain. Each category is clearly defined and precise guidelines are provided on how to assign categories to activities and measure the related emissions.<sup>10</sup>

FIGURE 7 Categories included under Scope 3 emissions



Source: GHG Protocol.

The procurement and sourcing functions of a company are primarily involved in categories 1-4:

- 1. Purchased goods and services:** This category covers emissions resulting from the extraction, production and transportation of the goods and services that the reporting company acquires, which are not otherwise included in categories 2-8.
- 2. Capital goods:** This category covers emissions resulting from the extraction, production and transportation of any capital goods purchased by the reporting company. This category does not allow for amortization of emissions tied to a capital asset; all emissions under this category must be disclosed and accounted for in the year of the acquisition.
- 3. Fuel and energy-related activities:** This category covers emissions resulting from extraction, production and transportation of fuel and energy purchased by the company that is not already accounted for under its Scope 1 and Scope 2 reporting. This category primarily deals

with upstream emissions of purchased fuels and electricity, emissions relating to transmission and distribution losses and emissions involving the generation of electricity purchased by the reporting company for resale.

- 4. Upstream transportation and distribution:** This category covers emissions resulting from the transportation of goods and services between the reporting company's direct (tier 1) suppliers and its own premises in vehicles and facilities not owned or controlled by the reporting company.

Data indicates that upstream emissions from manufacturing typically arise from categories 1-4 as extraction, transportation and raw material conversion contribute significantly to a company's Scope 3 emissions.<sup>11</sup> Under most contemporary organization structures, these activities fall under the umbrella of a company's procurement department. Thus, it is important to recognize the role of the procurement function of a company in the overall goal of emissions reduction.

1

# Decarbonizing supply chains: Challenges to Scope 3 emissions reduction in India

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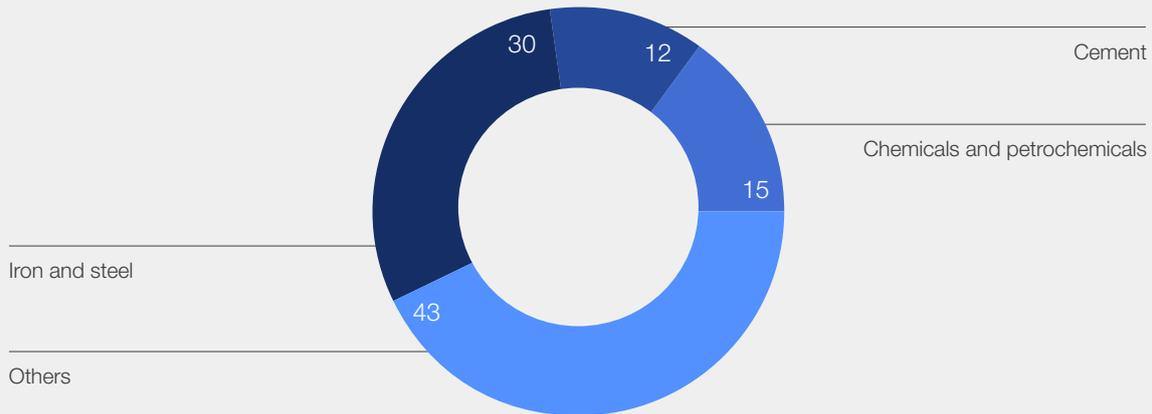


India's accelerated development trajectory impacts the carbon emissions in all sectors of its economy. For example, the government's focused thrust on infrastructure development as a tool to reduce spatial inequalities and poverty<sup>12</sup> will require striking a balance between the nation's overarching development goals and

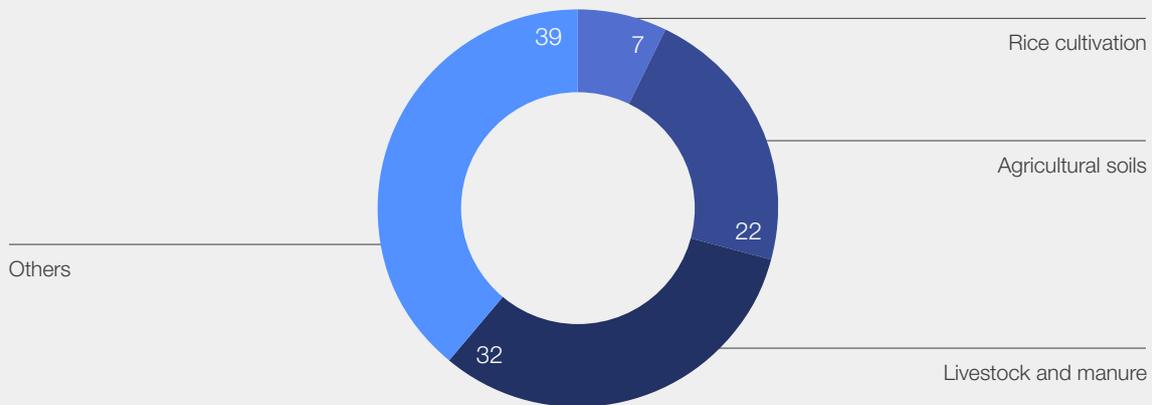
its equally critical emissions reduction targets.<sup>13</sup> Similarly, an analysis of emissions from global energy use in the industrial sector, as well as emissions from the global agriculture sector, highlights the careful balancing act required as India pursues growth in these vibrant and thriving engines of its economy.<sup>14</sup>

FIGURE 8 **Percentage breakup of emissions from global energy use in industry, and from global agriculture and land use**

Percentage breakup of emissions from global energy use in industry



Percentage breakup of emissions from global agriculture and land use



Source: Our World in Data.

Reducing Scope 3 emissions in India, while essential for mitigating climate change, faces a myriad of challenges. These challenges are rooted in the country's diverse economy, infrastructure and social dynamics. Some of the key challenges include:

**Complex and fragmented supply chains:** India's supply chains are intricate and often fragmented, making it challenging to track emissions across the entire value chain. These supply chains span various industries, from agriculture to manufacturing to services, and frequently involve a multitude of small and medium-sized enterprises (SMEs). Each link in the supply chain may have different emissions sources and data collection capabilities, which

complicates the process of calculating and reducing Scope 3 emissions.

**Data availability and accuracy:** Accurate and comprehensive data on emissions sources and activities within supply chains is essential for effective emissions reduction. However, data availability and accuracy can be a significant challenge in India, as many SMEs may not have the capacity or resources to collect and report emissions data.<sup>15</sup> This data gap hinders the establishment of an emissions baseline and the development of targeted reduction strategies. Since scope-wise emissions data reporting is a new concept for most Indian firms, they do not have systems in place to

accurately identify and collect the data that would enable effective measurement and estimation of their GHG emissions. The pervasive lack of data creates a hurdle for companies that are starting to report emissions. While a company might be able to get data for Scope 1 and 2 emissions through an in-house data collection exercise, collecting Scope 3 data will require a collaborative effort across its entire value chain.

The Scope 3 emissions of a firm translate from the Scope 1 and 2 emissions of its partners. These partners, in the Indian context, often do not measure emissions at all, and at times provide data that may prove misleading. In the absence of accurate baseline data, companies often find themselves resorting to industry average data that might be quite inaccurate for their specific context and might lead to misplaced efforts. To overcome the challenge of data availability and quality, firms would need to engage their supply chain partners in phased data sharing and capacity building programmes. Such tasks require building trust within the supply chain and demonstrating mutual value addition from the emissions disclosure efforts.

**Non-uniform reporting standards:** India's leading corporates are currently setting net zero targets on a voluntary basis. As a result, there is no set standard for reporting progress towards these targets. The existence of several definitions and emissions accounting procedures makes inter-firm comparisons a futile exercise. One primary example of multiple definitions leading to misinterpretation of data can be observed in companies' net zero declarations. While some private sector companies have defined net zero across all three scopes, several other companies have limited their definition to company activities across only Scope 1 and 2. Such a discrepancy in definition not only harms comparison among companies but also creates opportunities to engage in activities that artificially lead to the achievement of net zero emissions.

For an extreme example of this, consider the hypothetical example of a company that defines net zero in Scope 1 and 2, and is struggling with Scope 1 emissions from their fleet. In this context, without a Scope 3 focus, they could theoretically outsource material transport to their suppliers and accelerate their journey to Scope 1 emissions reduction. This would turn their Scope 1 emissions into Scope 3, but not really contribute to the environment in any material way.

Another challenge is that some companies do not adhere to the SBTi's definition of "net zero". While SBTi requires companies to reduce absolute emissions by at least 90% instead of using carbon removals or offsets, many companies in emissions-intensive industries follow a "burn now, pay later" approach and have set net zero targets that rely largely on offsets. These challenges can be addressed by standardizing the definition of net zero emissions for companies across industries, using a definition from SBTi or a similar platform.<sup>16</sup>

**Policy and regulatory gaps:** The lack of comprehensive and stringent regulations specifically addressing Scope 3 emissions reduction can hinder progress. While India has made significant strides in renewable energy adoption and emissions reporting, more targeted policies for Scope 3 emissions and supply chain sustainability are needed to drive change effectively.<sup>17</sup>

**Lack of incentives:** While government policies and regulations can provide incentives for emissions reduction, they may not be robust or uniform across industries. The absence of a clear and consistent regulatory framework for Scope 3 emissions reduction can discourage businesses from actively engaging in sustainability initiatives.<sup>18</sup> The paucity of financial incentives and rewards for businesses that invest in emissions reduction projects is a further dampener.

**Technological and financial constraints:** Many Indian businesses, particularly SMEs, face technological and financial constraints in implementing emissions reduction strategies. Transitioning to low-carbon technologies and adopting sustainable practices often requires substantial investments.<sup>19</sup> Limited access to capital, especially for smaller businesses, can be a deterrent.

**Economic priorities and affordability:** In a country like India where millions still lack access to basic services and economic growth is a top priority, the affordability of emissions reduction measures can be a concern. Balancing the need for economic development and poverty alleviation with the imperative to reduce Scope 3 emissions is a complex challenge that policy-makers must address.<sup>20</sup>

**Behavioural and cultural factors:** Cultural and behavioural factors can influence emissions reduction initiatives. Businesses and consumers may lack awareness and understanding about the significance of Scope 3 emissions. A culture of waste, high consumption and a focus on short-term economic gains can be barriers to adopting sustainable practices.

**Challenges in agriculture and land use:** Agriculture is a significant source of Scope 3 emissions in India. Challenges in decarbonizing this sector include inefficient farming practices, deforestation and land-use changes, which contribute to emissions.<sup>21</sup> Especially in India where the majority of the agriculture sector is not fully formalized, very little emissions data is collected or monitored at the farm level. Agri-based companies in India often lack traceability to the farm level supply source, limiting their ability to measure and reduce agriculture-specific emissions. Addressing these challenges requires comprehensive land-use policies and sustainable agricultural practices.

**Transportation emissions:** India's transportation sector, including road and air travel, contributes significantly to Scope 3 emissions.<sup>22</sup> Inadequate public transportation infrastructure, high traffic

congestion and the rapid growth of the automobile industry exacerbate transport emissions. Finding sustainable and efficient transportation solutions is a complex challenge in India's developing economy. Further, due to the large population, implementing new emissions norms and low-carbon technologies in transport can take years.

**Climate vulnerability:** India is highly vulnerable to the impacts of climate change. While Scope 3 emissions reduction is essential, the country must also adapt to changing climatic conditions.<sup>23</sup> Balancing mitigation and adaptation efforts is a multifaceted challenge.

**Absence of industry-specific best practices:** Given the nascent stage of decarbonization efforts in India, companies undertaking net zero efforts are often starting from scratch and formulating firm-specific approaches and practices. The lack of an established, India-specific guide for industries results in a significant degree of variability in the decarbonization efforts of different companies within the same category. This is partly reflected in the vastly different net zero timelines set by companies within the same industry. A major drawback of this lack of shared best practices is that once companies commit to their

approach and timelines, it often proves difficult for them to correct course to a better emissions reduction path that may be set by one of their industry peers. This challenge can be addressed through industry-specific playbooks developed through a collaborative effort between Indian companies that face similar challenges.

To overcome these challenges across sectors, India needs a multifaceted approach that involves robust data collection and reporting mechanisms, targeted regulatory measures, financial incentives, technology dissemination and widespread awareness campaigns. Encouraging sustainability practices in supply chains and promoting circular economy principles can also play a pivotal role in reducing Scope 3 emissions. Additionally, international collaboration and knowledge-sharing on successful emissions reduction strategies can help India navigate the complexities of Scope 3 emissions reduction while addressing broader climate change goals.

The next two sections of this report present a framework and pathway for Indian companies and the government of India to overcome these challenges and accelerate the nation's Scope 3 emissions journey.

2

# Scope 3 emissions reduction: A playbook for India

Reducing Scope 3 emissions, which encompass indirect emissions in a company's value chain, has become an imperative in the global drive to combat climate change and promote sustainable business practices. To navigate this complex and multifaceted challenge, organizations will need to adopt a comprehensive framework tailored specifically to address Scope 3 emissions. The approach must be structured to identify, measure and mitigate the organization's indirect emissions,

with the aim of fostering greater environmental responsibility, reduced carbon footprints and enhanced long-term sustainability.

By adopting a holistic Scope 3 framework, companies can not only contribute to a more resilient and environmentally conscious future but also unlock cost savings, improve their brand reputation and increase their competitiveness in an evolving, environmentally conscious market.

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# A holistic framework for Scope 3 emissions reduction

Adopting a holistic approach to Scope 3 emissions reduction involves five critical steps, each tailored to organizational maturity and ambition, as illustrated in Figure 9.

FIGURE 9 Scope 3 emissions reduction – A holistic framework



## 2.1 Step 1: Create a Scope 3 baseline and develop a data strategy

To embark on an effective journey towards emissions reduction, organizations must first understand their current environmental impact by establishing a baseline. Subsequently, they need to develop a robust data strategy that ensures the accurate, ongoing measurement and reporting of Scope 3 emissions. This process lays the foundation for informed decision-making, transparency and continuous improvement.

### Baselining

To reduce Scope 3 emissions, organizations must measure and understand them in the first place and have a clear baseline at the category and supplier levels. Creating a Scope 3 baseline involves:

- 1. Identifying emissions sources:** The first task is to identify and categorize sources of emissions throughout the value chain, encompassing both upstream (suppliers) and downstream (customers) aspects.
- 2. Collecting data:** Gathering data related to these emissions sources is crucial. It includes data on energy consumption, transportation, raw materials and other activities contributing to Scope 3 emissions.
- 3. Quantifying emissions:** After data collection, organizations must use standardized emission factors and calculation methodologies to quantify their Scope 3 emissions. This results in a comprehensive baseline, often measured in carbon dioxide (CO<sub>2</sub>)-equivalent units.

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Three data methods to quantify emissions: Proxies and average data, hybrid and activity-based

**Scope 3 calculation approach**  
 The method for each category can be selected based on:

Relative size of the category (with regard to emissions)	Company's business goals	Data availability	Data quality	Cost and effort required to apply each method
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Category	Method 1	Method 2	Method 3	Method 4
<b>Category 1</b> Purchased goods	Spend-based	Average data	Hybrid	Supplier-specific
<b>Category 2</b> Capital goods	Spend-based	Average data	Hybrid	Supplier-specific
<b>Category 3</b> Fuel and energy		Average data		Supplier-specific
<b>Category 4</b> Upstream transport and distribution	Spend-based	Distance-based		Supplier-specific
<b>Category 5</b> Waste generated in operations		Waste-specific		Supplier-specific
<b>Category 6</b> Business travel	Spend-based/Distance-based			Distance-based
<b>Category 7</b> Employee commuting		Average data		Distance-based
<b>Category 8</b> Upstream leased asset		Average data		Asset/lessor specific
<b>Category 9</b> Downstream transport and distribution		Distance-based/Fuel-based		
<b>Category 10</b> Processing of sold products		Average data		Site-specific
<b>Category 11</b> Use of sold products		Direct and indirect use-phase emissions		
<b>Category 12</b> End-of-life treatment		Waste-specific		
<b>Category 13</b> Downstream leased assets		Average data		Asset/lessor specific
<b>Category 14</b> Franchises		Average data		Franchise-specific
<b>Category 15</b> Investments		Average data	Project-specific	Investment-specific



### Benefits of data granularity

#### Increased transparency

Highlights hotspots that require the most emissions reduction

#### Better decision-making

Enables companies to make better decisions on where to direct their investments to reduce emissions

#### Reinforced reputation

Reinforces company ESG commitment with granular data collection/accounting



Audit accuracy  
Data availability

Rough-cut

Granular

● Proxies and average data   ● Hybrid   ● Activity-based

Reporting companies typically calculate their procurement-related scope 3 emissions (categories 1-4) using a spend-based approach, an activity-specific approach, or a combination of both, using industry-wide average data for emission factors.

In the spend-based approach, a company uses its annual spend data and spend-based emission factors published by verified databases such as the United States Environmental Protection Agency (US EPA) and Exiobase to estimate its overall climate impact. Here, the spend-based emission factor is a value that estimates the emissions per financial unit of purchased goods or services.

In an activity-specific approach, a firm uses an activity-specific unit of measurement such as volume data (kilogram, litre, etc.) for purchased goods or weight and distance transported for logistics. By estimating the average emissions impact of each activity of producing such service or good, the company arrives at its climate impact. Activity-specific emission factors can be estimated using custom life cycle assessments or using databases such as Ecoinvent, Sphera and Agribalyse.

Typically, an activity-based approach provides a more accurate climate impact and is used in combination with a spend-based approach depending on the availability of data.

## Tracking

Once the baseline is established, the next step is to develop a system for tracking Scope 3 emissions continuously. This involves:

- 1. Data management:** Designing a robust data management system to collect, store and update emissions data regularly. Using the right tools and software is essential for efficient data tracking.

- 2. Data quality assurance:** Ensuring the accuracy and reliability of data. Implementing checks and balances to verify and validate data sources and methodologies is crucial to prevent inaccuracies.

- 3. Regular reporting:** Establishing a routine for reporting emissions data, typically in line with annual sustainability reporting. Consistent reporting enables transparency and accountability to stakeholders.

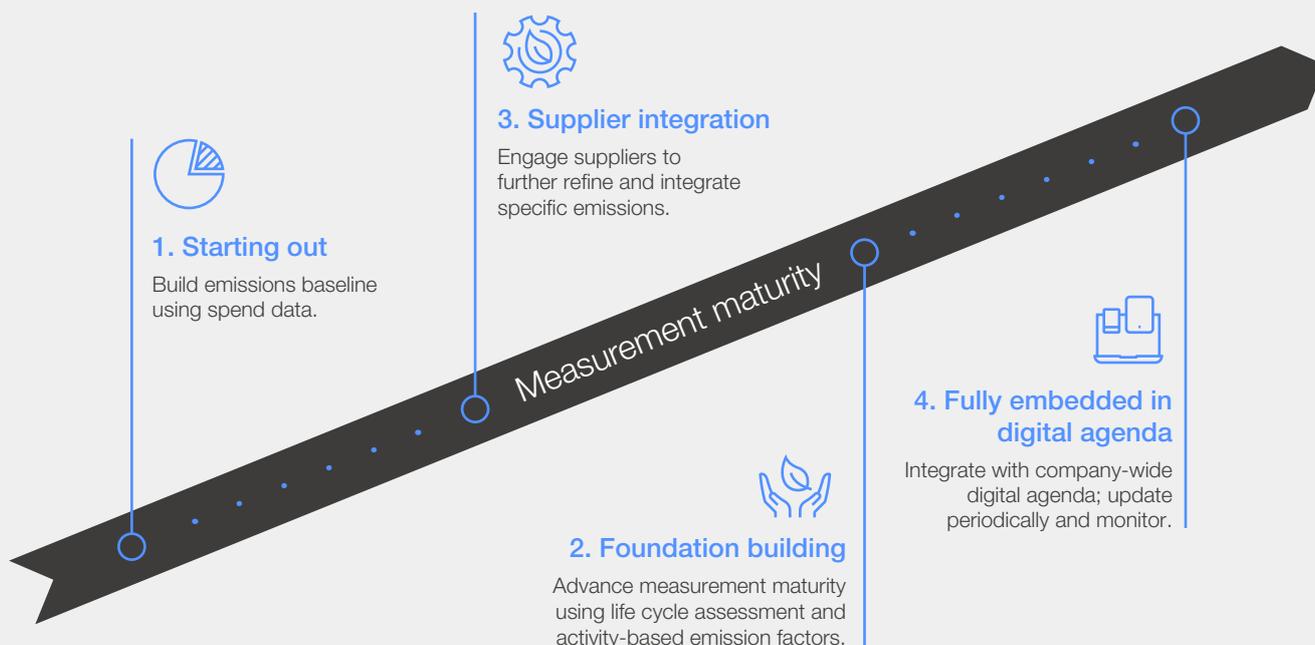
## Developing maturity

As organizations progress through this step, they develop maturity in their data strategy, ensuring that the process becomes a continuous and evolving practice. The key elements in this phase include:

- 1. Emissions hotspot identification:** Over time, organizations gain insights into their emissions hotspots. This helps pinpoint areas in their supply chains where reduction efforts should be focused.
- 2. Scenario planning:** Mature data strategies allow for scenario planning. Organizations can model the potential impacts of various emissions reduction initiatives and evaluate which ones are most effective and cost-efficient.
- 3. External reporting and certification:** Organizations with mature data strategies often move towards external reporting and certification, through initiatives such as the Carbon Disclosure Project (CDP) or International Organization for Standardization (ISO) 14064-3. This provides external validation of their efforts.

The schematic below describes the four stages of maturity in the Scope 3 measurement journey.

FIGURE 11 | Scope 3 measurement: Stages of measurement maturity



Creating a Scope 3 baseline and developing a data strategy is more than just a technical exercise. It is a crucial enabler of informed decision-making, sustainability performance improvement and trust-building with stakeholders.

It ensures that organizations have a solid foundation on which to plan and implement their efforts, effectively aligning environmental responsibility with sound business practices.

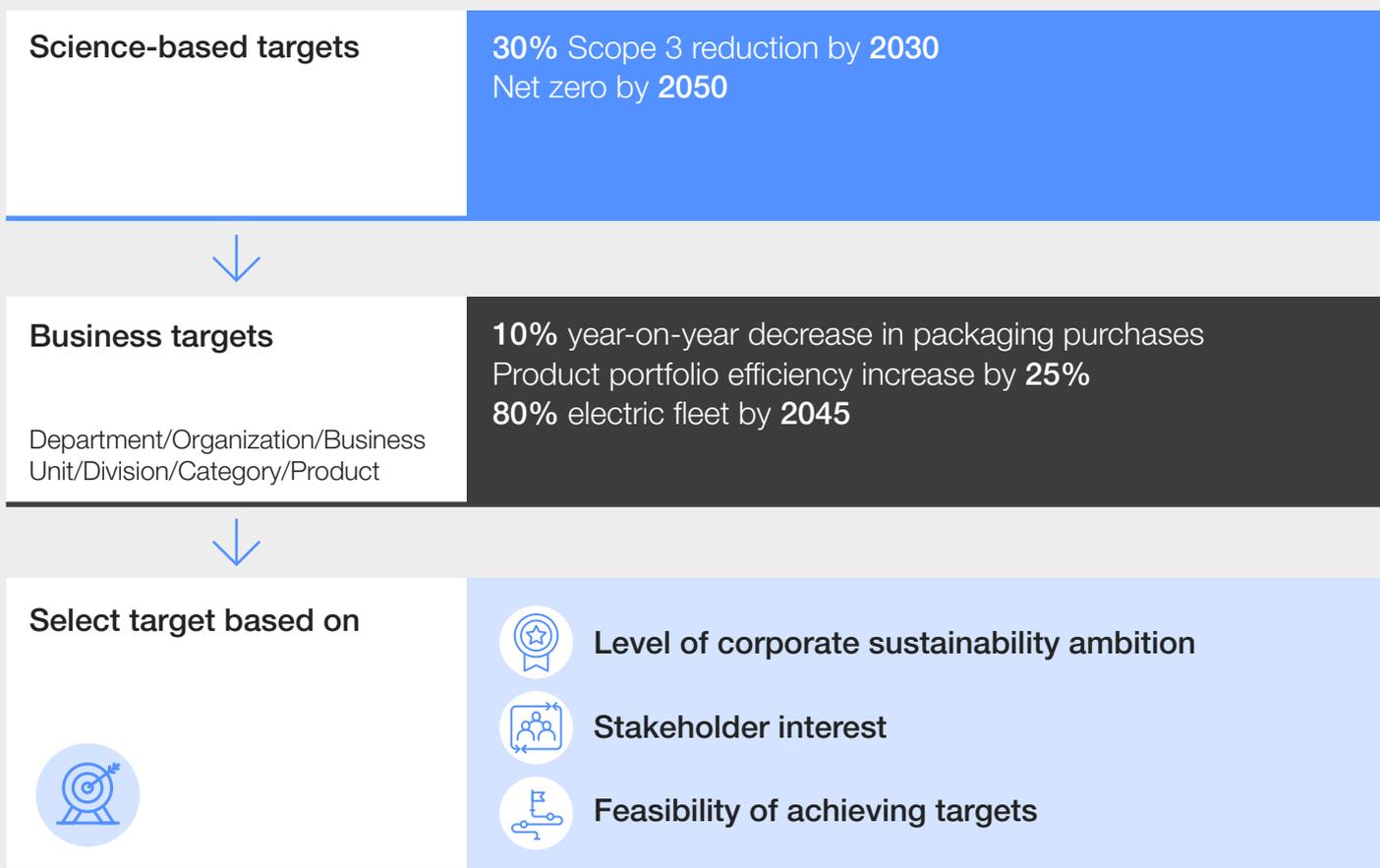
## 2.2 Step 2: Set science-based and business targets

This second foundational step in Scope 3 emissions reduction involves establishing clear and well-defined goals that align with both the imperatives of environmental sustainability and the practical realities of business operations.

**Science-based targets:** Setting science-based targets requires companies to calibrate their emissions reduction ambitions in accordance with the scientific benchmarks needed to limit global temperature rise. These targets are informed by the latest climate science and are designed to contribute meaningfully to international efforts to combat climate change. By aligning with science-based targets, organizations ensure that their

emissions reduction efforts are not merely symbolic but impactful and in line with global climate goals. Organizations can consider setting ambitious targets for themselves and influence their key suppliers to also set science-based Scope 1, 2 and 3 targets aligned with a 2050 net-zero pathway.

**Business targets:** In tandem with science-based targets, it is essential to set business targets that are realistic, achievable and aligned with the organization’s overarching strategic objectives. These targets consider the specific operational constraints and financial considerations of the company, ensuring that emissions reduction efforts are sustainable and economically viable.



Source: Kearney.

The convergence of science-based and business targets in this initial step provides a clear direction for companies to navigate the complexities of Scope 3 emissions reduction. It lays the foundation for transparency and accountability, as well as a commitment to environmental

stewardship while simultaneously acknowledging the practical realities of running a business. Ultimately, this step not only sets the direction but also defines the purpose and commitment of the organization in addressing the urgent challenge of Scope 3 emissions reduction.

## 2.3 Step 3: Develop upstream/downstream carbon reduction strategy

Recognizing the intricate web of supply chain emissions, this third crucial step focuses on mitigating emissions both upstream (supplier-focused) and downstream (customer-focused). A holistic strategy addresses all aspects of the

value chain, creating a comprehensive approach including supplier engagement, operational efficiency, sustainable design, circularity, customer engagement, employee involvement and portfolio evaluation.

FIGURE 13 | Addressing Scope 3 requires a “customer-back” approach applying multiple reduction strategies

Scope 3 categories	Reduction strategies						
	Supplier/ Carrier engagement	Operations <sup>1</sup> design	Design for sustainability	Circularity	Customer engagement	Employee engagement	Portfolio evaluation
<b>Category 1</b> Purchased goods	✓	✓	✓	✓	✓		
<b>Category 2</b> Capital goods	✓						
<b>Category 3</b> Fuel and energy	✓	✓					
<b>Category 4</b> Upstream transport and distribution	✓	✓			✓		
<b>Category 5</b> Waste generated in operations	✓	✓					
<b>Category 6</b> Business travel	✓					✓	
<b>Category 7</b> Employee commuting						✓	
<b>Category 8</b> Upstream leased asset	✓						
<b>Category 9</b> Downstream transport and distribution					✓		
<b>Category 10</b> Processing of sold products			✓		✓		
<b>Category 11</b> Use of sold products		✓	✓		✓		
<b>Category 12</b> End-of-life treatment		✓	✓		✓		
<b>Category 13</b> Downstream leased assets					✓		
<b>Category 14</b> Franchises							✓
<b>Category 15</b> Investments							✓

<sup>1</sup> Consists of making internal decisions to optimize manufacturing, procurement or supply chain operations for sustainability and cost.

## Supplier engagement

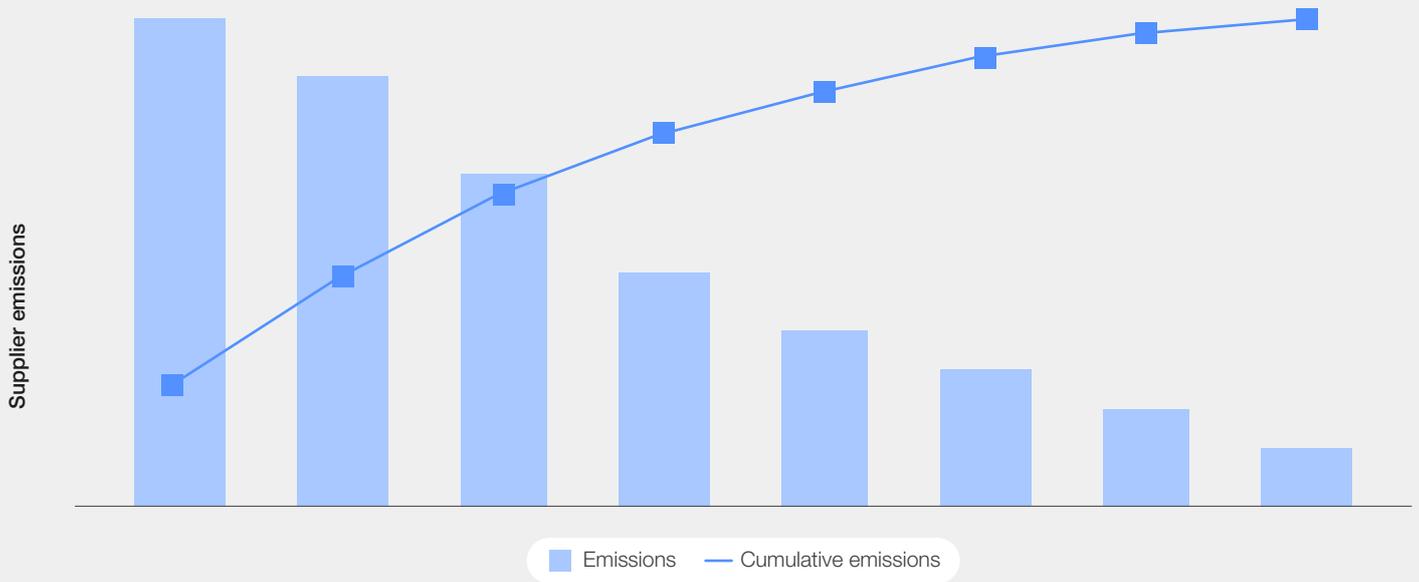
Supplier assessment, prioritization and relationship management are central to Scope 3 emissions reduction, as suppliers often constitute a substantial source of indirect emissions. Companies must systematically assess their supplier network, evaluating emissions contributions and environmental practices.

Prioritizing suppliers based on their emissions intensity and environmental performance helps

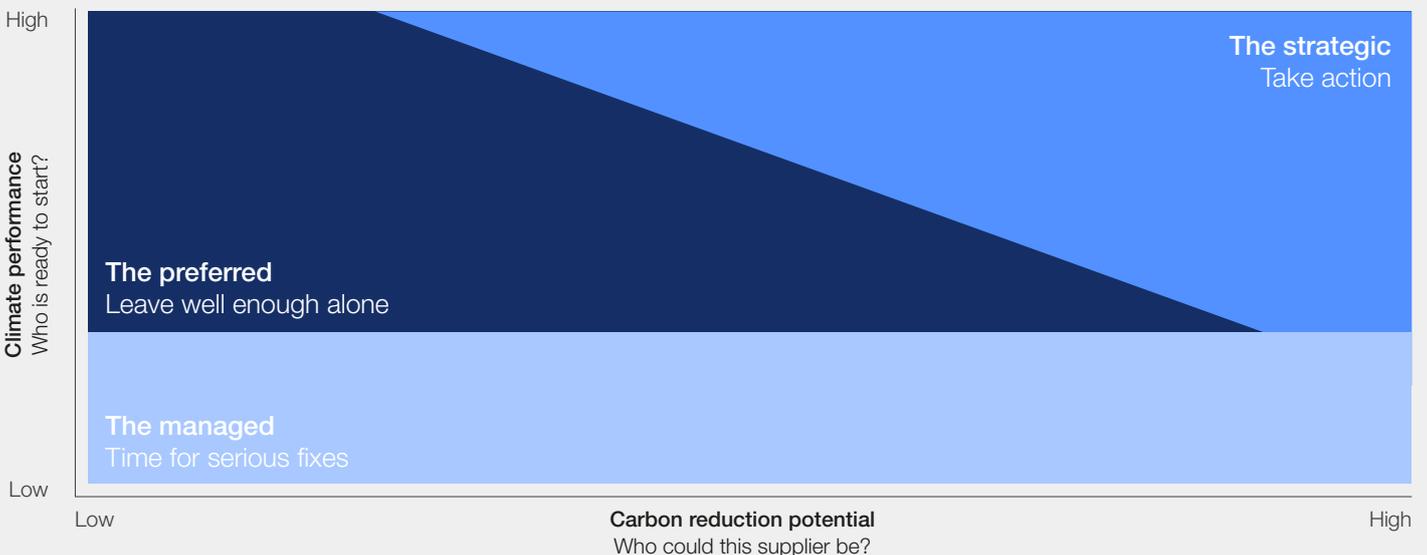
identify key partners for collaborative emissions reduction efforts. Effective supplier relationship management involves open communication, cooperation and the mutual alignment of sustainability goals. The aim is to work together with suppliers to reduce emissions, enhance efficiency and promote sustainable practices throughout the value chain. This multifaceted approach not only reduces Scope 3 emissions but also fosters long-term sustainability partnerships that benefit both the organization and its suppliers.

FIGURE 14 Supplier prioritization translating to supplier segment-based interaction models

Emissions distribution by number of suppliers



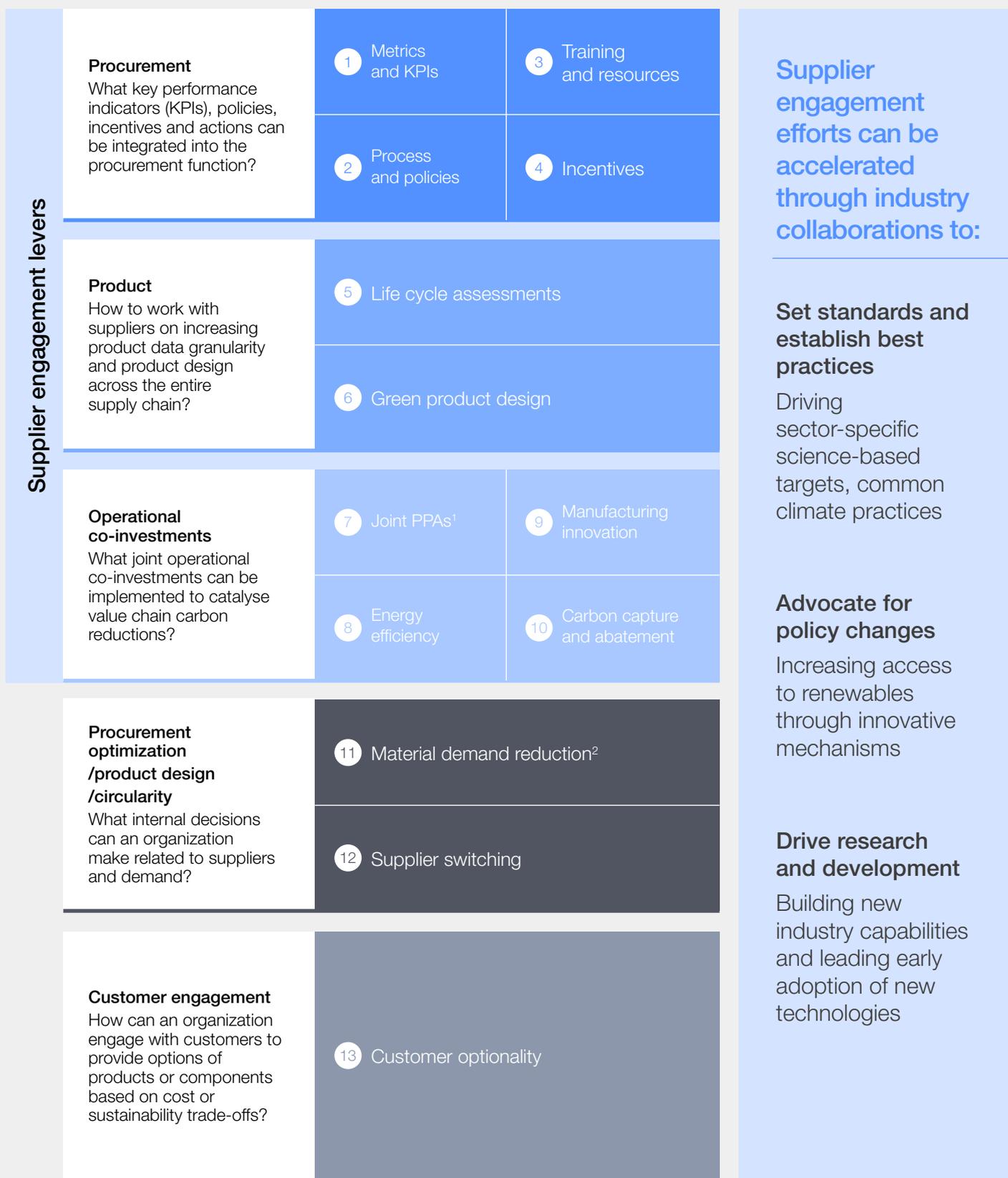
Supplier relationship management (simplified) framework (TrueSRM®)



Source: Kearney.

SRM = Supplier relationship management.

Category 1 (Purchased goods) reduction levers



Source: Kearney.

<sup>1</sup> PPA = Power purchase agreement.

<sup>2</sup> Includes considerations for inventory optimization and product and component re-design through Design for Sustainability.

FIGURE 16

**Upstream transport and distribution emissions reduction levers**

	<b>Procurement</b> What KPIs, policies, incentives and actions can be integrated into the logistics function?	1 Metrics and KPIs	3 Training and resources
		2 Process and policies	4 Incentives
	<b>Operational co-investments</b> What joint operational investments can be implemented to catalyse value chain carbon reductions?	5 Technology	7 Alternative equipment
		6 Alternative fuels	8 Energy efficiency
Supply chain design	<b>Supply chain design</b> What supply chain efforts can an organization make internally?	9 Modal shift	11 Asset utilization
		10 Supply network optimization	12 Packaging optimization
		13 Route optimization	
	<b>Customer engagement</b> How can an organization engage customers to provide alternative route options based on cost, service and emissions?	14 Customer optionality	

<sup>1</sup> Includes product re-specification/use of alternative materials and inventory optimization.

## Operations and supply chain design

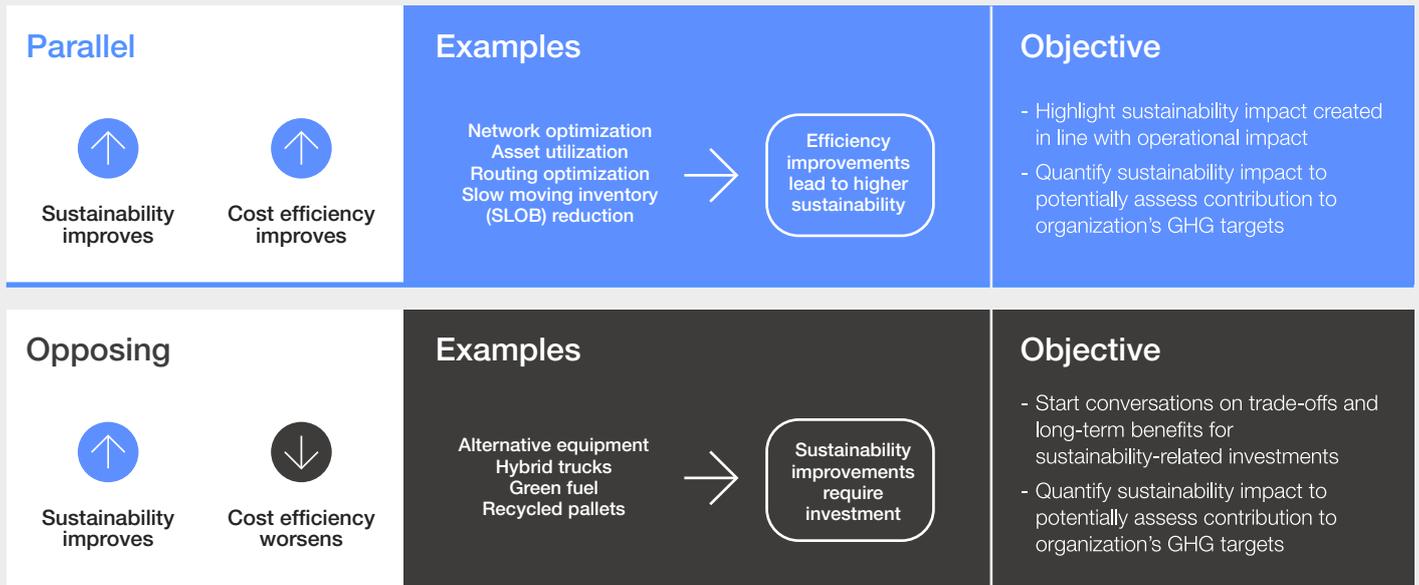
Companies can significantly reduce their indirect emissions by optimizing internal operations and supply chain processes. This involves streamlining transportation routes, reducing waste and maximizing resource efficiency. Lean and

green principles are integral in driving emissions reduction in these areas. Efficient transportation alternatives, such as electrified or low-emission vehicles, can further minimize the carbon footprint of logistics.

In supply chain design, two types of sustainability improvements can be achieved, and could lead to better or worse cost efficiencies (see Figure 17).

FIGURE 17 Two types of sustainability improvements

### Two types of sustainability improvements



## Design for sustainability

Design for sustainability emphasizes the importance of creating products and packaging with minimal environmental impact throughout their life cycles. By rethinking product and packaging design,

businesses can optimize product life cycles, incorporate recyclable or biodegradable materials, and enhance energy efficiency. Sustainable design practices not only contribute to reduced emissions during the product's use but also minimize resource consumption, waste and emissions associated with manufacturing and disposal.

Questions to ask



**Core products**

How can a business re-design its **core products** to be more sustainable?

“30 Seeds” levers (potential supplier collaboration actions)

Design/material input/sourcing			
1 Dematerialization	4 Component reduction	7 Design for durability	10 Reusable content
2 Material choice	5 Design for use/need	8 Increased testing	11 Design for replacement
3 Detoxification	6 Classic design	9 Maintenance	12 Sustainable sourcing

Questions to ask



**Complementarity**

How can product design promote a more sustainable **network**?

“30 Seeds” levers (potential supplier collaboration actions)

Manufacturing		Distribution		Output/delivery
13 Design for disassembly	15 Platforming	17 Secondary packaging	19 Localization	
14 Optimized manufacturing	16 Reduced shipping	18 Design for efficiency		

Questions to ask



**Culture shifts**

Can changes in design **promote cultural shifts** and sustainable living?

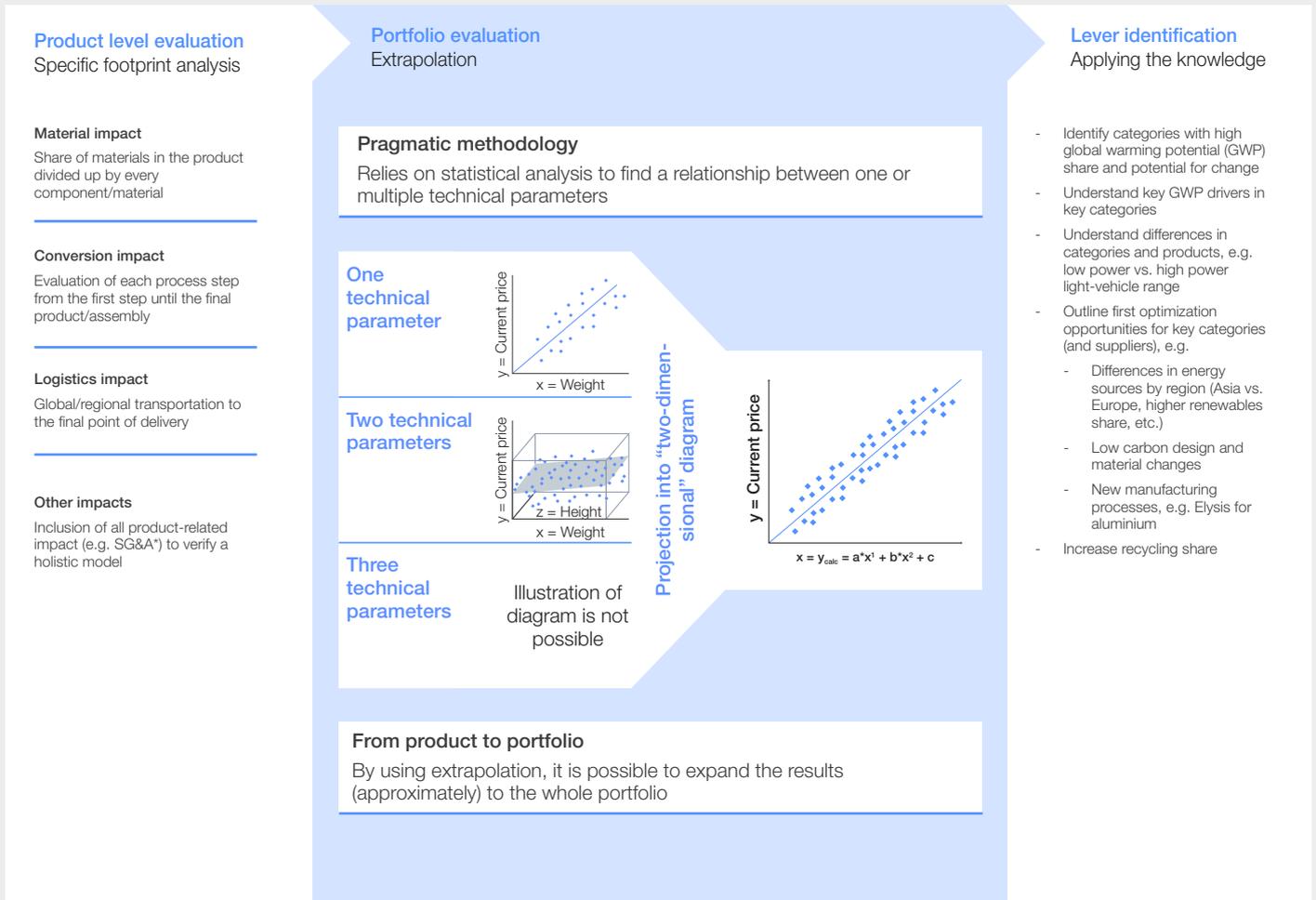
“30 Seeds” levers (potential supplier collaboration actions)

Product use		End-of-life disposal		Reverse logistics
20 Closed loop	23 Incentives/awareness	26 Rethinking, reframing, reinvention	29 Systematized products	
21 Deeper meaning	24 Informatization	27 Digital transfer transmaterialization	30 Value engineering	
22 Eco-effectiveness	25 Environmental restoration /improvement	28 Social/community		

Understanding a product's emissions enables portfolio-wide extrapolation and enables

identification of the levers for sustainability enhancement (see Figure 19).

FIGURE 19 Product/portfolio evaluation and lever identification



Source: Kearney.

\*Selling, general and administrative expenses.

## Circularity

Circular strategies play a pivotal role in Scope 3 emissions reduction by reimagining how resources are managed throughout a product's life cycle. Circularity revolves around the concept of minimizing waste and maximizing the use of materials and products through practices such as recycling, refurbishing and remanufacturing. Circular approaches help companies extend the lifespan of products and materials, and help reduce the need for raw materials, energy and transportation for production and disposal.

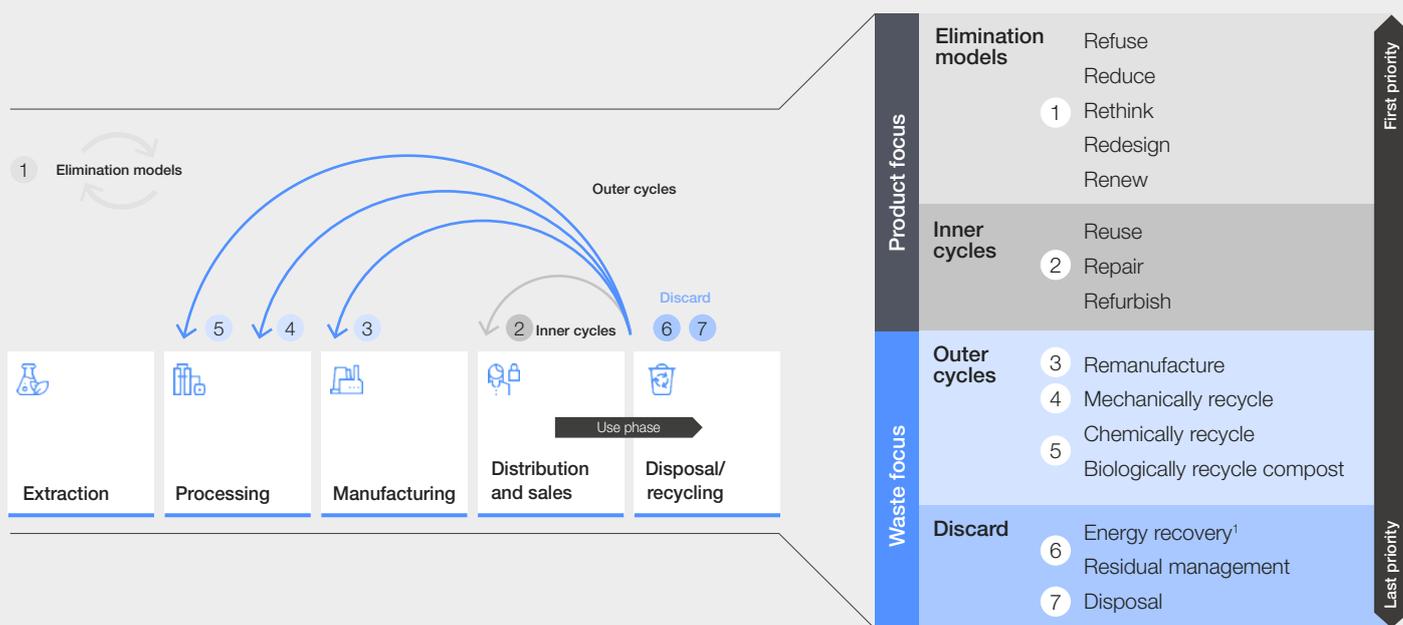
Companies can integrate circular strategies into their value chains through various means. First, they can focus on product design with circularity in mind, using materials that are easy to recycle and suitable for multiple life cycles. Additionally, companies can implement "take-

back" programmes to recover and refurbish products at the end of their useful life. Partnering with recycling and remanufacturing facilities can also enable businesses to close the loop on their products and materials.

Furthermore, supply chain optimization can play a role by reducing waste and inefficiencies, further mitigating Scope 3 emissions. Companies should also explore potential collaborations with suppliers and customers to facilitate the exchange and reuse of materials and products, creating a network that embraces circular practices throughout the value chain.

Embracing circularity not only promotes sustainability but also contributes to Scope 3 emissions reduction by minimizing waste and maximizing resource efficiency, ultimately fostering a more environmentally conscious and responsible business ecosystem.

Circular economy strategies/treatment hierarchy



Source: Kearney.

<sup>1</sup>Allocation to circular strategies is debatable – with current technology it only serves as energy source; in the long term, could be part of a closed carbon cycle.

### Customer engagement

Educating customers about the environmental impact of their choices is a vital aspect of Scope 3 emissions reduction. By providing information and raising awareness, companies can empower their customers to make more sustainable decisions. This involves sharing insights into products’ carbon footprint, highlighting the benefits of eco-friendly options, and offering guidance on responsible consumption practices. Through clear and accessible communication, businesses can encourage customers to make choices that align with sustainability goals, ultimately contributing to reduced indirect emissions across the value chain.

Customer education not only enhances environmental responsibility but also strengthens brand reputation and loyalty among environmentally conscious consumers.

### Employee engagement

Employee engagement is a vital component of Scope 3 emissions reduction. When employees are actively involved in sustainability initiatives and understand their role in emissions reduction, organizations can harness their creativity and

commitment to drive meaningful change. Encouraging staff to contribute innovative ideas, recognizing their efforts and fostering a culture of environmental responsibility can lead to more efficient operations, reduced waste and responsible decision-making within the organization.

Moreover, informed and motivated employees can serve as advocates for emissions reduction both within and outside the company, promoting a broader culture of sustainability. By engaging employees in the process, businesses can turn them into champions of sustainability, leading to a more comprehensive and effective approach to reducing indirect emissions in the value chain.

### Portfolio evaluation

Portfolio evaluation is a critical aspect of Scope 3 emissions reduction, involving the continuous assessment and optimization of an organization’s product and service offerings. By regularly reviewing the emissions footprint of the portfolio, businesses can identify high-impact areas and determine which products or services contribute the most to Scope 3 emissions. This evaluation process enables companies to prioritize their emissions reduction efforts effectively, directing resources towards the areas that offer the greatest potential

for sustainability gains. It also provides a framework for making informed decisions regarding product development, divestment or enhancements, aligning the organization's offerings with its emissions reduction goals.

In essence, portfolio evaluation is a strategic tool that ensures that Scope 3 emissions reduction is not just a static goal but an evolving and adaptable process that responds to changing business dynamics and emerging sustainability best practices.

Developing an upstream/downstream carbon reduction strategy is a multifaceted endeavour that requires a holistic approach to Scope 3 emissions reduction. By addressing suppliers, internal operations, product design, circularity, customer and employee engagement, and portfolio evaluation, organizations can implement comprehensive solutions that not only reduce emissions but also create a more sustainable and environmentally responsible value chain. This step is integral to meeting emissions reduction targets and fostering a greener, more sustainable future.

## BOX 1

### First Movers Coalition (FMC)



FMC could serve as a critical enabler for Indian companies in emissions-intensive industries. The FMC initiative was launched at COP26 in 2021 as a public-private partnership to clean up some of the most carbon-intensive sectors (such as aluminium, aviation, concrete, shipping, steel and trucking). Together, these organizations aim to leverage their resources and expertise to aggregate demand, establish a business case for supply-side investments, and create early markets for clean technologies through policy measures and private-sector engagements.

The FMC supports its members in maximizing their impact in three areas:

Formulate and aggregate demand against 2030 commitments: Develop a fully-fledged 2030 demand commitment driven by members across some carbon-intensive sectors (aluminium, aviation, concrete, shipping, steel and trucking).

Support FMC members' delivery against their commitments: Offer a range of support activities including workshops to assess technology availability and partnership with key finance players.

Support activities outside FMC scope: Offer support via policy creation and advocacy.

## 2.4 Step 4: Define organizational enablers

To effectively implement emissions reduction strategies, organizations must establish the necessary structures, processes and resources to empower their efforts. Defining organizational enablers is integral to ensuring that Scope 3 emissions reduction is not just a lofty goal but a practical and sustainable initiative that aligns with organizational objectives.

### Governance

Effective governance is critical in providing direction and guidance to the Scope 3 journey, ensuring that emissions reduction remains a top organizational priority, driving meaningful change and fostering a more environmentally responsible and sustainable corporate culture. Senior leadership buy-in is paramount, as it encourages a culture of sustainability and secures the allocation of resources. Defining roles and responsibilities within the organization ensures that individuals and departments are held accountable for specific emissions reduction targets. By establishing

dedicated, cross-functional sustainability committees or task forces, organizations can oversee emissions reduction efforts, set clear objectives, monitor progress and ensure accountability.

### Technology enablement

Technology enablement is an increasingly crucial organizational enabler in Scope 3 emissions reduction, as it empowers companies to collect, manage and analyse emissions data efficiently.

Implementing data management systems and carbon accounting software streamlines data collection and calculation processes, providing real-time information for informed decision-making. The automation and integration of emissions data into existing business systems reduces the risk of errors and ensures data availability. By embracing technology, organizations can not only monitor emissions effectively but also enhance transparency and reporting. This makes emissions reduction more achievable, efficient and sustainable.

Scope 3 implementation life cycle – Digital tools

**Data**

A. Collect data

Internal: ERP\* data, SRM\*\*, BOM\*\*\*, etc.  
Market: MSCI, S&P Global, Bloomberg.

MSCI  S&P Global  Bloomberg 

**Tool**

B. Baseline current state

Leverage internal data to track and measure ESG metrics on an ongoing basis to be visualized across the company.

  SINAI 

ESG tool landscape is fragmented but rapidly growing

**Report**

E. Report

Develop sustainability report and respond to external reporting bodies

TCFD  

**Strategy**

C. Develop strategy

Interpret current state and leverage market data to inform and execute ESG strategy.

**Tool**

D. Implement

Collaborate internally and with external stakeholders to achieve ESG targets

Vizibl 

Source: Kearney research.

\*Enterprise resource planning \*\* Supplier relationship management \*\*\*Bill of materials.

**Communication**

Effective communication plays a pivotal role as an organizational enabler in Scope 3 emissions reduction. By developing a comprehensive communication strategy, companies can engage both internal and external stakeholders. Sharing emissions reduction objectives, progress and achievements with employees, customers, investors and the wider community fosters a sense of collective responsibility. Transparency and regular

reporting on emissions reduction initiatives build trust and accountability, strengthening the commitment to sustainability. Moreover, education and training programmes enhance internal awareness and promote a culture of sustainability, ensuring that all stakeholders are informed and aligned with the organization’s Scope 3 emissions reduction goals. Clear and accessible communication is not just a means of conveying information; it is the catalyst for building a sustainable future by engaging and inspiring a wide range of participants in the emissions reduction journey.

Communication planning

Audiences	Type of communication	Key messages	Engagement plan
 <b>C-suite</b>	Internal	<ul style="list-style-type: none"> <li>- Global trend towards ESG-focused business model with emphasis on improving the triple bottom line</li> <li>- Increasing external pressure from stakeholders (e.g. investors, customers, suppliers, etc.) to share emissions reduction progress</li> <li>- Strategic opportunities to differentiate from competitors and increase operational efficiency</li> </ul>	<ul style="list-style-type: none"> <li>- Conduct workshop with C-suite to introduce proposed Scope 3 strategy and plan with key suppliers</li> <li>- Enable C-suite to propagate Scope 3 vision publicly through internal and external forums (newsletters, interviews, shareholder meetings, etc.)</li> </ul>
 <b>Procurement leadership</b>	Internal	<ul style="list-style-type: none"> <li>- Organizational shifts needed in order to support achieving GHG vision and goals</li> <li>- Timeline and action plan to help product leads design infrastructure to support GHG initiative and programmes</li> </ul>	<ul style="list-style-type: none"> <li>- Conduct roadshow 1:1s with procurement leads and product leads to train them on the topic and inform them of the plan with key suppliers</li> <li>- Keep procurement and product leads informed through existing forums and status reports</li> </ul>
 <b>Product leadership</b>	Internal	<ul style="list-style-type: none"> <li>- GHG goals and the role suppliers play in achieving them</li> <li>- Changes that must occur in the day-to-day business to incorporate emissions reduction</li> </ul>	<ul style="list-style-type: none"> <li>- Arrange commodity-wise roadshow for procurement and product teams to train them on the topic, inform them of the change, and align on detailed implementation plan</li> <li>- Establish regular forum to discuss progress, identify roadblocks and align on next steps</li> </ul>
 <b>Suppliers</b>	External	<ul style="list-style-type: none"> <li>- Mutual benefit to pursue GHG strategy together</li> <li>- Collaboration on GHG can bolster relationship in the long run</li> </ul>	<ul style="list-style-type: none"> <li>- Send message/letter from C-suite informing of Scope 3 vision, goal and importance of increased supplier collaboration</li> <li>- Follow up from procurement teams to reinforce message and engage further</li> </ul>

Source: Kearney.

## Talent management

Effective talent management ensures that the right skills and competencies are in place to effectively drive sustainability initiatives. Companies should invest in training programmes to equip employees with the knowledge and capabilities required to manage emissions reduction effectively. Establishing a dedicated sustainability team or appointing a chief sustainability officer (CSO) can provide specialized expertise in sustainability practices and carbon accounting.

## Policies and processes

Policies and processes are fundamental organizational enablers in Scope 3 emissions reduction, providing the framework within which sustainability efforts can be effectively structured and implemented.

Establishing clear and documented sustainability policies demonstrates an organization's commitment to emissions reduction and sets the stage for reaching its broader sustainability

objectives. These policies guide and govern the company's approach to Scope 3 emissions and environmental stewardship. Supply chain guidelines define expectations for suppliers, promoting their alignment with the organization's sustainability goals and initiatives.

Implementing processes for continuous improvement ensures that emissions reduction strategies and policies remain relevant, adaptive and responsive to evolving business landscapes and emerging sustainability best practices, ultimately ensuring the longevity and effectiveness of emissions reduction efforts throughout the value chain.

Defining organizational enablers is pivotal in ensuring that Scope 3 emissions reduction becomes an ingrained part of the organization's culture and operations. Governance structures, technological support, effective communication, talent management and well-defined policies and processes are the pillars that sustain emissions reduction initiatives. By establishing these enablers, organizations can not only meet their Scope 3 emissions reduction targets but also drive a broader sustainability agenda that aligns with environmental responsibility and economic success.

## 2.5 Step 5: Build roadmap and business case

This phase involves developing a clear, actionable plan and a compelling rationale for Scope 3 emissions reduction efforts.

**Roadmap development:** A Scope 3 emissions reduction roadmap outlines the specific steps, milestones and timelines in an organization's Scope 3 journey. It provides a structured and strategic approach to guide the organization through the complex landscape of indirect emissions reduction. Key elements of the roadmap include:

- 1. Target setting:** Clearly define emissions reduction targets, both short- and long-term, in alignment with science-based and business objectives.
- 2. Action plan:** Identify the specific initiatives and projects that will lead to emissions reduction. This includes supply chain optimization, supplier engagement, process improvements and technology adoption.
- 3. Resource allocation:** Determine the resources, including personnel, budget and technology, required to implement the roadmap effectively.
- 4. Monitoring and reporting:** Establish mechanisms for continuous monitoring, data collection and reporting to track progress and ensure accountability.

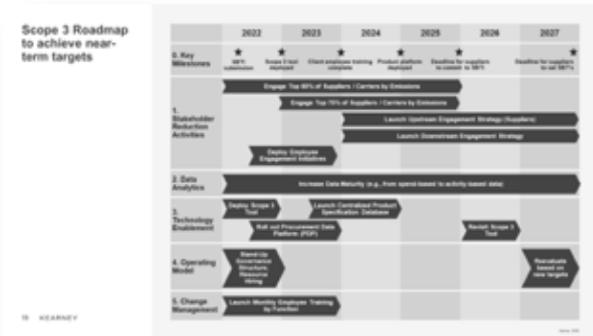
**Business case development:** To secure support and commitment, a compelling business case is essential. This case outlines the rationale for Scope 3 emissions reduction, emphasizing the financial, environmental and reputational benefits. Key components of the business case include:

- 1. Cost savings:** Demonstrating the potential cost savings associated with emissions reduction efforts. This may involve reduced energy consumption, transportation expenses and waste management costs.
- 2. Competitive advantage:** Highlighting the competitive advantages of being a sustainability leader. Companies that actively reduce Scope 3 emissions often attract environmentally conscious customers and investors.
- 3. Risk mitigation:** Emphasizing how emissions reduction contributes to risk mitigation. This includes reducing vulnerability to supply chain disruptions, regulatory changes and reputational risks.
- 4. Environmental stewardship:** Conveying the organization's commitment to environmental responsibility and sustainability. This fosters a positive public image and supports the organization's corporate social responsibility goals.

## Executive-level roadmap (five-year targets)

### Key focus areas:

- ① Key milestones
- ② Stakeholder (suppliers, customers, employees) emissions reduction activities
- ③ Data maturity
- ④ Technology enablement
- ⑤ Operating model
- ⑥ Change management



## Detailed roadmaps (25-year targets)

### Category-specific, based on five-step project management approach:

- ① Align
- ② Plan
- ③ Engage
- ④ Pilot
- ⑤ Scale



Source: Kearney.

By developing a roadmap and business case, organizations provide a structured plan and a compelling argument for Scope 3 emissions reduction. This step not only

outlines the path forward but also secures the support, resources and enthusiasm needed to drive meaningful, effective change in supply chain emissions reduction.

3

# Enabling the Scope 3 transformation: Ten imperatives for government action

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Vignesh Kamath  
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The imperatives for addressing Scope 3 emissions in India are unequivocal. The magnitude of these emissions necessitates a holistic approach that extends beyond corporate boundaries. In this context, the government of India plays a pivotal

role in driving Scope 3 emissions reduction. This chapter explores 10 critical imperatives for the Indian government to take proactive measures and incorporate Scope 3 emissions reduction in its policy framework and regulations.

FIGURE 24 | **Enabling the Scope 3 transformation**



## Imperative 1 | Policy framework and regulation

The Indian government can significantly advance Scope 3 emissions reduction through a robust policy framework and regulation. By setting clear and ambitious emissions reduction targets, enforcing emissions reporting and implementing stringent sustainability standards, the government can guide businesses and industries to adopt sustainable practices throughout their supply chains. Regulatory measures can encourage emissions tracking, disclosure and transparency, fostering a culture of environmental responsibility.

The introduction of carbon pricing mechanisms, emissions trading and tax incentives can provide tangible economic incentives for businesses to actively reduce their Scope 3 emissions. By creating a comprehensive regulatory environment that aligns with international sustainability standards and India's climate commitments, the government can drive meaningful change, promote responsible business practices and contribute to a more sustainable and low-carbon future.

## Imperative 2

### Public awareness and education

Promoting public awareness and education can play a vital role in India's Scope 3 emissions reduction journey. Through comprehensive campaigns and initiatives, the government can inform and educate businesses, communities and individuals about the significance of Scope 3 emissions, their impact on the environment and the benefits of reducing them. This awareness can extend to sustainable consumption and the importance of responsible choices in daily life.

By making sustainability and emissions reduction a part of public discourse, the government can

inspire a cultural shift towards environmentally responsible practices in supply chains, transportation and consumption. Additionally, educational programmes in schools, universities and vocational institutions can equip the future workforce with the knowledge and skills necessary to drive emissions reduction across industries. By fostering public awareness and education, the government can empower its citizens and businesses to actively participate in the journey towards a greener, more sustainable and low-emissions future.

## Imperative 3

### Financial incentives and support for emissions reduction projects

Targeted tax benefits, grants or subsidies for businesses that invest in decarbonizing their supply chains can encourage a broad adoption of sustainable practices across industries. The government's financial support can extend to

initiatives focused on renewable energy adoption, energy efficiency, sustainable transportation and emissions-tracking tools. Establishing dedicated funds and financial mechanisms for emissions reduction projects can further incentivize businesses.

## Imperative 4

### Support for sustainable infrastructure

By investing in and incentivizing eco-friendly transportation systems, such as public transit and electric vehicle charging networks, the government can facilitate emissions reduction in the transportation sector, which contributes to a significant proportion of indirect emissions. Additionally, promoting sustainable urban planning

and green building standards can reduce emissions in the construction, infrastructure and real estate sectors. By creating an environment conducive to sustainable infrastructure and emissions reduction initiatives, the government can accelerate the transition to a low-carbon economy and drive meaningful change in reducing Scope 3 emissions.

## Imperative 5

### Public procurement leadership

The government can set a powerful example for businesses and suppliers by prioritizing sustainable and low-carbon products and services in its procurement processes. By establishing clear sustainability criteria for its purchases, the government can favour products with lower carbon footprints and set targets for emissions reduction throughout supply chains. Through its procurement power, the government can stimulate market demand for environmentally responsible

products and drive innovation in sustainable practices. This leadership not only contributes to direct emissions reductions within government operations but also ripples through the supply chain, encouraging suppliers to adopt eco-friendly measures. Public procurement leadership can foster a culture of sustainability, inspiring businesses to make Scope 3 emissions reduction an integral part of their operations and supply chain management.

## Imperative 6 | Research and development support

By allocating funding and resources to R&D initiatives focused on sustainable technologies, materials and processes, the government can drive innovation that directly impacts emissions across the supply chain. This support can lead to the development of cleaner, more efficient and low-carbon technologies, influencing entire industries to adopt environmentally responsible practices.

The government can also promote collaboration between businesses and research institutions to accelerate the adoption of R&D-driven solutions, enhancing the competitiveness of companies that invest in emissions-reducing innovations.

Additionally, incentivizing R&D efforts focused on supply chain optimization and emissions tracking tools can provide businesses with the necessary tools and knowledge to drive Scope 3 emissions reduction effectively. By encouraging a culture of innovation and sustainability through R&D support, the government can empower organizations to meet their emissions reduction targets and transition to a greener, more environmentally responsible future. Investing in R&D would not only promote emissions reduction but would also position India as a leader in sustainable technology and innovation, potentially creating opportunities for technology exports.

## Imperative 7 | Collaboration and partnerships

By fostering alliances with industry associations, international organizations, research institutions and non-governmental organizations, the government can leverage a collective effort to address complex supply chain emissions. Collaborative initiatives can facilitate knowledge sharing, best practice exchange and development of industry-specific emissions reduction strategies. Furthermore, public-private partnerships can

be established to jointly fund and implement emissions reduction projects, accelerating the adoption of sustainable practices in supply chains. By actively engaging in global and regional collaborative efforts, the government can enhance India's sustainability profile, drive emissions reduction initiatives, and work towards a more environmentally responsible and sustainable future, aligning with the country's ambitious climate goals.

## Imperative 8 | Capacity building and knowledge transfer

Establishing training programmes, workshops, and educational resources for businesses and organizations can equip them with the necessary skills and expertise to identify and reduce indirect emissions within their supply chains. Sharing best practices, guidelines and case studies can foster a culture of sustainability, encouraging companies to adopt environmentally responsible practices. The government can also invest in research and development initiatives that generate innovative

solutions for emissions reduction, facilitating knowledge transfer and technology adoption.

By building the capacity and transferring knowledge to businesses, the government can empower a diverse range of industries to actively engage in Scope 3 emissions reduction efforts, fostering a more sustainable, low-emission and environmentally conscious economic landscape in India.

## Imperative 9 | Long-term policy certainty

Implementing and maintaining consistent, predictable and forward-looking policies and regulations that encourage emissions reduction practices can help businesses and industries confidently invest in sustainability initiatives that span their supply chains. Such long-term policy

certainty offers stability and incentives for the adoption of sustainable technologies, practices and emissions reduction projects. It allows companies to plan, allocate resources and make informed, strategic decisions to reduce their Scope 3 emissions over extended periods.

As a key leader in the international community, India can take the initiative to advocate for stronger global efforts to address Scope 3 emissions. This entails participating actively in international climate

agreements and fostering collaboration with other nations. India's influence and diplomatic efforts can inspire a global shift towards more sustainable and low-carbon supply chains.

Addressing Scope 3 emissions is not just a responsibility; it is a necessity for the government of India. The imperatives discussed in this chapter underscore the critical role of government in driving emissions reduction efforts within supply chains. By implementing these imperatives, India can align its

economic growth with environmental responsibility, fostering a future where sustainability and prosperity go hand in hand. The journey towards Scope 3 emissions reduction begins with decisive action from the government, shaping a more resilient and environmentally conscious India.

↓ Image credit:  
KishoreJ,  
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# Conclusion

In the pursuit of a sustainable and environmentally responsible future, the imperative to decarbonize supply chains is non-negotiable. The journey to decarbonize value chains promises not only environmental responsibility but also economic prosperity, operational efficiency and long-term resilience. As businesses navigate the uncharted waters of climate change, the decarbonization of supply chains emerges as a pivotal avenue for Indian businesses to demonstrate environmental leadership while securing their long-term viability.

The choices made today will shape the world of tomorrow. The decisions taken by Indian businesses and organizations will have a far-reaching impact on the environment, society and the economy. Embracing Scope 3 emissions reduction is not just a responsibility; it is an opportunity – a chance to lead, innovate and

prosper in a world that increasingly values sustainability.

This is not just a report but a call to action. It is a compendium of knowledge and best practices that can guide organizations large and small in their quest for sustainability.

As the report indicates, the journey to decarbonize supply chains is not a solitary one. It requires the collaboration of businesses, governments, non-governmental organizations and the broader community. It is a journey that holds the promise of not only reducing carbon emissions but also ushering in a future where business prosperity and environmental stewardship are mutually reinforcing. Together, Indian businesses, policy-makers and stakeholders can decarbonize supply chains and help build a sustainable, resilient and thriving future for India and the world.

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