

Scope 3 Problem Solving White Paper

Incentivizing PCF Exchange Across Supply Chains



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Background

Supplier-specific product carbon footprints (PCFs) unlock new opportunities for businesses to drive targeted emissions reductions, enhance supply chain collaboration, and meet evolving customer and investor expectations. Given that Scope 3 emissions often constitute the majority of a company's carbon footprint, leveraging supplier-specific data is essential for meaningful climate action.

However, given limited time and resources, businesses need to **strike a balance between the resources allocated to gathering accurate supplier data and resources dedicated to initiatives driving reductions**. This requires prioritization and a greater focus on strategically targeting data collection efforts to areas with the highest potential impact rather than

aiming to source supplier-specific data for all supply chain emissions.

To encourage suppliers to provide accurate and timely PCFs, companies must go beyond simply requesting PCF data and instead **demonstrate a clear link between data sharing and shared decarbonization goals**. This involves integrating data collection with joint decarbonization strategies and projects. By showing suppliers how their data contributes to real, measurable progress, companies can foster a sense of shared ownership and ensure the reliability of the information received. This collaborative approach is essential for driving meaningful and sustainable emissions reductions across the entire value chain.



Challenge

Businesses face a double-edged sword when trying to strategically source their key suppliers' emissions data, since **successfully gathering and utilizing supplier emissions data requires addressing both internal and external challenges**. Internally, a primary obstacle is securing and maintaining company-wide buy-in. This goes beyond mere acknowledgment; it demands **active leadership commitment and the allocation of sufficient resources**. Without this, data collection efforts are often fragmented, hampered by limited tools, and lack alignment with core business strategies. Companies must demonstrate the clear business value of this data, linking it to cost savings, risk mitigation, and brand enhancement, to ensure it is prioritized.

Externally, the challenge lies in **effectively engaging strategic suppliers to collect high-quality emissions data** so critical to maximizing emissions reductions. Many suppliers, especially smaller ones, simply do not have the resources or expertise to track and report their carbon footprint. They might also see limited value in doing so, especially if the direct benefits to their business or contribution to a clear, shared goal are not evident.

Underpinning both of these challenges is a general lack of industry-specific best practices. Companies typically develop their supplier engagement programs individually, which creates additional burden and duplication for already resource-constrained suppliers and limits the potential for companies to learn from one another when defining and implementing reduction initiatives. In addition, the rapidly evolving and fragmented landscape of digital tools for emissions tracking and reporting adds further complexity. **The lack of interoperability and standardization between tools can hinder both data collection and supplier collaboration**. This challenge is directly addressed by the PACT Network, which aims to establish a common, interoperable infrastructure to streamline data exchange and reduce the burden on all participants in the value chain.

By addressing these two core challenges, **this White Paper presents a clear, action-oriented roadmap** for companies seeking to develop industry-specific best practices **to successfully engage with key suppliers**. These suppliers are identified as material based on emissions, spend, or both, depending on the company's materiality assessment. The goal is to facilitate PCF data exchange and drive decarbonization across value chains.



Solution

Action 1: Securing and maintaining internal momentum

Building internal momentum is essential to ensure that the right personnel, tools and resources are allocated to supplier engagement for PCF data collection and that the appropriate actions are taken to drive decarbonization across the organization. Companies can foster this momentum by:

1. **Securing senior leadership buy-in: Driving internal momentum for sustainability requires strong leadership, cross-functional collaboration, and clear communication to achieve lasting change.** When sustainability is embedded in company culture and decision-making, it evolves from a standalone initiative into a shared commitment, ensuring long-term impact and success.

Leadership support drives cultural change, integrates sustainability into core business functions and fosters accountability. This ensures that decarbonization goals are reflected not only in daily operations but also in internal guidelines, such as department policies and Sustainability Codes of Conduct. Leadership should therefore be engaged with clear, value-driven actions and held accountable for the success of these initiatives via sustainability-linked KPIs.

In addition, leveraging external pressure of stakeholder expectations, peer review, customer demand, and evolving regulations can highlight the importance of setting and meeting climate goals across the business. **By integrating sustainability into all business functions within an organization, company executives can better understand its importance and implement the necessary enablers for continued progress.** However, companies must also consider the practical limitations of enforcing such requirements, particularly the risks associated with ending relationships with suppliers that cannot meet environmental expectations. The feasibility of such actions depends on a company's leverage, the criticality of the supplier, and the availability of viable alternatives.

2. **Building a decentralized or distributed governance model: An effective governance model facilitates internal communication and collaboration.** The table below compares the three main types of governance models. Although a centralized approach can be faster to implement, decentralized and distributed models increase the visibility of climate efforts and foster collaboration, innovation, and deeper understanding of climate action. While these structures often require more coordination and time to establish, they better enable the integration of sustainability considerations in decision-making across teams.

Figure 1: Comparison of Centralized, Decentralized, and Distributed Governance Models

	Centralized	Decentralized	Distributed	What needs to be done
Suitable for	Specialized businesses with simpler emissions inventories	Complex operations spanning multiple product types, markets, or supply chains	Mission-driven organizations with ambitious climate goals	Step 1: Identify appropriate governance structure to implement
Setup	Single leadership team/committee that sets strategy and drives implementation	Each key business units govern climate initiatives autonomously under corporate oversight	Cross-functional teams with collaborative platforms enable dynamic climate decision-making	Step 2: Define responsibilities and accountabilities while ensuring strong interlinkages
Advantage	Easy to set up; Faster corporate-level decision making & execution across business	Resilient to single-point decision failure; autonomy boosts participation Scales easily	Broad climate engagement . Enhanced transparency . Fosters innovation and learning	Step 3: Understand advantages and limitations to develop effective risk mitigation and communication strategies
Challenges	Limited scalability, less flexibility, potential bureaucracy	Duplication of efforts; Uneven commitment Inconsistencies, coordination challenges	Complexity to set up, communication and coordination; slower decision making	

Cross-functional collaboration, supported by decentralized and distributed governance, aligns key functions on PCF data exchange and decarbonization. For instance, following these governance models could lead to sustainability teams defining requirements and building capacity, business and commercial units driving product-level decision-making, procurement leading supplier engagement and incentivizing data exchange, and finance teams assessing costs and investment needs, amongst other roles and responsibilities to be distributed across the organization. Each function brings a unique lens, and their coordinated roles are critical to operationalizing climate goals.

A key enabler of this collaboration is the ability to present and use PCF data in ways that are relevant to each function and to communicate insights in terms aligned with their priorities—whether that's cost, risk, performance, or compliance. Although not all companies currently have the systems in place to support this level of data granularity and integration, building this capability should be considered a priority.

Ultimately, **strong cross-functional governance and communication are necessary to ensure transparency, efficiency, and a unified approach to decarbonization** across the organization.

3. **Deploying enabling approaches to further the climate journey with progressive steps:** Companies may start by building shared understanding and responsibility through the integration of specific climate change KPIs into business functions. **This involves turning reduction targets into specific metrics, assigning them to appropriate teams and individuals, and tracking progress along the way.** In addition, incorporating upskilling efforts can help those in each role fully understand the capability needs and required levels of knowledge for meeting targets. Once accountability structures are in place, **introducing internal incentives can effectively accelerate momentum and deepen both internal and supplier engagement, enhancing efficiency and impact.** At a more mature stage, carbon pricing will be a necessary step for companies to make meaningful reduction actions as it monetizes the future costs of transition and physical climate risks into business decision-making.

At the same time, sustainability has become a powerful driver of brand value, especially for companies that position environmental responsibility as core to their identity. Sourcing sustainable products, such as low-carbon materials, drives innovation in the supply chain and complements internal efforts related to sustainable product design. As demand for sustainable solutions grows, understanding and capturing this customer preference will be essential to unlocking the full value of sustainability investments.

Figure 2: Progressive Steps and Best Practices for Embedding Climate Action into Business Strategy

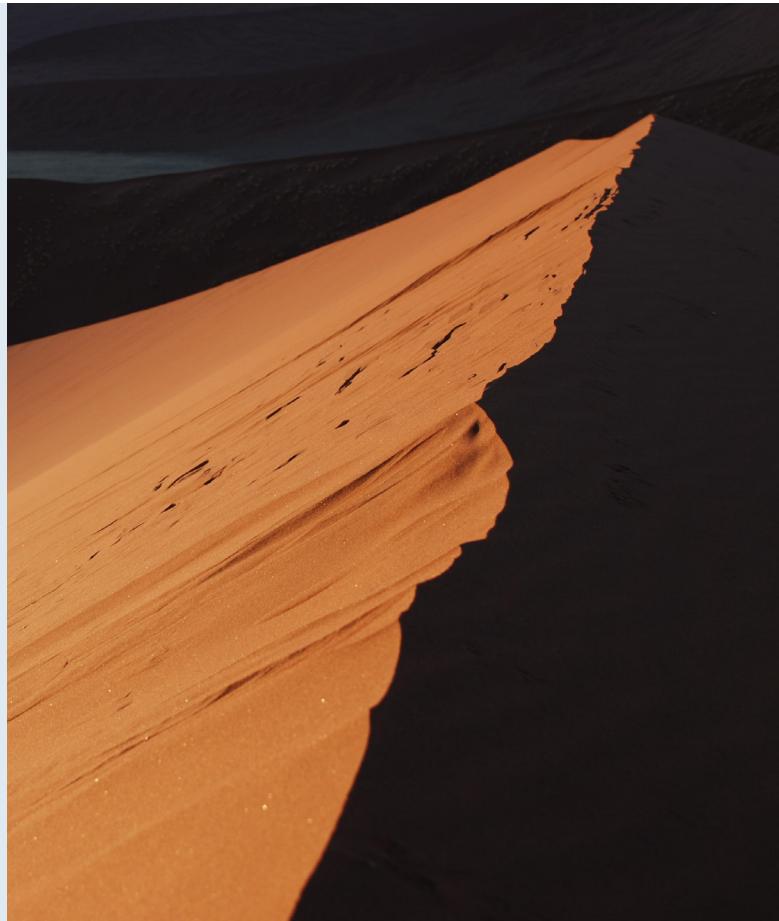
Progressive steps	Key components	Best Practices
Create shared knowledge and responsibility 	<p>Set specific climate KPIs across business functions</p> <p>Upskilling the organization to enable action</p>	<ul style="list-style-type: none"> Translate corporate climate action into actionable outcomes Break down aggregate reduction targets into specific metrics Ensure data is available and specific enough to align with business KPIs Assign metrics to appropriate teams and individuals and track progress <ul style="list-style-type: none"> Define capability need based on climate-relevant decisions tied to KPIs Assess required levels of knowledge by role and Scope 3 reduction impact Establish differentiated channels for upskilling efforts
Incentivize ownership for deeper engagement 	<p>Financial rewards</p> <p>Non-financial rewards</p>	<ul style="list-style-type: none"> Based on the business case components, define KPI weighting and integrate them into compensation decisions Enhance budget allocations for climate initiatives <ul style="list-style-type: none"> Provide public recognition: Implement flagship programs to encourage sustainable corporate culture (e.g., "green challenges") Provide career development opportunities
Price carbon to integrate climate into business decision making 	<p>Shadow price</p> <p>Carbon fee</p> <p>Implicit price</p> <p>Internal trading</p>	<ul style="list-style-type: none"> A hypothetical cost of carbon to help organizations understand impact <ul style="list-style-type: none"> A per-unit fee based on GHG emissions charged to business units <ul style="list-style-type: none"> Price used to quantify capital investments needed to meet climate targets <ul style="list-style-type: none"> Allows a company's business units to trade credits based on emissions

Box 1: Examples of Corporate Actions to Enable Scope 3 and PCF Data Integration

Action 1: Use a distributed governance approach to integrate formal decision-making with informal collaboration, ensuring all key teams share responsibility for Scope 3 management, including PCF data exchange. Incentivize employees through KPI-linked bonuses, recognition programs, and career development opportunities to encourage participation and data exchange efforts.

Action 2: Upskill employees on decarbonization and assign sustainability champions within each team to drive PCF data exchange. These champions facilitate internal alignment, provide internal and supplier training, and reinforce the importance of supplier data.

Action 3: Apply an internal carbon price to financial assessments, integrating PCF data into Return on investment (ROI) calculations to prioritize low-carbon investments. By tying carbon data to procurement costs and budgeting decisions, the company creates internal alignment to incentivize suppliers to share accurate PCF data.



Action 2: Strategic supplier engagement to incentivize PCF exchange

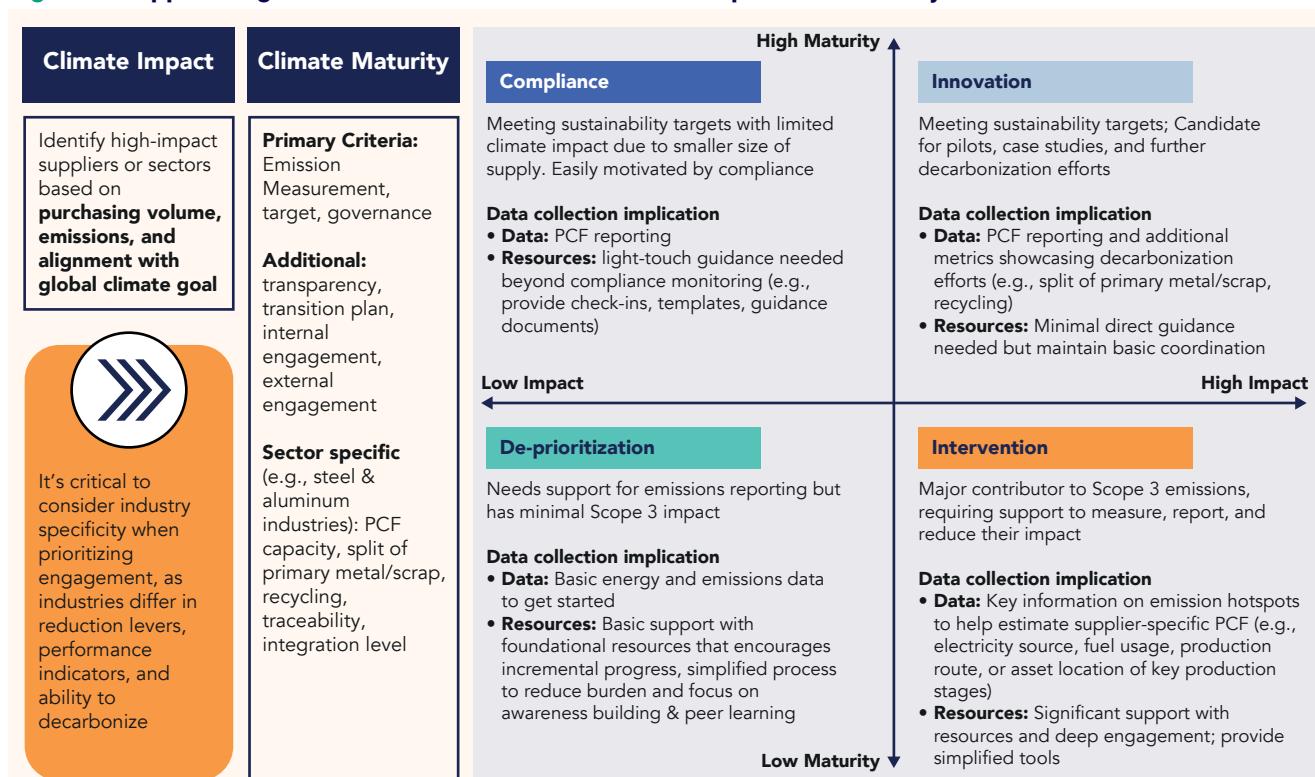
Strategic supplier engagement is critical to meeting climate goals and targets. Enhancing collaboration with suppliers, building their capacity, and offering incentives can improve PCF data exchange and lead to more impactful collaboration. Companies can take the following steps to drive meaningful supplier engagement:

1. **Supplier segmentation and prioritization are essential** because suppliers at different stages of their climate journeys have different needs. A structured segmentation approach enables organizations to allocate resources effectively and tailor engagement strategies to improve PCF exchange and maximize impact. A company-specific segmentation strategy can be developed by assessing suppliers based on criteria that evaluate their emissions impact and climate maturity. To optimize this process, sector-specific criteria should also be factored into this evaluation. Once suppliers are segmented, companies ones to prioritize for engagement.
2. **Tailored engagement strategies improve outcomes.** Since suppliers have different needs, engagement approaches must be tailored. Suppliers with both high emissions impact and a strong climate maturity are typically already aligned with climate targets, which offers opportunities for collaboration. In contrast, those with high emissions impact but low capacity to measure, report, or reduce emissions are critical to engage from a capacity-building standpoint. Suppliers with high maturity but low impact may be easily motivated to meet baseline requirements, while those with minimal impact and maturity require limited resources and may be prioritized for active engagement.

Companies should tailor data requests to match each supplier's maturity level, as suppliers with different levels of maturity will be able to provide data at different levels of granularity. For example, a supplier at the beginning of their climate journey may be initially asked to provide only basic information, while a more advanced supplier can be expected to deliver more granular data. Through capacity-building, companies can help suppliers at the beginning of their journeys to progress in their climate maturity.

Early alignment is key. For effective data collection, companies should align sustainability goals and expectations with suppliers during the initial outreach stage, emphasizing how the data supports the supplier's own decarbonization efforts. Ongoing engagement with suppliers through regular 1:1 meetings and webinars helps clarify expectations and provide opportunities to discuss progress. Companies can also facilitate peer-learning forums or industry consortia to promote knowledge sharing and best practices.

Figure 3: Supplier Segmentation Matrix Based on Climate Impact and Maturity



3. A structured supplier engagement program ensures alignment across stakeholders, fosters collaboration, and promotes continuous improvement, making data collection valuable for suppliers. Engaging suppliers in concrete decarbonization actions, particularly around **key abatement levers**, supports progress toward more granular PCF data by enabling more accurate monitoring and reporting.

Setting clear requirements on data exchange and emissions performance, supported by incentives or penalties, is effective for most supplier groups. The **Innovation group** (see Figure 3, top right quadrant) **offers the largest reduction opportunity**, so buyers should set low-carbon performance requirements and prioritize financial rewards like green premiums or long-term contracts to drive effective reduction results.

The **Intervention group** (see figure 3, bottom right quadrant) **requires capacity building support**. Staged data exchange requirements in contracts, along with non-financial rewards and light penalties, can drive progress. For the **Compliance group** (see figure 3, top left quadrant), binding data exchange provisions and non-financial penalties ensure adherence to climate requirements.

Finally, **only minimal efforts should be dedicated to the De-prioritized group** (see figure 3, bottom left quadrant), focusing only on basic due diligence and risk mitigation. Companies should define which levers from the diagram below to apply for each supplier segment and implement those best suited to their unique situation.

Figure 4: Tailored Incentives by Supplier Group

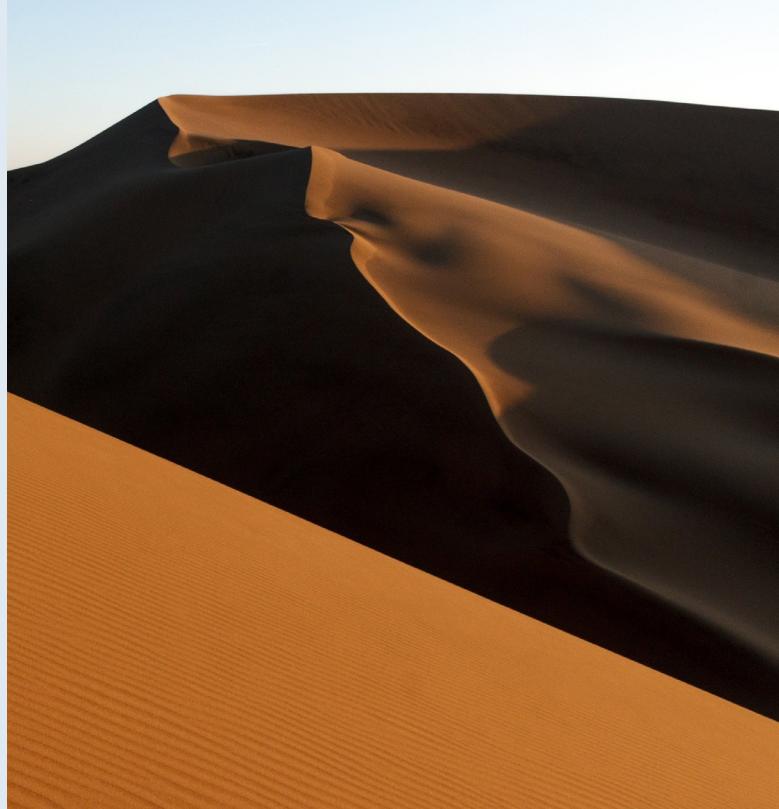
Compliance	Innovation
<ul style="list-style-type: none"> Smaller suppliers in climate-focused regions May be non-integrated – their own emissions might be small Likely already low in emissions due to regional favorable conditions (grid, energy, efficiency) Have opportunity to collaborate to take advantage of its reduction progress and enforce climate/sustainability requirement 	<p>Non-financial penalties in contracting (e.g., mandate reporting, GHG reduction clauses). It should be easy to comply based their maturity level</p> <ul style="list-style-type: none"> Leading suppliers in climate-focused regions Often have integrated operations (e.g., mining to scrap recycling), offering innovation flexibility Ambitious and capable for deep-decarbonization but need strong support and demand signals Ideal candidate for joint business planning, pilot testing/MOUs for deep-decarbonization projects, funding provision
<p>De-prioritization</p> <ul style="list-style-type: none"> Suppliers with lower maturity in climate data or action Require tremendous efforts for capacity building and engaging for reduction Replacing them may seem low-risk, but some suppliers are hard to replace due to specialized capabilities or geographic constraints Enforcing basic requirements is still needed for risk avoidance and due diligence safeguard 	<p>Intervention</p> <ul style="list-style-type: none"> Often in less climate-focused or/and major production regions Mixed climate maturity level (beginners and intermediates) and likely focus on incremental reductions (e.g., efficiency improvements) Require significant efforts for capacity building, but rewarding good performers can accelerate learning and incentivize actions <p>For beginner suppliers:</p> <ul style="list-style-type: none"> Capacity building – to advance climate maturity Peer benchmarking – to reinforce learning <p>For intermediate suppliers:</p> <ul style="list-style-type: none"> Lower-cost financial rewards Non-financial penalties for unmotivated ones Public recognition

Box 2: Example of Corporate Actions to Engage Suppliers on Scope 3 Emissions Reduction

Action 1: Use segmentation to prioritize the 20% of suppliers responsible for 80% of their Scope 3 emissions. Have a dedicated supplier engagement program with structured meetings and follow-ups, and use digital tools to simplify data collection and build supplier capacity.

Action 2: Provide suppliers with a clear framework for reduction of greenhouse gas emissions and offer strategies, tools, and case studies to help suppliers identify reduction opportunities, set targets, and track progress.

Action 3: Define a CO₂e target and cross-reference supplier data to evaluate compliance with targets prior to contracting suppliers. Select those who meet the targets and have those not meeting targets enter a mitigation plan. Introduce fees for non-compliance post contract signature or replace the supplier.



To effectively address emissions across the entire supply chain, **companies must also make efforts to engage suppliers beyond Tier 1**. By tailoring their strategies, companies of all sizes and degrees of purchasing power can drive this engagement. While a larger enterprise with ample resources can build requirements for Tier 1 suppliers into contracting, a smaller company with limited purchasing power can still work with their Tier 1 suppliers to identify key Tier 2 suppliers by providing basic tools and guidance.

Figure 5: Tailored Engagement Strategies by Supplier Size and Purchasing Power

	Large enterprise with high purchasing power and resources	Medium-Sized Companies with Moderate Purchasing Power	Small Companies with Limited Purchasing Power
Key strategy	<ul style="list-style-type: none"> Mandatory requirements in contracts Preferred supplier programs (e.g., longer contracts) & financial incentives Industry collaboration: lead sector wide standards and decarbonization 	<ul style="list-style-type: none"> Partnerships and collaboration for collective influence (e.g., FMC, PACT) and shared learning Combination of financial & non-financial rewards and penalties 	<ul style="list-style-type: none"> Collaboration: Join industry coalitions to leverage resources, tools, trainings and collective purchasing power Simplified requirements Non-financial incentives (public recognition, certifications)
Capacity building resources & tools	<ul style="list-style-type: none"> Advanced supplier on-boarding and training programs Access to LCA tools and carbon accounting platforms 	<ul style="list-style-type: none"> Workshops and webinars Simplified tools and templates Shared best practices 	<ul style="list-style-type: none"> Free or low-cost training Basic tools (e.g., excel) for calculation and guidance Provide peer learning opportunities
Cascading Beyond Tier 1	<ul style="list-style-type: none"> Require Tier 1 suppliers to engage their suppliers and beyond Provide tools and resources to support their supply chain 	<ul style="list-style-type: none"> Encourage Tier 1 suppliers to engage their suppliers and beyond Share success stories. Leverage supplier agency to gain expertise in offering support for engagement 	<ul style="list-style-type: none"> Work with Tier 1 on prioritizing and engaging their suppliers and beyond. Provide basic tools and guidance. Provide low-cost financial incentives, such as shorter invoice payment terms

Strategic supplier engagement is key to driving sustainability across the value chain, fostering collaboration, and ensuring shared accountability for impact reduction. **By equipping suppliers with the right tools, expectations, and support, companies can accelerate progress toward their sustainability goals** while strengthening long-term partnerships.



Vision for the future

PCF data collection is only one of several key components of effective supplier engagement programs, which can become a powerful driver of measurable decarbonization when integrated with low-carbon procurement. A key element of this process is evaluating the full spectrum of low-carbon product choices, from standard-certified and low-carbon brands to advanced solutions emerging from decarbonization projects and net-zero technologies. By selecting the most suitable options, procurement - working with business units and customers - can play a direct role in reducing supply chain emissions and encourage supply chain innovation.

In the short term, **integrating climate considerations into procurement decisions can incentivize supplier decarbonization while maintaining cost effectiveness**. Procurement teams should assess emissions at both product- and industry-level, evaluate the effectiveness of reduction actions, and consider technology costs and associated risks to support informed decision-making.

Achieving net-zero supply chains requires full value chain engagement. In the long term, companies must go beyond Tier 1 suppliers to support decarbonization across multiple tiers, including upstream material producers. This requires a combination of supplier engagement and targeted procurement of low-carbon products (goods & services). Forward-looking procurement mechanisms, such as small-batch contracts, long-term agreements, group purchasing, direct investments, or book-and-claim systems, can help unlock these reductions.

Companies should tailor their procurement strategy and assess the appropriate level of investment and effort by evaluating their risk appetite, long-term goals, reduction levers, scalability, and flexibility of potential approaches to determine the most effective path forward.

This White Paper leveraged insights from RMI's '[Accelerating Supply Chain Decarbonization Corporate Guide](#)'. For a comprehensive approach to addressing Scope 3 challenges—including overcoming reporting fatigue, managing data uncertainty, establishing strategic supplier engagement for effective emissions reductions, and selecting the most impactful purchasing options—please refer to the Guide.

Disclaimer

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About WBCSD

The World Business Council for Sustainable Development (WBCSD) is a global community of over 225 of the world's leading businesses driving systems transformation for a better world in which 9+ billion people can live well, within planetary boundaries, by mid-century. Together, we transform the systems we work in to limit the impact of the climate crisis, restore nature and tackle inequality.

We accelerate value chain transformation across key sectors and reshape the financial system to reward sustainable leadership and action through a lower cost of capital. Through the exchange of best practices, improving performance, accessing education, forming partnerships, and shaping the policy agenda, we drive progress in businesses and sharpen the accountability of their performance.

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About PACT

PACT offers a streamlined methodology for calculating and exchanging product carbon footprints (PCFs) to promote decarbonization across value chains.

Powered by the World Business Council for Sustainable Development (WBCSD), PACT harmonizes the PCF calculation and exchange through a universal methodology, technical specifications for PCF exchange, and an ecosystem enriched by a network of committed, impact-driven companies.

With participation from more than 150 stakeholders, including businesses, policymakers, and standard setters, PACT collaborates with over 11 industry-specific initiatives. More than 2,500 companies have adopted PACT, striving to accelerate supply chain transparency and foster decarbonization within the private sector, driving sustainable and enduring business practices.

If you would like to find out more about PACT, please contact:

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About RMI

Rocky Mountain Institute (RMI) is an independent, nonpartisan nonprofit founded in 1982 that transforms global energy systems through market-driven solutions to secure a prosperous, resilient, clean energy future for all. In collaboration with businesses, policymakers, funders, communities, and other partners, RMI drives investment to scale clean energy solutions, reduce energy waste, and boost access to affordable clean energy in ways that enhance security, strengthen the economy, and improve people's livelihoods. RMI is active in over 60 countries.





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