

ReMA's 2025 Sustainability Webinar Series

Scope 3: Emissions and Supply Chain Transparency

June 10, 2025



Recycled Materials
Association
Sustainable. Resilient. Essential.

recycledmaterials.org

Presenters



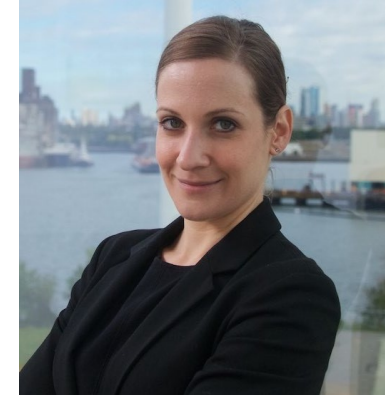
Natalie Betts
Asst. VP of
Sustainability
ReMA



Susan Robinson
ReMA Consultant



Blythe Chorn
KPMG



Eszter Csicsai
Sustainability
Consultant

ReMA Sustainability Resources

- **Quarterly Sustainability Network Meetings**
 - Email nbetts@recycledmaterials.org to join
- **ESG Toolkit- 8 Modules of Information, Tools, and Resources**
 - What is ESG
 - Strategy, Goals & Materiality
 - Environment
 - Social
 - Governance
 - Reporting
 - Value Creation [New Content on Communicating Sustainability* Coming Soon!]
 - Climate Risk & Business Resilience* New!

Agenda

Susan Robinson – ReMA Consultant

- Setting the Stage

Blythe Chorn, KPMG

- Supply chain transparency & sustainability overview

Eszter Csicsai – Sustainability/Brand Consultant

- What brands need for their Supply Chain Reporting

Supply Chain & Sustainability

Every product and service has a supply chain.

Companies want to ensure that their vendors (and their vendors' supply chains) are managing their operations to reduce supply chain risk. They seek information about their vendors' leadership team, their policies, their environmental practices, and their employee practices and community impacts.

If a company is operating sustainably within their 4 walls but using vendors that are not (i.e. violating environmental laws, not treating employees well), that will ultimately impact that company's operations and sustainability credibility.

Recycled Materials Industry: Supply Chain Example



Employee
Management

+



Vendor Supply
Chains

+



Needed for
operations

=



Ensures reliable
service

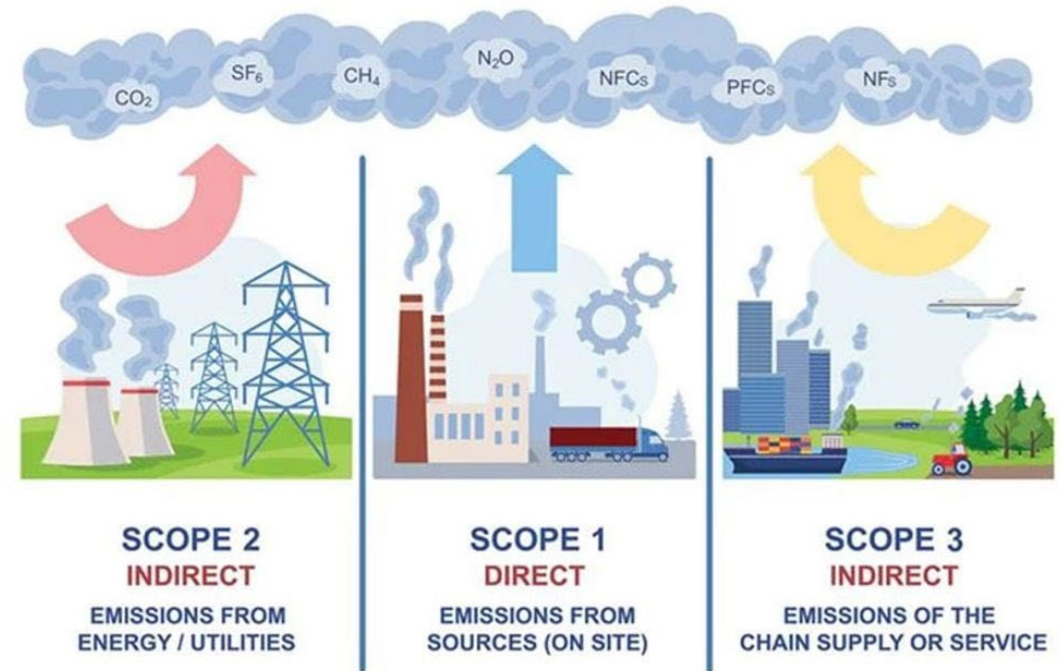
Carbon emissions play an important role in supply chain evaluation

Carbon Emissions Categories

Carbon emissions are grouped into three different categories to ensure that they are not double counted:

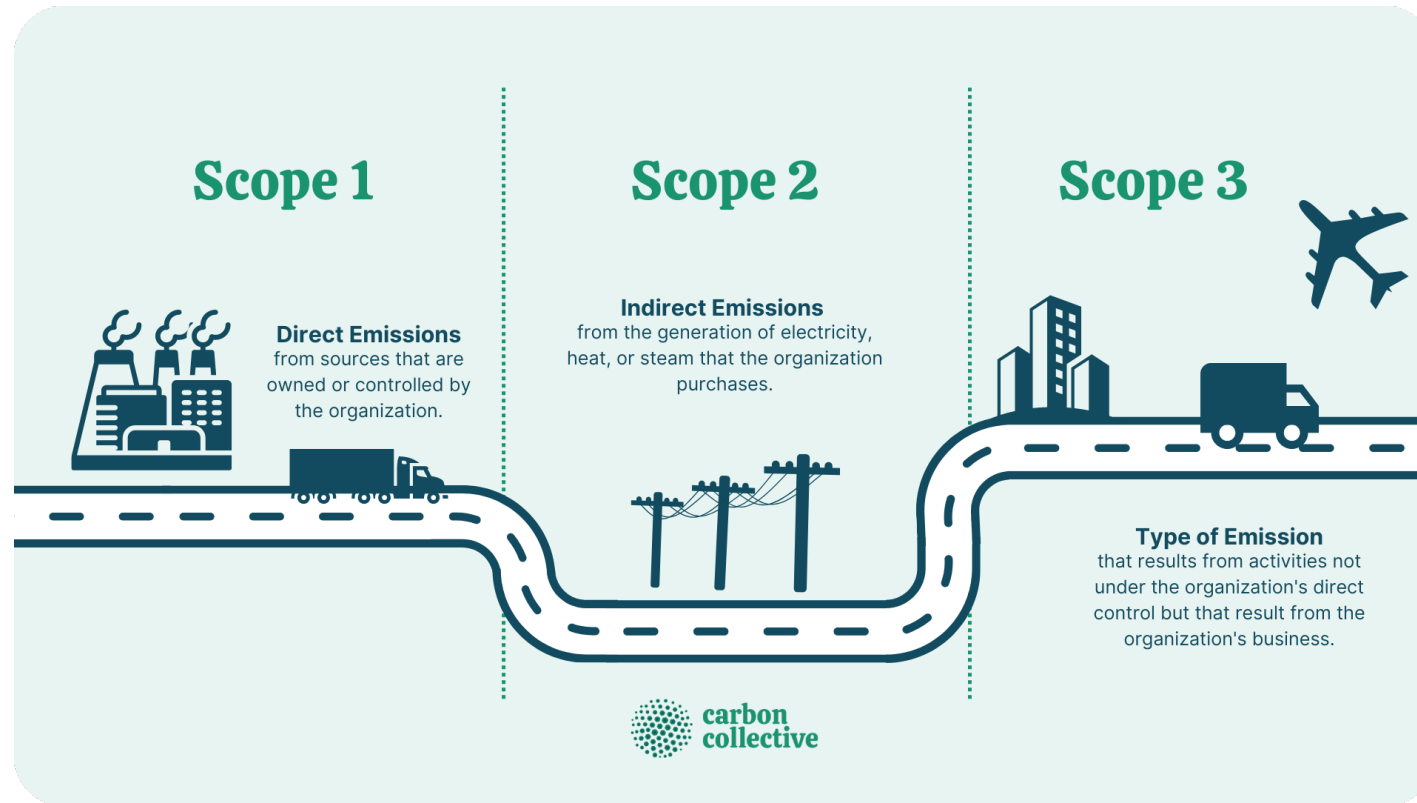
- **Scope 1 – Direct Emissions.**
“Direct emissions” are created by a company’s operations (e.g. emissions from the fuel from a company’s fleet and combustion from its manufacturing processes).
- **Scope 2 – Indirect Emissions**
Emissions caused indirectly from a company’s energy use (e.g. electricity).
- **Scope 3 – Supply Chain Emissions.**
Emissions created by suppliers and vendors in a company’s value chain.

SCOPES OF EMISSIONS



Scope 3: The Role of Scope 3 Emissions

Carbon emissions across supply chains plays an important role in understanding the environmental impact of a company's operations.



Scope 3 emissions are indirect supply chain emissions (other than electricity) that are the consequence of the activities of the company but occur from sources not owned or controlled by the company.

Scope 3 Categories

1. Purchased Goods and Services

Emissions from goods and services the organization purchases: office supplies, furniture, and equipment.

2. Capital Goods

Emissions from capital goods come from the production of the things that the organization purchases, such as [buildings, machinery, and vehicles](#).

3. Fuel and Energy-Related Activities

The emissions from [fuel and energy consumption](#) that are not under the organization's control, such as emissions from natural gas, heating oil, and other fossil fuels.

4. Upstream Transportation and Distribution

Transportation and distribution emissions occur before the product or service is delivered to the organization, including the shipping of raw materials and finished products.

5. Waste Generated in Operations

[Emissions from waste](#) that is generated during the organization's operations. It can consist of emissions from solid waste, hazardous waste, and wastewater.

6. Business Travel

Emissions that the organization conducts: air travel, ground transportation, and lodging.

7. Employee Commuting

This including air travel, ground transportation, and lodging emissions.

8. Upstream Leased Assets

Emissions occurring before the product or service is delivered to the organization, including emissions from shipping raw materials and finished products.

9. Downstream Transportation and Distribution

Emissions occurring after the product or service is delivered to the organization, including shipping of raw materials and finished products.

10. Processing of Sold Products

Emissions from the processing of sold products. It can consist of emissions from manufacturing, packaging, and assembly.

11. Use of Sold Products

Emissions from the use of sold products. It can consist of emissions from the operation of machinery, vehicles, and appliances.

12. End-of-Life Treatment of Sold Products

Emissions from the end-of-life treatment of sold products, including recycling, incineration, and landfills.

13. Downstream Leased Assets

Emissions from assets used but not owned by the organization. It can include emissions from buildings, machinery, and vehicles.

14. Franchises

Emissions from the organization's franchise operations, including emissions from transportation, waste, and energy consumption.

15. Investments

Emissions from the organization's investments, which can consist of emissions from portfolio companies and venture capital investments.

Upstream vs Downstream Emissions

Upstream

Scope 3 Emissions

1. Purchased goods & services
2. Capital goods
3. Fuels-and-energy- related activities (not included in scope 1 or scope 2)
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased assets



1. Transportation and distribution of sold goods
2. Processing of sold products
3. Use of sold products
4. End-of-life treatment of sold products
5. Downstream leased assets
6. Franchises
7. Investments

Recyclers emissions can be
"Upstream" and "Downstream
Emissions" to their customers.

Why Scope 3 Emissions are Important

- **Including Scope 3 emissions creates a complete assessment of company's impact across its value chain.**
 - ✓ Waste and recycling companies tend to have a lower percentage of Scope 3 emissions
 - ✓ As much as 98% of retail business emissions are from Scope 3 categories.
- **Knowing these emissions allows a company to optimize its reductions for the greatest impact.**
 - ✓ Companies with a large percentage Scope 1 emissions from fleet and equipment can focus on reducing emissions from its fuel use.
 - ✓ Companies with large Scope 3 emissions have to rely on more complex relationships with suppliers and customers to encourage the reduction of emissions in other parts of the supply chain.

Every company is part of another company's supply chain

Scope 3 Reporting Requirements

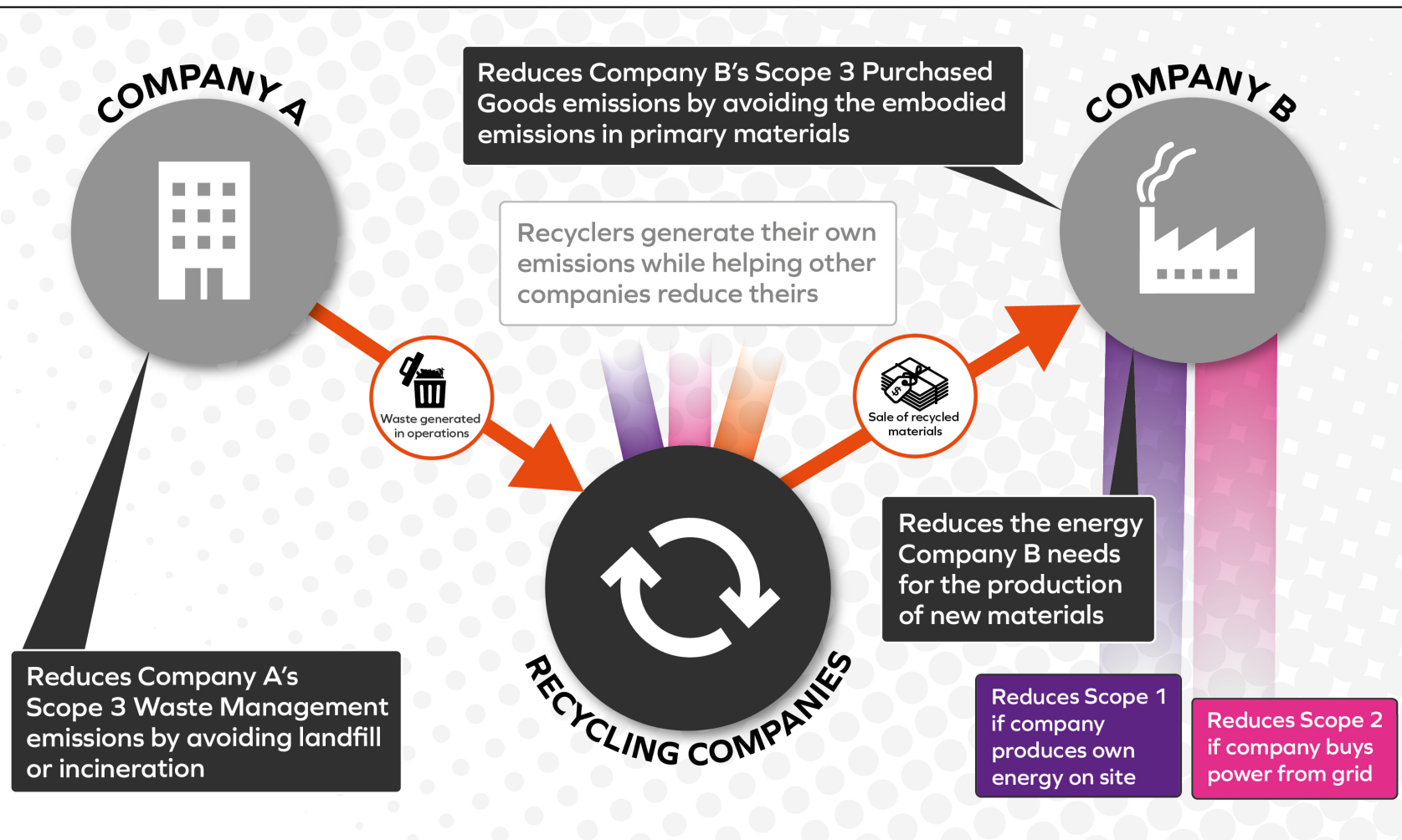
- Focus has historically been on Scopes 1 & 2 emissions reporting
- GHG Protocol Guidance does not require reporting or goal setting on Scope 3 emissions if they are less than 40% of a company's overall emissions inventory.
- On average, 75% of a company's total emissions inventory is from Scope 3 emissions.

California's SB 253 requires GHG emission reporting for companies with over \$1million in revenue: [Bill Text - SB-253 Climate Corporate Data Accountability Act. \(ca.gov\)](#). Companies doing business with a company with California operations will be required to provide information on their GHG emissions to meet the regulatory requirements.

The EU's Corporate Sustainability Reporting Directive (CSRD) was passed in 2022, with requirements for a broad reach of companies to report on wide range of topics, beginning in 2025 ([CSRD-Fact-Sheet.pdf](#)).

If your company does business with a company with covered EU or California operations, you will be required to provide your customers with information on your GHG emissions so they can meet their regulatory requirements.

WAYS RECYCLING CAN REDUCE GHG EMISSIONS ACROSS THE SUPPLY CHAIN



Recycled Materials Association

Scope 1: Direct emissions

Scope 3: Supply chain emissions

Scope 2: Indirect emissions

Reporting company

Graphic shows possible ways recycling reduces emissions. Not all materials, products or commodities will produce emissions benefits in each category or scope shown.

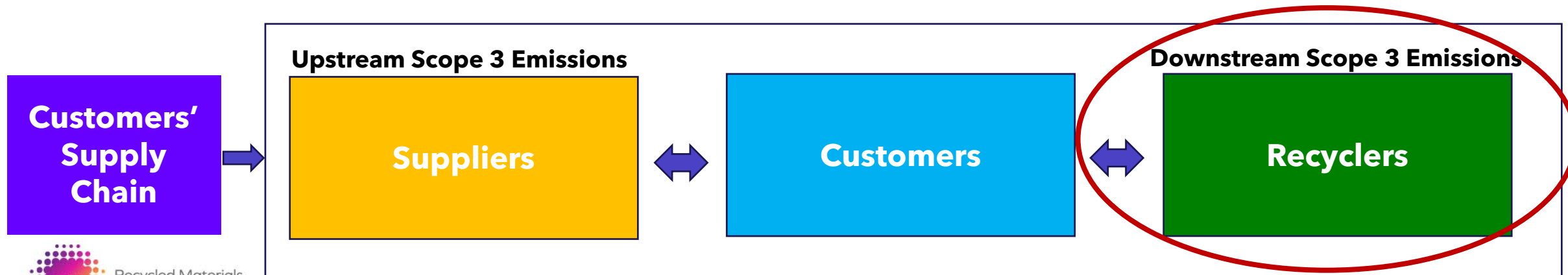
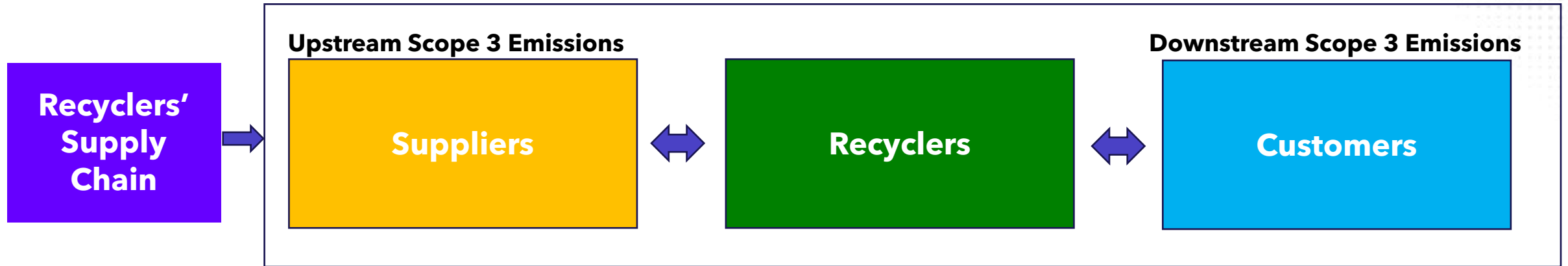


Recycled Materials Association

The Role of Recyclers in Scope 3 Emissions Reporting

Recyclers play an important role in our customer supply chain.

- Recyclers are part of our customers' Scope 3 emissions.
- Our suppliers make up our Scope 3 emissions supply chain



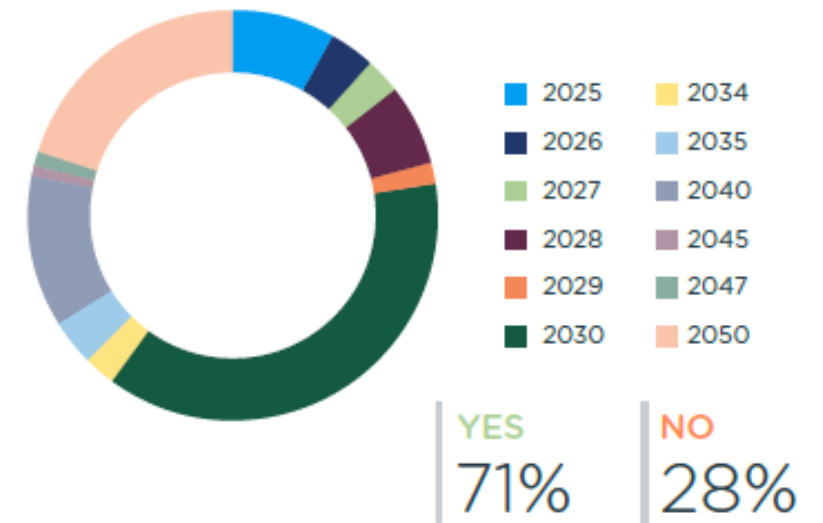
Barriers to Scope 3 Reporting

71% of companies surveyed have Scope 3 reduction targets. However, relatively little progress has been made toward achieving these goals.

Key obstacles include identifying the data for reporting, and management of these emissions:

- Only 15% of companies engage with multiple tiers along their value chain – which means that they do not have visibility into their emissions.
- There is a lack of control or influence over indirect supplier to provide Scope 3 data. Inability to obtain data from suppliers was identified as a critical barrier to reducing supplier emissions.

Respondents with scope 3 targets and target years



Key Scope 3 Categories Priorities

Overall the categories with the most frequently noted challenges related to Scope 3 emissions are:

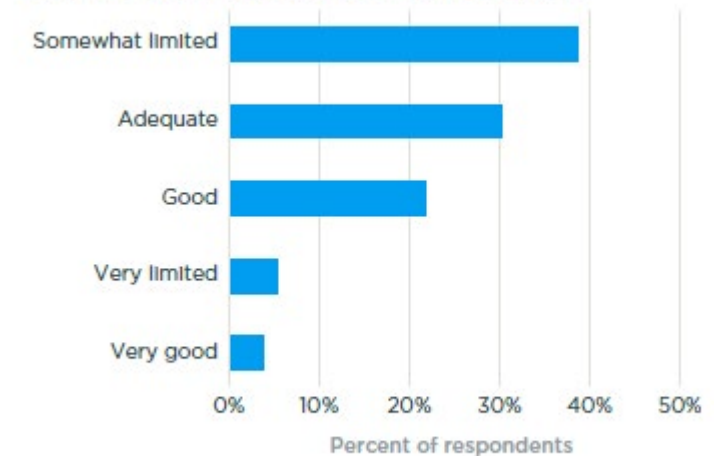
- Purchased Goods; and
- Fuel and Energy Related Activities

End of life management/recycling was rated 6th of 15.

For the retail sector, the cost of implementing recycling/circular technologies and methods in-house was rated as their greatest challenge for reducing their Scope 3 emissions.

The reason for this challenge is the high cost of low-carton alternatives.

How would you describe your company's ability to meet stated scope 3 emissions reductions targets?



Solutions to Improve Scope 3 Reporting

- **Collaborating and engaging with suppliers** to improve emissions reporting and accountability
- Use **incentives** to reward emissions reductions.
- Expand or **diversify the supplier base** to include suppliers already committed to decarbonization.
- Embed **sustainability into contracts** to drive compliance and accountability.
- Promote **supplier geographic proximity** to enable more direct engagement and oversight.
- Adopt **centralized, standardized digital tracking tools** to streamline the collection, verification, and reporting of emissions-related data.

Pulling the Pieces Together

Pressure from customers creates **Opportunities** for recyclers.

- Scope 3 is increasingly expected from stakeholders
- There is a trickle down from customers' upstream requirements
- Getting ahead of the curve may provide a competitive edge with customers.

- Attention on suppliers/vendors emissions data can reduce a recyclers' emissions
- Scope 3 emissions inventory efforts help gaining insight into vendors' processes and materials, which may help reduce overall supply chain costs.

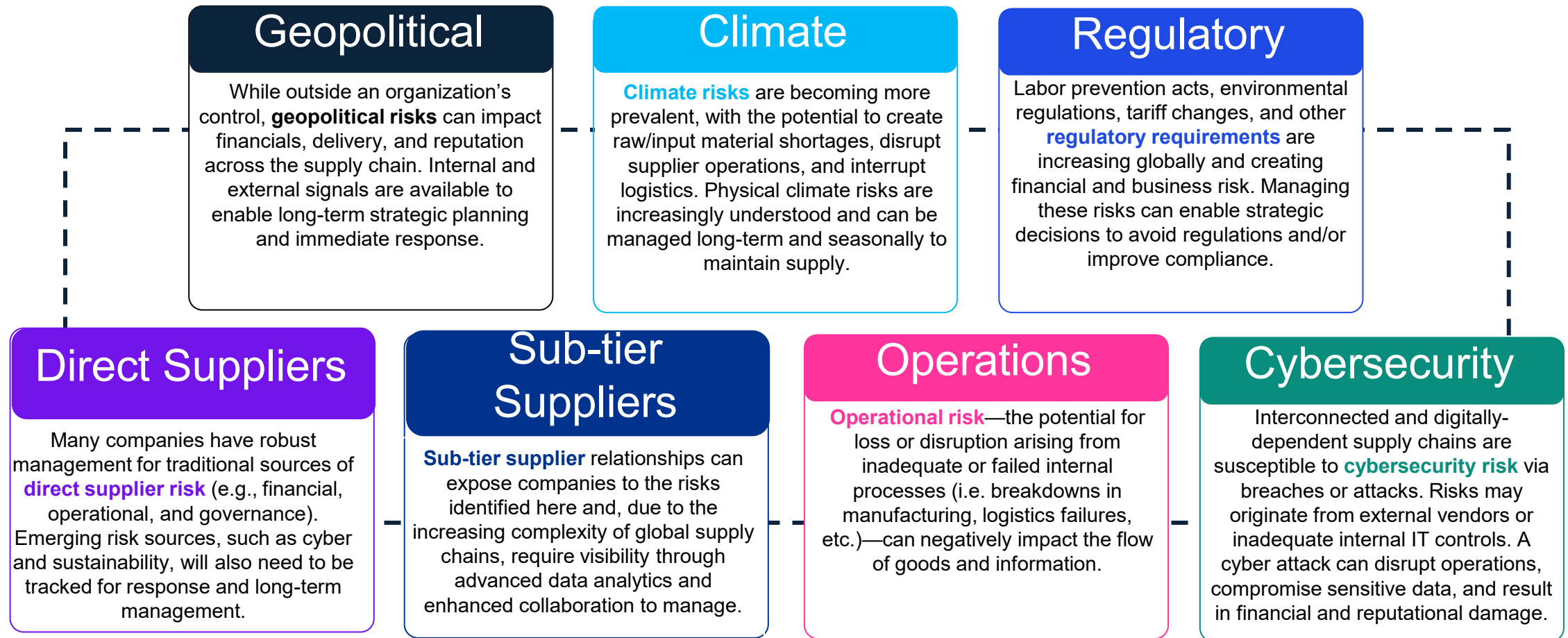


Supply Chain Transparency & Scope 3 Emissions

Presentation to ReMA

June 2025

Expectations for supply chain transparency—including the GHG emissions impact of suppliers—have never been higher



Regulations such as California's SB-253 are accelerating the need for Scope 3 measurement and disclosure

CA SB-253 requires Scope 3 emissions disclosures

Title	Climate Corporate Data Accountability Act
Description	Mandates the disclosure of GHG emissions
Scope	US companies > \$1B annual revenue doing business in California
Reporting Frequency	Annual: Scopes 1, 2, 3 GHG emissions
Status	First reports in 2026 on direct (Scope 1 and 2) emissions. 2027 reports must also include indirect (Scope 3) emissions.
Assurance Requirements	<ul style="list-style-type: none"> Scopes 1, 2: Limited (2026); reasonable (2030) Scope 3: TBD

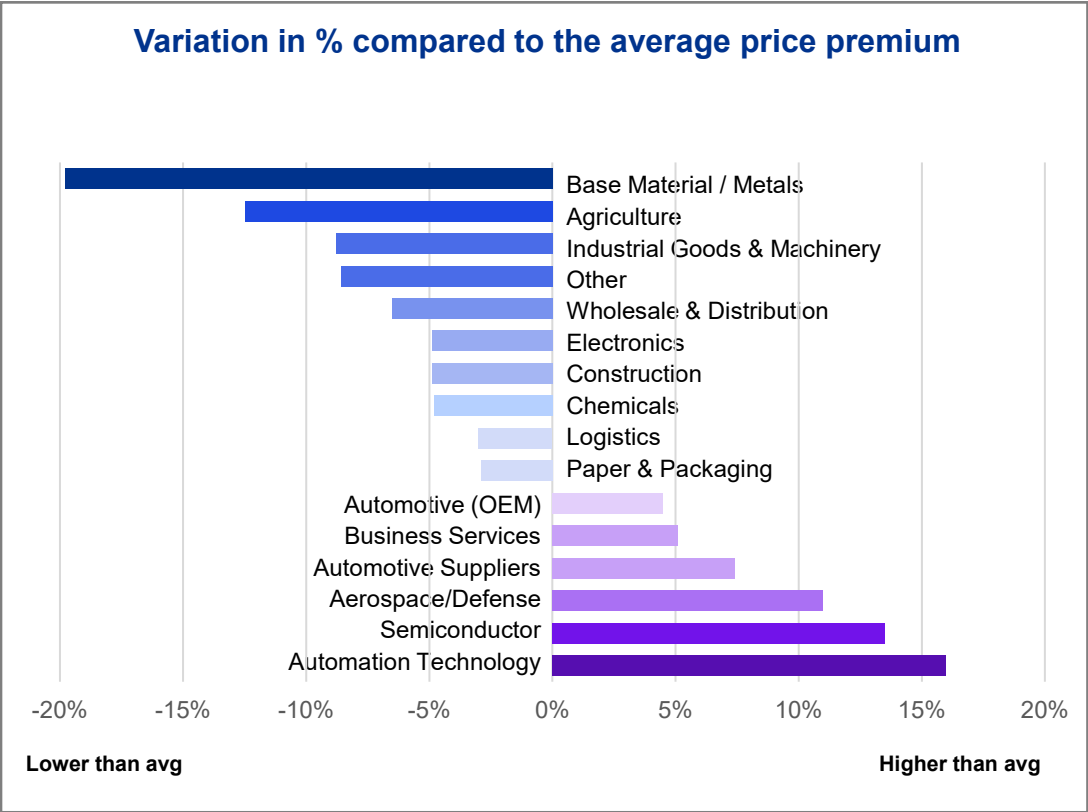
Other states across the US are also proposing requirements to disclose GHG emissions—including Scope 3

State	Bill and Proposed Penalties	FY25 Reporting in 2026	FY26 Reporting in 2027	FY27 Reporting in 2028	FY28 Reporting in 2029
New York	SB-3456: \$100K per day capped at \$500K per year				
Illinois	HB 3673: \$50K per violation with additional daily penalties for continued non-compliance				
New Jersey	S4117: \$10K for first, \$20K for second and \$50K for third and each subsequent offense				
Colorado	HB 25-1119: Up to \$100K per day				

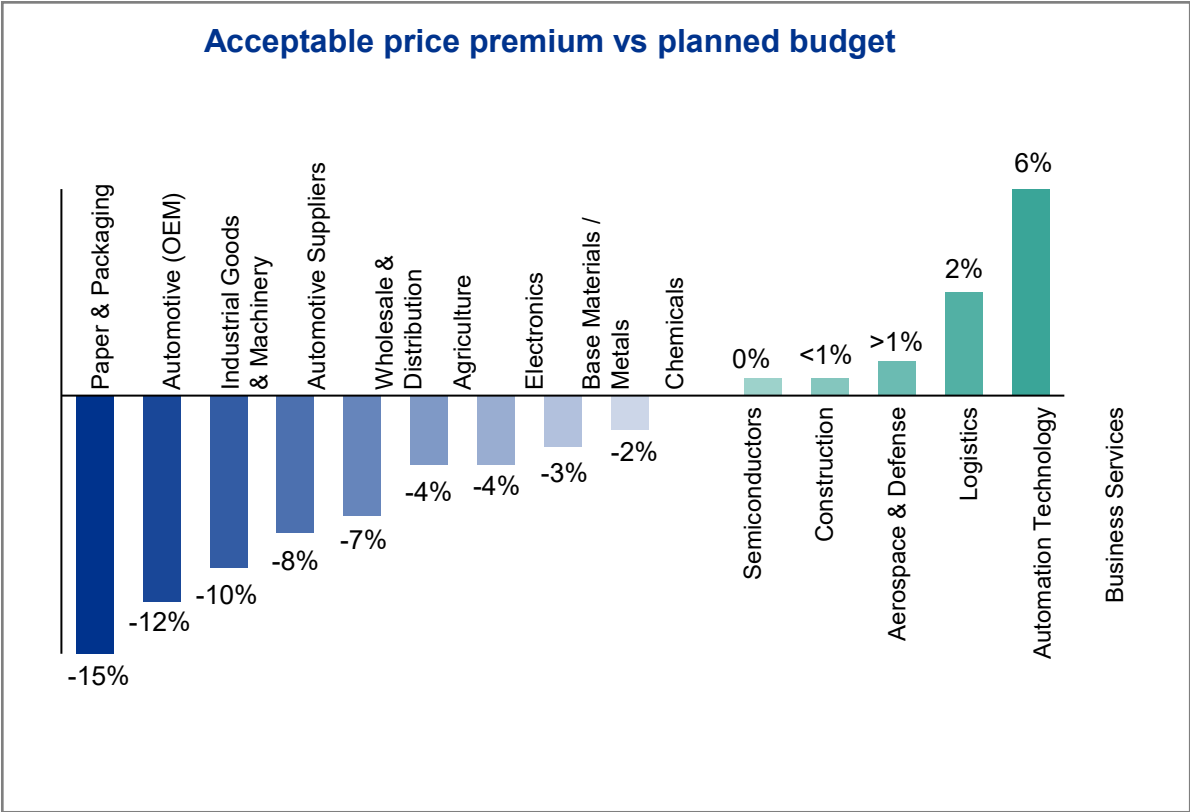
Key	Scope 1 and 2	Scope 3
------------	---------------	---------

There is also an emerging upside to be captured via Scope 3 disclosure as an additional source of value for customers

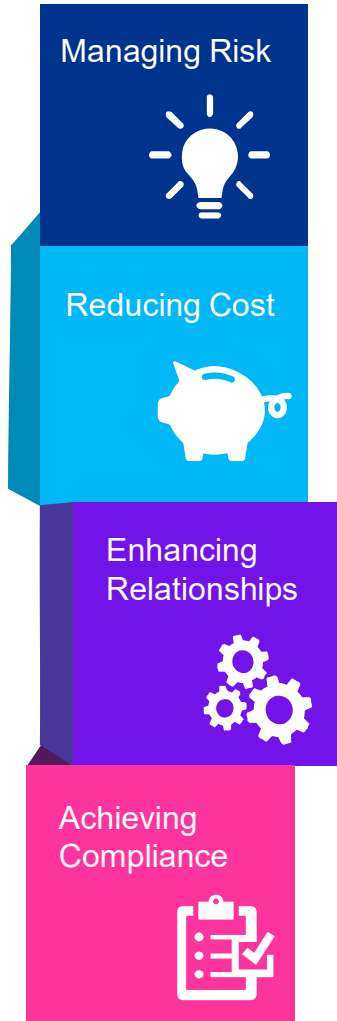
Buyers' willingness to pay a premium to suppliers for sustainable performance varies among industries



While still inconsistent, buyers are allocating budget to support higher prices for more sustainable products



Supply chain decarbonization efforts can drive significant value



Supply chain decarbonization should be incorporated into companies' risk management approach as Scope 3 emissions contribute to **climate-related transition risks**

- ▶ *Supply chain emissions constitute on average 66% of a company's overall footprint.¹ By pinpointing and reducing emissions hotspots, companies are better equipped to manage and mitigate financial risks stemming from, for instance, carbon taxes, stranded assets, and lawsuits.*

Operational efficiencies that reduce emissions in the supply chain are often associated with **cost savings** that can be used to improve suppliers' financial stability and ability to meet buyer expectations

- ▶ *By identifying inefficiencies in existing processes, industrial suppliers could achieve an estimated ~20-30% in cost savings,² which effectively reduces emissions as well as costs of products and / or services passed on to buyers.*

Driving Scope 3 emissions reductions requires enhanced supplier collaboration, which can lead to additional benefits associated with **strong supplier relationships**

- ▶ *Strong supplier relationships can lead to numerous privileges, including ~15% reduced costs, ~20% lower lead times, and as high as 95% revenue preservation due to improved resilience and reliability, ultimately increasing a company's market competitiveness.³*

Various regulations, such as the EU's Green Deal and the UK's Net Zero target, stipulate emissions reduction requirements throughout the supply chain, making decarbonization **a necessity for compliance**

- ▶ *Non-compliance with climate and environmental regulations can lead to various penalties spanning financial fines as high as €40 million, suspension of subsidies, import bans or removal of products from the market, and reputational damage.⁴*

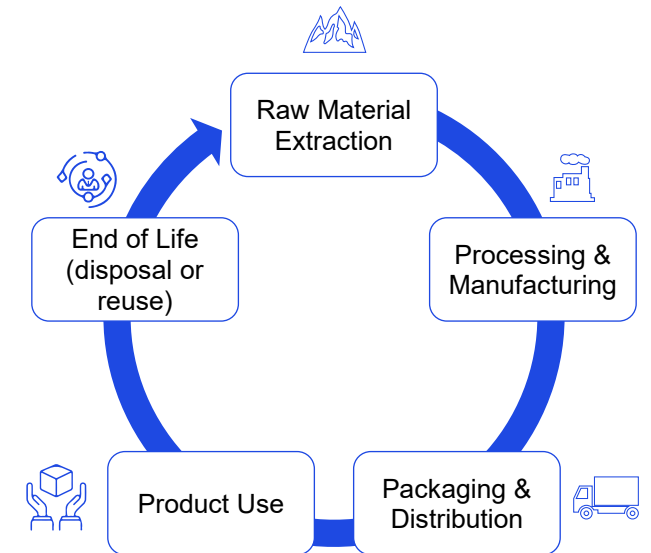
While many start with estimates for reporting, more specific measurement is crucial to capture the value of decarbonization

	Spend-based method	Hybrid method	Supplier-specific method
Data Type	Average data	Combination of average and supplier-specific data	Supplier-specific data
Advantages	<ul style="list-style-type: none"> • Lowest effort • High-level understanding of “hotspots” in portfolio 	<ul style="list-style-type: none"> • Allows to dedicate most resources to those products that have a significant contribution • Can provide insight on how to manage GHG emissions on product level 	<ul style="list-style-type: none"> • Very specific, enables monitoring on product level, very high granularity • Provides insights how to manage GHG emissions on product level
Disadvantages	<ul style="list-style-type: none"> • Insufficient to monitor results of interventions on GHG emissions • Insufficient for effective management of GHG emissions 	<ul style="list-style-type: none"> • Resource intensive • May require high degree of expertise on LCA • May involve high degree of transparency from supplier (e.g. insight into BoM) 	<ul style="list-style-type: none"> • Resource intensive • Requires high degree of expertise on LCA • Involves high degree of transparency from supplier (e.g. insight into BoM)

Increasing level of complexity and insight

Product-level assessment

Scope 3 can be measured at the product or category level with Life Cycle Accounting/Assessments (LCA) to support supplier-specific emissions factor modeling



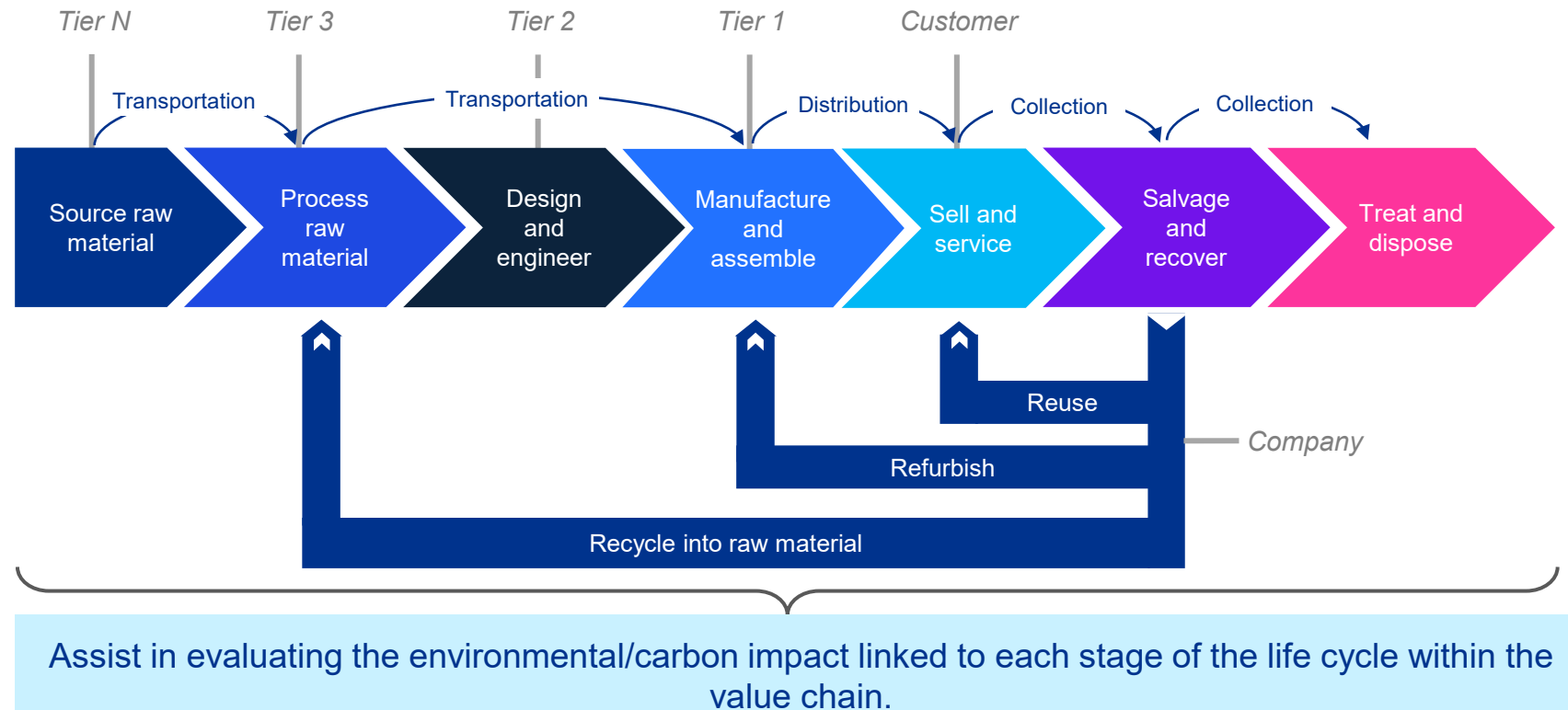
LCAs and PCFs can be effective to building an understanding of how your company's efforts are supporting value

While GHG reporting frameworks categorize emissions based on organizational boundaries and operational control across the value chain, LCA/PCFs transcend these limits by tracing emissions by material, process, supplier, and geography. This holistic view uncovers environmental/ carbon hotspots across the entire supply chain, empowering targeted, high-value data sharing with customers

Overview: LCA & PCF

LCA is a systematic method for **evaluating the environmental impacts of a product or service across its entire life cycle**, from raw material extraction to end-of-life (cradle-to-grave).

PCF is a **carbon-specific application of LCA**, focused solely on greenhouse gas emissions (CO₂e).



We recommend that companies responding to customers take a two-track approach

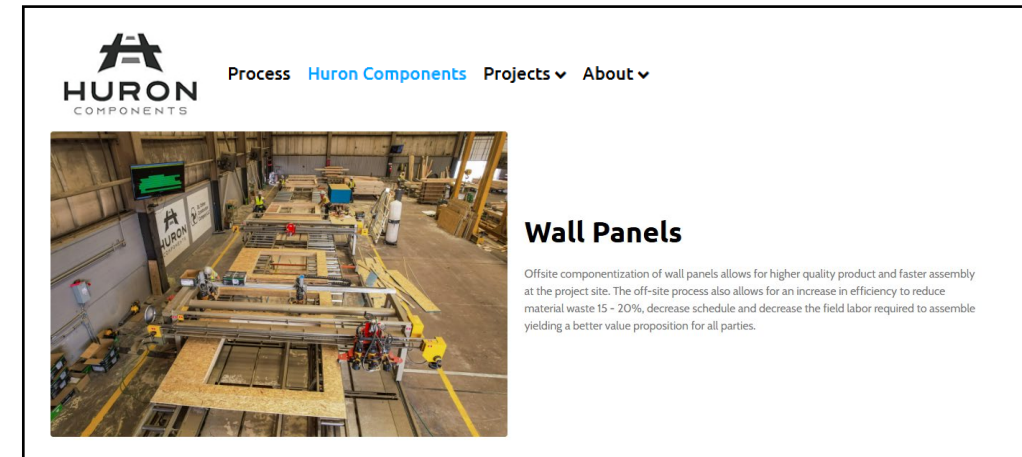
Use data sharing platforms to provide energy and emissions data as available



ecovadis



Work directly with customers to share product-specific data as a competitive differentiator



Our best advice? Don't wait!
There's real market value to be captured now, and customers need to see the value of their decarbonization and sustainability efforts



Thank you!

Blythe Chorn

Managing Director, KPMG US Circularity & Supply Chain Sustainability Leader

bchorn@kpmg.com



kpmg.com

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2025 Copyright owned by one or more of the KPMG International entities. KPMG International entities provide no services to clients. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.

Supply Chain Transparency: What to Expect from Brand Partners

Eszter Csicsai

June 10, 2025

ReMA Sustainability Webinar Series

Overview

- What kinds of data will brands request?
- The brand experience: motivators for data
- How to be a good partner
- 2025: Meeting this moment – and looking ahead

Data categories

- Chemical safety
 - Compliance (e.g. regulations like EU REACH/RoHS, sector-specific standards your customers need to meet)
 - Detailed Bill of Substances (BOS)
 - Chemical Abstracts Service (CAS) numbers
 - Alignment with Restricted Substance Lists (RSLs)
 - Willingness to support proprietary chemical safety testing
- Sustainability certifications/claims validation
 - Traceability and material sources
 - 3rd party verification of recycled content
 - Recycled content certifications (e.g. Recycled Claim Standard, Global Recycled Standard)
 - Data/collaboration to support certifications (e.g., traceability, testing, material handling practices)
- End of Life (EOL) activities
 - Transparency into processes, partners, EOL methods and diversion rates
 - Impacts of EOL processes
- Impact
 - Purchased Goods & Services (Scope 3, Category 1) is largest greenhouse gas (GHG) impact category for most brands – recycled materials are a huge decarb lever. Be ready to help!
 - Scope 3 and Life Cycle Analysis (LCA)...

Scope 3 data

- Brands' data needs will mature as their supplier engagement strategies mature
 - spend-based → supplier-specific → LCA-based
- Brands may ask you to set your own Science-Based Target (SBT) as part of their own approved SBTs
- Data requests can come in different ways:
 - Share your CDP Climate scores
 - Share anything you've made public, as in your annual reports
 - Requests through tools such as Higg FEM, Watershed, Optera, etc
 - Custom surveys
- Get ahead of the curve – calculate GHG inventory, have LCAs completed on top materials, complete and share CDP Climate, have a public report, etc.

Scope 3 data

- Brands' data needs will mature as their supplier engagement strategies mature
 - Spend-based: potentially no engagement with suppliers
 - Supplier-specific
 - Have data available on your GHG inventory

Intensity + Allocation

Emissions intensity = Supplier's total emissions (Scope 1 + Scope 2 + Scope 3, category 1) / Revenue

Allocated emissions = emissions intensity x spend with supplier

Scope 3 Cat 1 = sum of allocated emissions from suppliers

- Prepare to be more granular to support brands' journeys (and your own!) – make yourself easy to compare
 - Emissions output by location
 - Emissions by material or product line
- Provide data points that are needed, in standardized formats that are easy to use
 - Be clear on descriptions of sources, reporting periods, units of measure, etc.

LCA data

- Using product Bill of Materials (BOMs) and product or material LCAs is a very granular way to map Scope 3
- LCA is more than just carbon!
 - Impact categories can include global warming potential, ozone depletion, eutrophication, acidification, abiotic depletion, water scarcity, toxicity, or others
- LCA covers the full lifecycle (cradle-to-gate, cradle-to-grave, or cradle-to-cradle)
 - Raw material extraction
 - Manufacturing and processing
 - Transportation (including in between phases)
 - Product usage & retail impacts
 - End-of-life
- Be prepared to share data covering your part of the product lifecycle

LCA data

- Be prepared to share data covering your part of the product lifecycle – energy, emissions, water usage for each relevant process

1. **Raw material extraction:** Data on the extraction of raw materials including energy consumption, water usage, and emissions associated with mining or harvesting.
2. **Manufacturing:** Information on the energy and resources consumed during manufacturing processes, including emissions to air, water, and soil, as well as waste generated.
3. **Transportation:** Data on transportation methods used to move materials and products between different stages of the life cycle, including distances traveled, modes of transportation, and associated emissions.
4. **Product use:** Information on how the product is used by consumers, including energy consumption, water usage, and other environmental impacts during its operational phase.
5. **End-of-life:** Data on how the product is disposed of or recycled at the end of its life, including waste management processes, emissions from disposal, and potential for recycling or reuse.
6. **Packaging:** Data on the materials and processes used for packaging the product, including energy consumption, waste generation, and recyclability.
7. **Energy sources:** Information on the sources of energy used throughout the life cycle, including fossil fuels, renewable energy, and nuclear power.
8. **Emissions:** Data on emissions of greenhouse gases, air pollutants, and water pollutants associated with each stage of the life cycle.
9. **Water usage:** Information on water consumption and wastewater generation throughout the life cycle.
10. **Land use:** Data on the amount of land required for activities such as resource extraction, manufacturing, and waste disposal.

What drives brand data requests?

- Retail partners
 - We are their scope 3 – requests to set SBTs, report to climate frameworks and questionnaires, align to drive product sustainability goals, use preferred, lower-impact, or certified materials
- Shareholders
 - Transparency, reporting, increased effort in key areas
- Customer expectations
 - Compare brands, understand impacts and trade-offs
- Civil society
 - As sustainability messaging gets more opaque in current climate, NGOs and journalistic outlets investigate brand practices
- **Regulations...**

What drives brand data requests?

- **Regulations**

- Product sustainability (e.g., EU ESPR)
 - Repairability, performance/durability, impact reduction (lower impact materials + manufacturing processes), material safety, circularity, end of life solutions, transparency (digital product passport)
- Sustainability reporting (e.g., EU CSRD)
 - Required reporting on Environmental topics like climate change, pollution, raw material usage, and circular economy (e.g. recycled material usage, EOL solutions, waste, repairability/durability/recyclability)
- Climate disclosures (e.g., EU CSRD + CA SB 253)
 - CSRD: GHG reduction targets, decarbonization levers, climate transition plan
 - SB 253: Disclosure of Scope 1, 2, and 3 emissions
- Extended Producer Responsibility (e.g. Packaging EPR across many regions)
 - Fewer materials, better materials (increased recycled content), reusability, recyclability, end of life solutions, ecomodulation (e.g. fee reduction for LCA in OR)
- Green Claims (e.g., EU GCD)
 - Verified/certified material sustainability claims, material traceability, impact reduction calculations
- Safety (e.g., EU TSD)
 - Safer materials, transparency (digital product passport)

How to be a good partner

- Be proactive! Prepare for data collection before it's requested
 - Understand your emissions and energy usage, consider full GHG inventory and LCA
 - Be clear on what data you can share, understand how accurate/complete it is
 - Accurate, clear, high-quality data with clear boundaries
 - Clear and readily available basic data, e.g. BOS/BOM, CAS numbers, etc.
- If you need help, get it (or accept it! e.g., Supplier LOCT)
- Make yourself easy to find – promote certification accreditations, highlight success stories, release annual sustainability reports
- Build strong relationships with customers' procurement teams & have a consistent contact – update when it changes
- Fast response and follow-up during data collection
- Know what you consider confidential or proprietary data – and be prepared with an NDA if needed

How to be a good partner

- Storytelling matters
 - Make yourself easy to compare to competitors (and come out on top)
 - Understand and preempt customer needs – upskill yourself on the data and regulations your brand partners will need data for, as well as on how to report data using GHG protocol
 - Promote what you've done to reduce the impacts of your materials/products/processes and how you can reduce customers' Scope 3 impacts
 - Understand what *cannot* be measured so you can present your value proposition accurately
 - (e.g., durability, reusability are still tough to reflect in GHG Protocol – find other ways to promote this, such as policy alignment)
 - Never hesitate to be proactive in sharing information
 - Ensure you've got the right audience

2025: Meeting the moment

Yes, the current sustainability & social impact climate feels uncertain, and sustainability regulations are being reconsidered in key regions. However...

- New regulations are coming at the US state level and regions like APAC and LATAM
- 2025 and 2030 sustainability strategies are currently being refreshed and new goals are being set to enshrine regulatory & other drivers
- What companies might tout publicly may be changing, but what they do will keep up momentum in key areas (e.g. climate measurement & disclosure, decarbonization)
- Suppliers that understand this moment are an asset!
- Waiting until you are asked will result in rushing and errors
- Understanding your impacts is a benefit for you – leads to innovation and competitive edge

Q&A



2025 Sustainability Series

Up Next: Tuesday, August 26, 2025 | Value Creation and ROI

Past workshops and webinars available:

<https://videos.recycledmaterials.org/category/video-library/sustainability-workshops/>



Recycled Materials
Association

Save the Date for ReMA's Safety & Environmental Conference!

- Engage with top industry experts & peers
- Get actionable strategies to enhance workplace safety & compliance
- Stay informed on critical regulatory updates
- Network with professionals who share your commitment to safety & sustainability

July 14th & 15th
Nashville, TN

Scan to register today!



Thank You

Natalie Betts

Assistant Vice President of Sustainability

nbetts@recycledmaterials.org



Recycled Materials
Association

recycledmaterials.org