

SCOPE 3 IMPACT ON YOUR OVERALL CARBON FOOTPRINT

*Strategies for Measurement,
Supplier Engagement, and
Industry Collaboration*





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Tad Radzinski is a recognized sustainability expert and former EPA Waste Minimization National Expert with over 35 years of experience advising Fortune 500 companies. He is Co-founder and President of Sustainable Solutions Corporation, providing decarbonization consulting and training across industries, and Co-founder of GreenCircle Certified, which verifies sustainability claims for top brands like P&G, 3M, and Amazon. Tad co-hosts the Tad Talks Sustainability podcast, simplifying complex topics and featuring major companies. He also helped develop Villanova University's MS in Sustainable Engineering and taught there for 18 years, covering Life Cycle Assessment and Sustainable Buildings and Operations.

Agenda

- Sustainability & Carbon Basics
- Market Drivers
- Collaborative Scope 3 Strategy
- Supplier Engagement
- Maturity Evaluation
- Next Steps

SUSTAINABILITY & CARBON BASICS





What is Sustainability?

*Sustainability means staying
in business forever.*

It's about people,
planet, and **profit**

It's producing
more with less

Requires a
balanced
approach

It's a journey
toward
continuous
improvement

Needs metrics
and goals

Needs
collaboration

SCOPE 1:

THE **FUELS** YOU **BURN**



Company Vehicles



HVAC Systems
and Processes



On-site Landfills &
Wastewater
Treatment



Process & Fugitive
Emissions

SCOPE 2:

THE **ENERGY** YOU **BUY**



Purchased
Electricity



Purchased
Chilled Water



Purchased
Steam

SCOPE 3:

THE **EMISSIONS BEYOND** YOUR CONTROL

UPSTREAM CATEGORIES

- 1 Purchased Goods & Services ★★
- 2 Capital Goods ★
- 3 Fuel & Energy-Related Activities
- 4 Upstream Transportation & Distribution ★
- 5 Waste Generated in Operations
- 6 Business Travel ★
- 7 Employee Commuting ★
- 8 Upstream Leased Assets ★

DOWNSTREAM CATEGORIES

- 9 Downstream Transportation & Distribution ★
- 10 Processing of Sold Products
- 11 Use of Sold Products
- 12 End-of-life Treatment of Sold Products
- 13 Downstream Leased Assets
- 14 Franchises
- 15 Investments

★ = Typical high-impact Scope 3 categories for manufacturers.

★ = Typical high-impact Scope 3 categories for service providers.



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Main Regions Adopting Climate-Related Disclosures

Europe, Middle East, Africa, and India (EMEI)

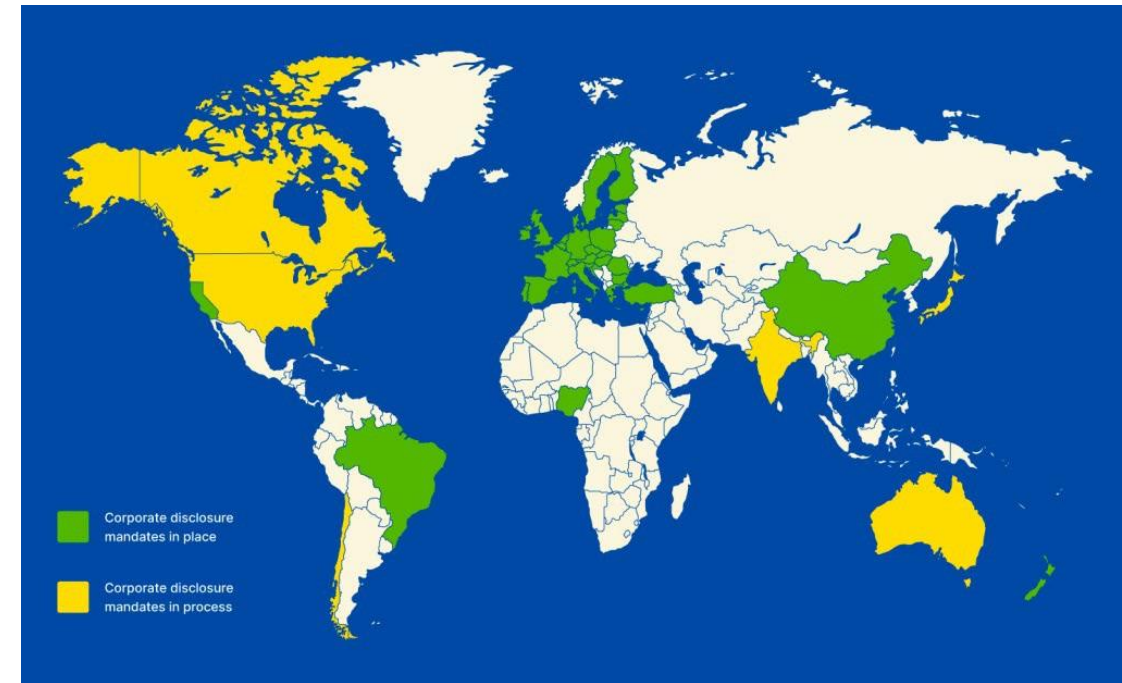
- United Kingdom
- European Union
- Nigeria
- India

Americas (North, Central, and South America)

- United States: SEC [anticipated withdrawal]
 - California: SB 253, SB 261
 - Colorado: HB 25-1119
 - New York: SB 3456
 - New Jersey: S4117
 - Illinois: HB 3573
- Canada (currently paused)
- Brazil

Asia Pacific

- New Zealand
- China
- Australia
- Taiwan
- The Philippines
- Japan
- Hong Kong
- Singapore



<https://trellis.net/article/your-guide-to-countries-with-corporate-climate-disclosure-mandates/>

Science Based Target Initiative



- Initiative centered around the Intergovernmental Panel on Climate Change (IPCC) warning that global warming must not exceed 1.5 degrees C above pre-industrial temperatures
 - Approval pathway ensures goals align with this mission (approximately halving emissions by 2030 and becoming net zero by 2050)
 - Small companies have the option to set near-term or net-zero targets and absolute or intensity targets
 - Initiative is relatively affordable and carries significant weight in the ESG world

Summary

10828

Total no. of companies with targets or commitments

8136

Companies with validated targets

1857

Companies with net-zero targets

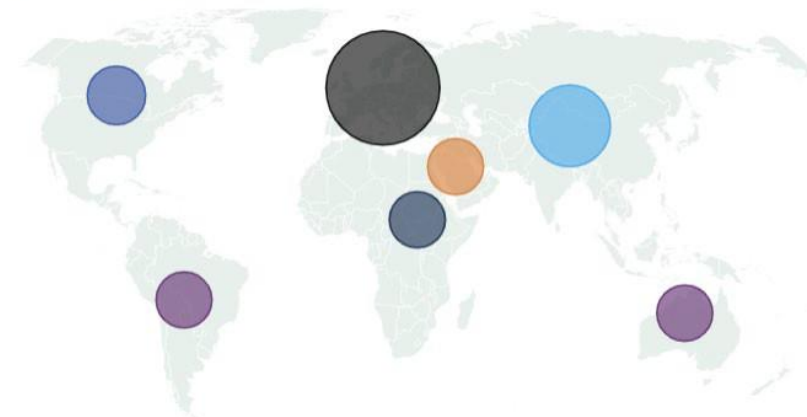
2902

Companies with active commitments

Geographic reach of science-based targets

Companies with approved targets and commitments by region as of 31 December 2022.

2% 1% 27% 53% 14% 0.5%



Customer Requirements



Target language: Overall Net-Zero Target: Henkel AG & Co. KGaA commits to reach net-zero greenhouse gas emissions across the value chain by 2045. Near-Term Targets: Henkel commits to reduce absolute scope 1 and 2 GHG emissions 42% by 2030 from a 2021 base year.* Henkel also commits to reduce absolute scope 3 GHG emissions 30% within the same timeframe. *The target boundary includes biogenic land-related emissions and removals from bioenergy feedstocks. Long-Term **Targets: Henkel commits to reduce absolute scope 1, 2 and 3 GHG emissions 90% by 2045 from 2021 base year.*** *The target boundary includes biogenic land-related emissions and removals from bioenergy feedstocks.

[Source: HENKEL - Science Based Targets](#)



Last year we also tested the efficacy, speed, and accuracy of an automated product carbon footprint tool. The tool uses data science to analyze emissions from cradle to gate, enabling us to understand the carbon footprint for each of our 55,000-plus products, identify future opportunities, issue Environmental Product Declarations for much more of our eligible portfolio, and support customers in measuring their scope 3 emissions.

We continue to raise awareness with customers and suppliers about our need for more scope 3 emission tracking. Additionally, as we collaborate with them to meet their business needs and achieve their sustainability goals, we work to help them reduce their scope 1 and 2 emissions. Since we're always innovating, replicating successful processes across nearly 51,200 suppliers and countless global end users is an ongoing task. However, we understand its importance and urgency, and we're constantly striving to be faster and more effective. See more data in our **metric tables**.

[Source: 3M Sustainability Strategy](#)

Corporate Commitments

Managing Scope 3 Carbon Emissions

Saint-Gobain has stepped up its efforts to identify and assess CO₂ emissions linked to its value chain. Digital tools have been developed to facilitate assessments, particularly of emissions in categories 1, 4 and 9. These three categories account for around 85% of Saint-Gobain's scope 3 emissions (SBTi scope).

To reduce scope 3 emissions, Saint-Gobain is focusing on the following actions:

- ▶ mobilizing buyers by providing training and digital tools for estimating the impact of purchases;
- ▶ extend reporting to the relevant scope of our suppliers and improve the quality of information;
- ▶ engage suppliers to measure their carbon footprint and develop reduction action plans.

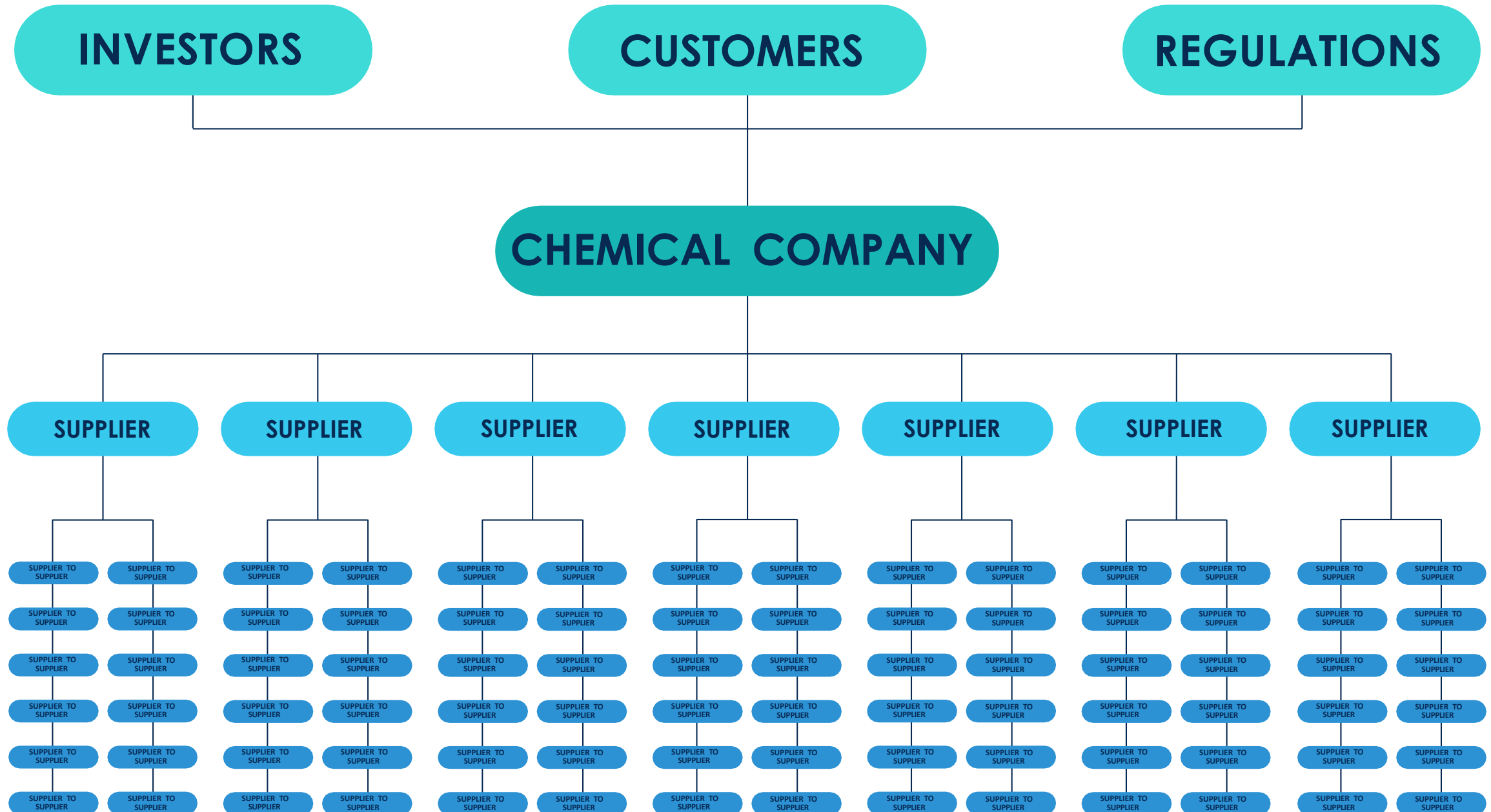
Designing Innovative Solutions Incorporating “Carbon Benefits”

Saint-Gobain innovates to develop solutions that reduce the carbon footprint of buildings over their entire life cycle:

- ▶ by reducing their energy consumption during the use phase: these are insulation and glazing solutions that contribute to energy efficiency;
- ▶ by reducing the carbon footprint of its products and solutions, in particular by developing lightweight construction solutions, increasing the proportion of recycled materials used to manufacture them, or powering its industrial processes with renewable energies;
- ▶ by reducing the carbon footprint of building materials through innovative solutions developed by the construction chemistry industry.

[Source: Saint-Gobain 2023 Annual Integrated Report](#)





COLLABORATION

THE KEY TO SUCCESS



Collaborative Scope 3 Strategy

Conquering Scope 3 emissions requires a collaborative approach to ensure efficiency and accuracy. Our 3-step proven process provides a clear roadmap for measurement, reporting, and reduction of Scope 3 emissions.



Scope 3 Accounting

High-level Calculation Steps

1. Conduct a Screening to Prioritize Data Collection

- Review Scope 3 categories and determine which are likely the largest influence based on industry, operations, assets, etc.
- Utilize on-hand data to create a hot spot of emissions

2. Determine the Calculation Method

- Determine where data is lacking to provide accuracy
- Identify steps to utilize more accurate calculation methods
 - Focus on large contributors

3. Value Chain Engagement and Data Collection

- Engage the largest contributors for primary data
- Establish a long-term action plan for engaging the rest of the supply chain

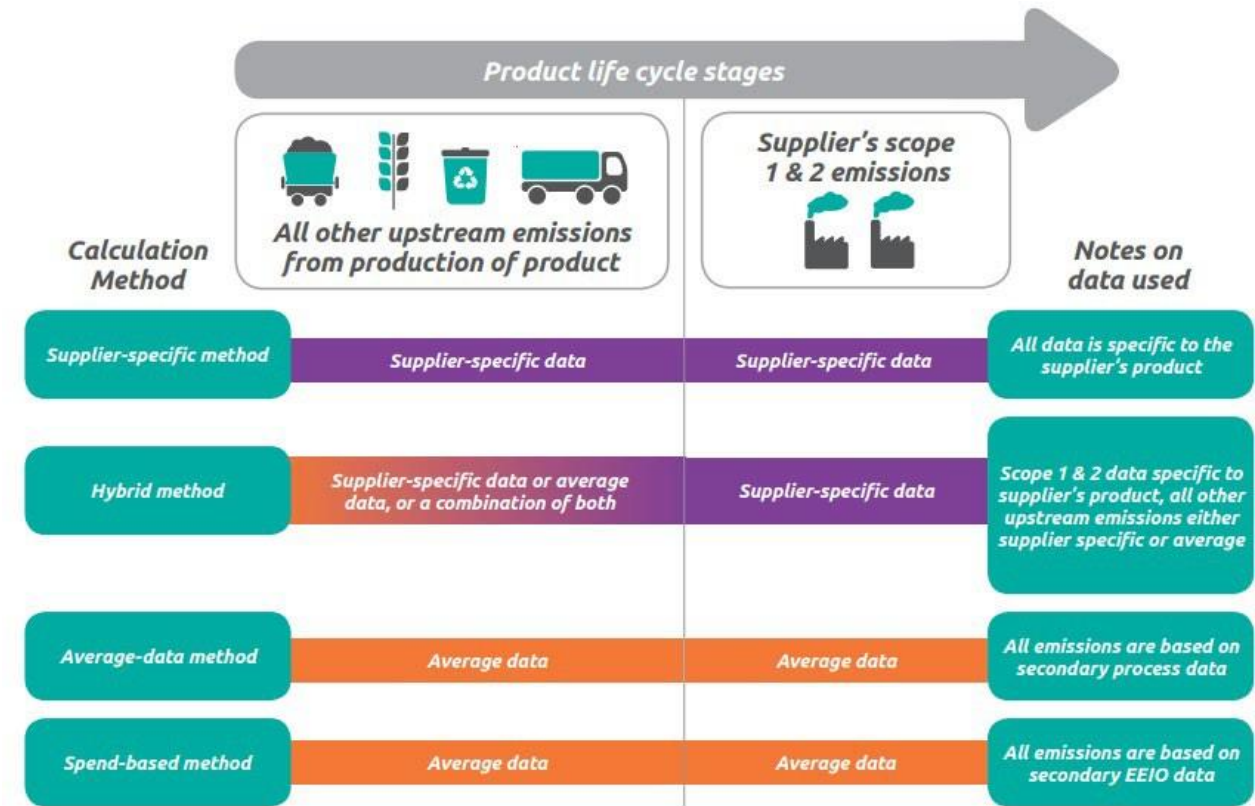
4. Data Aggregation and Reporting

- Continually use updated data and higher accuracy calculation methods to improve results



What Data is Used for Scope 3 Calculations?

- There are 4 ways to calculate Scope 3 emissions
 - The options are listed in order of most preferred to least preferred (top to bottom)
 - The protocol encourages reporting entities to continuously work towards obtaining more **primary (supplier-specific) data** to increase accuracy
- To conduct a hot spot analysis, utilize data that is on hand and readily available
 - To start, this is likely spend-based data from procurement.
- The GHG Protocol expects companies to continually improve their data quality, working to move away from less accurate data or emissions factors to more specific primary data.

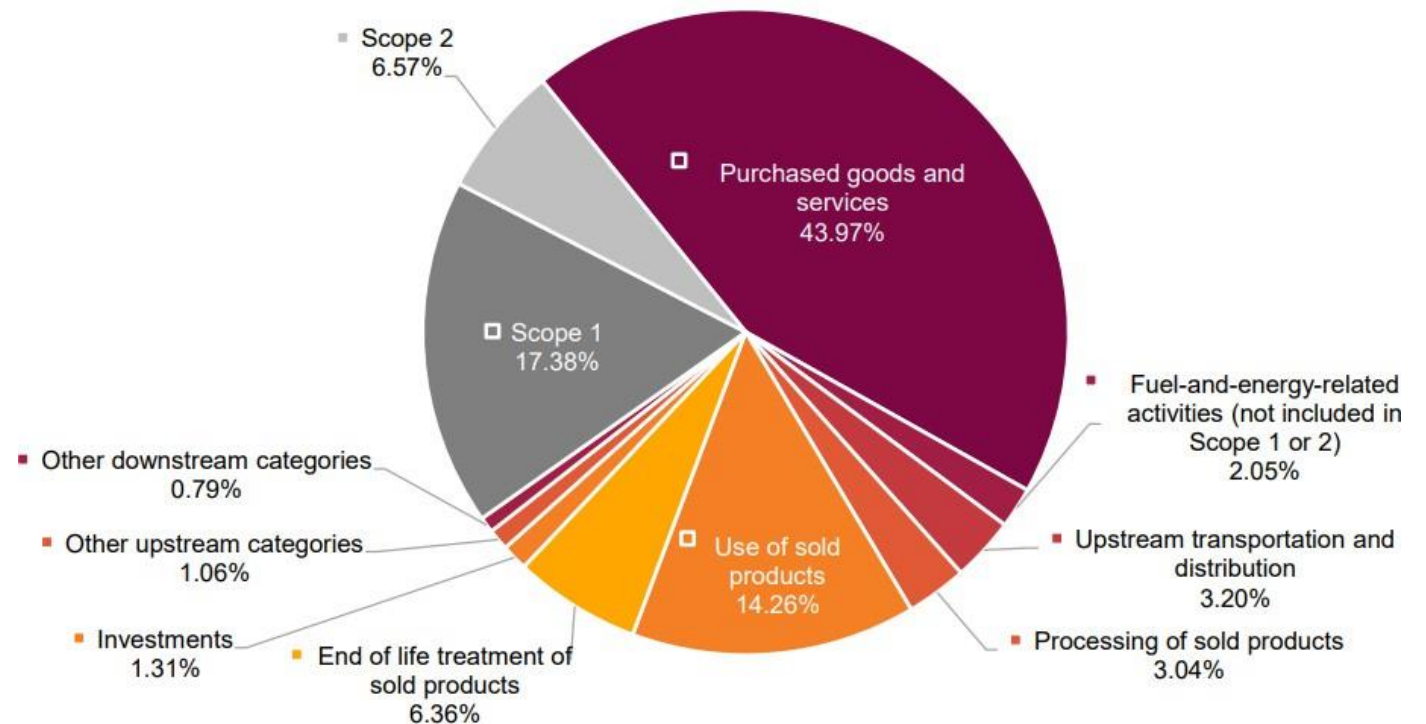


Source: GHG Protocol - [Technical Guidance for Calculating Scope 3 Emissions](#)

Understanding Your Company's Scope 3

- Reviewing sector analyses can assist with understanding which categories are likely of high focus.
- Free resources, such as the CDP, put out annual reports for different industries based on data collected.

Scope 3 Categories as % Total Scope 1+2+3 Emissions - Chemicals Sector



Source: [CDP Technical Note: Relevance of Scope 3 Categories by Sector](#)

Essential Resources for Data Collection



PROJECT MANAGER

Coordinates, consolidates, and tracks data collection with the internal team.



★ PROCUREMENT

- Utility Bills for:
 - Electricity Used in the Facility
 - Fuels Used for Heating and Processes in the Facility
 - Company Vehicle Types and Fuels Used

ENVIRONMENTAL HEALTH AND SAFETY

- GHG Emissions Data
- Energy Data
- Permitting

LOGISTICS/FLEET

- Company Vehicle Types and Fuels Used

OPERATIONS MANAGER/ PROCESS ENGINEER

- Data on Specific Equipment and Energy Utilized in the Facility:
 - Electricity Use
 - Fuels
 - Wastewater Treatment
- Data on Energy Conservation Measures or Capital Improvements

MAINTENANCE

- Data on Specific Equipment and Energy Utilized in the Facility:
 - Electricity Use
 - Fuels
 - Wastewater Treatment
 - Refrigerants

★ Typically, Procurement teams are the best place to start when looking for data. If they don't have the data, head to the other departments listed in the chart.

Collaborating with Your Sourcing and Procurement Team

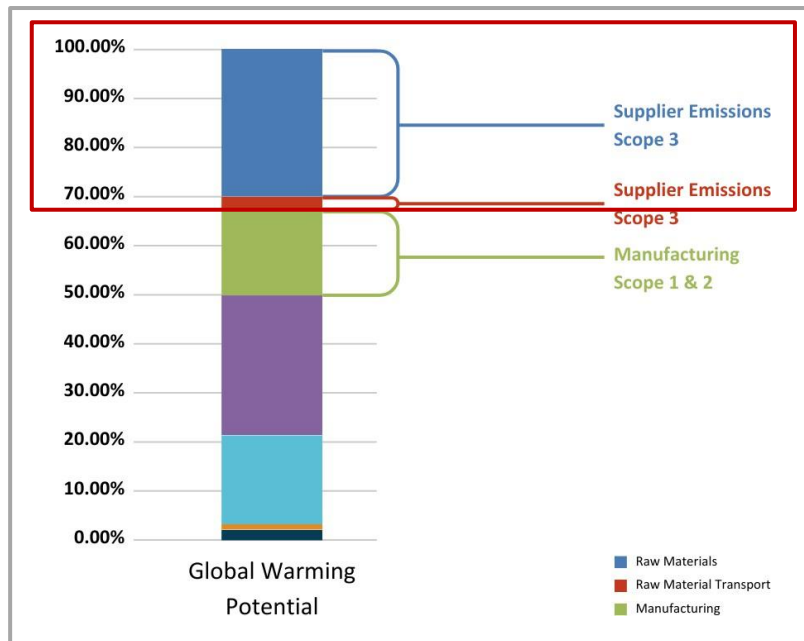
- Level of collaboration is based on your procurement team's level of knowledge in Scope 3 emissions and sustainability.
- Action Plan:
 - Assembling the Team
 - Communication and Collaboration
 - Training and Education
 - Introduction to Sustainability and Sustainable Supply Chain Management
 - Procurement's Role in Scope 3 Reduction
 - Engaging Suppliers to Meet Your Scope 3 Goals
 - Work with Procurement to Understand:
 - Supplier Universe and Spend Data for Suppliers
 - Supplier Details
 - Current Engagement Activities
 - Developing a Supplier Engagement Strategy



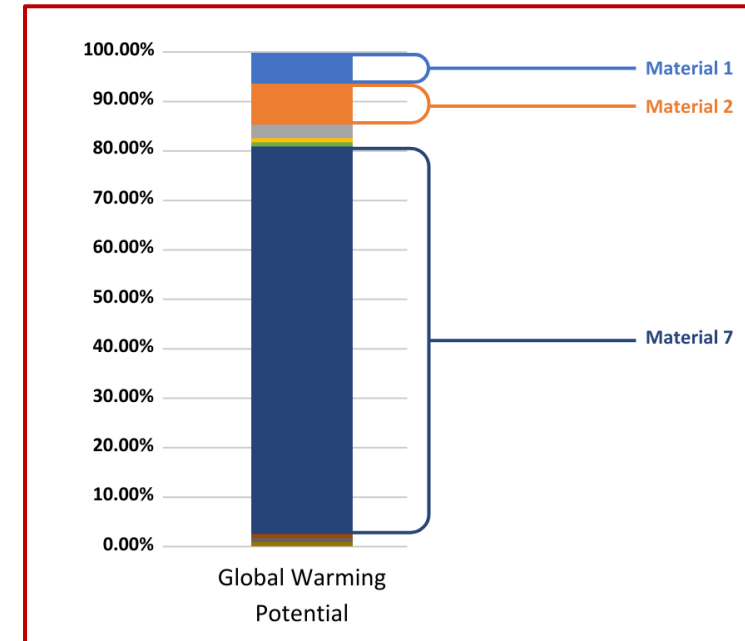
Product Optimization and the Connection to Greenhouse Gas Emissions

After obtaining LCA/PCF results, SSC reviews contributions to the results to:

- Identify stages with the largest influence on global warming potential (GWP)
- Understand the raw materials and suppliers that contribute most to the product carbon footprint
- Use as a basis to develop a Sustainable Product Innovation (SPI) program



Overall Life Cycle Assessment Results



Raw Material Stage Results

SUPPLIER ENGAGEMENT



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Collaborating with Your Suppliers

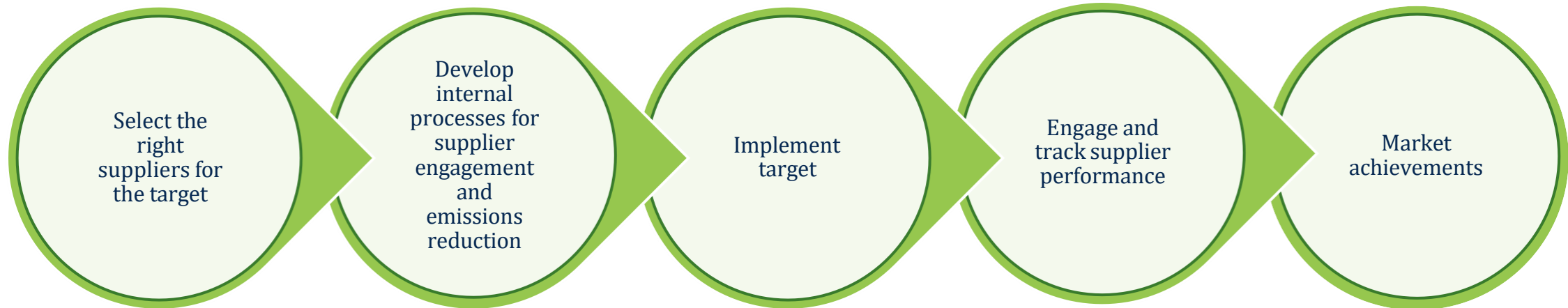
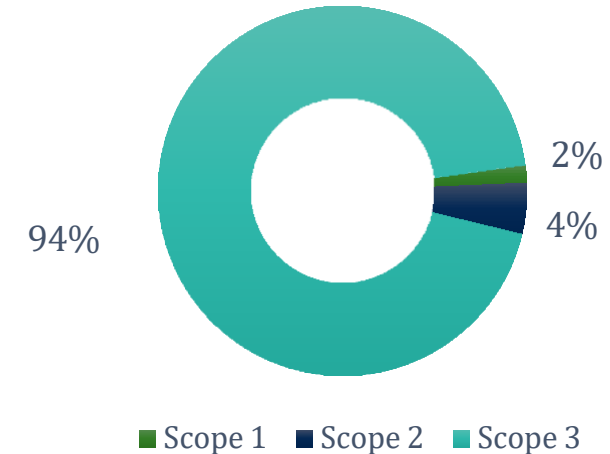
- Level of collaboration is based on the supplier's maturity in sustainability with a goal of collaborative performance improvement, obtaining **primary data**, and supplier's commitment to reducing emissions in their operations and products.
- Action Plan:
 - Communication
 - Training & Education
 - Understanding, Measuring, and Reporting Scope 1 and 2 Emissions
 - Reducing Carbon Footprint in Operations and Setting Sustainability Goals
 - Measuring Scope 3 Emissions and Reducing Product Carbon Footprint



The Importance of Supplier Engagement

Supplier engagement is critical for creating accurate Scope 3 calculations and reducing supply-chain emissions.

Breakdown of Emissions by Scope



Supplier Engagement Plan

1. Focus on the key suppliers

- Reaching out to all suppliers is unrealistic

2. Communicate the data need clearly and provide a timeline

- Consider offering training to key suppliers based on maturity level
- Establish a recurring pulse for updated data, as needed
- Identify the right personnel to reach out to
- Provide guidance and resources

3. Increase the number of suppliers who are asked to provide specific data over time

- Establish reach-out plans for specific groups of suppliers, industries, etc.



MATURITY EVALUATION



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Environmental Maturity – Explanation & Importance

- Maturity is a measurement of the level of sophistication of your company's sustainability practices.
- This model focuses solely on an organization's maturity level in environmental sustainability initiatives.
- For a complete maturity analysis, you would need to look at other areas of sustainability such as social practices and governance.

Environmental Maturity Model

Directions: For each question below, place a checkmark in the box that best reflects your company's current practices. Some questions are Yes/No, while others ask you to rate your practices on a scale from Level 1 to Level 5.

Sustainability Initiative	Level 1: None (1 point)	Level 2: Basic (2 points)	Level 3: Average (3 points)	Level 4: Advanced (4 points)	Level 5: Extensive (5 points)
Knowledge: How much knowledge does your company have about sustainability?					
Measurement: To what extent has your company measured their Scope 1 and 2 emissions in alignment with the GHG Protocol?					
Measurement: Has your company publicly disclosed your Scope 1 and 2 GHG emissions?					

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Environmental Maturity Model

Sustainability Initiative	Level 1: None (1 point)	Level 2: Basic (2 points)	Level 3: Average (3 points)	Level 4: Advanced (4 points)	Level 5: Extensive (5 points)
Reduction: To what extent has your company made improvements to your operations to increase energy efficiency and reduce your Scope 1 and 2 emissions?					
Reduction: Does your company source renewable energy (e.g., solar, wind, hydro) to power your facilities?					
Reduction: Does your company source green heat (e.g., biomass, geothermal, solar thermal) to heat your facilities?					

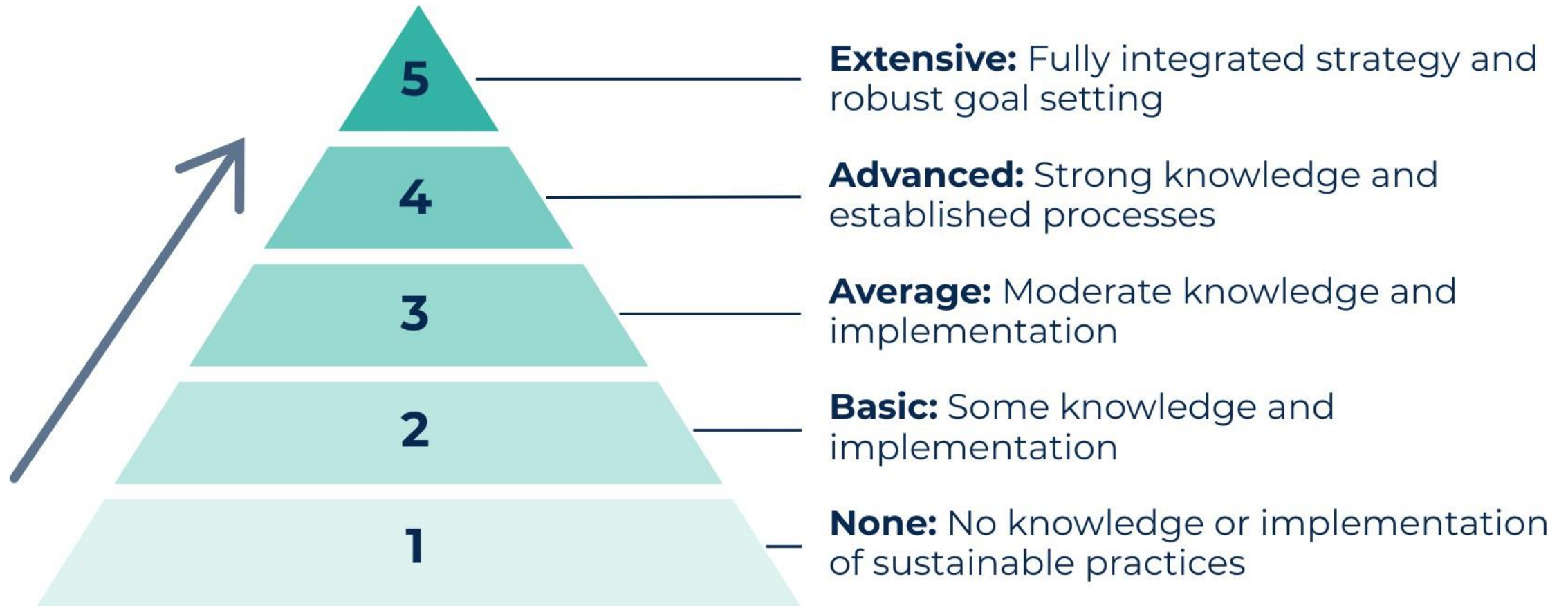
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**Complete
the Maturity
Assessment**



Conducting an environmental maturity evaluation, for both your organization and your supply chain, enables you to create a focused action plan to advance through the maturity levels and ultimately reach Level 5.

The Maturity Pyramid





Collaborative Scope 3 Strategy

Pharmaceutical Supplier*

SSC worked with a Pharmaceutical Supplier on a Collaborative Scope 3 Strategy that included:

- Calculating Scope 1, 2, and 3 emissions per the GHG Protocol, enabling progress tracking and reporting.
- Identifying areas for improvement within their facilities.
- Developing action plans.
- Completing an annual CDP Report.
- Undergoing an SBTi review.

RESULTS:

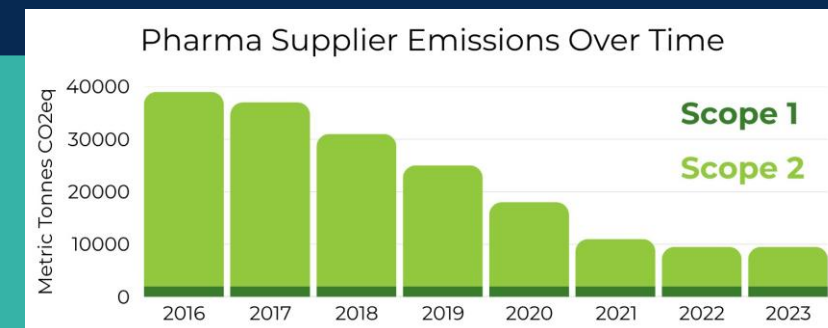
The Pharmaceutical Supplier was able to achieve:



reductions in utility costs resulting in \$1.25 million in estimated cost savings from 2022 to 2023.



credibility with customers for their efforts and progress in sustainability resulting in tangible competitive advantage.



**Maintaining our clients' confidentiality is non-negotiable. This case study has been anonymized because, at SSC, trust and security are paramount.*



Scope 3 Training Academy - Suppliers:

Pharmaceutical Company* – Modules 1 and 2

SSC completed 10 sessions across 2 Modules for a pharmaceutical company. The training included:

- 10 expert-led webinars for enrolled supplier companies.
- 10 focused office hour sessions for group support.
- Comprehensive workbook to guide measurement of Scope 1 and 2 emissions and develop an action for reduction, conduct initial Scope 3 Inventory, and commit to set science-based targets.
- On-demand access to all training and office hour recordings.
- Secure portal with workbooks, slide decks, tools, and resources.
- Responsive 1:1 email support for supplier inquiries.
- Tailored 1:1 meetings to resolve supplier-specific challenges.

*Maintaining our clients' confidentiality is non-negotiable. This case study and testimonial have been anonymized because, at SSC, trust and security are paramount.

RESULTS:



100% of registered companies engaged in the training.



90% of registered companies provided primary data to the pharmaceutical company.



"This experience has been incredibly valuable. The SSC team has been exceptionally professional, highly attentive, and truly committed to understanding our needs. I appreciate the level of care and expertise SSC brought to the table."

– Module 1 Supplier*

NEXT STEPS



Next Steps



Beginner:

- Start with a hotspot analysis on Scope 3 emissions and determine which categories are material to your organization.
- Set up an ongoing tracking system to monitor Scope 3 emissions.



Intermediate:

- Refine data by working with procurement and supply chain to recognize specific initiatives your suppliers are implementing.
- Begin setting reduction targets.



Advanced:

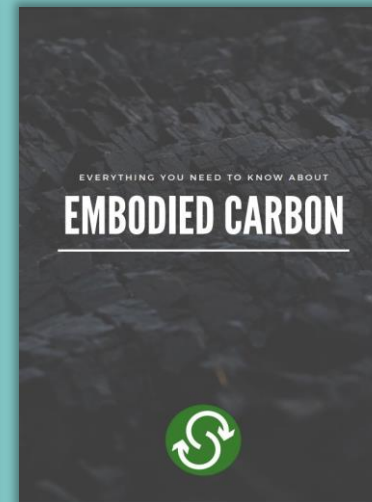
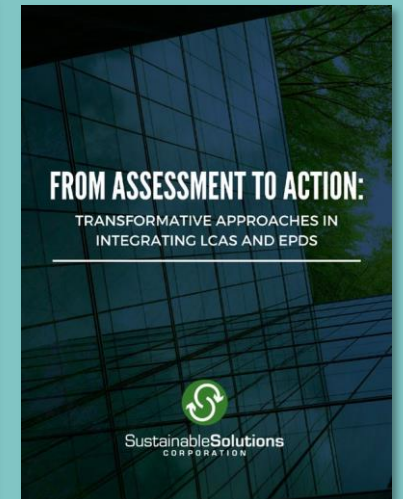
- Implement projects to decarbonize your emissions.
- Continue to work with your value chain on strategic emissions reduction projects.
- Collaborate with partners to advance the industry as a whole.

Resources

Podcast Episodes



White Papers





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JOIN US IN OUR MEETING ROOM

Swing by our meeting room for Q&A and expert guidance.

