

Challenges and priorities for large companies and their climate programs

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FOREWORD

Emerging trends in corporate emissions management



Tim WeissCEO and Co-Founder of Optera

Corporate sustainability programs have progressed leaps and bounds since last year, when we published our <u>first report on trends in corporate carbon management</u>. Pressures from customers, employees, investors, and regulators have converged, compelling large companies to address their environmental impacts with renewed vigor and urgency. This acceleration is driven by several key factors:

Investor focus

A growing interest in climate and transition risks from investors and shareholders is elevating the importance of comprehensive emissions management.

Scientific consensus

The clear need for deep emissions cuts by 2030, as highlighted by the scientific community, is driving more ambitious corporate actions.

Consumer demand

Increasing consumer preference for sustainable products and services is pushing companies to demonstrate tangible progress in emissions reduction.

Regulatory evolution

The implementation of regulations like the Corporate Sustainability Reporting Directive (CSRD), California's SB 253, 261, and AB1305, and pending SEC climate disclosure rules are reshaping the reporting landscape.

Supply chain pressures

An increasing awareness of supply chain climate risk is forcing businesses to engage in data collection and decarbonization across their supplier base.



However, as our clients and any sustainability professional will attest, effectively managing and reducing corporate emissions is a complex undertaking. Our research has identified several key challenges:

The macroeconomic environment is leading to budget and headcount constraints for environmental initiatives, despite increased interest from executives. Upcoming regulations are requiring many practitioners to mature their programs significantly, often with limited additional resources.

A growing focus on scope 3 emissions necessitates collaboration not just within organizations, but across entire value chains.

In light of these challenges and opportunities, we set out to identify the most common priorities and challenges among sustainability professionals at large corporations. Our goal is to help you understand where your organization stands in relation to your peers—where you share common pain points and goals, and where you may find opportunities for collaboration to drive collective progress towards a decarbonized future. Four major trends emerged from our research:

TREND 1

Sustainability has become a major driver of competitive advantage and brand differentiation.

TREND 2

Emissions reporting and target-setting have become standard practice among large companies.

TREND 3

Supply chain emissions have become the new frontier for corporate sustainability programs.

TREND 4

There's growing enthusiasm for advanced carbon management tools, but current practices still lag behind.



Each of these trends is backed up by a series of key findings in the survey results, and you'll find that analysis throughout the report. As a preview, here are the results that we found most striking:

Supply chain focus:

Nearly 70% of respondents are actively working across their value chain to help suppliers decarbonize, signaling a shift towards comprehensive emissions management.

Product-level emissions:

70% of companies plan to use product-level emissions data to inform supplier and procurement decisions, with this percentage rising to 80% for companies with revenues over \$10B.

Openness to Al:

There is widespread openness to Al adoption in carbon management, with over 60% of respondents open to Al use (with human oversight) across various functions.

Reporting maturity:

91% of respondents are reporting their emissions either publicly or to regulators and customers, indicating a high level of reporting maturity.

Science-based targets:

73% of companies surveyed have set a science-based (or SBT-aligned) decarbonization target, demonstrating a commitment to credible climate action.

Data management:

Data management and collection across organizational silos remain significant challenges, with 41% of respondents citing this as their most pressing issue in complying with regulations.

Software adoption:

Only 24% of companies are using dedicated GHG emissions management platforms, indicating a significant opportunity to improve data management and analysis.

These findings paint a picture of an industry in transition—one that is rapidly maturing in its approach to emissions management but still grappling with significant challenges. As we delve deeper into each of these trends and findings in the following report, we hope to provide you with valuable insights and actionable recommendations to advance your organization's carbon management strategies.

The path to effective emissions reduction and management is not always straightforward, but it is increasingly critical for business success. By sharing these insights and fostering collaboration, we aim to contribute to the collective effort of building a more sustainable, low-carbon future for all.



Research methodology

The data in this report was gathered through an online survey fielded by Optera in partnership with the third-party research firm NewtonX. The survey was fielded between July 29 and August 7, 2024.

Ninety leaders in the corporate sustainability space were surveyed, all of whom met the following criteria:

GEOGRAPHY

Canada, France, Germany, Spain United States, United Kingdom

ANNUAL REVENUE

More than \$500 million

SUSTAINABILITY EXPERTISE

Knowledgeable about greenhouse gas emissions and involved in selecting sustainability/carbon management software for their organization

INDUSTRY

Mix of sectors, including Automotive, Consumer Electronics, CPG, Financial Services, Healthcare, IT, Manufacturing, Retail, and Telecommunications

SENIORITY

Manager level or above (76% of respondents were Director level or above)



TREND 1

Sustainability has become a key driver of competitive advantage and brand differentiation

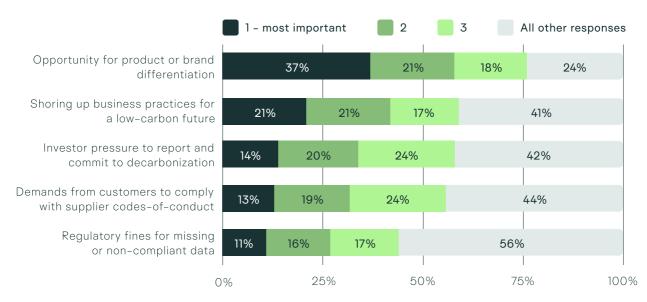
Companies are increasingly recognizing sustainability efforts, particularly in emissions management, as a crucial factor in maintaining competitive edge and enhancing brand value.



KEY FINDINGS

The number one motivator for tackling corporate emissions is the opportunity for brand and product differentiation, with 37% of respondents ranking it as their top priority and 76% ranking it in the top three.

What are your organization's top motivations for tackling your corporate emissions? Please rank from 1 to 6 where "1" is the most important to your team.

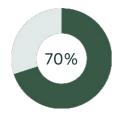


Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90

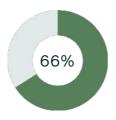


66% of respondents would use product-level emissions data to communicate with consumers, indicating a strong link between emissions management and marketing strategies.

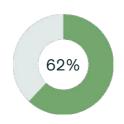
How would product-level emissions enable your reporting and decarbonization strategy? Select all that apply.



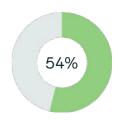
Greater granularity to use in supplier discussions and procurement decisions



Communicating product emissions to consumers



Reporting downstream emissions figures to corporate customers



Informing product design updates

Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90





ANALYSIS AND INSIGHT

Among the large corporations we surveyed, the link between sustainability efforts and competitive advantage is clear. A striking 37% of respondents ranked product and brand differentiation as their top motivation for tackling corporate emissions—and 76% placed it within their top three priorities. This strong focus on sustainability as a differentiator isn't just an internal corporate perspective; it aligns closely with evolving consumer behavior and preferences.

Recent market research has shown that consumers are increasingly willing to vote with their wallets for sustainable products.



A 2024 PwC study found that consumers indicated they'd be willing to pay up to 10% more for goods that are produced sustainably. This "green premium" represents a significant opportunity for companies that can effectively communicate their sustainability efforts to consumers.

ANALYSIS AND INSIGHT

While product-level emissions tracking and reporting are still in their early stages and far from widespread adoption, our survey reveals that companies are already planning for this future.

A majority of respondents indicated that product-level emissions data would play a major role in their consumer communications. This forward-thinking approach suggests that companies see product-level emissions data not just as a compliance requirement, but as a powerful tool for marketing and brand differentiation.

The potential to capture the 10% sustainability premium is clearly influencing companies' adoption of ESG initiatives. By focusing on emissions reduction and transparent reporting, companies position themselves to appeal to the growing segment of environmentally conscious consumers. This strategy goes beyond mere reputation management; it's increasingly seen as a path to tangible financial benefits and market share growth.

However, the journey from emissions management to market advantage isn't straightforward. It requires not only robust emissions tracking and reduction, but also sophisticated data management. Companies must be prepared to share their emissions data and decarbonization strategies in a way that is both transparent and compelling to consumers.





KEY TAKEAWAYS

The race to capture the sustainability premium is on, and your competitors are likely already in the running. To stay competitive, it's no longer enough to simply manage your emissions behind the scenes. Companies must be prepared to:

Implement comprehensive emissions tracking across their operations and supply chains

Develop and execute ambitious decarbonization strategies

Create transparent, easily understandable reporting mechanisms for consumers

Integrate emissions data into marketing and brand storytelling

Continuously innovate in sustainable practices to stay ahead of the curve

By doing so, you can position your company to not only meet evolving consumer expectations but to actively capitalize on them, turning sustainability efforts into a true competitive advantage.



Need a hand getting your emissions inventory ready for public reporting and strategic communication?

Optera's comprehensive platform and expert team can help you not just manage your emissions, but turn that data into a compelling narrative for your consumers.

Reach out today to learn how we can help you transform your sustainability efforts into market leadership.

TREND 2

Emissions reporting and targetsetting have become standard practice among large companies

A majority of large companies have adopted robust emissions reporting practices and are setting science-based targets, signaling a maturation of corporate sustainability efforts.



KEY FINDINGS

91% of respondents are reporting their emissions either publicly or to regulators and customers.





Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90

75% of companies have third-party verified emissions.

Are your reported emissions verified by a third party?

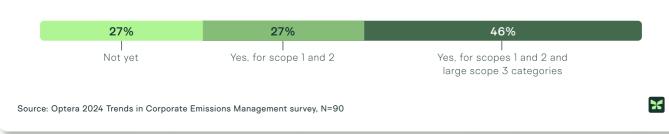


Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90



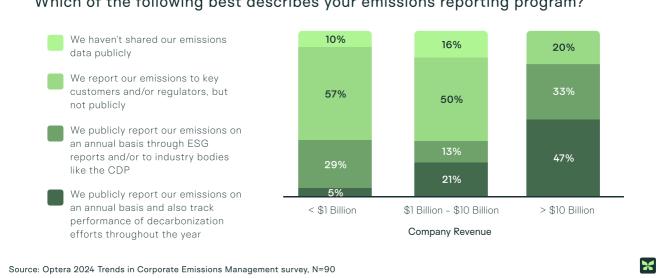
73% of respondents have set a Science-Based Target.





47% of companies with over \$10B in revenue not only report annually, but also track decarbonization progress throughout the year.

Which of the following best describes your emissions reporting program?





TANALYSIS AND INSIGHT

The landscape of corporate emissions reporting and target-setting has undergone a dramatic transformation in recent years, with our survey results highlighting the extent of this shift. A mere 9% of respondents indicated that they have not yet reported emissions data outside of their company, underscoring how emissions reporting has rapidly become a standard business practice rather than an exception. Breaking down the reporting practices further, we find that 50% of surveyed companies report their emissions publicly, while just over 40% report to their key customers and regulators.



This high level of disclosure aligns with broader market trends. The CDP, a global disclosure system for environmental impacts, reported that 23,000 companies submitted emissions data through their platform in 2023—a substantial 30% increase from the previous year. This surge in reporting indicates a growing acceptance of the importance of emissions transparency among businesses worldwide.

For large corporations, particularly those with annual revenues exceeding \$10 billion, the bar is set even higher. Our survey reveals that 47% of these companies not only report emissions publicly on an annual basis, but also track their decarbonization progress throughout the year.

Continuous monitoring and reporting is a more mature approach to emissions management, allowing for real-time adjustments to decarbonization and more frequent stakeholder communications.

While third-party verification of emissions data remains largely optional, a significant 75% of surveyed companies have proactively chosen to undergo this process. This high adoption rate suggests that companies are preparing for a future where verification becomes mandatory. Indeed, upcoming regulations such as the **Corporate** Sustainability Reporting Directive (CSRD) in the EU and the proposed SEC climate disclosure rules in the

US will make third-party verification a requirement. By gaining experience with the verification process now, these companies are preparing themselves well for impending regulatory changes.



Widespread adoption of third-party verification and target-setting

The trend towards more robust and credible emissions management is further evidenced by the widespread adoption of science-based targets (SBTs). Although setting an SBT is voluntary, 73% of our respondents have chosen to do so. The appeal lies in the credibility and rigor associated with the Science Based Targets initiative (SBTi), which provides a clearly defined pathway for companies to reduce greenhouse gas (GHG) emissions in line with the Paris Agreement goals.



Interestingly, our data reveals a correlation between company size and the comprehensiveness of SBTs. Larger companies, with their greater resources and often more complex emissions profiles, are more likely to set SBTs that cover not just their direct emissions (scopes 1 and 2) but also their value chain emissions (scope 3). Specifically, 63% of companies with revenue over \$10 billion have set such comprehensive SBTs, compared to only 29% of companies with revenue under \$1 billion. This disparity highlights both the challenges and opportunities in emissions management for companies of different sizes.

While larger corporations may have more complex emissions profiles to manage, they also often have more resources to dedicate to comprehensive emissions tracking and reduction strategies. Smaller companies, while perhaps facing resource constraints, have the opportunity to build emissions management into their operations from an earlier stage, potentially avoiding the challenge of retrofitting sustainability practices into established systems.





KEY TAKEAWAYS

The trend is clear—emissions reporting, verification, and science-based target setting are rapidly becoming standard practices in the corporate world, particularly among large companies. If your organization has not yet begun this journey, the risk of falling behind is significant and growing. Here's what you need to do:



Start with a comprehensive emissions inventory

This is the foundation of all future emissions management activities. Without a clear understanding of your current emissions, it's impossible to set meaningful reduction targets or provide accurate reports.



- Implement regular reporting practices

 Begin with internal reporting to build your capabilities, then expand to external reporting as your processes mature.
- Pursue third-party verification

 Even if it's not yet required by your country's regulations, verification adds credibility to your reports and prepares you for future regulatory requirements.
- Set science-based targets
 These provide a clear, credible path for emissions reduction aligned with global climate goals.
- Develop continuous monitoring capabilities
 Especially for large companies, the ability to track decarbonization progress throughout the year is becoming an expected practice.

Each of these steps builds on the previous one, and the process can seem daunting if you're just starting out. That's where expert guidance can make a crucial difference.



Don't risk being left behind in this rapidly evolving landscape. Optera can help.

The Optera team specializes in guiding companies through every stage of this journey, from initial emissions inventory to ongoing management and reporting. Our track record speaks for itself—100% of our customers who've undergone third-party verification have passed.

Reach out to Optera today, and let's create a tailored game plan to elevate your emissions management to the next level. Whether you're just starting out or looking to refine your existing practices, we're here to ensure your company is well-positioned for the low-carbon future.



TREND 3

Supply chain emissions have become the new frontier for corporate sustainability programs

As companies make progress on their direct emissions, they increasingly focus on tackling the more complex challenge of supply chain (scope 3, category 1) emissions.



Q KEY FINDINGS

Nearly 70% of respondents are actively working across their value chain to help suppliers decarbonize.

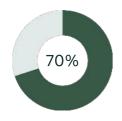
What steps have you taken to decarbonize your business so far? Select all that apply. None yet—we're still working on determining our baseline 0% We've tackled some efficiency initiatives, like more efficient equipment or lighting 82% We've made a plan based on our emissions hotspots 68% We've procured renewable energy to address scope 2 emissions across our operations 68% We're actively working across our value chain (suppliers, partners, portfolio companies, etc.) to set environmental standards and help them decarbonize their operations 62% Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90



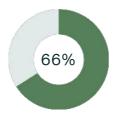
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70% of respondents would use product-level emissions data to inform supplier and procurement decisions, rising to 80% among companies with over \$10B in revenue.

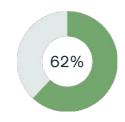
How would product-level emissions enable your reporting and decarbonization strategy? Select all that apply.



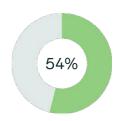
Greater granularity to use in supplier discussions and procurement decisions



Communicating product emissions to consumers



Reporting downstream emissions figures to corporate customers



Informing product design updates

Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90

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46% of companies have set ambitious science-based targets that cover their supply chain emissions.

Have you set a science-based (or SBT-aligned) decarbonization target? 46% of respondents selected: "Yes, for scope 1 and 2 and large scope 3 categories"



Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90



ANALYSIS AND INSIGHT

As companies make progress on their direct emissions, attention is increasingly shifting to the more complex challenge of supply chain emissions. Our survey reveals that 68% of companies are now actively engaging with suppliers, partners, and portfolio companies to set sciencebased targets and drive decarbonization efforts aligned with the 1.5°C pathway.

This focus on supply chain emissions is crucial, as they often represent the majority of a company's total emissions footprint. According to CDP, supply chain emissions are on average 11.4 times higher than operational emissions. However, managing these emissions comes with significant challenges:

> Limited visibility into supplier operations

Difficulties in obtaining accurate emissions data from suppliers

Lack of leverage with suppliers, especially in regions with less stringent environmental standards



We have shared tested strategies for overcoming those challenges in our guide to supplier engagement.

Despite these obstacles, companies recognize the necessity of addressing supply chain emissions to meet their overall sustainability goals. This is evident in the fact that 46% of surveyed companies have set ambitious SBTs that encompass their supply chain emissions.

The commitment to supply chain decarbonization is reshaping supplier relationships and procurement strategies. Our survey found that 70% of respondents plan to use product-level emissions data to inform supplier discussions and procurement decisions. This rises to 80% among companies with revenues over \$10 billion.



KEY TAKEAWAYS

Supply chain decarbonization, while challenging, represents the next critical frontier in emissions management. It offers significant opportunities for emissions reduction and can drive innovation throughout the value chain. Our guide to supplier engagement provides tested strategies for building effective supplier engagement programs.



FOR SUPPLIERS

If you're a supplier to large enterprises, the message is clear: act now on emissions reduction. Your customers are increasingly factoring emissions data and decarbonization efforts into their purchasing decisions.





If you're tackling supply chain emissions or preparing to meet new customer demands, Optera's Supply Chain Manager can help

Contact our team to start your journey towards effective emissions management and a more sustainable, competitive future.



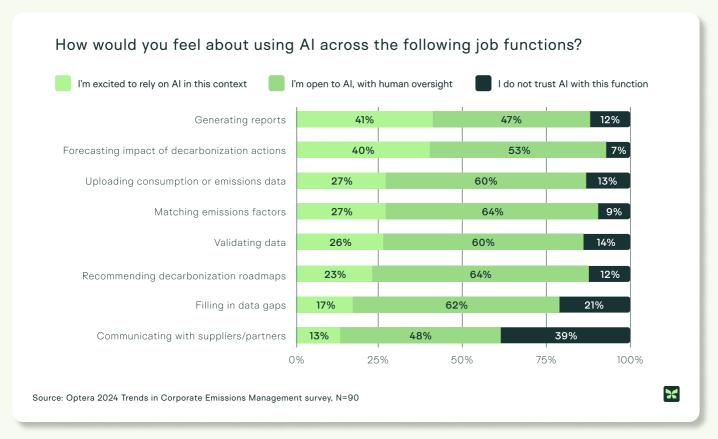
TREND 4

There's growing enthusiasm for advanced carbon management tools, but current practices still lag behind

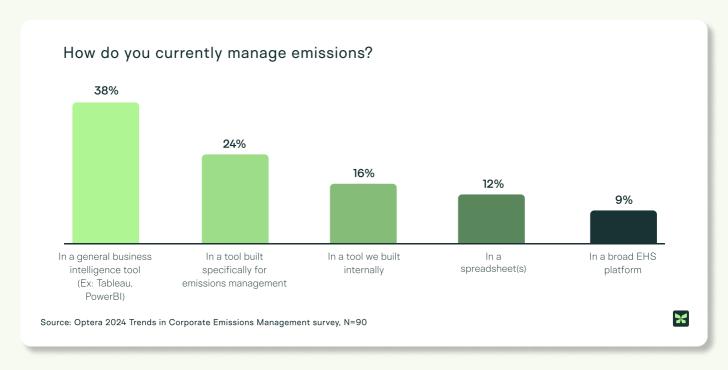
While sustainability practitioners are excited about the potential of AI and specialized tools for carbon management, most companies are still relying on general-purpose solutions, leading to significant data management challenges.



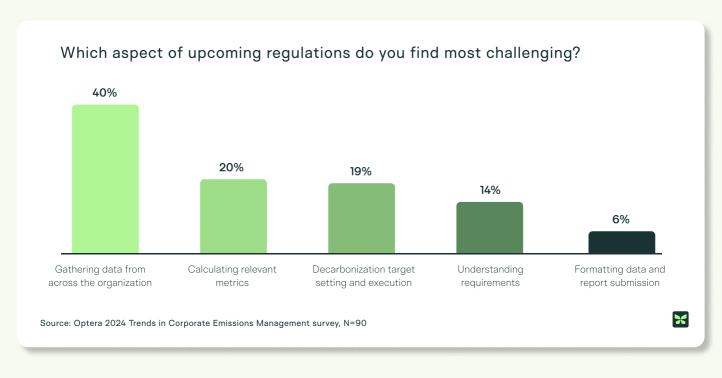
There is widespread willingness to adopt AI in carbon management, with over 60% of respondents open to AI use (with human oversight) across various functions.

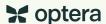


Only 24% of respondents are using a dedicated GHG emissions management platform, with the majority relying on general-purpose tools.



Gathering and managing data is cited as a major challenge, with 40% of respondents (rising to 55% for companies with revenue above \$10B) indicating it as the most challenging aspect of upcoming climate regulations.





Data inconsistency, quality issues, manual data gathering, and complex data structures are commonly cited challenges in emissions data management.

What parts of your scopes 1 and 2 data management process are the most challenging? Open-ended responses:



"Data capture across global operations and local partners"



"Reporting effectively from multiple systems"



"Data governance and data reporting"

Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90



What parts of your scope 3 data management process are the most challenging? Open-ended responses:



"Lack of real data - it's all just estimates"



"The lack of standardization and tracking through our different supply chains"



"Accurate data from suppliers and partners, standardizing data, and estimating activities not directly controlled by us"

Source: Optera 2024 Trends in Corporate Emissions Management survey, N=90





ANALYSIS AND INSIGHT

Our survey reveals a striking contrast between the enthusiasm for future technologies and the current state of carbon management tools in use today.



ESG practitioners show significant openness to AI adoption across various carbon management functions. This enthusiasm is particularly pronounced for report generation and forecasting decarbonization impacts, with over 60% of respondents open to AI use (with human oversight) in these areas.

Despite this forward-looking enthusiasm, the present reality of carbon management tools tells a different story:

Only 24% of respondents use tools specifically designed for emissions management.

The majority rely on general-purpose solutions like spreadsheets, business intelligence tools, and EHS platforms.

This reliance on non-specialized tools contributes to significant data management challenges:

40% of respondents cite data gathering as the most challenging aspect of upcoming climate regulations.

This rises to 55% for companies with revenue above \$10B.

These responses highlight issues of data inconsistency, quality, manual gathering processes, and complex data structures, particularly when dealing with supply chain emissions.



KEY TAKEAWAYS

While the future of carbon management tools looks promising, with high enthusiasm for AI integration, the current reality presents significant challenges. The majority of companies are still grappling with basic data management issues, often using tools not specifically designed for emissions management.

To bridge this gap and address these challenges effectively, companies need solutions purpose-built for sustainability and emissions management.

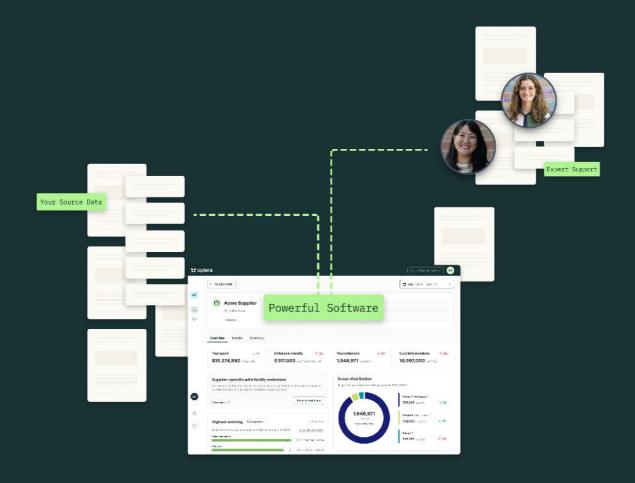




Ready to elevate your emissions management capabilities?

Optera's ESG Insights and Supply Chain Manager tools are designed to meet these specific needs, helping companies streamline their data management processes and prepare for a more advanced, Al-integrated future.

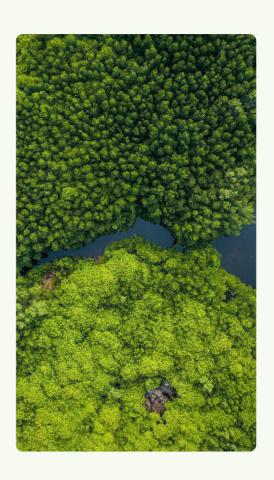
Reach out to schedule a no-obligation chat with our team and learn how Optera can help your program meet its decarbonization needs.



Next steps for climate programs in 2025

The results from this survey make clear that we're in an interesting time for corporate climate programs: stakeholders grasp the importance of ESG as a competitive differentiator, large companies are achieving new levels of program maturity and extending their focus across the value chain, but widespread adoption of purpose-built tools and advanced emissions management technology lags behind.

57% of survey respondents have achieved the "Leader" or "Trailblazer" maturity level on Optera's <u>Climate Program Maturity</u> <u>Curve</u>—so based on their insights as leaders in corporate sustainability, and the trends we identified in this report, we recommend the following actions.



1. Embrace purpose-built emissions data management and reporting tools

Consolidating data from a patchwork of cobbled-together solutions contributes to ongoing emissions management headaches. To address challenges in data collection and reporting:

Invest in a <u>dedicated carbon management software platform</u> to centralize data collection, analysis, and reporting.

Regularly review and update emissions factors and calculation methodologies to ensure accuracy.

Establish clear data collection protocols across all business units and geographies

For example: with the power of Optera's ESG Insights software and expert sustainability consulting team, Bloomin' Brands was able to <u>collect and analyze its</u> <u>entire emissions inventory</u> and identify the most cost-effective, results-driven pathways to begin emission reduction.

2. Prioritize supply chain engagement

With supply chain emissions increasingly becoming a focal point for corporate sustainability programs, companies should:

Develop comprehensive supplier engagement programs that include support, education, and incentives for emissions reduction.

Collaborate with industry peers to establish common standards, share best practices for supplier engagement, and distribute influence over suppliers more widely.

Implement digital tools and platforms to streamline data collection and analysis across the supply chain.

Integrate emissions data into procurement decisions, supplier evaluations, and supplier codes of conduct.

Collaborate with suppliers to set their own Science-Based Targets.

Consider using the technology company Hewlett Packard Enterprise as inspiration. They've used Optera's Supply Chain Manager as the foundation for an <u>advanced</u> <u>supply chain decarbonization strategy</u>, building strong supplier relationships, sharing emissions data feedback back and forth with their suppliers, and collaborating across their industry to drive stronger results on their path to net-zero by 2040.

3. Prepare for an increasingly stringent regulatory landscape



The first CSRD reports are due next year, and CA SB 253 and 261 reports are due in 2026—with limited assurance required. 68% of respondents to our survey indicated that they are using a combination of in-house talent and external resources to prepare for upcoming regulatory requirements.

To stay ahead of regulatory changes:

Develop your scope 1, 2, and 3 emissions inventory now.

Prepare your inventory for third-party verification.

Invest in building internal expertise or securing external support to ensure compliance.

Each upcoming climate regulation has unique requirements and will present its own challenges for compliance. We recommend doing a deep dive on each one as you prepare. Click below to access our guides for regulatory compliance:

How to comply with CSRD →

How to comply with CSDDD →

How to comply with AB 1305 →

^ Includes a free disclosure template

Complete guide to the SEC climate disclosure rules →

Unpacking SB 253 and 261 →

4. Embrace continuous improvement

Carbon management is not a one-and-done activity, nor should your strategy remain the same from one year to the next. The best corporate sustainability programs improve year over year.

To drive ongoing progress:

Regularly benchmark your carbon management practices against industry leaders and peers.

Encourage innovation and experimentation in emissions reduction strategies.

Increase the amount of supplierspecific data in your scope 3 emissions inventory each year. Provide ongoing training and development for employees involved in carbon management.

For example, Optera customer Zayo started with modeled estimations in their first emissions inventory. The following year, <u>Optera and Zayo worked together</u> to build a more accurate model, which was approved by their third-party verifier. They started out with a D on the CDP's climate score, and have since improved to a B, with continual improvements planned for future years.

Take action now to thrive in the low-carbon future

By implementing these recommendations, companies can enhance their carbon management capabilities, drive meaningful emissions reductions, and position themselves as leaders in corporate sustainability. As the urgency of climate action continues to grow, those organizations that take proactive steps now will be better prepared to thrive in a low-carbon future.

Remember that effective carbon management is an ongoing journey. Regularly reassess your strategies, stay flexible in your approach, and remain committed to continuous improvement. By doing so, your organization can play a crucial role in the global effort to combat climate change—while also staying competitive in a turbulent market.

Ready to take your carbon management to the next level?

Contact the Optera team today for a low-stakes conversation about the state of your program.