Carbon management – a catalyst for innovation and continuous improvement

Drive decarbonization and organizational resilience across your corporate value chain

Capgemini

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Carbon reporting can accelerate net zero goals

The number of companies setting net zero goals is increasing. In 2023, 929 publicly listed companies from the Forbes Global 2000 list had net zero targets. This is more than the 417 that had targets in 2020, but it still means that many high-profile global companies still don't have net zero goals. And, of the organizations that do have targets in place, few have credible plans to reach their objectives.

Achieving these targets relies on decarbonization strategies that align with what's really happening on the ground. Companies that accurately monitor and report on carbon emissions can check if their plans are on the right track. If they are, carbon reporting can help them get there faster. If they're off track, they use data to understand how to get back on course.

Investors, customers, regulators, and employees are increasingly concerned with the environmental impact of organizations. Yet, 91% of companies are failing to measure their carbon footprint properly. Organizations may see carbon reporting as simply a requirement they must carry out as part of regulatory obligations.

However, it goes far beyond compliance; it is the key to achieving decarbonization objectives and can help organizations stay resilient. The monitoring and reporting of carbon emissions is becoming a strategic imperative for businesses.

Efficient carbon management can result not only in effective data governance but also in data-driven decision-making and streamlined operations – all of which contribute to becoming a more sustainable business.

"The monitoring and reporting of carbon emissions is becoming a strategic imperative for businesses."

85% of organizations recognize the business value that insights driven by emissions data can provide

53% of organizations that have embedded emissions data into decision-making have accelerated their net zero journey

Source: Capgemini Research Institute, Data for net zero survey, May–June 2022

Well-executed sustainability initiatives generate more revenue

As the cost-of-living crisis continues, over half (54%) of all consumers say that they value affordability more than the product's sustainability when making purchasing decisions.

Yet, despite the economic pressures, many consumers still prioritize sustainability in their buying decisions. 41% of consumers globally are willing to pay more for a product they perceive as sustainable. Generally, individuals and families with greater disposable income are more likely to make sustainable purchases since these items are often priced higher than non-sustainable items.

Sustainable products and sustainable product design can generate higher revenue by attracting environmentally conscious consumers. But there are other ways that sustainable products bring in more money for companies.

For instance, designing products with more efficient resource use can lower operating costs. Meeting regulatory requirements related to combating climate change can prevent costly fines. And, by making products that are longer lasting and easier to repair, companies can reduce the cost of the entire product lifecycle. This can lead to happier customers and more sales, which means more revenue.

However, it is not just customers who are checking the sustainability efforts of companies. Investors scrutinize sustainability data just like they do with financial information and trends. Investment decisions are influenced by how companies respond to regulations, and this can significantly affect their attractiveness to investors.

Recently introduced directives, regulations, and standards are increasing the scope and intensity of reporting coverage. This is applying more pressure on companies to prepare and externalize more data points about their operations with double materiality – reporting both on how their business is impacted by sustainability challenges ("outside-in") and how their activities impact society and the environment ("inside-out").

The more information that is shared externally, the more that data can be analyzed. Organizations with strong sustainability credentials and who closely adhere to regulations can boost their ability to secure funding.

Sustainability efforts are also important to people within an organization. 65% of workers would be more likely to work for an employer with robust environmental policies. Companies that fall short in their sustainability efforts could find that valuable employees leave in search of a workplace that aligns more with their own values.

"Recently introduced directives, regulations, and standards are increasing the scope and intensity of reporting coverage. This is applying more pressure on companies to prepare and externalize more data points about their operations."

Multi-source data needs to be controlled

The primary purpose of carbon reporting is to get a solid understanding of carbon emissions so that the appropriate decisions can be made. If emissions data is spread across various systems, and not consolidated in a single core application, organizations need to put together an accurate greenhouse gas (GHG) emissions inventory.

This serves as a data foundation on which a baseline can be established. Controlling this baseline enables organizations to analyze data to identify opportunities to reduce carbon emissions and meet external reporting requirements.

GHG emissions that originate from the supply chain rather than in-house operations are classed as Scope 3 emissions; they are generally beyond a company's direct control. For many companies they account for a majority percentage of their overall GHG emissions. For example, in a single year, US tech company Dell Technologies had around 98% of emissions from Scope 3.

Ensuring data traceability, especially for Scope 3 emissions, is a challenge; consolidating and managing such widely distributed data can be a labor-intensive and time-consuming process.

Many organizations do not yet track these emissions or are not able to monitor these emissions accurately – something that is required to better support decarbonization as well as the enhanced compliance requirements of recent and emerging regulations. Connecting the dots between disparate data sources is key to achieving traceability and, subsequently, overall sustainability goals.

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45% of organizations do not embed emissions data into decision-making

Only **23%** of organizations report moderate or high levels of awareness of which suppliers account for most of their scope 3 emissions

Source: Capgemini Research Institute, Data for net zero survey, May–June 2022

Enhancing supply chain transparency

Due to the necessity of measuring Scope 3 emissions, effective carbon reporting creates greater visibility throughout the entire supply chain. This data is used for reporting and reducing emissions. Increased visibility also establishes a process that enables organizations to identify supply chain challenges as they occur.

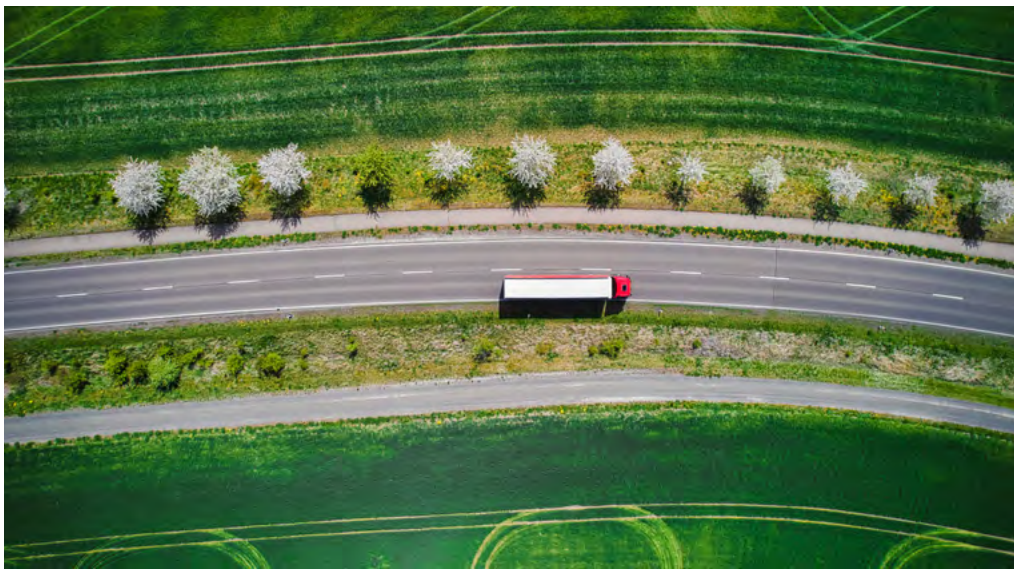
In recent years, global events have brought attention to the fragility of modern supply chains and how they are affected by macroeconomic conditions. For example, global supply chain challenges led to semiconductor shortages that affected manufacturers across the world.

The shortage stemmed from several different challenges including manufacturing delays in China and Taiwan, where the bulk of semiconductors are manufactured. Labor shortages and lockdowns further hindered chip production, and shipping delays affected both raw materials reaching manufacturers and finished products being shipped out on time.

This global shortage in semiconductors hit vehicle production and manufacturers particularly hard. In 2021, the automotive industry lost an estimated $210 billion in revenue globally. The shortage caused manufacturing lead times to increase from an average of three to four months to an average of 10–12 months, and an estimated 19.6 million vehicles were cut from production schedules worldwide between 2021 and 2023.

Challenges like these can clearly have significant impact, but the proper monitoring and reporting of data lets organizations understand wider issues, enabling them to respond more effectively and create contingency plans based on informed decisions and real-time data.

"Effective carbon reporting creates greater visibility throughout the entire supply chain."



Scope 3 emissions account for an estimated **65–95%** of a company's carbon footprint

Only **22%** of organizations measure scope 3 emissions

Source: Capgemini Research Institute, Data for net zero survey, May–June 2022

Carbon reporting drives sustainability and business value

Companies that want to transition to sustainable solutions can do so while achieving other business goals. But they must take a proactive approach to carbon reporting by measuring, managing, and monitoring their carbon emissions through:

- A carbon emissions data guiding strategy that drives decision-making
- Extensive, efficient carbon accounting with the right skills and tools
- Industrialized decarbonization execution across the value chain, and
- Strong digital foundations that ensure scalable, real-time carbon data.

Carbon data guiding strategy

Companies must fully embed carbon data to drive informed decision-making across the entire organizational value chain. This includes product design, procurement, manufacturing, process design, and distribution.

Product design, for instance, can incorporate a circular approach to create more eco-friendly products that require fewer resources to manufacture and use. Procurement can involve sourcing materials from sustainable suppliers, while distribution can optimize transportation routes to minimize emissions.

Efficient carbon accounting

Using carbon accounting tools can give a clear understanding of where emissions originate within – and outside of – an organization. This means targeted efforts can be made to reduce carbon output.

This not only helps decarbonization efforts but also gives a company a competitive advantage by showcasing its commitment to sustainability. This, in turn, can attract more consumers and investors.

"Companies must fully embed carbon data to drive informed decision-making across the entire organizational value chain."

Only **13%** of organizations have set up a steering committee to oversee progress in net zero initiatives at scale

Only **13%** of organizations have adopted a carbon management solution at scale

Source: Capgemini Research Institute, Data for net zero survey, May–June 2022

Decarbonization execution

Organizations that are trying to reduce carbon emissions often struggle to see meaningful progress because their decarbonization strategies aren't consistently applied throughout their entire value chain.

To decarbonize effectively, organizations need to integrate carbon emissions data into every decision-making process. This includes everything from designing products and services to deploying them and monitoring their impact. However, only 45% of organizations with net zero targets do not use emissions data for business decision-making.

The first step is using data to identify the key areas where carbon reduction can be most effective. Once these areas are identified, it's crucial to ensure that every part of the business follows carbon management principles. This means spreading awareness about the importance of managing carbon emissions throughout the company.

By doing so, organizations can bridge the gap between their sustainability goals and the concrete efforts to reduce emissions along the entire value chain. Employees who require them should have access to tools that help track and improve KPIs related to carbon emissions. This integrated approach is the key to successful decarbonization efforts.

Strong digital foundations

By integrating scalable and specialized technology into their operations, companies can improve data management at every stage of production and distribution. Companies that want to use real-time carbon data need to have advanced digital foundations with automated data collection that enables data to be gathered continuously.

These foundations provide a place for multi-source data to be consolidated. This data can then be turned into insights that can be used to achieve cost savings, streamline processes, increase efficiency, and reduce carbon emissions.

As operations grow, carbon reporting and management requirements also expand. This is why scalability is important. A digital infrastructure that can adapt and scale ensures that sustainability goals can be maintained even as the organization evolves.

"To decarbonize effectively, organizations need to integrate carbon emissions data into every decision-making process."

Effective governance

Carbon reporting requires commitment from the top down. Clear, achievable sustainability objectives should be embedded, not just in an organization's strategy, but also in its company culture. Organizations using carbon reporting in an efficient way will see many benefits beyond mere decarbonization objectives. Importantly, they will, by default, have emissions data that is necessary for evolving regulations and other industry standards.

When it comes to carbon data and reporting, many companies will need to promote the benefits and cultivate a mindset change in their employees. Many companies also suffer from skill gaps in decarbonization and carbon emission calculations, lacking the necessary tools for precise calculations. This shortfall in skills and tools can lead to inefficiencies, errors, and missed chances.

While internal changes are essential, they can be significantly bolstered by collaborating with experts in carbon reduction strategies, renewable energy solutions, and sustainable supply chain practices.

These external partnerships can accelerate a company's transition to sustainable operations by providing access to knowledge, resources, and best practices. They do this by exploring decarbonization opportunities throughout the entire value chain and introducing scalable and specialized technology that enables the efficient consolidation of data from various sources.

This could include automated data collection, precise carbon emissions metrics, and industrialized impact measurement. This data is then placed at the core of decision-making processes with a specific focus on carbon emissions.

"Organizations using carbon reporting in an efficient way will see many benefits beyond mere decarbonization objectives."

Only **7%** of organizations have automated the collection of emissions data

32% of organizations participate in data ecosystems initiatives to share emissions data

Source: Capgemini Research Institute, Data for net zero survey, May–June 2022

Connected sustainability

Measuring carbon emissions accurately is a challenge for most organizations. Sustainability isn't the remit of a single individual in the organization – the responsibility for reducing carbon emissions exists across the business. It's a highly transversal discipline. With the onset of regulations like ISSB, sustainability reporting is beginning to echo financial reporting with all the discipline, control, and governance that it entails.

In this respect, chief financial officers are becoming increasingly accountable for the disclosures. The Chief Sustainability Officer is generally responsible for orchestrating the collection and preparation of the data that underpins the external submissions.

Heads of the supply chain operations are often tasked with reducing carbon emissions. But, as these individuals may not have direct involvement in product design, it typically falls to research and development (R&D), engineering departments, or the facilities themselves to drive an organization's energy transition.

With sustainability responsibilities spread across different departments and functions, it is necessary to bring the whole organization together to overcome the challenges of managing and achieving its sustainability goals. These scattered responsibilities require leadership to create a unified system that links all these elements together.

The goal is to give each stakeholder the tailored information they need for their specific role; supply chain managers get supply chain data, procurement gets supplier data, the CFO sees financial data, HR looks at diversity data, and procurement focuses on supplier information. Those working on sustainability need to connect all these dots, making sure the right data is available to the right people.

This approach could be termed "connected sustainability" as it revolves around establishing the necessary connections and providing pertinent data to support sustainable practices across the organization.

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50% Of organizations say that their business teams are either not at all equipped or only slightly equipped to use emissions data to drive business decisions

Source: Capgemini Research Institute, Data for net zero survey, May–June 2022

Working with Capgemini

At Capgemini, we are fully committed to building a sustainable future. Since 2019, we have helped organizations around the world to minimize their environmental footprint, and we continue to push sustainability efforts, both within our own organization and in collaboration with our partners.

We leverage our Connected Enterprise approach to strategically implement technology solutions that deliver the maximum positive outcomes for our clients.

The Connected Enterprise seamlessly orchestrates an intelligent, connected ecosystem of people, processes, data, and technology – with AI, analytics, and GenAI at its heart – to drive sustainable business outcomes, enhanced value, and continuous innovation across your organization.

Capgemini's Carbon Reporting and Management offer helps you navigate a decarbonization journey to ensure seamless, end-to-end carbon measurement, continuous improvement, and organizational resilience across the corporate value chain.

Contact us to find out how we can help you use carbon management to reach goals far beyond regulations alone.

Lee Beardmore has spent over three decades advising clients on the best strategies for technology adoption to drive business outcomes. He leads our Carbon Reporting and Management service – an integrated suite of capabilities leveraging the combined expertise of Capgemini Group enabling clients to measure, monitor, and reduce their greenhouse gas emissions across the end-to-end value chain. Lee is a computer scientist by education, a technologist at heart, and a strong advocate of business with purpose.

About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2023 global revenues of €22.5 billion.

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