Towards Real Carbon Accounting

Calling for a transformation of the carbon accounting system - What is needed and how companies can help achieve it

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Executive summary

Credible emissions data is key for companies to take targeted decarbonization action across their supply chains and measure progress over time. This requires a carbon accounting system which enables access to accurate, granular and comparable data. Companies and consumers need to be able to understand the real impact of their products to reduce this as they cannot manage what they cannot measure. To achieve this, and mirroring the financial accounting approach, data needs to be passed along the value chain from one company to the next, tied to specific products and services in the form of a carbon invoice.

Work is already underway in the Partnership for Carbon Transparency to create such a system, focused on collaboration around calculation methodologies and a standardized technology infrastructure. In the meantime, companies can also start on this journey by putting in place a credible Scope 3 strategy and investigating their major emissions sources in more detail as part of their corporate footprint calculations, applying a hybrid approach which combines average data with primary data.

Carbon accounting, especially Scope 3, is a challenge, but one that can be solved - together.

Introduction

Sustainable companies have set ambitious climate targets covering their own operations as well as their supply chains. Now, actions need to measure up to commitments. Businesses must be able to record, report and act on reliable and accessible emissions data to drive corporate climate action, particularly in the supply chain. Such data is key to (i) setting accurate net zero targets, (ii) identifying specific intervention areas in the value chain with maximum (decarbonization) impact, and (iii) accurately tracking performance of emission reduction initiatives against established targets

Publicly listed companies are increasingly required to disclose their greenhouse gas (GHG) emissions and climate-related risks – not only within their own business operations but along their value chain. The Climate Disclosure Rules of the US Securities and Exchange Commission (SEC), expected to be published in spring 2023, will likely require public companies to report GHG emissions in their filings, including the disclosure of material supply chain (Scope 3) emissions. This follows inclusion of a Scope 3 reporting requirement in the draft rules of the International Sustainability Standards Board (ISSB) which are set to come into force in early 2024. With Standards like the Science Based Targets initiative also requiring the setting of a Scope 3 target when these amount to 40% or more of overall emissions, the need for decision-quality data is gradually moving into the foreground.[1]

However, the current accounting system for supply chain emissions (i.e., the rules and approaches used to calculate these emissions) is severely flawed as it relies on data that often lacks accuracy, granularity, and

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[1] https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf

comparability. This needs to change – not only to fulfill tightening reporting requirements, but also to support companies in making investment decisions and differentiating products and services based on carbon intensity as much as price and quality. Companies and consumers need to be able to understand the real impact of their products to reduce this as they cannot manage what they cannot measure.

What is required to achieve this is a carbon accounting system which mirrors the financial accounting world. Real, measured and credible emissions data must be accessible and passed along the value chain from one company to the next, tied to specific products and services in the form of a carbon invoice. In short, companies should start treating carbon like money. Only with such a system in place, it is possible to accelerate decarbonization in line with the Paris targets.

WHY carbon accounting needs to evolve

In today's approach to carbon accounting, there are two fundamental problems that need to be addressed in order to strengthen the credibility of sustainable companies and their decarbonization activities: data quality and data access.

Data access

Companies are increasingly recognizing that net zero targets not including supply chain emissions lack credibility. For most companies, this is where ~80% of emissions can be found.[2] Transparency thus must be created for a significant share of emissions which sit outside a company's direct control. At present, suppliers are often asked to complete custom Excel spreadsheets to provide their data. With increasingly more data being requested, this approach is reaching its limitations as suppliers face "survey-fatigue" and are diverting time and resources away from real climate action. Making manual entries in offline spreadsheets across multiple company functions is also time-consuming and leads to data that is dated and hence impedes real-time decisions on reduction.

Technology needs to step up to play a major role in improving data sharing along the value chain. With automation, data can be collected and managed more frequently and on a regular basis. An increasing number of carbon accounting and management solutions and platforms are in development, to help connect value chains by digitizing carbon accounting. While this is important progress, it also creates a risk of fragmentation, which ultimately could turn into a core obstacle rather than a solution. Given the global, intricate nature of value chains and the significant number of suppliers of different types and sizes, flexibility to choose how to access and share data will be key. This requires technological interoperability, i.e., enabling different carbon accounting solutions to "speak the same language" using data standardization for the exchange in a "network of networks". Open and goal-oriented cooperation between technology companies and standardization bodies is not only desirable, but mandatory.

Data quality

To supercharge their sustainable impact, companies need carbon data from across their supply chains which is accurate, granular, and comparable. Current carbon accounting methods are largely based on averages and secondary data. Most companies account for their carbon by relying on secondary data (either sector averages or spend-based data) taken from sources such as International Environment Agency (IEA), European Environmental Protection Agency (EPA / EEA), Ecoinvent and others, instead of using primary data from their operations and suppliers. This prevents companies from truly understanding emission hotspots, thus hindering their ability to accurately track the performance of their reduction efforts.

Existing accounting standards like the GHG Protocol also provide flexibility in calculation methods used to quantify value chain emissions, which comes at the expense of rigor and comparability. As a result, two companies may end up applying the same standard differently or use different standards for the same calculation, resulting in diverging outcomes. Additionally, increasingly stringent regulations will increase the requirements for auditing and assurance, and thus data quality.

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[2] https://www.mckinsey.com/capabilities/operations/our-insights/making-supply-chain-decarbonization-happen

WHAT carbon accounting based on actuals is going to look like

In financial accounting, financial data "flows through" companies via the profit and loss statement and balance sheets that are maintained via the general ledger in a company's ERP system. Data is shared across companies via purchase orders and invoices from one participant of a value chain to the next. Global standards govern how the data is calculated.

This same approach needs to be adopted for carbon accounting. What is needed is a system where a harmonized approach is used for carbon footprint calculations and in which data is shared in an open, digitally enabled, flexible manner across technology solutions and platforms. At each step of the value chain, companies will have access to standardized emissions data. With more accurate accounting of both product emissions and – as a result – overall corporate emissions, organizations can effectively set goals and track progress towards their targets.

Carbon transparency among companies is largely missing today and three things are needed to remedy this: (i) tightening and continuous updates of existing carbon accounting rules, (ii) technology infrastructure in which the choice of software solution or platform does not matter, and (iii) unprecedented level of collaboration, across value chains, industries, technology providers and key actors in the private and public sectors. Topics being addressed jointly by the Partnership for Carbon Transparency (PACT).

HOW companies can start shifting the dial now

In the near-term, companies can start by combining averages with actuals (i.e. primary data) for their corporate carbon footprint calculations until a more complete, ledger-based carbon accounting is in place: a **hybrid carbon accounting** approach. As a first step, companies must improve the accuracy and granularity of their operational Scope 1 and 2 emissions, and importantly, their Scope 3 emissions. This can only be achieved by putting in place a credible Scope 3 strategy, supported by an outcome-driven calculation approach, based on the following steps:

- **Identify**: Identify the largest sources of emissions at either purchased product or supplier level based on an initial top-down Scope 3 calculation.
- **Collect**: Request suppliers representing the most significant emissions to calculate and provide relevant product carbon footprints (PCFs) following the [Pathfinder Framework](#) requirements.
- **Collaborate**: Work with suppliers to identify and implement opportunities to reduce their PCF emissions, ultimately favoring suppliers with lower PCFs for equivalent products.
- **Expand**: Gradually incorporate additional products and suppliers into the PCF data exchange request.
- **Improve**: Continuously improve on carbon data quality, granularity and accessibility and adjust the approach if necessary.

In taking these steps, sustainable companies already today benefit from a competitive differentiation of their products and services. This can already be observed in consumer-facing industries like food & beverage as well as in heavy emitting industries like cement and steel, where companies are racing to provide materials with the lowest carbon footprint. Furthermore, these businesses are best prepared for future carbon pricing or carbon taxes. The EU is actively debating such approaches and already introduced the Carbon Border Adjustment Mechanism (CBAM), which comes into force in October 2023 and puts an import tariff on carbon intensive products based on their actual carbon footprint.

An open exchange on experiences and learnings throughout the process is essential to accelerate the evolution of a system in need of change. Collaboration and transparency are at the heart of this and will support standardisation bodies in quickly updating and developing the necessary standards. Carbon accounting, especially Scope 3, is a challenge, but one that can be solved - together.

ABOUT WBCSD

WBCSD is the premier global, CEO-led community of over 200 of the world's leading sustainable businesses working collectively to accelerate the system transformations needed for a net zero, nature positive, and more equitable future.

We do this by engaging executives and sustainability leaders from business and elsewhere to share practical insights on the obstacles and opportunities we currently face in tackling the integrated climate, nature and inequality sustainability challenge; by co-developing "how-to" CEO-guides from these insights; by providing science-based target guidance including standards and protocols; and by developing tools and platforms to help leading businesses in sustainability drive integrated actions to tackle climate, nature and inequality challenges across sectors and geographical regions.

Our member companies come from all business sectors and all major economies, representing a combined revenue of more than USD $8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. Since 1995, WBCSD has been uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

Together, we are the leading voice of business for sustainability, united by our vision of a world in which 9+ billion people are living well, within planetary boundaries, by mid-century.

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