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## Redefining Efficiency in a Carbon-Constrained Economy

The Business Imperative for Enterprise Carbon Management Software

You've likely heard of climate change and greenhouse gas (GHG) emissions issues in the media, or perhaps even from executives in your own company who have new titles like Chief Sustainability Officer (CSO). The impact of these issues on corporations is now becoming even more tangible as global GHG regulation, including cap-and-trade programs, puts a value on carbon emissions, resulting in increased energy and commodity prices.

In this carbon-constrained economy, business leaders will seek to implement tools and practices to better understand and manage their operations with a new metric as a measure of efficiency – carbon emissions. Better management of carbon emissions will ultimately lead to a more profitable, competitive, and sustainable business. SAP's recent acquisition of Clear Standards, rebranded as **SAP Carbon Impact**, provides SAP customers with a clear and compelling answer for their organizations' emerging need for an enterprise carbon management solution.

### Current Carbon-Tracking Methods Pose Significant Risk

If your company is disclosing carbon emissions information today, it's likely doing so using a disparate set of homegrown tools or spreadsheets. These basic tools serve an initial need to gather a baseline inventory of an organization's carbon footprint. However, subsequent efforts to streamline the annual inventory process, become more granular at tracking data, update emission factors, and establish a framework to share information across the enterprise quickly expose the inherent limitations of these ad hoc solutions. Corporations that utilize their carbon footprint information for public disclosure or operational management often face significant risks from data management deficiencies, such as:

- Goal setting based on incorrect or incomplete baseline data
- Difficulties in gathering activity data from multiple sources across the supply chain

- Errors in calculating or converting units across multiple carbon emission activities
- Outdated or improper use of emission factors and calculation methodologies

These risks are further amplified as many companies are now staking their brand reputation on environmental claims, publishing their sustainability data in public forums such as marketing collateral or Web sites. Just as a CFO relies on a robust accounting system to release financials to the public, a CSO will also require a credible system of record for carbon footprint disclosure. Furthermore, a holistic carbon management solution will go beyond carbon reporting to enable companies to evaluate mitigation options and integrate carbon tracking with operational systems such as ERP applications.

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### Carbon Management Is an Enterprise-Wide Challenge

Traditionally, environmental aspects of a company's operations have been the responsibility of a department often called Environment, Health, and Safety (EHS). This group has focused on EHS issues from the perspectives of compliance (avoiding fines) and safety (avoiding worker injury). Over the past few years, carbon and sustainability management have become enterprise-wide concerns, driven by nonregulatory factors such as cost, efficiency, and brand value. It is not surprising, then, that stakeholders beyond the EHS team have an equal interest in understanding how carbon emissions affect the business. **Figure 1** illustrates why and how different departments seek to embrace carbon management best practices.

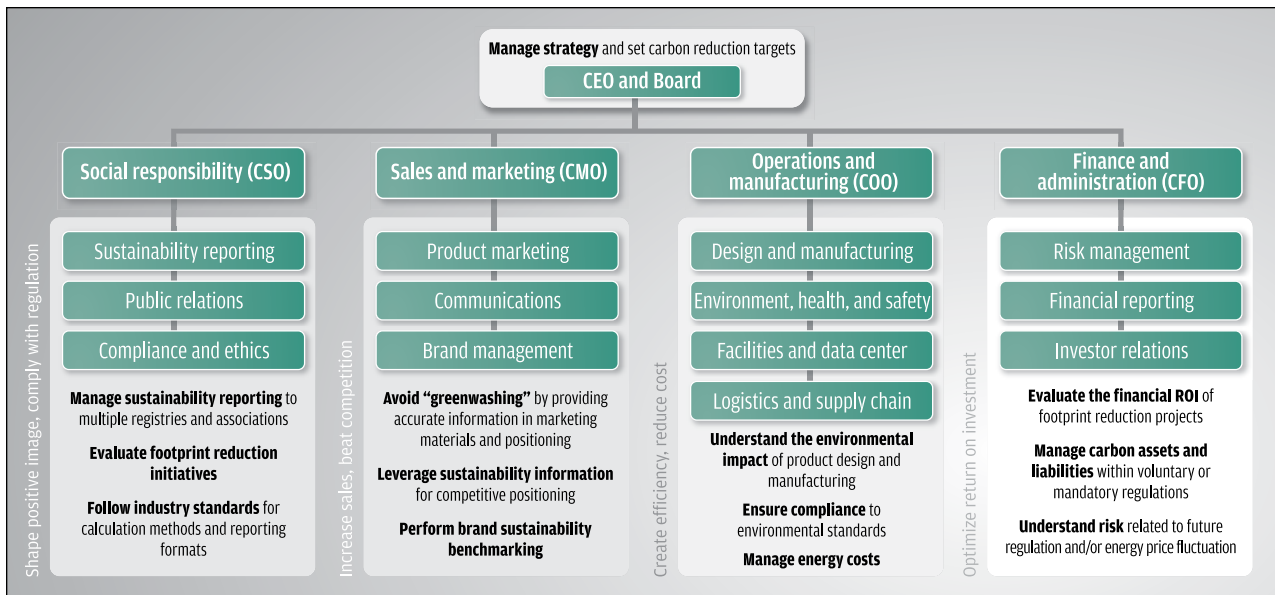


FIGURE 1 ▲ Carbon management is an enterprise-wide business challenge

## Enabling Best Practices with SAP Carbon Impact

SAP Carbon Impact provides a holistic carbon and sustainability management platform to support the varying yet related needs of these different stakeholders. The solution's functionality encompasses three main areas:

- 1. Assess:** Create a consolidated inventory of environmental impacts across direct operations, product and service life cycles, and the supply chain (see Figure 2)
- 2. Analyze:** Conduct an analysis of the inventory through role-based dashboards, and evaluate the effectiveness of proposed methods to reduce carbon emissions
- 3. Act:** Set sustainability goals across the organization, and report information to mandatory or voluntary public registries

Another key aspect of SAP Carbon Impact is the best practices content that is provided and continuously updated as part of the solution. Examples include carbon calculation methodologies; emission factors from verified sources such as the World Resources Institute and the Intergovernmental Panel on Climate Change; and reduction project templates to calculate ROI from various energy efficiency and renewable energy technology deployments.

To enable rapid deployment and ensure that both functional and content enhancements can be transparently deployed to customers, SAP delivers SAP Carbon Impact in a secure software-as-a-service (SaaS) model. There is no software to install, maintain, or upgrade, which minimizes cost of ownership and the implementation timeframe.



FIGURE 2 ▲ An SAP Carbon Impact user can track and assess carbon emissions through an interactive dashboard

To ensure interoperability with other enterprise applications, SAP Carbon Impact includes an interfaces layer called the Carbon Hub. This layer enables batch data exchange via spreadsheets or real-time data integration via Web services interfaces. Over time, SAP Carbon Impact will leverage other SAP technologies and become more tightly integrated with SAP Business Suite software and SAP BusinessObjects solutions.

## Next Steps

To learn more about how SAP Carbon Impact can help your organization establish a solid foundation for enterprise carbon and sustainability management, please visit [www.sap.com/solutions/sustainability/offerings/carbon-impact](http://www.sap.com/solutions/sustainability/offerings/carbon-impact). ■