

# Carbon Accounting Software Tracker

US and Europe

# Introduction

Sia Partners is a next-generation management consulting firm and pioneer of Consulting 4.0, which strives for next-level impact by developing innovative CSR solutions for clients. It is the Climate Analysis Center, a dedicated team in charge of climate transition projects for clients, conducted a study to establish a benchmark evaluating the effectiveness and capabilities of several leading carbon accounting software solutions in Europe and in the United States (US). This study provides a fact-based comparison of the six most prominent generalist carbon accounting software solutions on the market. Sia Partners' Climate Experts have identified the most relevant features to consider when selecting the carbon accounting software that best aligns with a company's requirements.

Carbon accounting software plays a crucial role in helping companies track, measure, and reduce their carbon emissions. Using carbon accounting software enables companies to maintain accountability for their environmental objectives, implement strategies to minimize their emissions, track their progress in reducing emissions, and get expert advice on how to do business in a more sustainable manner. This benchmark study helps companies achieve their carbon neutrality objectives and contributes to the collective endeavor of addressing climate change.

By establishing this benchmark, Sia Partners provides valuable insights into the capabilities of different software programs, enabling businesses to select the most effective tools to drive their carbon reduction efforts. This study focuses on the leading carbon accounting software programs that are active in Europe and the US. The European and US markets are pioneers in terms of current and expected environmental regulations (SEC, SFDR, CSRD, SECR...), which explains the tech maturity of both markets regarding carbon accounting software.

Our experts considered several key features in the solution selection process: carbon footprint measurement, reporting capabilities, carbon reduction target-setting, carbon management, internal/external communication especially with suppliers, support, and pricing. Sia Partners' experts conducted an in-depth analysis of these criteria and information from website communications and solution demos in 2022 and 2023. The process involved evaluating the solutions at various stages, including solution demonstrations and documentation analysis. During solution demos, experts assessed how well each software performs in real-world scenarios, including data input, scenario modelling, reporting generation, and integration capabilities. The benchmark therefore provides a snapshot at a given moment of the solutions, which are bound to evolve as the roadmaps of each of these fast-moving and innovative companies' progress!

In the remainder of this document, our aim is to explain why the benchmark criteria were chosen, and their importance for companies, according to our climate experts, as well as to provide a few illustrations for comparison. The document is not intended to be exhaustive on all criteria.

Feature	Greenly	Watershed	Persefoni	Sustain.Life	Normative.io	Sweep	SAMI	Plan A	Toovalu
Carbon footprint									
Automated data collection	✓	✓	✓	✗	✓	✓	✗	✓	✓
Expense-based approach	✓	✓	✓	✓	✓	✓	✓	✓	✓
Activity-based approach	✓	✓	✓	✓	✓	✓	✓	✓	✓
Carbon IT Management	✓	✓	✓	✗	?	✓	✗	✓	✗
Supplier Engagement	✓	✓	✓	✗	✗	✓	✓	✓	✓
Carbon Financial Management	✓	✓	✓	✗	✓	✓	✗	✓	✓
Carbon Footprint Multi-Entity Consolidation	✓	✓	✓	✗	✓	✓	✓	✓	✓
API Integration	✓	✓	✓	✗	✓	✓	✗	✓	✓
User permissions	✓	✓	✓	✗	✓	✓	✓	✓	✓
Lifecycle analysis	✓	✓	✗	✓	✓	✗	✓	✓	✓
Reporting									
Automated generation of reports for external ESG reporting frameworks	✓	✓	✗	?	✓	✗	✗	✓	✓
Benchmarking	✓	✓	✓	✓	✓	✓	✓	✓	✓
Automated generation of shareable internal reports for employees and stakeholders	✓	✓	✓	✓	✓	✓	✓	✓	?
Carbon Footprint Certification	✓	✓	✓	✓	?	✓	✓	✗	✓
GHG Protocol certification	✓	✓	✓	✗	✓	✓	✓	✗	✗
Generation of audit-ready reports for Scope 3	✓	✓	✓	?	✓	✓	✓	✓	✓
Customizable analytics	✓	✓	✓	✗	✓	✓	✓	✓	✓

Feature	Greenly	Watershed	Persefoni	Sustain.Life	Normative.io	Sweep	SAMI	Plan A	Toovalu
<b>Communication</b>									
Communication Kit	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dedicated Employee Platform	✓	✓	✓	X	X	✓	X	X	X
<b>Reductions and target setting</b>									
Suggestion of action plans	✓	✓	✓	✓	X	✓	✓	✓	✓
Target emissions tracking	✓	✓	✓	X	X	✓	✓	✓	✓
Target emission scenarios	✓	✓	✓	✓	?	✓	✓	✓	✓
Tracking of net zero, carbon neutral and SBTi	✓	✓	✓	✓	?	✓	✓	✓	X
<b>Carbon Management</b>									
Ability to calculate the cost and impact of carbon offsets and removals	X	X	✓	X	X	✓	X	✓	?
Ability to create a portfolio of offsets	X	X	✓	X	X	✓	✓	✓	?
Marketplace of carbon removal, carbon offsets	✓	✓	✓	?	?	✓	✓	✓	?
<b>Support &amp; Misc.</b>									
Dedicated platform for consultants	✓	✓	✓	✓	✓	✓	✓	X	✓
Education content	✓	✓	✓	✓	X	✓	✓	X	✓
Dedicated platform included	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Pricing</b>									
Price range	\$	\$\$\$	\$\$\$	\$\$	\$\$	\$\$\$	\$	\$\$	\$\$

# Measuring the Carbon Footprint

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The key aspect of carbon footprint comprises measurements and tools for identifying and calculating the total greenhouse gas emissions. Evaluating a company's carbon footprint correctly involves being able to define the activity scope and map out the flow, then collect the data correctly, using the right data acquisition and data quality methods, to be able to analyze it and produce consistent results and reports. Those methodologies must be automated to remain consistent year after year to measure the progress and the effort of the company and its stakeholders.

One of these components is **automated data collection**, which played a crucial role in assessing the software's effectiveness in capturing and analyzing carbon footprint data. The benchmark focused on evaluating the software's ability to seamlessly collect data from various sources, such as energy consumption records, transportation logs, and waste management systems. The efficiency and accuracy of the automated data collection process were considered, as this significantly influences the reliability of the carbon footprint calculations.

**Activity-based and expense-based** are two approaches for assessing the carbon impact of a company's activities. The ability to address both methods is crucial to enable the most accurate analysis of a company's carbon consumption. These approaches ensure that emissions are accurately attributed to specific activities and expenses, allowing businesses to identify emission hotspots and prioritize reduction efforts accordingly.

The benchmark also considered **supplier engagement**, the software's ability to engage with suppliers and incorporate and collect necessary data on their emissions. Supplier engagement features enable businesses to capture the emissions associated with their supply chains, ensuring a comprehensive end-to-end assessment of their scope 3 carbon footprint. Different levels of supplier data integration exist in the solutions (from the simplest to the most comprehensive) and can enable the company to choose the extent to which it wishes to involve its suppliers in its GHG (Greenhouse Gas) reduction commitment.

In addition, **carbon footprint multi-entity consolidation** detects the presence of aggregating and consolidating carbon footprint data from multiple entities within the software. It involves collecting carbon emissions data from various sources, standardizing measurement methodologies, and combining the data to calculate the overall carbon footprint of the entire group or supply chain.

**Carbon IT management** involves evaluating the software's ability to measure the environmental impact associated with information technology (IT) operations and infrastructure. To measure the energy consumption of IT operations, data centers, servers, network infrastructure, and other technology-related activities are studied. Incorporating the carbon IT management component enriches the accounting scope with a more comprehensive view.

**API integration** evaluates the software's ability to integrate with various data sources and third-party applications. API integration facilitates seamless data exchange, allowing for comprehensive carbon footprint cal-





culation by incorporating data from multiple systems, real-time monitoring, and ensuring data accuracy and consistency. Those integrations also allow to drastically reduce the time and resources spent on data collection.

Furthermore, the evaluation included **carbon financial management** aspects. The benchmark analyzed the software's ability to calculate the financial implications of carbon emissions and related reduction measures. This enables the company to generate cost estimates for emission reduction projects, calculate carbon pricing, and provide financial reporting and forecasting functionalities. An effective carbon financial management component helps businesses make informed decisions

by considering both environmental and financial implications.

**User permissions** defines which actions or operations a user can perform, what carbon data they can access or modify, and which features the user has control over. User permissions help in managing security, ensuring data privacy, maintaining control and accountability within an application or system, and involving different directions into the carbon management process.

The last criterion is not the least because it examines whether the software supports **lifecycle analysis**, enabling businesses to assess the carbon emissions associated with the entire lifecycle of their products or services.

This is a complex function, in which some other solutions have even specialized (putting aside the analysis of the company's carbon footprint). Some of the solutions in the benchmark are beginning to offer LCA functionalities, which we felt was worth noting, to cover several types of analysis. The ability to cover LCAs in a fully automatic way is limited, or only for certain product segments at the time, but the progress is encouraging, and may make it possible to cover valuable use cases, even more so for companies selling B2C products. It can help identify opportunities for emissions reduction in product design, manufacturing, transportation, use, and end-of-life phases.

Regarding carbon measurement, the aim was to identify software solutions that excel in capturing and analyzing carbon footprint data accurately, attributing emissions to specific activities, seamlessly integrating with IT systems, and providing robust financial management functionalities. At the time of the benchmark, and according to the information we were able to collect, Greenly, Plan A and Watershed stand out in each element of the carbon footprint measurement principle. Persefoni and Sweep incorporate most elements but do not offer lifecycle analysis. Toovalu lacks carbon IT management, whereas Normative.io does not include supplier engagement. Sustain.Life and SAMI are not as complete as their competitors in terms of features.

# Robust Reporting Enhances Environmental Performance

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Reporting is a critical aspect of carbon accounting software as it enables businesses to communicate their environmental performance and carbon footprint to their stakeholders. It facilitates transparency, accountability, and the ability to track progress towards sustainability goals. The evaluation of the reporting aspect focused on multiple elements that provide a comprehensive analysis of how carbon accounting software generates accurate, standardized, and customizable reports for external and internal stakeholders.

The benchmark assessed the **automated generation of reports for external ESG reporting frameworks**. In other words, the software's ability to automatically generate reports that align with widely recognized external frameworks such as the Global Reporting Initiative (GRI), the Carbon Disclosure Project (CDP), the Sustainability Accounting Standards Board (SASB) or EcoVadis framework, among others. This ensures that companies can easily comply with reporting standards and provide accurate and consistent data to external stakeholders.

A second criterion of the reporting section is whether the software allows for **benchmarking** against industry standards, peers, or predefined targets. Such a benchmark provides valuable insights into a company's relative per-

formance and allows for meaningful comparisons, gauging their progress in relation to others, and encouraging continuous improvement in sustainability efforts. Top-performing carbon accounting software provides benchmarking functionalities that allow companies to compare their carbon performance against industry standards and help them understand where they can really make progress.

The ability of the tool to generate **automated and shareable internal reports for employees and stakeholders** is also an important criterion. Effective reporting software offers customizable templates and dashboards that enable companies to share clear and visually appealing reports, promoting accountability, and fostering engagement and understanding among internal stakeholders.

**Carbon Footprint and GHG Footprint Certification** are important considerations as well. The benchmark assessed the software's ability to accurately calculate and certify carbon and GHG footprints, ensuring compliance with recognized standards. Calculating a carbon footprint involves quantifying the emissions associated with all relevant activities and assessing their impact on the environment. To achieve GHG Footprint Certification, an organization must demonstrate that it has

taken substantial steps to reduce its carbon emissions, implement sustainable practices, and utilize renewable energy sources. These certifications enhance the organization's credibility and demonstrate its commitment to environmental responsibility and sustainability.

Another crucial element was the **generation of audit-ready reports for Scope 3 emissions**. The software's capability to collect and analyze data related to indirect emissions from the entire value chain was evaluated. Generating audit-ready reports for Scope 3 emissions involves collecting data from various sources, both internal and external to the organization, to quantify and assess the carbon impact of these indirect activities. The ability to generate comprehensive, auditable reports for Scope 3 emissions facilitates transparency and accountability in measuring the full carbon impact of a company's operations.

Last, the reporting section considered the software's **customizable analytics capabilities**, specifically, its ability to provide customizable analytics and data visualization tools. Top-performing solutions allow companies to tailor their reporting and analytics to meet their specific requirements, providing flexibility and the ability to focus on relevant metrics and data points.



Overall, the evaluation of the reporting component in the benchmark played a significant role in determining the effectiveness and suitability of carbon accounting software. This is essential for companies aiming to manage and report their carbon emissions accurately and efficiently. The ability for a solution to automate these reports is a differentiating factor in speeding up the transition from analysis to action plan, especially for companies that are used to relying on people instead of solutions. Greenly and Watershed have outstanding performances on all elements within this section. The other carbon accounting solutions are lacking one or more of the features.



# Navigating Carbon Reduction Targets and Carbon Management

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Evaluating carbon reduction target setting and management is of paramount importance in guiding businesses towards effective carbon reduction strategies. This critical aspect of carbon accounting software is crucial for companies aiming to align with sustainability targets and involves a comprehensive set of features.

One of the key elements evaluated was the software's ability to **suggest action plans** tailored to the specific needs and goals of the business. A robust carbon accounting system should offer actionable insights and strategies that address the company's emissions sources, facilitating the development of a tailored and effective carbon reduction plan, and suggest concrete and efficient actions relevant to the company's business activities.

Moreover, the benchmark assesses the software's capability in accurately **tracking target emissions**. The availability of features that enable the company to track analytics and monitor their progress towards meeting their predefined emission reduction targets is a real advantage in helping CSR

managers and CFOs steer their projects and show their management and stakeholders the progress they have made. This kind of feature empowers companies to make timely adjustments to their strategies and optimize their carbon management efforts.

In addition, to go further in helping teams conduct GHG reduction projects, the capacity of the software to simulate **target emission scenarios** enables businesses to model various scenarios and assess the potential outcomes of different strategies, providing valuable foresight for decision-making, priority, and goal setting.

Another essential aspect of the software's evaluation is the effectiveness of calculating the **cost and impact of carbon offsets and removals**. Businesses are looking to balance their unavoidable carbon emissions by investing in carbon offset projects or carbon removal initiatives. The benchmark assesses how well the software can calculate the financial implications and environmental benefits of such actions.

Besides the calculating factor of carbon offsets and removals, the study also incorporates the assessment of whether the software can create a **portfolio of offsets**. This allows businesses to diversify their investments in different carbon offset projects. A well-balanced portfolio, considering different project types, locations, and certifications, enhances the effectiveness of carbon neutrality efforts.

The last component of the carbon reduction targets, and carbon management section is the software's **integration with the marketplace of carbon removal and carbon offsets**. A well-connected software platform should facilitate seamless access to reputable carbon offset providers, ensuring businesses can confidently and easily invest in verified and effective carbon reduction projects. From our client knowledge this kind of feature is interesting, especially for companies that do not have a large offset team to make life easier for them, as large companies often prefer direct contact with projects.



After conducting the analysis, Sweep, Plan A and Persefoni are carbon software solutions that emerge as standout performers in the evaluation. Greenly, Sami and Watershed have above-average scores, where these solutions lack some features. All other carbon software solutions are missing multiple essential features and have therefore a lower performance on target-setting and carbon management.

# Orchestrating Communication, Support & Pricing

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The section on communication, support, and pricing in the benchmark for carbon accounting software evaluates critical aspects that influence a company's experience in adopting and utilizing the software effectively. This section is designed to assess the software's communication capabilities, support infrastructure, and pricing model to ensure that businesses can seamlessly integrate the software into their sustainability efforts long term.

Carbon communication is a vital element of climate action plans, as it enables businesses to effectively engage stakeholders and employees in their emission reduction initiatives. The benchmark considered the presence of a comprehensive **communication kit** within each software solution. This kit includes tools such as customizable templates, communication guidelines, and best practices to help companies disseminate information about their carbon reduction strategies. The evaluation examines the availability, user-friendliness, and diversity of the communication kit to ensure companies can articulate their sustainability strategy clearly.

One of the essential elements both for measuring the company's carbon footprint as accurately as possible, and for involving employees in the overall process of reducing emissions is the ability of the software to offer a **dedicated employee platform**. This platform allows employees to actively participate in the company's sustainability goals, track their individual carbon footprint, and contribute to collective efforts to reduce emissions. A user-friendly and interactive employee platform indicates that the software promotes engagement and empowers individuals to play an active role in the organization's sustainability journey.

In addition, some of the solutions offer a **dedicated platform for consultants and experts**. When the company trusts external experts to manage their carbon emission analysis, this feature improves collaboration between businesses and sustainability experts, facilitating expert guidance and support in implementing effective emission reduction strategies.

**Educational content** is another essential element considered in this section of the benchmark. The presence of educational materials and resources, such as blogs, guides, and knowledge bases, demonstrates the software's commitment to empowering users with the necessary knowledge and skills to manage their carbon emissions effectively.

Finally, the elements available have made it possible to add a comparative dimension to the pricing of solutions. **Pricing** is a critical factor for businesses; however, the pricing of the different solutions might differ a lot depending on the target client (size, organization, objectives...) and it is not an easy criterion to compare without any specific context, especially for enterprise clients. Some of the solutions might be more cost-effective with very good SaaS experience but less custom support, whereas others have also strong SaaS solutions with premium support which is reflected in the price.



Based on the software's ability to offer efficient and smooth communication and support, Greenly, Watershed, Persefoni and Sweep distinguish themselves within the benchmark as frontrunners. Sustain.Life, Normative.io, Sami, Plan A and Toovalu perform to a lesser extent, displaying room for improvement in terms of robust communication tools and comprehensive support resources.

## Conclusion

The benchmark study conducted by Sia Partners' Climate Analysis Center underscores the pivotal role of carbon accounting software solutions in the pursuit of sustainable business practices. This comprehensive evaluation sheds light on the effectiveness and capabilities of prominent carbon accounting software solutions in the US and Europe, aiding companies in selecting tools that best align with their environmental goals.

Carbon accounting software's significance cannot be overstated—it empowers companies to effectively track, measure, and mitigate their carbon emissions. These solutions provide an invaluable toolkit for maintaining accountability, devising emission reduction strategies, monitoring progress, and seeking expert guidance in the pursuit of sustainable operations.

The features examined within this benchmark illuminate the strengths and limitations of each software. In the realm of carbon footprint measurement, Greenly, Plan A, and Watershed excel, ensuring accurate data collection and insightful analysis across diverse sources. Again, Greenly and Watershed, besides Normative.io, stand out in the context of robust reporting, generating transparent and customizable reports that align with both internal and external frameworks.

For the significant task of setting and managing carbon reduction targets, Sweep, Plan A, and Persefoni exhibit strength, offering tailored action plans, precise emissions tracking, and scenario simulations. The communication, support, and pricing aspect highlight Greenly, Persefoni, and Sweep as leaders, emphasizing efficient engagement tools and comprehensive support infrastructure.

While Sustain.Life, Normative.io, Sami and Toovalu display potential, they could enhance their capabilities in specific areas. The benchmark's in-depth analysis displays opportunities for improvement and highlights areas where each software can evolve.

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# About Sia Partners

Sia Partners is a next-generation management consulting firm and pioneer of Consulting 4.0. We offer a unique blend of AI and design capabilities, augmenting traditional consulting to deliver superior value to our clients. With expertise in more than 30 sectors and services, we optimize client projects worldwide. Through our Consulting for Good approach, we strive for next-level impact by developing innovative CSR solutions for our clients, making sustainability a lever for profitable transformation.

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