IDC MarketScape

IDC MarketScape: Worldwide AI-Enabled Green Accounting Applications for CFOs 2025 Vendor Assessment

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THIS EXCERPT FEATURES SAP AS A MAJOR PLAYER

ABOUT THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide AI-Enabled Green Accounting Applications for CFOs 2025 Vendor Assessment (Doc # US52999525).

THE IDC MARKETSCAPE VENDOR ANALYSIS MODEL

IDC MarketScape vendor analysis model is designed to provide an overview of the competitive fitness of vendors/suppliers in a given market.

The IDC MarketScape model utilizes a rigorous scoring methodology based on both qualitative and quantitative criteria that results in a single evaluation of each vendor's position within a given market.

This model provides a clear framework in which the product and service offerings, capabilities and strategies, and current and future market success factors of IT and telecommunications vendors can be meaningfully compared.

IDC MARKETSCAPE VENDOR POSITIONS:

A vendor's position in the IDC MarketScape will fall into one of the following categories:

- **Leaders** are vendors strong in all areas of both strategy and capabilities.
- **Major Players** show strength in most areas of strategy and capabilities.

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- **Contenders** have strengths, but often are limited in some areas such as geography or specific product features.
- **Participants** are often new entrants or fading stars with few exceptional capabilities or strategies.

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IDC OPINION

Key Takeaways

- Green accounting is now a strategic imperative for CFOs, integrating environmental metrics into financial reporting to drive compliance, innovation, and long-term value creation.
- Global regulatory momentum, including the European Union's (EU's) CSRD, SEC climate rules, and ISSB standards, is accelerating the need for transparent, audit-grade environmental, social, and governance (ESG) data and CFO-level oversight.
- Leading green accounting platforms unify sustainability and financial data, automate reporting, support scenario modeling, and enable organizations to meet evolving regulatory and investor demands.
- CFOs should select green accounting solutions that deliver data integrity, seamless integration with financial systems, and scalability to future proof their organizations and position finance as a leader in sustainable value creation.

The modern CFO stands at the intersection of profit and planet. As financial leaders shoulder greater responsibility for enterprise sustainability, green accounting has emerged as a strategic imperative that translates environmental impact into financial terms that boards and investors understand. It enables CFOs to quantify climate risk, reveal hidden costs of resource use, and connect operational sustainability with long-term value creation.

Around the world, regulatory momentum from the SEC to the EU's CSRD has accelerated the demand for transparent, comparable ESG data. But the most forward-looking CFOs see beyond compliance. They view green accounting as a catalyst for innovation, capital efficiency, and investor trust. By embedding environmental metrics into core financial reporting, CFOs strengthen the credibility of corporate disclosures and prepare their organizations for an economy where sustainability drives valuation.

The Drive of Green Accounting

CFOs are now at the center of a global shift in corporate accountability. As sustainability and financial performance become inseparable, finance leaders must ensure that environmental impacts are measured, verified, and reflected in corporate disclosures. What was once viewed as nonfinancial data — carbon emissions, biodiversity loss, or resource consumption — is now a determinant of enterprise value, investor confidence, and access to capital.

Across every region, the regulatory tide is rising. The EU, the United States, and Asia/Pacific are advancing new rules that demand CFO-level oversight of environmental data and its financial translation. For global finance leaders, understanding this rapidly evolving regulatory landscape is essential not just for compliance but for positioning their organizations to lead in a low-carbon economy:

- **European Union:** The Corporate Sustainability Reporting Directive (CSRD) now requires large companies to disclose environmental impacts and risks in line with the EU Taxonomy for sustainable activities. CFOs must integrate emissions, biodiversity, and resource-use data into audited financial filings.
- **United States:** The Securities and Exchange Commission (SEC) adopted climate-related disclosure rules on March 6, 2024, requiring CFO oversight of Scope 1 and 2 emissions, financial impacts of severe weather, and the use of carbon offsets and renewable energy credits. In March 2025, however, the SEC voted 3–2 to withdraw its defense of the rules amid litigation, effectively pausing their implementation. Acting Chair Mark Uyeda confirmed the SEC would not continue to argue the case in court.

  At the same time, state-level regulations are advancing. California's Climate Corporate Data Accountability Act (SB 253) and Climate-Related Financial Risk Act (SB 261), both enacted in 2023, require large companies doing business in the state to publicly disclose greenhouse gas emissions (Scopes 1, 2, and 3) and climate-related financial risks beginning in 2026. These laws apply broadly, including to many multinational firms headquartered outside California, effectively setting a de facto national climate reporting standard.

  For CFOs, this means that even as federal policy remains uncertain, state-level mandates and investor expectations are driving the need for audit-quality environmental data and integrated financial oversight.
- **Asia/Pacific:** Countries such as Japan and Singapore are adopting International Sustainability Standards Board (ISSB) frameworks, embedding environmental disclosures into standard reporting. China is expanding green finance regulations to increase accountability.

- **Global alignment:** The ISSB's International Financial Reporting Standards (IFRS) S1 and S2 are becoming the global baseline, signaling that environmental reporting will soon be as standardized as GAAP or IFRS.

For global companies and their finance leaders, this evolving mosaic of requirements represents both a compliance challenge and a strategic opportunity. Early adopters of green accounting can reduce compliance costs, attract sustainability-focused capital, and strengthen brand reputation.

For today's CFO, green accounting is no longer a reporting exercise — it is a strategic discipline that links sustainability to profitability, risk management, and long-term resilience. As global standards like the ISSB's IFRS S1 and S2 bring consistency to environmental reporting, finance leaders must prepare their systems, teams, and assurance processes to meet audit-grade expectations.

CFOs who act early will gain more than regulatory readiness: they will shape investor narratives, strengthen enterprise value, and build a financial foundation capable of withstanding environmental and economic shocks. In the new era of finance, stewardship and sustainability are one and the same — and the CFO is the architect of that integration.

Environmental Risks: Protecting Enterprise Value

Environmental risks are no longer theoretical; they are measurable financial exposures that sit squarely within the CFO's mandate. Further:

- **Climate risk:** Extreme weather events, rising insurance costs, and supply chain disruptions now translate directly into balance sheet volatility. CFOs must embed climate-driven scenarios into financial models, stress testing asset resilience, and cash flow sensitivity.
- **Regulatory risk:** Carbon pricing, emissions trading schemes, and border adjustment taxes are redefining cost structures across industries. Ignoring these factors can erode margins and distort financial forecasts. Green accounting enables CFOs to quantify and manage these exposures before they impact profitability.
- **Reputation and capital markets:** Investors and lenders are using environmental performance as a proxy for long-term viability. Transparent, finance-grade sustainability data is now a prerequisite for favorable access to capital and inclusion in ESG-linked investment portfolios.

By integrating environmental data into forecasting, stress testing, and capital allocation, CFOs shift from reactive disclosure to proactive risk stewardship. Green accounting becomes a financial control mechanism — helping finance leaders protect enterprise value while positioning their organizations for sustainable growth.

Resource Scarcity: Accounting for Tomorrow's Constraints

CFOs are responsible for ensuring sustainable growth, and that requires planning for a future shaped by resource scarcity. Green accounting provides the tools to quantify these pressures and guide investment decisions that balance cost, resilience, and sustainability.

Energy Transition

Rising demand for renewable energy, combined with volatility in fossil fuel markets, is reshaping operating models. Datacenters already account for roughly 1–1.5% of global electricity use, and the rapid expansion of AI is accelerating that demand. Training large AI models can consume as much energy as powering hundreds of U.S. homes for a year, while continuous inference workloads add persistent costs. For CFOs, this translates into higher operating expenses, greater exposure to energy price volatility, and reputational scrutiny over carbon-intensive infrastructure. Green accounting helps finance leaders connect technology investments to both financial performance and sustainability commitments.

Water Scarcity

In water-stressed regions, consumption directly affects operating expenses, regulatory compliance, and even a company's license to operate. Training and running AI models intensify this challenge, consuming millions of liters of water to cool datacenters. Green accounting enables CFOs to quantify these costs, evaluate trade-offs, and prioritize investments in water-efficient technologies, especially in regions like the United States West, Europe, and Asia that are already facing scarcity pressures.

Critical Minerals and Materials

Supply constraints in key inputs such as lithium, cobalt, and rare earths, essential to clean technologies, create procurement volatility and balance sheet risk. CFOs must anticipate scarcity pricing and integrate it into sourcing, hedging, and treasury strategies to protect margin stability.

By translating resource use into financial impact, green accounting allows CFOs to direct capital toward sustainable alternatives, secure resilient supply chains, and build predictability in increasingly uncertain markets. It turns sustainability into a financial control lever, anchoring growth to both profitability and planetary limits.

Why It Matters: The CFO as Strategic Leader

Green accounting is no longer a reporting exercise; it defines the next chapter of financial leadership. For CFOs, integrating environmental metrics into the P&L elevates finance from compliance to strategic orchestration of sustainable value creation.

Finance leaders who embed green accounting into their operating model can:

- Align capital allocation with long-term resilience rather than short-term returns.
- Demonstrate governance strength and transparency to regulators, investors, and boards.
- Prepare the enterprise to compete in a resource-constrained, climate-affected economy.
- Position finance as the bridge between sustainability goals and measurable business outcomes.

For the office of the CFO, green accounting is not optional; it is a governance imperative and a competitive necessity. The convergence of regulatory mandates, environmental volatility, and resource scarcity exposes companies that delay action to significant financial and reputational risk. CFOs who act now by embedding environmental data into financial systems, forecasts, and disclosures will future proof their organizations, unlock new sources of investment, and ensure that sustainability becomes integral to enterprise value.

The CFO has always been the custodian of financial truth. In this era, that truth must also account for the environment. Green accounting represents the evolution of stewardship into strategy — empowering CFOs to drive sustainable growth that delivers for both today's shareholders and tomorrow's stakeholders.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

Vendors will be included based on their meeting IDC's functionality requirements for green accounting:

- Vendors included would be on premises, SaaS, and cloud enabled.
- The vendor must offer a financial solution (financial reporting or financial forecasting or financial governance, risk, and compliance [FGRC]) that the CFO would consider:
  - **Financial reporting:** Record to report (financial accounting, financial reporting, and financial filings)
  - **Financial forecasting:** Plan to perform (financial planning, forecasting, and budgeting)

    - **FGRC:** Financial and internal auditing, policy management, records information management, financial regulation management, financial compliance, and financial risk management
- Green accounting functionality will also be based on capability to provide at least three of the following:
    - **Data collection and integration**
    - **Environmental metrics and KPIs**
    - **Financial integration**
    - **Life-cycle assessment of sustainability**
    - **Sustainability reporting**
    - **Scenario modeling and forecasting of existing and future environmental projects/policies**
    - **Risk assessment and management**
    - **Green investment and ROI analysis for future environmental projects/policies**
    - **Regulatory compliance:** Standards and regulation compliance (include Corporate Sustainability Reporting Directive, SEC climate disclosures, Global Reporting Initiative [GRI], Sustainability Accounting Standards Board [SASB], Task Force on Climate-related Financial Disclosures [TCFD], and the International Financial Reporting Standards)

ADVICE FOR TECHNOLOGY BUYERS

When evaluating green accounting solutions, CFOs should approach the purchase as both a compliance investment and a strategic enabler of long-term value. The right platform will not only meet today's reporting requirements but also position finance to manage sustainability data with the same discipline and auditability as financial information.

Start with Regulatory Clarity

Begin with a precise understanding of your organization's reporting obligations. Regulatory timelines and standards differ across regions — CSRD in the EU, ISSB globally, and emerging state-level requirements such as California's climate disclosure laws in the United States. Even if federal mandates remain uncertain, multinational organizations and those with global supply chains will need tools capable of aligning with multiple frameworks. Prioritize platforms that support standardized disclosure formats (CSRD, SEC, and ISSB) and provide verifiable audit trails that can withstand regulatory and investor scrutiny.

Evaluate Integration and Data Alignment

Green accounting delivers the most value when environmental data is captured and analyzed alongside core financial and operational metrics. CFOs should look for solutions that integrate seamlessly with existing ERP, CPM, and reporting systems. For some enterprises, ERP-embedded platforms such as SAP or Oracle may provide a strong foundation; others may benefit from CPM-linked systems like OneStream or insightsoftware or IBM or disclosure-centric tools such as Workiva or Wolters Kluwer. Assess whether the solution connects easily to financial, supply chain, HR, and energy data sources and whether it minimizes manual consolidation and reconciliation.

Match Complexity to Organizational Readiness

Finally, align platform selection with your organization's capacity for implementation and change. Some solutions offer broad functionality but require significant time and resources to deploy, while others provide faster entry points for smaller teams or those early in their ESG journey. CFOs should map internal readiness — data maturity, IT support, and sustainability expertise — against vendor capabilities. The best system will balance scalability with practicality: It should deliver immediate compliance value while remaining flexible enough to expand as regulations tighten and disclosure expectations grow.

In short, CFOs should view green accounting technology not just as a reporting tool but as an extension of financial control and strategic planning — one that strengthens data integrity, regulatory confidence, and long-term enterprise value.

VENDOR SUMMARY PROFILE

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

SAP

Following a comprehensive assessment of SAP's strategy and capabilities, IDC positions SAP in the Major Players category in the 2025 IDC MarketScape for worldwide AI-enabled green accounting applications for CFOs.

SAP offers a robust suite of finance and green accounting solutions tailored for large enterprises seeking to integrate operational and sustainability performance. The flagship SAP Cloud ERP Finance platform (also on premises) consolidates financial and management accounting with advanced planning, forecasting, and real-time analytics,

leveraging an in-memory database and embedded AI for automation and actionable insights. Notable features include the Universal Journal, which unifies financial and managerial data, predictive analytics, automated period close, and comprehensive compliance tools. Flexible deployment options — on premises, cloud, or hybrid — support diverse enterprise architectures.

For green accounting and ESG management, SAP provides the SAP Sustainability Control Tower, SAP Green Ledger and Sustainability Footprint Management, and Sustainability Data Exchange. These solutions integrate with core ERP systems to collect, validate, and report on emissions, ESG metrics, and resource utilization. The Sustainability Control Tower centralizes sustainability data management, ESG reporting, EU taxonomy activities, and GHG tracking, with support for custom and standard KPIs, scenario modeling, and audit-grade reporting for compliance with frameworks such as CSRD. SAP Green Ledger assigns carbon data to financial transactions, enabling carbon budgeting, benchmarking, and analysis, forecasting, and planning in line with financials. This approach facilitates transparent, auditable environmental accounting alongside financial metrics, empowering enterprises to drive sustainability strategies, meet regulatory requirements, and align environmental objectives with business performance.

Quick facts about SAP include:

- **Employees:** 110,000 (2025)
- **Global presence:** Strong presence across industries and geographies
- **Industry focus:** Large enterprises using SAP ERP: manufacturing, supply chain, retail, energy, utilities, mills, and mining
- **Ideal customer size:** Organizations already on SAP Cloud ERP or SAP S/4HANA with interest in embedded sustainability
- **Typical implementation time:** Several months, depending on ERP integration and footprint management requirements

Strengths

- **ERP-native carbon accounting:** SAP Green Ledger enables carbon entries linked directly to financial journal entries and business processes.
- **Footprint management at scale:** SAP's Sustainability Footprint Management supports automated corporate and product-level emissions tracking at scale, with advanced analytics, AI-based Emission Factor Mapping, and hotspot identification.

Challenges

- **SAP platform dependency:** Solutions are most effective for SAP-centric organizations; integration with non-SAP environments may be limited or infeasible.
- **User experience:** The initial learning curve can be steep for organizations new to SAP platforms.

Consider SAP When

Consider SAP if your organization requires a tightly integrated system pairing carbon and financial data for regulatory, audit, and management insights, particularly in large or highly regulated enterprises.

APPENDIX

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

The green accounting technology market refers to the ecosystem of tools, platforms, and stakeholders focused on integrating environmental costs into traditional financial accounting and decision-making processes. This market operates within the broader field of environmental accounting, emphasizing compliance with established sustainability frameworks and regulatory requirements.

Key characteristics of the green Accounting technology market include:

- **Framework and standards compliance:** Solutions are designed to align with sustainability standards and frameworks such as the Sustainability Accounting Standards Board (SASB), Global Reporting Initiative (GRI), Task Force on Climate-related Financial Disclosures (TCFD), and guidance from International Financial Reporting Standards (IFRS) for green accounting. They also support regulatory

compliance with the EU Corporate Sustainability Reporting Directive (CSRD) and SEC climate disclosures.

- **Purpose-driven metrics:** Green accounting technologies measure the environmental impacts of business activities, including resource use, waste generation, pollution, and ecosystem damage. These metrics provide a holistic understanding of how economic activities affect the environment and vice versa.
- **Policy and planning integration:** These tools drive corporate policymaking, sustainable development planning, corporate social responsibility (CSR) reporting, and sustainability performance evaluation, enabling organizations to align financial and environmental goals.
- **Natural resource tracking:** Platforms in this market often include capabilities for tracking the depletion of natural resources and valuing the cost of environmental damage caused by industrial or company activities. This data supports more accurate environmental impact assessments.
- **Support for decision-making:** By integrating environmental data with financial insights, these technologies empower companies to make informed decisions that balance profitability with sustainability objectives.

The green accounting technology market plays a critical role in fostering sustainable business practices, enabling organizations to meet stakeholder expectations while addressing the environmental challenges of modern economic activities.

Core capabilities include the following:

- **Data collection and integration:**
  - Integration with multiple data sources (e.g., ERP systems, IoT sensors, and utility providers)
  - Automated data ingestion for environmental metrics (e.g., energy usage, water consumption, waste, and emissions)
- **Environmental metrics tracking:**
  - Carbon footprint measurement (Scope 1, 2, and 3 emissions tracking)
  - Resource consumption tracking (water, energy, and raw materials)
  - Waste generation and recycling tracking
- **Regulatory compliance:**
  - Support for international sustainability standards (e.g., GRI, SASB, TCFD, ISSB)
  - Country-specific regulatory reporting (e.g., EU CSRD, SEC climate disclosures)
  - Automated alerts for non-compliance risks
- **Financial integration:**

    - Linking environmental data with financial accounts for valuation of environmental impact
    - Cost accounting for environmental projects (e.g., renewable energy investments)
    - Tracking environmental taxes, credits, or subsidies
- **Life-cycle assessment:**
    - Product life-cycle assessment for environmental impacts (e.g., cradle to grave or cradle to cradle).
    - Supply chain sustainability analysis
    - Advanced capabilities
- **Sustainability reporting:**
    - Generation of comprehensive ESG (environmental, social, and governance) reports
    - Dashboards and visualizations for stakeholders including the CFO
    - Benchmarking against industry peers
- **Scenario modeling and forecasting:**
    - Tools for projecting the fiscal impact of environmental initiatives
    - Scenario planning for regulatory changes or market shifts (e.g., carbon pricing)
- **Risk assessment and management:**
    - Identification and quantification of environmental risks (e.g., physical, transitional)
    - Integration with enterprise risk management systems
- **Green investment and ROI analysis:**
    - Evaluation of return on investment for green projects (e.g., renewable energy, waste reduction, recycling, material changes, and policy changes)
    - Tracking green bonds and sustainability-linked loans

Market Analysis

The rise of environmental, social, and governance reporting has elevated the importance of green accounting, integrating environmental metrics such as carbon emissions, resource consumption, and climate risk into core financial systems. For CFOs, this represents a new dimension of financial stewardship, linking sustainability performance directly to enterprise value, investor confidence, and regulatory readiness.

Modern finance functions are expanding beyond compliance to embed sustainability into financial management. Green accounting capabilities typically include:

- **Carbon and resource accounting:** Measuring Scope 1, 2 and, increasingly, Scope 3 emissions, along with energy, water, and material usage
- **Sustainability reporting:** Producing audit-ready disclosures aligned with frameworks such as CSRD, SEC, and ISSB standards
- **Data integration and governance:** Unifying sustainability data with financial and operational systems to ensure accuracy, auditability, and transparency
- **Analytics and planning:** Embedding climate and resource risks into forecasting, scenario modeling, and capital allocation

These capabilities are now becoming standard across enterprise finance platforms. The question for CFOs is no longer whether to adopt green accounting tools but how to align them with organizational scale, reporting maturity, and regulatory exposure. The goal is to create a finance architecture where sustainability data is treated with the same rigor as financial data, supporting decisions that are transparent, compliant, and value driven.

When selecting a green accounting system, CFOs should focus on three priorities: data integrity, assurance, and integration. The platform must deliver audit-grade environmental data, integrate seamlessly with existing financial systems, and support evolving global reporting standards. CFOs should also evaluate scalability, ensuring the solution can grow with expanding disclosure mandates and governance features that align with internal controls. By treating sustainability data with the same rigor as financial data, CFOs can enhance transparency, strengthen investor confidence, and position the finance function as the enterprise leader in sustainable value creation.

LEARN MORE

Related Research

- *Sustainable Strategies and Technologies* (IDC #IDC_P40096, September 2025)
- *Sustainability and ESG Software* (IDC #IDC_P8658, September 2025)
- *What CFOs Will Want from Technology Vendors and What the Market Still Lacks* (IDC #US53741723, September 2025)
- *European Sustainability: An Opportunity to Lead by Example Over the United States* (IDC #US53555824, June 2025)
- *IDC MarketScape: Worldwide FinOps Cloud Costs Optimization Multicloud 2025 Vendor Assessment* (IDC #US52991225, June 2025)

Synopsis

This IDC MarketScape assesses global vendors of AI-enabled green accounting applications for CFOs, highlighting how regulatory momentum and investor expectations are driving the integration of environmental metrics into financial management. The document evaluates major platforms for their ability to unify sustainability and financial data, support compliance, and enable strategic decision-making. Green accounting is positioned as a governance imperative, empowering CFOs to link sustainability to enterprise value, risk management, and long-term resilience.

"Green accounting is no longer optional; CFOs who master it will shape the future of enterprise value, investor trust, and sustainable growth." — Heather Herbst, research director, CFO Tech Agenda

ABOUT IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. With more than 1,300 analysts worldwide, IDC offers global, regional, and local expertise on technology, IT benchmarking and sourcing, and industry opportunities and trends in over 110 countries. IDC's analysis and insight helps IT professionals, business executives, and the investment community to make fact-based technology decisions and to achieve their key business objectives. Founded in 1964, IDC is a wholly owned subsidiary of International Data Group (IDG, Inc.).

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