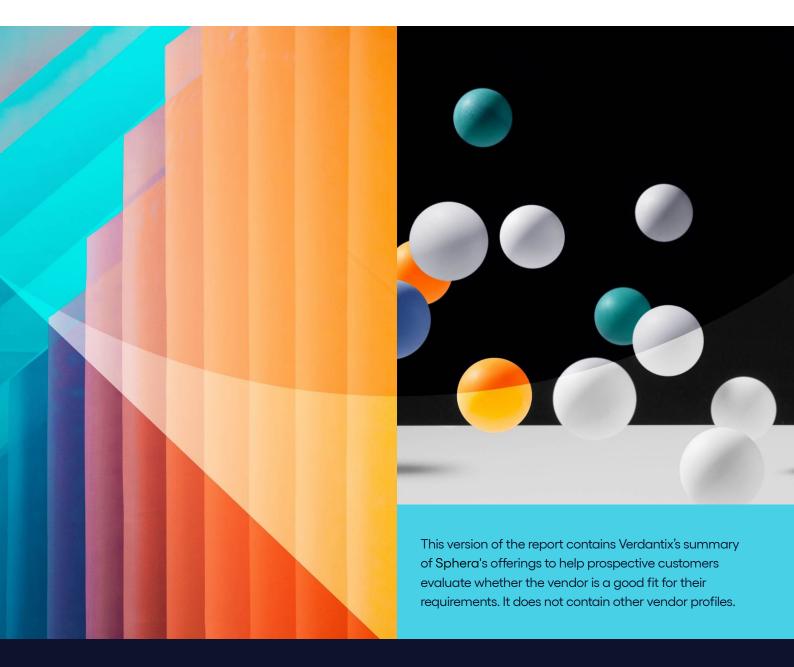
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**ESG & Sustainability** 

# Green Quadrant: ESG Reporting And Data Management Software

By Jessica Pransky, Jessie Wilson With Kim Knickle

July 2023





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This report provides a detailed, fact-based comparison of the 20 most prominent ESG reporting and data management software vendors. Based on the proprietary Verdantix Green Quadrant methodology, the analysis encompasses two-hour live briefings, desktop research and vendor responses to a 115-point questionnaire covering 15 capability and 11 market momentum categories. Although ESG reporting and data management software has existed for over 15 years, Verdantix analysis finds that the level of customer demand and the number of vendor solutions have both grown substantially over the last three years. This is largely due to increased pressure from internal and external stakeholders, resulting in new use cases and functionality requirements. Among the software vendors featured in this Green Quadrant, 11 firms – Benchmark Gensuite, Cority, Diligent, IBM, Intelex, Nasdaq, Sphera, UL Solutions, VelocityEHS, Wolters Kluwer and Workiva – demonstrated the most advanced all-round ESG reporting and data management software capabilities.

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### Organizations mentioned

Accuvio, Adobe, AECOM, Air Liquide, Akamai, Allianz X, Amazon, Amazon Web Services, AMCS, Amundi, APLANET, Aquicore, Archer Integrated Risk Management, Armstrong World Industries, Asana, Atlas Metrics, b2venture, Babcock, Baker Hughes, Bank of Montreal, Barnes Group, Baxter, BC Partners, Benchmark Gensuite, BlackRock, Blackstone, Bloomberg, BNP Paribas Fortis, BTG Pactual, Campbell Soup Company, Castik Capital, Castolin Eutectic, CCH Tagetik, CDP, Celestica, Celsia, Cherry Ventures, Cinven, Clarity Al, Coatue, Cognizant, Commerz Real, Continue Al, Cority, Corning, Crédito Agrícola, CSRHub, CSRware, CVC Growth Partners, Danske Bank, Datamaran, Delta, Dexco, DFIN, DHL, Diligent, Dominion, Downer Group, DS Smith, Duracell, Dussmann Stiftung, DWF, EDP, Elera (formerly Brookfield), Emerson Electric, Enablon, Enbridge Gas, Energy Impact Partners, EnerSys, Engro Corporation, ESG Book, ESG Data Convergence Initiative (EDCI), F19 Digital Reporting, FactSet, FigBytes, firesys, Flowserve, Ford Motor Company, Fortive Corporation, Franklin Templeton Insight Partners, General Motors, Genstar Capital, Getinge, GIST Impact, Global Reporting Initiative (GRI), Global Reserve Group, GPA Global, GPT Group, Greenstone, GRESB, Grove Ventures, Grupo Globo, GSK (formerly GlaxoSmithKline), Guardian Capital, H.B. Fuller, Hamilton Lane, Hg Capital, Hilton, Hitachi Ventures, Horizon, IBM, IHS Markit, Industrial Scientific, Infogrid, Inovia Capital, Intelex, Intertek, IPL Plastics, Klinkby Enge, LSEG (London Stock Exchange Group), Makersite, Manaos, Manitou Group, Maple Capital, Mastercard, Measurabl, Melbourne Water, Meridiam, Meta, Metrio, Microsoft, Moderna, Mondelēz, Moody's, MRV, MSCI, MTG, Nasdaq, NAVEX, Nestlé, Nike, Nordex Energy SE & Co. KG, Norfolk Southern, NorthWestern Energy, Norvestor, Novata, Novisto, OneReport, OneSumX, OneTrust, Oxy, Parker Hannifin, ParsePort, Partners Group, Pfizer, Porsche Immobilien, Portman Travel Group, Position Green, PPG, Proof of Impact, Puro.earth, Qlik, Quantum Energy Partners, Quantum Innovation Funds, Quentic, Rahn+Bodmer Co., Rakuten Capital, Reporting 21, S&P Global, Sanofi, Santander, Scatec, SEB Private Equity, SGL Carbon SE, Shell, Slack, SoftBank, SoftBank Vision Fund 2, Sonae SGPS S.A., Sphera, Sustainability Accounting Standards Board (SASB), Sway Ventures, Tableau, Target, Task Force on Climate-related Financial Disclosures (TCFD), Taskforce on Nature-related Financial Disclosures (TNFD), TCV, TeamMate, Telefónica, Tenneco, The Container Store, The Hershey Company, The Singularity Group, Thoma Bravo, Toyota, Toyota Tsusho, UBS Group, UL Solutions, UN, US Securities and Exchange Commission (SEC), VelocityEHS, Vista Equity Partners, VitalMetrics, Voith GmbH & Co. KGaA, Walmart, Watershed, WayCarbon, WeSustain, White Star Capital, Wolters Kluwer, Workiva, Worldfavor.



## The state of the ESG reporting and data management market

The market landscape for ESG reporting and data management software has evolved rapidly over the past three years, driven primarily by increased regulations and pressure from a variety of internal and external stakeholders. Global events – such as supply chain disruptions brought on by the COVID-19 pandemic and the Russian invasion of Ukraine – have further highlighted the need for firms to enhance their sustainability programmes, resulting in increased demand for software solutions. This demand has pushed ESG reporting and data management software providers to meet a wide range of needs, which include collecting and managing large amounts of data, ensuring that the data is audit-ready, enabling reporting across a variety of regulatory and mandated frameworks, and helping corporates drive business decisions through the use of tools like materiality assessments and benchmarking (see <u>Verdantix Smart Innovators: ESG Reporting And Data Management Software</u>).

To navigate the ESG reporting and data management software market, this report provides a detailed assessment of the 20 most prominent solution providers and their product offerings for individuals who are responsible for selecting, implementing and deriving value from ESG reporting and data management applications. This report answers the following customer questions:

- What is the current state of the ESG reporting and data management software market?
- Which ESG reporting and data management software applications lead the market?
- Which ESG reporting and data management software applications will best match the requirements of my firm?
- How can I benchmark the capabilities of ESG reporting and data management software applications?
- What factors indicate that a ESG reporting and data management vendor is a reliable partner for the future?

To answer these questions, Verdantix assessed 20 software vendors using a 115-point questionnaire, two-hour live demonstrations by vendors and interviews with more than 35 ESG reporting and data management software customers across a variety of industries, spanning construction, consumer goods, financial and professional services, manufacturing, metals, mining, oil and gas, transportation, and technology. The resulting analysis is based on the proprietary Verdantix Green Quadrant methodology, which is designed to provide an evidence-based, objective assessment of vendors offering comparable products or services.

#### ESG reporting and data management is its own distinct software category

Different components of ESG data management and reporting software have been on the market for over 15 years. In the past, sustainability modules were often folded into a larger solution – such as EHS software – and typically focused on tracking environmental metrics. However, with increasing regulations and pressure from stakeholders, sustainability solutions have expanded beyond environmental topics to include social and governance issues. Reporting on ESG and sustainability metrics has also shifted from being "nice to have" to "must have" for many corporates. As a result, ESG reporting and data management software has emerged as its own software category. Vendors in this market come from a variety of backgrounds across EHS software, major enterprise applications and platforms, pure-play sustainability solutions, and governance, risk and compliance (GRC) software. The unique features of ESG reporting and data management software comprise:

• Managing data and metrics covering environmental, social and governance topics.

ESG reporting and data management software must have capabilities to track data and metrics across a wide variety of environmental, social and governance issues. The breadth of information required for ESG reporting requires vendors to offer comprehensive data acquisition and management capabilities across all three pillars. ESG reporting and data management software therefore needs to integrate with various systems – such as enterprise resource planning systems, carbon emission calculators, supply chain management systems and human capital management solutions – and support application programming interface (API) feeds.



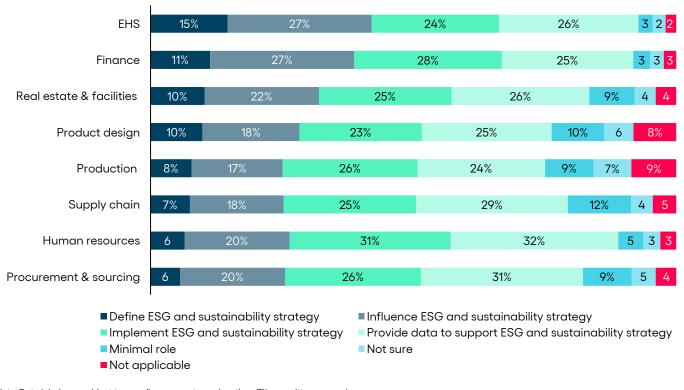
#### • Engaging with a variety of stakeholders.

Data from the Verdantix 2022 global corporate survey show that more and more business functions are responsible for implementing and providing data to support corporate ESG and sustainability strategies (see **Figure 1** and <u>Verdantix Global Corporate Survey 2022: ESG & Sustainability Budgets, Priorities And Tech Preferences</u>). Preliminary data from our 2023 global corporate survey show that the risk, compliance audit, or legal function is also a significant contributor. ESG reporting and data management software needs to be able to aggregate sustainability-related data from all departments to break down information silos and enable communication with other stakeholders, such as investors and the C-Suite. Some vendors have developed tools especially geared towards reaching these groups – such as Diligent's Board Reporting For ESG tool, which encourages communication with executives, or Benchmark Gensuite's ESG Reporter tool, which allows investors to collect data from portfolio companies.

#### Reporting in line with a variety of voluntary frameworks.

The International Sustainability Standards Board (ISSB) is currently working to create a harmonized and streamlined international ESG and sustainability reporting framework. Without a global framework, corporates are looking to report in line with numerous voluntary reporting frameworks, including CDP, GRESB, Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Task Force on Climate-related Financial Disclosures (TCFD) and the UN's Sustainable Development Goals (SDGs) (see <a href="Verdantix Strategic Focus: The Future Of Voluntary Sustainability Reporting">Verdantix Strategic Focus: The Future Of Voluntary Sustainability Reporting</a>). Additionally, the Taskforce on Nature-related Financial Disclosures (TNFD) is developing a risk management and disclosure framework for organizations to report on nature-related risks. ESG reporting and data management solutions enable customers to report in line with several of these frameworks. For example, Novisto's metrics libraries are mapped to associated disclosure requirements to ease the burden of reporting to multiple frameworks.

Figure 1
Business functions responsible for implementing ESG strategies
For each of the following business functions, please indicate the role they take with regards to defining and implementing your firm's ESG and sustainability strategy.



Note: Data labels are subject to rounding; percentages less than 7% are written as numbers.

Source: Verdantix Global Corporate Survey 2022: ESG & Sustainability Budgets, Priorities And Tech Preferences

N=400



#### • Providing support for mandated and regulated disclosures.

The scope of mandated and regulated ESG-related disclosures varies widely, from climate reporting aligned with the TCFD to supply-chain-related disclosures to the EU Taxonomy and Sustainable Finance Disclosure Regulation (SFDR). Each type of regulation presents unique challenges. For example, to comply with the EU Taxonomy, eligible firms need to report the proportion of their turnover, capital expenditures and operational expenditures that is aligned with the EU Taxonomy (see <a href="Verdantix Strategic Focus: Unpacking The EU">Verdantix Strategic Focus: Unpacking The EU</a>
<a href="Taxonomy">Taxonomy</a>). Additionally, supply-chain-related disclosures, such as the Dutch Child Labour Due Diligence Act and the Norwegian Transparency Act, require corporates to gather sustainability-related data throughout their supply chains (see <a href="Verdantix Strategic Focus: Building Resilience Through Supply Chain Sustainability">Verdantix Strategic Focus: Building Resilience Through Supply Chain Sustainability</a>). ESG reporting and data management software solutions provide organizations with the support they need to manage these complex and overlapping requirements.

#### • Adapting to changing regulations.

The regulatory environment around ESG and sustainability-related disclosures is constantly evolving, and ESG reporting and data management software must be able to quickly adapt to these changes. In our 2022 global corporate survey, 81% of respondents indicated that new disclosure rules were a significant driver in influencing their firms' commitment to ESG and sustainability issues. Vendors need to stay abreast of the most significant climate and sustainability disclosures, such as the proposed climate-related disclosure rule from the US Securities and Exchange Commission (SEC) and the EU's Corporate Sustainability Reporting Directive (CSRD), to develop solutions and functionalities to aid customers' compliance. For example, the CSRD will require firms to report on double materiality and use eXtensible Business Reporting Language (XBRL) for data tagging, while it also includes a phased-in approach for assurance.

#### • Integrating sustainability data into financial reports.

The CSRD and the SEC's proposed climate-related disclosure rule will both require corporates to integrate sustainability data into their financial reports, meaning that the data will have to be accurate, auditable and timely to meet the same standard as financial data. Firms will shift from reporting sustainability data on an annual basis to producing the data more frequently to meet stakeholder demands. In addition, some organizations are already integrating sustainability data into their financial reports to gain a competitive advantage, leveraging offerings by vendors such as Wolters Kluwer and Workiva (see <a href="Verdantix Strategic Focus: Integrating ESG">Verdantix Strategic Focus: Integrating ESG</a> into Financial Disclosures). Providing support for this process is becoming an increasingly integral capability for ESG reporting and data management firms.

#### An evolving regulatory landscape is driving a competitive market

Verdantix research shows that demand for ESG reporting and data management software is driven primarily by the following factors: 1) demand for reporting to voluntary frameworks; 2) continued implementation of disclosure regulations; 3) proposed and approved ESG disclosure rules coming into effect in the next three years; 4) the need to address legal requirements and greenwashing concerns; and 5) desire to use ESG metrics to gain a competitive edge (see <u>Verdantix Smart Innovators: ESG Reporting And Data Management Software</u>). As a result, Verdantix expects the ESG reporting and data management software market to grow from \$905 million in 2021 to over \$4.3 billion by 2027, at a CAGR of 30% (see <u>Verdantix Market Size And Forecast: ESG Reporting Software Solutions 2021-2027 (Global)</u>). Verdantix research has identified the following trends in the ESG reporting and data management software space:

#### • Investment and acquisition activity has slowed – but not stopped.

From 2019 to 2022, vendors from all backgrounds were receiving large amounts of funding to create or enhance their ESG and sustainability offerings, reflecting the demand for strategic spend on ESG reporting and data management software. Due to a combination of high inflation, rising interest rates and lingering supply chain concerns, overall funding for technology firms slowed with the technology bear market. However, investments and acquisitions in the sustainability software space continue (see **Figure 2**).



Figure 2
ESG reporting and data management software transactions June 2022 – May 2023

2022	Transaction	Description
June	Investment	ESG Book raises \$35m in a funding round led by Energy Impact Partner, with other investments from Allianz X and Meridiam
June	Acquisition	Nasdaq acquires Metrio
Aug	Investment	Worldfavor raises \$10m in a funding round led by SEB Private Equity
Aug	Investment	Proof of Impact receives \$6m investment from Rakuten Capital
Aug	Investment	VelocityEHS receives investment from Partners Group
Sep	Acquisition	Sphera acquires riskmethods
Sep	Investment	Datamaran raises \$13m in a funding round led by Fortive
Sep	Acquisition	Cority acquires Reporting 21
Oct	Investment	Makersite raises \$18m in a funding round led by Hitachi Ventures
Oct	Investment	Continue Al receives \$5.7m investment from Grove Ventures and Maple Capital
Nov	Acquisition	Infogrid acquires Aquicore
Nov	Investment	FigBytes receives \$10m investment from Quantum Innovation Fund
2023	Transaction	Description
Mar	Investment	Novata receives \$30m investment from Hamilton Lane
Apr	Investment	Atlas Metrics receives \$5.6m investment from b2venture and Cherry Ventures
Apr	Acquisition	Watershed acquires VitalMetrics
Apr	Acquisition	Cinven acquires Archer Integrated Risk Management
Apr	Investment	Benchmark Gensuite receives minority investment from Vista Equity Partners
May	Investment	Novisto receives \$20m investment from Inovia Capital
May	Acquisition	Cority acquires Greenstone
May	Investment	Measurabl raises \$93m in a funding round led by Energy Impact Partners and Sway Ventures

Source: Verdantix analysis

#### • Competition is heating up.

With less funding available, technology investors are becoming more risk adverse. Start-ups and smaller vendors will need to prove that their solutions are commercially viable by quickly scaling up to increase their customer base. Alternatively, they might leverage innovative functionalities to improve their business case and gain more funding. With so many vendors offering solutions around ESG reporting and data management software, time may be running out for some providers to scale up and still maintain their independence. This is part of the reason why the acquisition space has been so active in the last six months – and why we expect even further consolidation in the next two years.



#### • Customers' levels of maturity are increasingly varied.

As more and more firms look for digital ESG reporting solutions, vendors will need to scale their solutions to meet growing demand. Part of scaling up will involve offering solutions that are easy to implement or are more configurable. Some vendors, such as Cority, OneTrust and UL Solutions, are already offering starter packages with more basic functionality that can be expanded upon to meet customers' growing needs. Verdantix expects more vendors to offer fast-to-deploy, scalable solutions to meet the increasing demand. Additionally, several vendors, such as APLANET and VelocityEHS, have developed pricing models that do not charge for the number of system users to encourage collaboration and ease the data collection process.

#### • Vendors take differing approaches to incorporating carbon emissions data.

To meet the requirements of mandatory climate reporting aligned with the TCFD – as well as for those who are voluntarily pledging support for the TCFD – corporates need to calculate their carbon emissions, evaluate climate risks and opportunities, and prepare related disclosures. Many of the vendors in this Green Quadrant have carbon management calculation capabilities offered as separate modules or solutions, while others have partnerships and APIs to facilitate easy integration with carbon management platforms (see <a href="Verdantix Green Quadrant: Enterprise Carbon Management Software 2022">Verdantix Buyer's Guide: Carbon Management Software (2023)</a>).

#### • Software partnerships are helping vendors expand their capabilities and reach.

To expand their offerings without having to invest heavily in product development, many providers are forming partnerships with other software vendors that offer complementary solutions. Witness Intelex, whose exclusive partnership with London-based software analytics vendor Datamaran expands its materiality assessment and benchmarking capabilities. Similarly, FigBytes recently announced a partnership with Norwegian vendor Celsia to incorporate EU Taxonomy and SFDR reporting functionality into its platform, while Clarity Al announced that it would be working with data and intelligence provider GIST Impact to develop a biodiversity impact assessment product.

#### • Providers offer varied use of services.

Corporates using ESG reporting software will need some level of services, whether just for implementation or to help with more complex functionality, such as materiality assessments and strategy development. Some vendors, such as Nasdaq, Position Green, Sphera and WayCarbon, have strong in-house consulting branches that assist in this respect. Alternatively, IBM, NAVEX and Quentic – among others – maintain strong partnerships with services firms to expand their offerings to customers. For uniformity in this Green Quadrant, Verdantix assessed vendors on the capabilities of their software offerings as standalone products. Verdantix finds that there is no right or wrong use of services to complement software – although vendors with software that can help with the data collection process, without the use of services, will become critical for scaling up.

# Green Quadrant for ESG reporting and data management software 2023

Corporates across all industries and geographies seek comprehensive, easy-to-use solutions that allow them to manage and collect data, report in line with numerous ESG-related frameworks and drive performance improvement. For the purposes of this report, Verdantix defines ESG reporting and data management software as:

Solutions that allow businesses to collect, analyse and manage ESG information, to drive sustainability performance and report to mandatory ESG regulations and voluntary ESG standards and frameworks. This encompasses ESG financial reporting (including double materiality), ESG risk management, impact assessment and sustainability reporting across environmental, social and governance issues, within an enterprise and across the value chain.



This definition does not include software designed to be deployed on a site-by-site basis, desktop software, applications used for regulatory content management or applications with a focus on a single industry or impact area, such as supply chain management or carbon management.

This study focuses on the technology and usability of ESG reporting and data management software and does not include service or consulting capabilities that the vendors featured offer.

#### Green Quadrant methodology

The Verdantix Green Quadrant methodology provides buyers of specific products or services with a structured assessment of comparable offerings at a certain point in time. The methodology supports investment decisions by identifying potential software vendors, structuring relevant purchase criteria through discussions with buyers and providing an evidence-based assessment of the products or services in the market. To ensure the study results are objective, the research process is guided by:

#### • Transparent inclusion criteria.

We worked to analyse all providers that would qualify for inclusion in this research. Due to the relatively nascent market and limited amount of publicly available information on the specific capabilities of the vendors, firms that did not provide sufficient information or were unwilling to cooperate fully on the 115-point questionnaire and two-hour product demonstration were excluded from this study.

#### Analysis from the buyer's perspective.

We interviewed individuals who have bought or are planning to buy the product or service analysed in the Green Quadrant. Their role is to define relevant buying criteria and to inform the weightings of the evaluation criteria in the model that drives the Green Quadrant graphic.

#### • Reliance on professional integrity.

As it is not feasible to check all data and claims made by vendors, we emphasize the need for professional integrity. Assertions made by software providers are put in the public domain via the Verdantix report and can be checked by competitors and existing customers.

#### • Scores based on evidence.

To assess the expertise, resources, business results and strategies of individual providers, we collected evidence from public sources and conducted interviews with multiple representatives of the actively participating software firms, as well as industry experts. When providers claimed to be 'best in class', we collated relevant evidence.

#### • Comparison based on relative capabilities.

We construct measurement scales ranging from 'worst in class' to 'best in class' performance at a certain point in time. A provider's position in the market can change over time, depending on how its offering and success evolves relative to its competitors. As a result, a vendor's quadrant positioning may not necessarily improve — even if it adds new capabilities, makes a strategic acquisition or receives investment — as the assessment is relative to what other vendors are offering. The Green Quadrant analysis is typically repeated every one-and-a-half to two years.



#### Evaluated firms and selection criteria

Verdantix defines vendor inclusion criteria to ensure that the Green Quadrant analysis only compares firms providing similar services. We believe all of the vendors in this report provide significant value in the ESG reporting and data management software market. The 20 providers included in this study were selected because they have:

#### • Capabilities across ESG metrics and a variety of industries.

We focused the study on vendors with the human, financial and technological resources to meet the ESG needs of diverse customers across a variety of industries. To qualify for this benchmark study, participants had to demonstrate capabilities across environmental, social and governance metrics. As such, vendors who provide reporting capabilities across only certain ESG metrics, such as carbon management or supply chain sustainability, were not included in this study. The report is also intended to evaluate software solutions that can be used for any industry and, as such, vendors who offer a solution geared towards only one industry – such as financial services or real estate – were also excluded.

#### • No less than 60 employees.

This Green Quadrant is intended to assess the most prominent vendors offering ESG reporting and data management software. Due to the evolving landscape of the market, we established this inclusion criteria to screen out small software providers and start-ups that have recently entered the market. Although smaller firms may offer capabilities similar to those of their larger counterparts, without stronger organizational or financial resources, Verdantix research has found that these vendors cannot truly offer an enterprise-wide solution. The providers included in this Green Quadrant study have at least 60 full-time employees to enable their solution to meet the needs of diverse customers for the foreseeable future.

#### At least 90 customers using software for ESG reporting purposes or have demonstrated industry-leading performance.

As new ESG reporting and data management software solutions are constantly entering the market, Verdantix established a customer-count threshold to rule out vendors or solutions that have not yet been deployed at scale. Vendors that demonstrated industry-leading performance in the 2023 smart innovators report were exempt from this threshold (see <u>Verdantix Smart Innovators: ESG Reporting And Data Management Software</u>).

#### A global presence.

To qualify for this benchmark study, the vendors must operate in a minimum of two countries across at least two continents.

Based on the inclusion criteria above, this report evaluated solutions from 20 ESG reporting and data management software vendors: APLANET, Benchmark Gensuite, Clarity AI, Cority, Diligent, FigBytes, IBM, Intelex, Nasdaq, NAVEX, Novisto, OneTrust, Position Green, Quentic, Sphera, UL Solutions, VelocityEHS, WayCarbon, Wolters Kluwer and Workiva. All ESG reporting and data management software providers in this study actively participated in an interview, digital tool demonstrations and a 115-point questionnaire.

Verdantix also considered other emerging vendors in the active ESG reporting and data management software space, including all organizations included in the <u>Verdantix Smart Innovators: ESG Reporting And Data Management Software</u>, but found that these vendors did not meet our specific inclusion criteria.



#### **Evaluation** criteria

Verdantix defined the evaluation criteria for the Green Quadrant ESG reporting and data management software study using a combination of interviews with corporate managers, desk research, discussions with multiple customers and staff expertise. In full, this year's Green Quadrant analysis compares offerings from 20 software firms using a 115-point questionnaire covering 15 categories of capabilities and 11 categories of market momentum. Individual metrics were classified as:

#### Capabilities metrics.

The capabilities dimension, plotted on the vertical axis of the Green Quadrant graphic, was used to measure each software vendor based on the breadth and depth of its service approach, differentiators against other providers and its proven experience in each area. Verdantix assessed 15 technical capabilities: data acquisition and architecture; data management; configurability; data quality control and enhancement; organizational structure; user interface; business intelligence and analytics; voluntary reporting; regulated and mandated frameworks; materiality assessments; workflows and auditability; engagement tools; ESG and sustainability performance management; industry benchmarking; and industry-specific functionality. The Verdantix Green Quadrant considers the evolution of the market and customer requirements to ensure the weighting of all high-level categories mirrors the importance of all software components to users globally.

#### Momentum metrics.

The momentum dimension of the analysis, as captured on the horizontal axis of the Green Quadrant graphic, was used to measure each vendor based on their brand perception, revenue size, customer base, partnerships and vision. The evidence was either provided by the software firms themselves or through desktop research, and was assessed using a quantitative model that started with the sub-criteria scores. Each sub-criterion was weighted to generate the overall score for each area. To assess performance for this dimension, Verdantix collected data on 54 categories in 11 areas: vision and strategy; market focus; partnerships; customer size; customer success; user adoption; brand preference; organization resources; financial resources; deal structure; and distribution by ESG software spend size.

All sub-criteria were scored between the values of zero ('no capability') and three ('best in class'). Each sub-criteria has a percentage weighting that dictates how much of a contribution it makes to the high-level capability or momentum score. The combination of high-level criteria scores in the capabilities and momentum sections generated the Green Quadrant graphic and rankings. **Figure 3** and **Figure 4** provide details of the study criteria; **Figure 5** and **Figure 6** provide the scoring for all participants in each category. **Figure 7** shows the Green Quadrant graphic summarizing the positioning of all ESG reporting and data management software vendors in this benchmark study.



Figure 3
Capabilities criteria for ESG reporting and data management software

Capabilities	Questions
Data acquisition and architecture (4%)	What functionality is available to facilitate data acquisition internally and externally? How does the software integrate with common sources of ESG data? Is all of your ESG reporting functionality in one product, or on a single platform? Do customers need to upgrade to a new platform to access new functionality?
Data management (4%)	Where is the data stored? What data privacy and security credentials and controls do you have? What capability does your software have to perform XBRL tagging? How can customers use your software to filter and sort data?
Configurability (2%)	How can business rules be (re)configured? How can role-based user rights be (re)configured? How can terminology be (re)defined? How can measurement metrics be (re)configured? What tools and processes are available to implement, package and promote changes across systems?
Data quality control and enhancement (5%)	How does your software facilitate identification of missing input data? How does the software enable estimation where primary data is not available? Do you use any calculation engines? What AI, machine learning, manual or other capabilities does your software offer to enable data quality enhancement?
Organizational structure (2%)	How does your software link physical asset data to legal entities and jurisdiction-level reporting requirements? What functionality is available to define, manipulate and change organizational structure? How can reporting be aligned with specific assets or sites? How does the software store data on part-owned subsidiaries and joint ventures? How does the software facilitate organizational changes such as acquisitions, divestments and reorganizations?
User interface (5%)	What is the usability/user friendliness of the enterprise app interface? How does the interface support enhanced user adoption? How many user interface languages are provided out of the box for immediate deployment? What is the cost/time to add another language?
Business intelligence and analytics (6%)	What role-based dashboards come pre-configured? What ability is there for customers to configure dashboards? What do you support for visualizations? How can a customer export data to their own third-party business intelligence (BI) tool? What forecasting tools are available? What predictive analytics functionalities are available?
Voluntary reporting (15%)	Which voluntary frameworks and standards does your software support with predefined configurations? What functionality is offered to support voluntary TCFD reporting and TCFD-aligned carbon and climate risk/opportunity reporting? What functionality is available to report on biodiversity loss or ecosystem degradation? What formal accreditations/certifications does your software have? What capability does your software have to conduct report design for annual sustainability/ESG reports and to produce reports at customizable time intervals? What capability does your software have to allow users to set up and track customized metrics?
Regulated and mandated frameworks (15%)	What functionality is offered to support regulatory reporting for mandatory disclosures aligned with the TCFD framework? What capability does your software have to report in line with the EU Taxonomy and the EU SFDR? What functionality does your software have to report in line with regulations on supply chain disclosures? How can your software help corporates prepare for upcoming approved and proposed regulations? What other regulatory disclosures can your software support?

Figure 3 (continued)  $\downarrow$ 



#### Figure 3 (continued)

Materiality assessments (7%)	What tools do you have for customers to search for industry-specific ESG metrics? What functionality is there for conducting and managing materiality analysis out of the box? What functionality is there to evaluate materiality for different levels within an organization? What functionality is there for customers to evaluate double materiality?
Workflows and auditability (10%)	What tools does the software have to configure workflows? What functionality is available to manage the approval process for ESG disclosures? What tools does the software have to ensure auditability of records? Does the software facilitate auditing?
Engagement tools (6%)	What tools does your software have to support team collaboration? What tools does the software have to engage with employees who are not the primary users of the software? What functionality or tools do you provide for suppliers to engage in the reporting process? What tools does the software have to engage with investors? What tools does the software have to allow investors to engage with their portfolio businesses? What tools does the software have to engage with other stakeholders?
ESG and sustainability performance management (10%)	What functionality is available to set, manage and track sustainability improvement projects against targets at different levels of an organization? How does the software enable users to set interim and final targets for net zero? What net zero performance metrics are available to analyse progress? What visualization tools or dashboards does your software have to help customers evaluate progress against their ESG targets? What functionality is there to forecast future sustainability performance?
Industry benchmarking (6%)	What functionality is in place for customers to benchmark their ESG performance on specific metrics against industry averages and their competitors? What functionality is in place for customers to benchmark their ESG scores/ratings against industry averages and their competitors?
Industry-specific functionality (3%)	What functionality is incorporated into the software specific to the real estate sector, financial sector or any other sector?

Note: Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis.



Figure 4
Momentum criteria for ESG reporting and data management software

Capabilities	Questions
Vision and strategy (5%)	What is your firm's vision for the customers/addressable market opportunity you seek to target over the next five years? How do you intend to achieve the vision? What is your firm's strategy to meet the needs of your target customers over the next five years? How will you fund your strategy and ensure long-term viability? What do you perceive to be your main differentiators? What is your ESG reporting and data management product strategy for the next 18-24 months? What is your firm's strategy for investing in R&D for your ESG reporting and data management product?
Market focus (5%)	What % of your firm's overall revenue is from services? What % is from software? What % of your revenues are generated by ESG reporting and data management software? What % of your revenues are generated by ESG reporting and data management services?
Partnerships (8%)	With which consulting firms do you have a formal alliance related to ESG reporting and data management? What percentage of ESG reporting and data management deals involved a consulting partner either in terms of sales or implementation? How often do you bring partners into ESG reporting and data management deals? How often do partners bring you into ESG reporting and data management deals? With which software firms do you have a formal alliance related to ESG reporting and data management? What other partners, such as third-party content providers, implementation partners or other organizations, do you work with that contribute to your firm's ESG reporting and data management product ecosystem and delivery?
Customer size (7%)	How many firms with revenues above \$10bn have deployed your ESG reporting and data management software? How many firms with revenues between \$1bn and \$10bn have deployed your ESG reporting and data management software? How many firms with revenues between \$250m and \$1bn have deployed your ESG reporting and data management software? How many firms with revenues below \$250m have deployed your software?
Customer success (10%)	What resources are available to manage customer relationships? What implementation services do you offer? How do you measure customer satisfaction? What is your Net Promoter Score or similar? What customer support services do you offer? What training services do you offer to your customers? What was your customer retention rate in the most recent reporting year compared to the year prior?
User adoption (10%)	Among customers that deployed your ESG reporting and data management software, what is the average number of frequent users with each customer? What is the total number of users of your ESG reporting and data management software across all clients? In which business functions and/or roles do you have users? What level of engagement are you seeing with the C-Suite? On average what is the % of users of your ESG reporting and data management across business functions?
Brand preference (5%)	How many LinkedIn followers do you have? What was your customers' feedback regarding your ESG reporting and data management software capability?
Organizational resources (13%)	How many employees does your firm have? How many employees are dedicated to your ESG reporting and data management product?

Figure 4 (continued)  $\downarrow$ 



#### Figure 4 (continued)

Financial resources (20%)	What were your firm's total revenues in the last financial year? What were your firm's ESG reporting and data management software revenues? How much external funding has your firm secured in the last two years? By how much did your firm's total ESG reporting and data management software revenues grow in the most recent reporting year compared to the year prior? What percentage of one-year ESG reporting and data management software revenue growth was organic? What percentage of one-year ESG reporting and data management software revenue growth was inorganic by acquisition?
Deal structure (7%)	What percentage of your sales are SaaS versus on-premise? What is the average contract length for subscription deals? Provide an overview of your pricing model. What is your average ESG deal size? Of the total deal size, what percentage is for services?
Distribution by ESG software spend size (10%)	Among your total paying ESG customer base, how many spend more than \$100,000 on ESG reporting and data management software annually? How many spend between \$50,000 and \$100,000 annually? How many spend less than \$50,000 annually? Among all ESG contracts signed, what % are renewals, upsells or new logo deals?

Source: Verdantix analysis

Note: Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis.



Figure 5 Vendor category scores - capabilities

	APLANET	Benchmark Gensuite	Clarity Al	Cority	Diligent	FigBytes	BM	Intelex	Nasdaq	NAVEX	Novisto	OneTrust	Position Green	Quentic	Sphera	UL Solutions	VelocityEHS	WayCarbon	Wolters Kluwer	Workiva
Data acquisition and architecture	1.8	1.8	2.3	1.8	2.0	2.0	2.0	1.8	2.0	1.5	2.0	2.0	1.5	2.0	2.0	2.0	2.0	1.8	1.8	2.3
Data management	1.7	1.7	1.7	2.3	2.0	1.7	2.0	1.6	2.1	1.0	2.0	2.0	1.4	1.7	2.0	1.6	2.0	1.0	2.4	2.4
Configurability	1.6	1.6	1.4	1.6	1.4	1.6	1.4	1.8	1.7	1.6	1.8	1.6	1.6	1.8	1.7	1.8	1.6	1.6	1.4	1.6
Data quality control and enhancement	0.4	1.7	2.4	2.0	1.7	2.0	2.8	1.7	1.3	1.4	2.0	0.4	1.7	1.7	2.0	2.1	2.4	0.8	2.0	2.4
Organizational structure	2.2	2.0	1.6	1.8	1.4	1.8	2.0	1.8	1.4	1.8	1.8	1.8	2.4	1.8	2.2	2.0	1.8	1.4	2.0	1.8
User interface	2.0	2.4	1.6	2.0	1.6	1.6	1.6	2.4	1.6	1.6	2.2	2.4	1.6	1.8	2.4	2.0	1.6	2.2	2.0	2.4
Business intelligence and analytics	1.5	2.4	1.2	2.0	1.5	1.9	2.0	1.8	1.2	0.9	1.5	2.6	2.0	1.4	2.0	1.8	1.9	0.9	1.5	1.8
Voluntary reporting	1.1	2.3	1.5	2.4	2.1	2.2	2.0	1.5	2.6	1.6	2.3	2.2	2.0	1.2	2.7	2.4	1.4	2.0	2.5	2.6
Regulated and mandated frameworks	1.1	2.0	2.1	2.0	0.9	2.0	1.4	0.9	1.5	1.0	1.8	1.7	1.8	1.6	2.7	2.4	1.2	1.2	2.4	2.0
Materiality assessments	0.2	2.0	1.6	2.0	1.1	2.5	1.6	2.9	0.6	0.2	1.2	0.2	1.0	2.3	2.0	1.1	2.5	0.0	2.5	0.6
Workflows and auditability	1.7	1.7	1.4	2.3	2.0	1.7	2.4	1.7	2.0	1.7	1.9	2.2	2.0	1.7	2.2	2.4	2.0	1.9	2.3	2.7
Engagement tools	2.0	2.5	1.5	2.3	1.8	2.4	1.7	1.6	2.0	1.9	1.8	1.6	1.6	1.1	2.2	1.9	1.8	1.8	2.0	2.0
ESG and sustainability performance management	1.3	2.5	1.5	1.8	1.0	1.8	2.6	1.8	1.5	1.3	1.3	1.8	1.6	1.5	2.3	2.0	2.3	0.8	2.8	1.5
Industry benchmarking	0.0	1.7	2.7	1.7	2.0	1.7	0.3	2.3	1.0	0.7	2.0	0.0	1.3	0.0	2.0	1.0	0.7	0.0	2.0	1.0
Industry-specific functionality	0.5	1.3	1.7	1.8	0.8	1.1	1.3	0.8	1.2	0.7	1.0	0.0	1.8	0.2	1.7	1.3	0.8	0.5	1.5	1.0

Scoring framework	
Vendor provides evidence of market-leading functionality	3
Vendor provides evidence of strong functionality	2
Vendor provides evidence of moderate functionality	1
No response provided or available publicly, or supplier has a weak offering	0

Source: Verdantix analysis



Figure 6 Vendor category scores - momentum

	APLANET	Benchmark Gensuite	Clarity Al	Cority	Diligent	FigBytes	IBM	Intelex	Nasdaq	NAVEX	Novisto	OneTrust	Position Green	Quentic	Sphera	UL Solutions	VelocityEHS	WayCarbon	Wolters Kluwer	Workiva
Vision and strategy	1.6	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	1.8	2.0	2.4	2.0	2.0	2.1	2.4	2.3
Market focus	2.0	1.2	2.4	1.8	1.0	2.0	1.0	1.2	1.2	1.0	2.6	0.8	2.0	1.0	2.2	1.2	1.2	1.8	1.2	1.2
Partnerships	1.1	2.2	1.2	2.5	1.5	2.1	1.4	2.5	1.8	1.5	1.0	0.5	1.3	1.9	1.7	1.6	1.5	0.0	2.4	2.8
Customer size	1.0	1.0	1.0	2.1	1.3	1.0	1.5	1.0	1.3	0.7	1.0	1.2	1.2	1.5	2.3	2.0	1.0	1.0	2.5	2.0
Customer success	2.0	1.9	1.3	1.8	1.2	1.5	1.3	1.5	1.7	1.5	1.9	1.4	2.0	1.4	1.8	1.2	1.4	2.0	1.3	2.0
User adoption	1.0	1.3	1.0	2.0	1.3	1.3	1.3	2.0	2.0	1.0	1.0	1.0	2.0	2.0	2.3	2.0	1.7	1.0	2.0	1.0
Brand preference	1.0	1.3	2.0	2.3	2.0	1.6	2.4	2.0	2.0	1.7	1.3	1.7	1.3	1.7	1.7	1.7	2.0	1.3	2.0	2.3
Organizational resources	1.0	1.9	1.7	2.0	2.0	1.0	2.6	1.3	2.0	1.3	1.0	1.6	1.0	1.3	2.0	2.6	1.6	1.0	2.7	2.0
Financial resources	1.0	1.4	1.4	2.0	2.0	1.0	2.6	2.0	2.5	1.2	1.0	1.8	1.1	1.7	2.0	1.8	1.8	1.3	2.5	1.7
Deal structure	1.2	1.7	1.2	1.5	1.5	2.0	2.5	2.0	1.2	1.2	2.0	1.2	1.2	2.0	1.8	2.5	2.5	2.0	2.3	2.0
Distribution by ESG software spend size	0.7	1.1	1.2	1.6	1.2	1.0	1.4	1.3	1.3	0.7	1.3	1.6	1.0	1.6	1.8	1.5	1.4	1.2	1.8	2.1

Scoring framework	
Vendor provides evidence of market-leading positioning	3
Vendor provides evidence of strong positioning	2
Vendor provides evidence of moderate positioning	1
No response provided or lack of publicly available information	0

Source: Verdantix analysis



Figure 7
Green Quadrant for ESG reporting and data management software 2023



#### Capabilities

This dimension measures each ESG reporting and data management software provider on the breadth and depth of its offerings across 15 capability areas, as outlined in **Figure 5**.

#### Momentum

This dimension measures each ESG reporting and data management software provider on market momentum factors, as outlined in **Figure 6**.

Source: Verdantix analysis



# Sphera's acquisitions come together in a flexible, cross-functional reporting platform

Headquartered in Chicago, Illinois, Sphera is composed of several product lines that provide software and consulting services for ESG and sustainability management: EHS and Sustainability (EHS&S), Operational Risk Management (ORM), Supply Chain Risk Management (SCRM) and Product Stewardship. Established in 2016, when Genstar Capital acquired certain software assets from IHS Markit, Sphera has since strengthened its capabilities through a series of acquisitions. These include thinkstep, a sustainability management and product lifecycle assessment provider, in 2019 and riskmethods (now SCRM), a Germany-based Al-enabled SCRM software provider, in 2022. Sphera was acquired for \$1.4 billion in 2021 by private equity firm Blackstone.

Category	Attributes	Details						
Vendor overview	Vendor name	Sphera						
	HQ	Chicago, Illinois						
	Office locations	Australia, Canada, France, Germany, India, Italy, Japan, UAE, UK and US						
	Date founded	2016						
	Number of employees (approximate)	1,300						
Solution overview	Solution name(s)	SpheraCloud (Sphera's SaaS Platform, which includes key modules SpheraCloud for Corporate Sustainability (SCCS) and Supply Chain Risk Management (SCRM))						
	Client locations	Africa and Middle East: 3% Asia Pacific: 7% Europe: 32% Latin America: 2% North America: 57%						
	Deployment model	75% SaaS; 25% on-premise						
	Named clients	Amazon, Blackstone, Pfizer, Shell and Toyota						
	Largest customer segments	Chemicals and mining, manufacturing, oil and gas						

#### Strengths and differentiators

Based on the Green Quadrant analysis, Verdantix finds that Sphera has strengths in:

#### • Voluntary reporting and regulated and mandated frameworks.

Sphera scored a 2.7/3.0 for voluntary reporting and a 2.7/3.0 for regulated and mandated frameworks, which were the top scores in those categories. Sphera has pre-defined configurations and templates for numerous voluntary frameworks, including CDP, GRI and SASB, and customers can use Sphera's report builder interface to design and customize reports. Users can also embed live ESG data into interactive websites for improved communication with stakeholders. Additionally, Sphera's TCFD reporting capability incorporates scenario analysis for climate-related risks. Sphera has numerous tools to help customers comply with applicable regulations, including the EU Taxonomy, the SFDR and the German Supply Chain Law.



#### • ESG and sustainability performance management.

Sphera scored a 2.3/3.0 for ESG performance management, putting it in the top quartile of vendors. SCCS's Targets and Actions feature enables customers to develop targets for any ESG metric at different levels within their organization, and also allows users to create reduction action plans to manage and track improvement projects related to these targets. Customers can capture and analyse relevant financial information and the platform produces Marginal Abatement Cost Curves to help further evaluate different scenarios to inform investment decisions. Additionally, to drive accountability and help firms monitor progress, individual tasks can be allocated to specific users.

#### Improvement opportunities

Based on the Green Quadrant analysis, Verdantix finds that Sphera could improve its score by further integrating all the entities it has acquired into a single solution for a harmonized platform architecture. Sphera could also improve by adding functionality to produce double materiality assessments directly in the software platform, without the support of its consulting services.

#### Selection advice for buyers

Considering all of the vendors' offerings in the Green Quadrant analysis, we believe that Sphera should be shortlisted by:

#### • Global organizations with complex supply chains.

With the acquisition of riskmethods (now called SCRM), as well as strong Scope 3 emissions capability and its Life Cycle Assessment (LCA) database, Sphera is particularly well-positioned to serve firms with complex supply chains. The SCRM solution provides customers with granular data to analyse specific risks throughout their supply chains, such as by using Al-based real-time risk assessments to produce supplier risk score cards. Organizations looking to improve sustainability throughout their supply chain should include Sphera on their shortlist.

#### • Firms across a variety of industries seeking sustainability software and consulting from one provider.

While Sphera has a history of serving large global firms in high-risk industrial sectors, its customer base has expanded to include sectors such as consumer services, financial services and technology. Sphera combines its software platform and data content with its consulting branch to help corporates navigate and improve their sustainability programmes, such as by supporting customers in setting net zero targets, performing double materiality assessments and providing guidance on corporate sustainability strategies.



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