

The ESG Technology Imperative: Breaking the Cycle of Manual Reporting in 2025

A Study Revealing How Integrated Technology is Separating Leaders from Laggards in Corporate Sustainability

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A person is seen from behind, working on a laptop. The laptop screen displays various data visualizations, including bar charts and line graphs. Several data visualizations are also shown floating in the air around the laptop, creating a sense of dynamic data analysis. The background is a blurred office setting.

Executive Summary

This report explores the challenges, opportunities, and trends shaping Environmental, Social, and Governance (ESG) management. Based on insights from a survey of 114 respondents (30 of which chose to remain anonymous) across geographies, industries, and revenue brackets, the report highlights the critical role of technology in overcoming barriers and enabling organizations to meet growing ESG expectations.



Key Findings

System Integration Challenges

46.85% of respondents reported minimal or no integration between ESG platforms and other business systems, such as ERP and CRM tools. This lack of integration creates inefficiencies and limits scalability, particularly in industries like BFSI (17%) and Manufacturing & Engineering (17%).



Smaller organizations in the **\$0-\$500** million revenue bracket face significant challenges due to limited resources, while larger organizations in the **\$6-\$10** billion range struggle with the complexity of legacy systems.

Reliance on Manual Processes

- Despite the increasing complexity of ESG requirements, 28.07% of organizations still rely on spreadsheets for ESG reporting. Manual processes introduce inefficiencies and errors, with 34.62% of respondents reporting that manual reporting takes more than 10 weeks annually.
- Industries like Personal Services (6%) and Food, Beverage & FMCG (3.5%) are particularly affected, lacking access to advanced tools to streamline reporting.

Key Findings

Data Quality and Supply Chain Gaps

60.53%



of respondents identified data collection and management as their biggest challenge, while

42.31%

cited unreliable supplier data. These issues are pronounced in industries with complex supply chains, such as Real Estate & Infrastructure (79%) and Chemical, Pharma & Biotech Manufacturing (3.5%).

Regional disparities exacerbate these challenges, with US respondents (58%) highlighting fragmented reporting frameworks and EU respondents (51%) navigating stringent regulatory requirements like CSRD.

Emerging Technology Trends

37.11%

of respondents emphasized the importance of predictive analytics, highlighting a shift toward proactive ESG management.

43.30%

identified real-time reporting as critical, with industries like Utilities and Aerospace & Defence leveraging these capabilities to enhance decision-making and compliance.

Recommendations

The report provides actionable recommendations for organizations seeking to overcome these challenges and position themselves for long-term ESG success:

Immediate Actions

- Conduct assessments of current ESG technology infrastructure to identify gaps.
- Streamline workflows through system integration.
- Develop a roadmap for automation to reduce reliance on manual processes.
- Build internal capabilities for ESG data management through targeted training.

Long-Term Strategies

- Invest in Integrated ESG Platforms: Centralized systems enable scalability and efficiency, particularly for mid-sized and large organizations.
- Leverage AI and Analytics: Advanced tools for predictive modeling and trend analysis enhance decision-making and compliance.
- Develop Real-Time Reporting Infrastructure: These capabilities support agility in responding to regulatory and stakeholder demands.
- Implement Supplier Engagement Programs: Collaborate with suppliers to improve data reliability and ensure alignment with sustainability goals.

The State of ESG Technology: A Digital Divide



The Integration Crisis

- The challenge of integrating ESG platforms with other business systems like ERP and CRM tools remains a persistent issue across industries. According to the survey,

46.85%



of respondents reported minimal or no integration, highlighting a significant barrier to achieving streamlined data workflows.



This issue is particularly pronounced among smaller organizations (revenue brackets of **\$0-\$500M**), which accounted for 20% of respondents, as they often lack the financial resources to invest in robust systems.

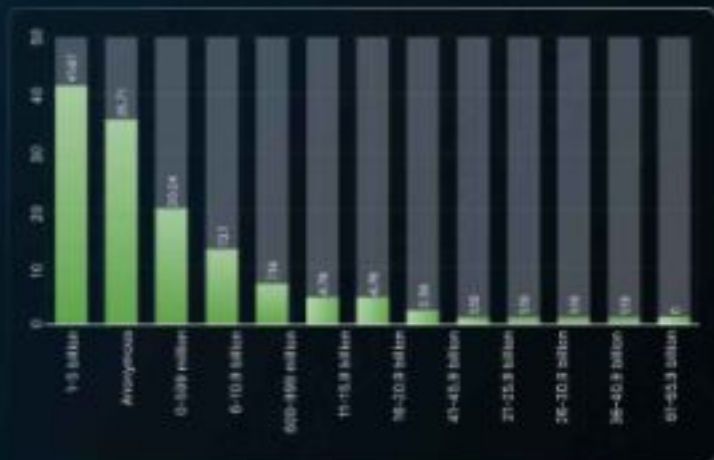


However, even among mid-sized and large organizations—those in the **\$1-\$5 billion range (42%)** and **\$6-\$10 billion range (13%)**—integration challenges persist, driven by the complexity of legacy systems and the lack of scalable solutions.



Geographically, the integration crisis is equally significant. Respondents from the **US (49%)** and **EU (51%)** reported similar struggles with fragmented systems, despite operating in regions with mature regulatory environments. This underscores a global issue where technological infrastructure has not kept pace with the growing demand for ESG reporting.

Revenue Brackets of Respondents' Workplaces



Annual revenue of respondents' workplaces were not collected as part of the survey. This information was collected from trusted sources like zoominfo.com.



Industry-specific challenges

- Industry-specific challenges further illustrate the integration gap. Sectors like BFSI (17%) and Manufacturing & Engineering (17%), which often manage extensive data across multiple functions, are more likely to encounter silos that impede data flow. For example, while

63.16% of respondents have adopted ESG metrics and reporting platforms, many of these tools remain isolated from operational and financial systems, requiring extensive manual intervention to align data streams.

Scalability



This lack of integration also affects scalability. Industries like Real Estate & Infrastructure (7%) and Chemical, Pharma & Biotech Manufacturing (3.5%), which are under



increasing pressure to report Scope 3 emissions and supplier sustainability, find it challenging to expand their ESG efforts due to disconnected systems. The inability to integrate platforms not only creates inefficiencies but also limits the capacity to respond swiftly to evolving regulatory requirements.



This Misalignment Between Ambition and Infrastructure

While organizations aspire to lead in ESG performance, their existing technological infrastructure often fails to match these ambitions.

**A significant
60.53%**

of respondents identified data collection and management as their biggest challenge, indicating a clear disconnect between strategic goals and the tools available to execute them. This challenge is particularly relevant for industries like Aerospace & Defence (3%) and Auto & Transport (3%), where the complexity of supply chain data adds another layer of difficulty.

The adoption of multiple **reporting frameworks** compounds this misalignment.

Organizations must navigate standards like GRI (56.14%), CSF (50.88%), SASB (37.72%), and TCFD (55.24%), often simultaneously. For businesses in sectors like Telecom & Communication (2%) and Utilities (2.3%), where regulatory compliance is critical, the lack of a unified system to manage these frameworks creates inefficiencies and increases the risk of non-compliance.



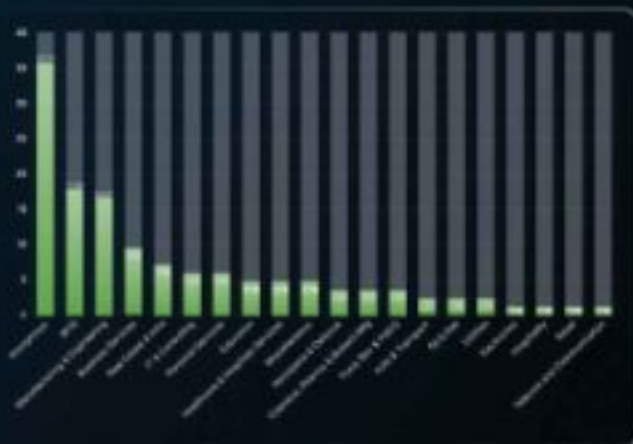
Smaller organizations in the **\$0-\$500M** range, which typically have limited range, which typically have limited technical resources, are more likely to rely on basic tools or manual manual processes. Conversely, even larger enterprises in the

\$1-\$5B and \$6-\$10B categories, which represent 68% of respondents struggle to optimize their systems for comprehensive ESG tracking due to outdated or siloed infrastructure.

High implementation costs and limited technical expertise remain significant barriers, cited by 45.19% and 42.31% of respondents, respectively.

This misalignment forces many organizations to operate within the constraints of their existing systems, stalling progress and limiting the ability to leverage ESG as a strategic advantage.

Current Industries of Respondents' Organizations



Annual revenue of respondents' workplaces were not collected as part of the survey. This information was collected from trusted sources like LinkedIn and zoominfo.com.

The Manual Reporting Trap

- Despite the increasing complexity of ESG requirements, many organizations continue to rely on manual reporting processes. **The survey revealed that 28.07% of respondents still use spreadsheets to track ESG metrics, with manual data consolidation remaining a common practice across industries.** This reliance is particularly pronounced in Personal Services (6%) and Food, Beverage & FMCG (3.3%), where smaller operations may lack access to advanced tools.

Manual reporting introduces inefficiencies and risks.

Data collection is time-intensive and prone to errors, a challenge exacerbated by the fragmented nature of ESG data systems.

Industries like Healthcare & Hospitals (3%) and Education (3%), which handle sensitive data, face additional risks due to inaccuracies or delays in manual processes. This issue is reflected in the finding that 34.62% of respondents report spending more than **10 weeks** on manual ESG reporting, an unsustainable timeline in a fast-evolving regulatory landscape.

The reliance on manual processes also limits the ability to generate actionable insights.

Without automated analytics, organizations struggle to identify trends, anticipate risks, or make informed decisions. This is particularly critical for sectors like Oil & Gas (2.3%) and Aerospace & Defence (3%), where predictive capabilities are essential for managing environmental risks. Furthermore,

37.11% of respondents identified predictive analytics as a priority for future ESG tools, underscoring the need to move beyond spreadsheets to advanced, data-driven systems.



A man with grey hair and glasses, wearing a maroon sweater, is looking down at a piece of paper he is holding. The paper has a line graph with three lines in blue, red, and green. The background is a blurred office setting with a desk, a laptop, and a small potted plant.

The Data Quality Crisis

Accurate, reliable, and actionable data is essential for compliance, reporting, and decision-making. However, the findings from the survey highlight widespread challenges in data quality and supply chain visibility, creating significant obstacles for organisations striving to meet their ESG goals. This chapter explores the cascading effects of poor data management and the persistent gaps in supply chain visibility, incorporating demographic insights to illustrate these challenges.

The Cascading Effect of Poor Data Management

- The survey reveals that 60.53% of respondents identify data collection and management as their most significant ESG reporting challenge, underscoring the criticality of data quality.

Poor data management has a cascading effect, with inaccuracies at one stage often propagating through multiple systems, resulting in compromised reporting accuracy, non-compliance risks, and missed opportunities for actionable insights.

- This issue is particularly pronounced among industries such as BFSI (17%) and Manufacturing & Engineering (17%), which handle large volumes of complex data.

For BFSI, ensuring accuracy in climate risk disclosures is critical to meeting regulatory requirements, while manufacturers face the dual challenge of tracking emissions and monitoring resource usage. In both cases, poor data management can lead to flawed reports, reputational risks, and potential penalties.

- Data collection issues are compounded by regional differences in regulatory standards. Respondents from the US (49%) and EU (51%) face varying compliance frameworks, ranging from the SEC's proposed climate disclosure rules to the EU's Corporate Sustainability Reporting Directive (CSRD). Mismanaged data makes navigating these diverse requirements more complex, further increasing compliance risks.
- A particularly concerning finding is that 55.26% of respondents cite data accuracy and verification as a major challenge. This is especially problematic for industries like Healthcare & Hospitals (5%) and Food, Beverage & FMCG (3.5%), where reliable data is critical for **tracking environmental impacts and meeting consumer transparency demands**. Without robust data verification mechanisms, these organizations risk making strategic decisions based on flawed information.
- The cascading effect of poor data management also undermines the scalability of ESG initiatives. **As organizations attempt to expand their ESG efforts to include metrics like Scope 3 emissions, they encounter significant obstacles due to inconsistent and incomplete data**. For sectors such as Aerospace & Defence (3%) and Auto & Transport (2.3%), where supply chains span multiple geographies and regulatory environments, this issue is particularly acute.



The Supply Chain Visibility Gap

Supply chain data remains one of the most significant **blind spots in ESG reporting**. According to the survey, 42.31% of respondents cite unreliable supplier data as a key challenge, while 58.65% highlight the difficulty in obtaining data from suppliers who do not have established reporting mechanisms. This gap underscores the need for greater collaboration and standardization across supply chains.

Industries with complex supplier networks, such as Real Estate & Infrastructure (7%) and Chemical, Pharma & Biotech Manufacturing (3.0%), are particularly affected. For example, real estate developers often depend on contractors and suppliers for emissions data, yet these stakeholders may lack the tools or expertise to provide reliable information. Similarly, pharmaceutical companies face challenges in tracking the environmental impact of raw materials sourced from multiple vendors.

The lack of supplier engagement is also reflected in the 17% of respondents from BFSI, who are increasingly expected to incorporate supply chain data into ESG frameworks for investment decision-making. However, limited visibility into supplier practices can undermine efforts to accurately assess risks and opportunities.





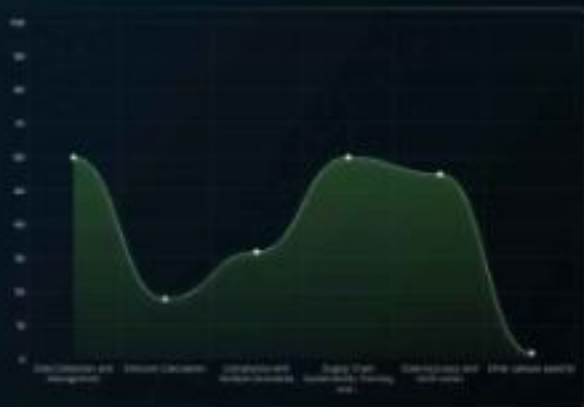
Regional differences further complicate supply chain visibility. In the US (49%), the absence of standardized frameworks for supplier reporting often results in inconsistent data quality. In contrast, organizations in the EU (51%), while benefiting from stronger regulatory frameworks, still face challenges in collecting data from suppliers in regions with less stringent requirements. This disparity creates inefficiencies in global supply chains and complicates efforts to ensure compliance with frameworks such as TCFD, GRI, and CDP.

High resource demands for data collection and verification, cited by 38.46% of respondents, further exacerbate supply chain visibility gaps. Industries such as Utilities (2.3%) and Oil & Gas (2.2%) must navigate complex value chains, often involving upstream and downstream partners with limited reporting capabilities. Without adequate resources, these organizations struggle to collect and verify data, resulting in incomplete or inaccurate ESG disclosures.

The challenge is not limited to data collection but extends to monitoring supplier practices. Limited control over supplier behaviour, cited by 55.77% of respondents, highlights a critical gap in ESG reporting. For sectors like Aerospace & Defence (3%) and Hospitality (2%), where supplier compliance with sustainability practices is essential, this lack of control creates significant risks.

Supply chain data is a major ESG blind spot, with 42.32% citing unreliable supplier data and 58.62% struggling to collect data. Complex industries like Real Estate and Pharma face tracking issues. Regional gaps add challenges - 49% of US firms deal with reporting inconsistencies, while 51% of EU firms struggle with data from unregulated regions. High resource demands and limited supplier control further hinder disclosures, especially in Aerospace, Hospitality, and Oil & Gas. Standardization and collaboration are key to solving these issues.

Aspects of ESG reporting that are most challenging organizations





Addressing the Data Quality Crisis

While the data quality crisis presents significant challenges, it also offers opportunities for improvement. Investments in data management tools, automation, and supplier engagement programs can help organizations address these issues.

01 Investing in Technology: Organizations in the \$6–\$10 billion range (13%) and sectors such as IT & Consulting (6%) are better positioned to adopt advanced technologies for data collection and analysis. These tools can streamline processes, improve accuracy, and reduce reliance on manual reporting.

02 Standardizing Supplier Reporting: Industries like Telecom & Communication (1%) and Education (5%), where supplier data is critical but inconsistent, can benefit from adopting standardized reporting frameworks. Collaborating with suppliers to establish common metrics and benchmarks will improve data reliability.

03 Enhancing Verification Mechanisms: For sectors like Healthcare & Hospitals (3%), where data accuracy is paramount, robust verification processes are essential. Automated tools that validate data at the point of collection can significantly reduce errors and improve reporting quality.

04 Building Supplier Engagement Programs: Organizations in industries like Real Estate & Infrastructure (7%) can benefit from programs that incentivize suppliers to adopt sustainable practices and improve reporting capabilities. These programs could include training, financial incentives, or collaborative partnerships.



The Future of ESG Technology

As organizations grapple with the complexities of Environmental, Social, and Governance (ESG) reporting, emerging technologies present an opportunity to transform how they manage, analyze, and act on ESG data. The integration of artificial intelligence (AI), predictive analytics, and real-time reporting tools is increasingly being viewed as the solution to many of the challenges outlined in previous chapters. This chapter explores how these technologies can redefine ESG management, focusing on the potential of AI and analytics, as well as the imperative for real-time data capabilities. Respondent demographics provide a lens through which these trends are analyzed.

The AI and Analytics Opportunity

The survey revealed a strong interest in leveraging AI for ESG, with

37.11% of respondents identifying predictive analytics as a key feature they want in

future ESG tools. The ability of AI to sift through vast datasets, identify patterns, and generate actionable insights positions it as a game-changer for industries navigating complex ESG frameworks.

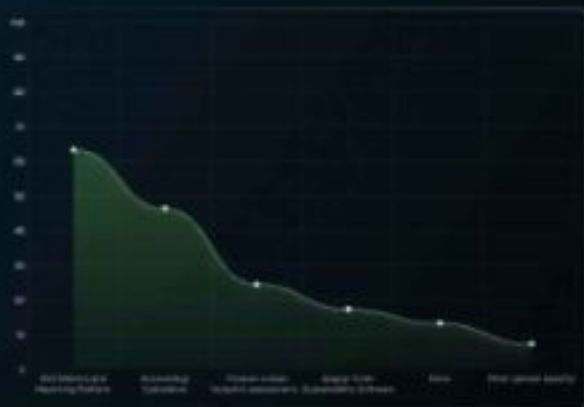
Transforming ESG Reporting with AI

Industries like BFSI (17%) and Manufacturing & Engineering (17%) stand to benefit significantly from AI-driven ESG tools. BFSI companies, which manage vast portfolios and monitor climate risk exposure, can use predictive models to forecast the impact of regulatory changes or shifting investment trends. Similarly, manufacturers can leverage AI to optimize resource usage, monitor emissions across supply chains, and comply with frameworks such as CDP and TCFD.

Organizations in the **\$1-\$5 billion revenue bracket (42%)** are particularly well-positioned to adopt AI solutions due to their larger budgets and more mature operational structures. However, even smaller organizations in the **\$0-\$500 million range (20%)** are beginning to explore AI-driven tools to overcome resource constraints and reduce manual workloads. These tools allow businesses to transition from reactive to proactive ESG strategies, enabling better compliance and improved decision-making.



Type of ESG tools or platforms organizations currently use



Predictive Analytics: A Strategic Advantage

Predictive analytics enhances ESG reporting by identifying trends and anticipating risks before they escalate. For example, Healthcare & Hospitals (5%) can use predictive models to analyze patient care metrics alongside environmental impacts, while Food, Beverage & FMCG (3.5%) can forecast supply chain disruptions caused by climate change.

For industries like Auto & Transport (2.3%) and Aerospace & Defense (3%), predictive analytics is critical in monitoring emissions, forecasting regulatory risks, and identifying opportunities to adopt more sustainable practices. These sectors operate within complex, global supply chains where real-time data is scarce, making predictive capabilities essential for maintaining compliance and competitive advantage.

Geographically, organizations in the EU (51%) are leading the adoption of AI for ESG due to stricter regulations and incentives for innovation. Companies in the US (49%) are following closely, driven by investor and stakeholder expectations, as well as evolving regulatory landscapes such as the SEC's climate disclosure requirements. AI's ability to provide clear, data-driven insights makes it a vital tool for organizations across these regions to navigate the growing complexities of ESG reporting.



Challenges and Opportunities

While the potential for AI in ESG is significant, the survey highlights barriers such as **high implementation costs (45.19%)** and **limited technical expertise (42.31%)**.

These challenges are particularly relevant for industries like Real Estate & Infrastructure (7%), which often lack in-house capabilities for advanced analytics.

However, partnerships with technology providers and modular pricing models can help bridge these gaps, enabling more widespread adoption.



The Real-Time Imperative

As ESG requirements become more dynamic, the ability to collect, analyze, and report data in real time is no longer a luxury but a necessity.

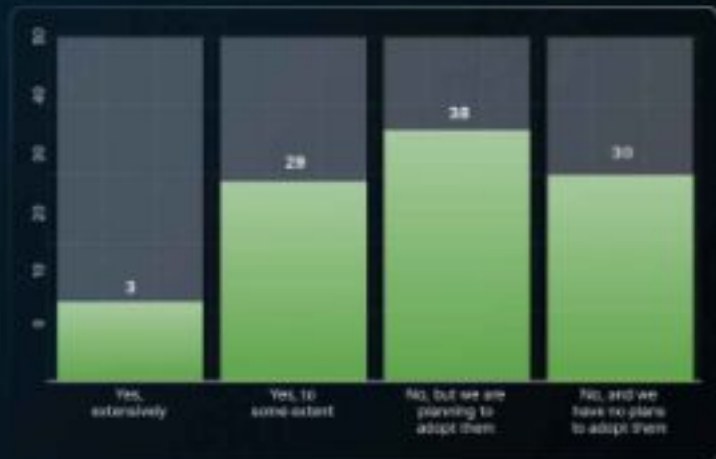
The Role of Real-Time Data in ESG

Industries such as Telecom & Communication (31%) and Utilities (2.3%) operate in rapidly changing environments where real-time data is critical for monitoring resource usage and emissions. For example, utilities can use real-time data to adjust energy production methods to align with sustainability goals, while telecom companies can track and reduce the environmental impact of their operations.

43.30%

of respondents highlighted real-time data updates as a priority feature for ESG tools, reflecting the growing demand for instantaneous insights and agility in decision-making.

Are organizations using AI-driven or automated tools for ESG reporting or analysis?



Organizations in the **\$6–\$10 billion revenue bracket (13%)** are particularly likely to invest in real-time capabilities, given their scale and complexity. These organizations often manage multiple facilities, suppliers, and compliance frameworks, making real-time data essential for accurate and timely reporting. Smaller companies in the **\$0–500 million range (20%)** are also beginning to adopt real-time tools to enhance their responsiveness and reduce the burden of manual data collection.

Real-time capabilities are equally important for geographically dispersed operations. Companies in the EU (52%) benefit from real-time data to meet stringent regional requirements, while those in the US (49%) use it to align with diverse state-level regulations and stakeholder expectations.

A close-up photograph of a person's hand, wearing a blue and white plaid shirt, touching the screen of a tablet. The background is blurred, showing some green foliage.

The ability to monitor ESG metrics in real time ensures that organizations can identify risks, address discrepancies, and report accurate information to regulators and investors.

Enhancing Data Visualization

Real-time data also improves the way ESG information is presented and consumed. Enhanced data visualization, identified as a priority by

36.08% of respondents, allows organizations to communicate their ESG performance of respondents, allows organizations to communicate their ESG performance more effectively. Industries like Hospitality (2%) and Oil & Gas (2.3%) can use interactive dashboards to showcase their sustainability efforts, making it easier for stakeholders to understand complex data.

Real-time dashboards also support internal decision-making.

For example, IT & Consulting (6%) companies can use real-time visualizations to track energy consumption and identify areas for improvement, while Education (5%) organizations can monitor sustainability initiatives across campuses.

Compliance and Competitive Advantage

In a rapidly evolving regulatory environment, real-time reporting capabilities provide a critical advantage. Industries like Aerospace & Defence (2%) and Chemical, Pharma & Biotech Manufacturing (3.5%) face significant compliance risks

due to the complexity of their operations. Real-time tools enable these organizations to monitor compliance in real time, reducing the risk of penalties and reputational damage.

Real-time data also supports competitive differentiation.

Personal Services (6%) and Business Services (9.5%) can use real-time reporting to demonstrate their commitment to sustainability, meeting the expectations of environmentally conscious clients and consumers. This capability enhances brand reputation and strengthens customer loyalty, providing a tangible return on investment.



The Path Forward

The survey findings highlight a growing recognition of the transformative potential of AI, predictive analytics, and real-time capabilities in ESG management. Organizations across industries, geographies, and revenue brackets are beginning to adopt these technologies, but significant barriers remain.

01

Investing in AI and Predictive Tools: Organizations in the S&P 500 (17%) and Manufacturing & Engineering (17%) sectors should prioritize investments in AI to improve decision-making and enhance compliance.

02

Building Real-Time Capabilities: Industries such as Utilities (2.3%) and Real Estate & Infrastructure (7%) can benefit from real-time data to monitor and optimize sustainability efforts.

03

Overcoming Barriers: Addressing high costs and technical expertise challenges requires strategic partnerships, training programs, and modular technology solutions.

04

Focusing on Visualization: Enhanced data visualization tools will improve stakeholder communication and support better internal decision-making.



Breaking the Cycle – A Path Forward

The Integration Imperative

The challenges of ESG reporting and management discussed in earlier chapters—fragmented systems, poor data quality, and a lack of real-time insights—underscore the need for systemic change. To effectively manage ESG data and overcome the inefficiencies of manual reporting cycles, organizations must focus on integration. This section explores the integration imperative, detailing how unified systems, automated data collection, real-time reporting capabilities, and predictive analytics can provide the foundation for effective ESG strategies. Insights are connected to the survey's demographic data to provide deeper context and relevance.

Prioritizing System Integration to Unify Data Sources

A significant 46.85%

of respondents reported minimal or no integration between ESG platforms and other critical business systems, such as Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM). This lack of integration creates data silos, resulting in inefficiencies and incomplete reporting. System integration is no longer optional—it is essential for organizations seeking to manage ESG data holistically.



In the EU (51%), the regulatory landscape, including the Corporate Sustainability Reporting Directive (CSRD), has already incentivized companies to adopt integrated systems. Despite these drivers, the journey to full integration remains a work in progress for many organizations.



Geographically, organizations in the US (49%) are driven by investor demands and evolving regulations, such as the SEC's climate disclosure proposals, to prioritize integration.

Industries like BFSI (17%) and Manufacturing & Engineering (17%) are particularly affected by this issue due to the volume and complexity of data they manage.

For BFSI, integration ensures that ESG risks, such as climate-related financial disclosures, are accounted for alongside traditional risk management frameworks.

Manufacturers, on the other hand, benefit from connecting production data with supply chain sustainability metrics, enabling a unified view of resource efficiency and emissions.

Revenue brackets reveal further insights into integration challenges. While 42% of respondents in the **\$1–\$5** range have the resources to pursue integration initiatives, smaller organizations in the **\$0–500 million range (20%)** often struggle with limited budgets and technical challenges. Larger enterprises in the **\$6–\$10 billion** bracket also face hurdles, often dealing with legacy systems that complicate integration efforts.

Investing in Automated Data Collection for Efficiency and Accuracy

Manual data collection remains a prevalent issue, with 28.67% of respondents relying on spreadsheets for ESG reporting. The inefficiencies and inaccuracies associated with this approach are amplified in industries with complex operations, such as Real Estate & Infrastructure (7%) and Chemical, Pharma & Biotech Manufacturing (3.5%). These sectors rely heavily on accurate data to comply with stringent regulations and stakeholder expectations.

Automated data collection systems eliminate the bottlenecks associated with manual processes. For example, industries like Healthcare & Hospitals (5%) and Food, Beverage & FMCG (3.5%) can use automated tools to track emissions, energy consumption, and waste management in real time, reducing the risk of errors and delays. Similarly, Auto & Transport (2.3%) companies can monitor vehicle emissions across their fleets without the need for manual inputs, ensuring compliance with environmental regulations.

The survey highlights the importance of automation in addressing resource constraints. High resource demands for data collection, cited by **38.46%** of respondents, are a barrier that automation can effectively address. This is particularly relevant for smaller organizations in the **\$0–500** million range (20%), which often lack the manpower to manage ESG data manually. By investing in automated systems, these organizations can level the playing field with larger competitors.



Building Real-Time Reporting Capabilities to Enable Proactive Decision-Making

The survey shows that

43.30% of respondents prioritize real-time data updates as a critical feature for ESG tools.

Real-time reporting capabilities allow organizations to move beyond reactive compliance and engage in proactive decision-making. This is especially important in industries like Utilities (2.3%) and Oil & Gas (2.3%), where operational decisions can have immediate environmental and financial impacts.

For example, utility companies can use real-time reporting to adjust energy production methods based on renewable energy availability, while oil and gas companies can monitor emissions and respond quickly to leaks or inefficiencies. Real-time capabilities also empower organizations in Hospitality (2%) and Education (5%) to track and showcase their sustainability efforts, enhancing transparency and stakeholder trust.



Geographically, organizations in the **EU (55%)** are leading the charge in real-time reporting adoption due to stricter regulatory requirements. In the **US (49%)**, the push for real-time capabilities is driven by stakeholder demands for transparency and accountability.

Revenue bracket insights reveal that larger organizations in the **\$6–\$10 billion range (13%)** are more likely to have the resources to implement real-time reporting systems. However, smaller organizations in the **\$0–500 million range (20%)** are also exploring these tools to improve their agility and reduce the burden of manual reporting.



Developing Predictive Analytics Competencies for Forward-Looking Insights

Predictive analytics represents the next frontier in ESG technology, enabling organizations to anticipate risks, identify trends, and make data-driven decisions. 37.11% of respondents identified predictive analytics as a priority feature, highlighting its potential to transform ESG management.

Industries such as Aerospace & Defense (31%) and Telecom & Communication (19%) stand to benefit significantly from predictive tools. **For aerospace companies,** predictive analytics can forecast supply chain disruptions caused by geopolitical events or environmental changes. **Telecom companies,** on the other hand, can use predictive models to identify energy-saving opportunities across their networks.

In the BFSI (17%) sector

Predictive analytics enables financial institutions to assess climate-related financial risks and align their investment strategies with ESG objectives.

Similarly, IT and Consulting (6%)

companies can use predictive models to optimize energy consumption across data centres, reducing costs and emissions.

The adoption of predictive analytics is also influenced by geography and revenue



Organizations in the EU (51%) are early adopters, leveraging predictive capabilities to comply with stringent regulations and demonstrate leadership in sustainability



In the US (49%), predictive tools are increasingly being used to align with investor expectations and enhance decision-making.



Larger organizations in the **\$6-\$10 range (13%)** are at the forefront of this trend, using predictive analytics to gain a competitive edge in an ESG-driven marketplace.



The Technology Investment Case

As ESG compliance grows more complex and expectations from stakeholders intensify, the cost of failing to act becomes increasingly clear. Organizations that delay investments in advanced ESG technology expose themselves to escalating risks—both operational and strategic. This section explores the implications of inaction, focusing on four critical areas: regulatory compliance risks, competitive disadvantage, resource inefficiency, and missed opportunities for value creation.

01

Increased Regulatory Compliance Risks

The regulatory environment for ESG reporting is evolving rapidly. In the US (49%), the SEC's proposed climate disclosure rules will require organizations to disclose detailed climate-related risks and greenhouse gas emissions data. Similarly, in the EU (51%), the Corporate Sustainability Reporting Directive (CSRD) demands comprehensive reporting across multiple ESG dimensions. Organizations that fail to invest in the technology needed to meet these requirements risk falling out of compliance, incurring penalties, and damaging their reputations.

Industries at High Risk

Sectors with strict compliance needs, such as BFSI (17%) and Chemical, Pharma & Biotech Manufacturing (3.5%), face significant challenges in adapting to new regulations without advanced technology. For example, financial institutions

must now integrate climate risk assessments into their broader risk management frameworks. This requires granular, accurate, and auditable data capabilities that are difficult to achieve with manual systems or fragmented tools.

Similarly, Real Estate & Infrastructure (7%) companies face mounting pressure to disclose emissions from their operations and supply chains.

Failing to implement technology that enables automated data collection and integration across suppliers puts these organizations at a higher risk of non-compliance, especially as Scope 3 emissions reporting becomes mandatory in many regions.

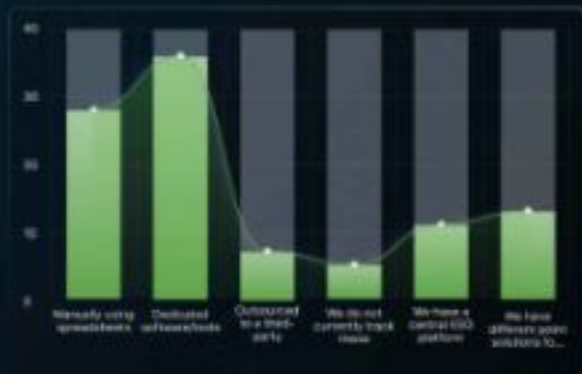
The Revenue Factor

Organizations in the **\$1-\$5 billion revenue bracket (42%)** are at particular risk of regulatory penalties if they fail to act, as their scale often places them squarely in the scope of new compliance requirements.

Smaller companies in the **\$0-500 million range (13%)**, while less exposed to large penalties, still risk losing market access if they cannot demonstrate compliance to investors and clients.



Are organizations using AI-driven or automated tools for ESG reporting or analysis?





02 Risk of Competitive Disadvantage

The survey highlights that

42.31%

of respondents struggle with unreliable supplier data and

55.77%

lack control over supplier practices

In today's competitive landscape, these challenges create vulnerabilities that advanced ESG technology can help mitigate. Organizations that fail to invest in ESG tools risk being outpaced by competitors who can leverage real-time insights, predictive analytics, and integrated reporting to gain an edge.

Industries Facing Pressure



In **Manufacturing & Engineering** (17%), the inability to track and optimize resource efficiency across supply chains can lead to higher costs and weaker market positioning.



Companies in **Aerospace & Defence** (3%) and **Auto & Transport** (2.3%) also face mounting pressure to adopt sustainable practices.

Competitors with advanced ESG capabilities are better positioned to secure contracts with environmentally conscious clients or governments that prioritize sustainability in procurement decisions.

Customer and Investor Expectations

Organizations in sectors like Food, Beverage & FMCG (3.5%) and Hospitality (2%) increasingly face customer demands for transparent sustainability practices.

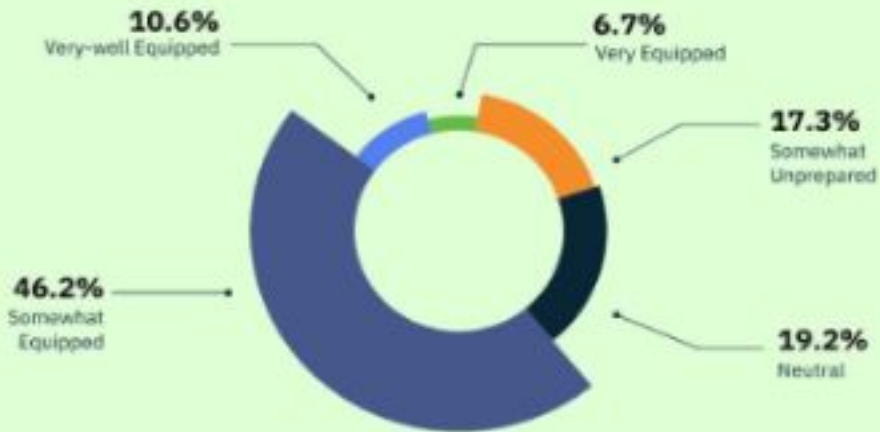
Failure to meet these expectations risks losing market share to competitors who can demonstrate their ESG commitment through technology-driven reporting and storytelling.

Investor expectations also play a critical role, particularly in BFSI (17%), where ESG factors influence investment decisions.

Companies without robust ESG systems may struggle to secure financing or attract investment, further widening the gap between leaders and laggards.



How well-equipped organizations are to adapt to future ESG requirements or regulations?





03 Persistent Resource Inefficiency

The survey shows that 34.62% of organizations spend more than 10 weeks on manual ESG reporting processes, and 36.46% report high resource demands for data collection and verification. These inefficiencies are unsustainable, especially in industries where resources could be better allocated to strategic initiatives.

The Cost of Manual Processes

Organizations in **IT & Consulting (6%)** and **Healthcare & Hospitals (5%)** are heavily burdened by manual ESG processes. For IT firms, manually consolidating emissions data from global operations delays decision-making and wastes valuable resources. Hospitals, on the other hand, face unique challenges in tracking waste management and energy use across facilities, which could be streamlined with automated tools.

Resource Allocation by Revenue Bracket

Smaller organizations in the **\$0–\$500 million range (20%)** are particularly vulnerable to inefficiencies, as they often lack the bandwidth to dedicate full-time teams to ESG reporting. Meanwhile, larger organizations in the **\$6–\$10 billion range (13%)** face inefficiencies on a larger scale, as their complexity amplifies the inefficiencies of fragmented systems and manual processes.

Investing in automation and integration can dramatically reduce these inefficiencies, freeing up resources for more impactful activities such as strategy development, innovation, and stakeholder engagement.

Typical time spent on manual ESG reporting processes



04 Missed Opportunities for Value Creation

Beyond addressing risks, advanced ESG technology unlocks significant opportunities for value creation. By investing in tools that enable predictive analytics, real-time reporting, and enhanced data visualization, organizations can make better decisions, align more closely with stakeholder expectations, and create a competitive advantage.



Strategic Decision-Making

37.11% of respondents identified predictive analytics as a critical feature for future ESG tools. Industries like Oil & Gas (2.3%) and Utilities (2.3%) can use these capabilities to forecast environmental risks and optimize resource allocation. For example, **predictive models can help oil and gas companies plan for regulatory changes or shifts in energy markets, while utilities can use analytics to improve grid efficiency and reduce emissions.**

Stakeholder Alignment

Organizations in Education (31%) and Personal Services (8%) can benefit from advanced data visualization tools that communicate ESG performance effectively to stakeholders. This alignment not only enhances transparency but also builds trust with investors, customers, and regulators.

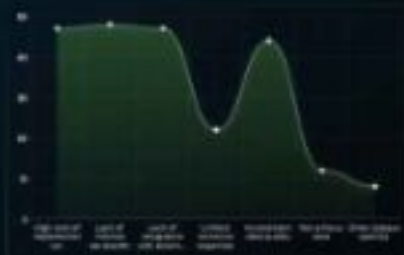
Competitive Differentiation

Real-time reporting capabilities, identified as a priority by 42.30% of respondents, enable organizations to demonstrate their ESG leadership. For example, Telecom & Communication (1%) companies can use real-time dashboards to showcase energy-saving initiatives, while Food, Beverage & FMCG (3.5%) firms can highlight their progress in sustainable sourcing to differentiate their brands.

Revenue Opportunities

By adopting advanced ESG tools, organizations can unlock new revenue streams. In Real Estate & Infrastructure (7%), for instance, green building certifications enabled by real-time data and predictive analytics can attract higher rents or premiums from sustainability-focused tenants.

Biggest obstacles in implementing effective ESG reporting tools in organizations



Recommendations

Immediate Actions

To effectively address the challenges of ESG reporting and unlock the potential of advanced technologies, organizations must take immediate steps to evaluate and enhance their existing ESG practices. This chapter focuses on actionable recommendations, emphasizing the need to assess current infrastructure, identify integration opportunities, develop an automation roadmap, and build internal capabilities. Using the respondent demographic data, we contextualize these recommendations for organizations across industries, geographies, and revenue brackets.



01

Conduct an Assessment of Current ESG Technology Infrastructure

Before making strategic investments in ESG technology, organizations must first evaluate their existing systems and processes. This includes assessing the tools currently in use, their level of integration, and their effectiveness in meeting reporting and compliance requirements. The survey data reveals that 44.85% of respondents report minimal or no integration between ESG platforms and other critical business systems, underscoring the need for this step.

Industry-Specific Assessment Needs

For industries like BFSI (17%), where compliance with frameworks such as TCFD and SASB is critical, an assessment should focus on the ability of current systems to track and report climate-related financial risks. Similarly, Manufacturing & Engineering (17%) firms should evaluate whether their tools can monitor and optimize resource usage and emissions across global supply chains.

Organizations in Real Estate & Infrastructure (7%) and Aerospace & Defense (3%), which face increasing pressure to disclose Scope 3 emissions, need to ensure that their infrastructure supports comprehensive data collection and reporting.



A detailed assessment will identify gaps in their ability to track emissions from suppliers and other indirect sources.

Geographical and Revenue Context



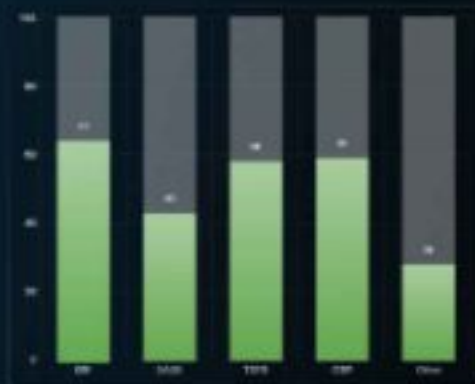
Geographically, organizations in the EU (51%) may prioritize assessing their readiness for compliance with stringent regulations like the Corporate Sustainability Reporting Directive (CSRD).



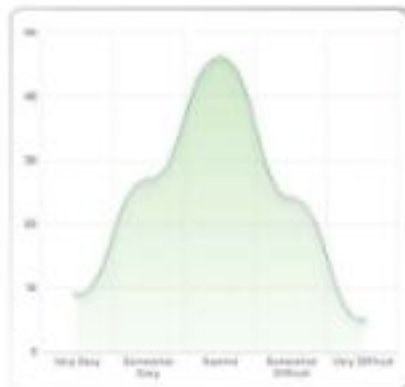
In contrast, those in the US (49%) must evaluate their ability to adapt to evolving state and federal disclosure requirements.

Revenue brackets also influence assessment priorities. Smaller organizations in the **\$0–500 million range (20%)** may focus on basic infrastructure needs, while larger enterprises in the **\$6–\$10 billion range (13%)** should evaluate the scalability of their systems to handle complex, multi-regional operations.

ESG standards or frameworks primarily used by organizations



Ease-of-use of current ESG tools in the market



02

Identify Integration Opportunities to Streamline Workflows

Fragmented systems remain one of the most significant barriers to effective ESG management, with 40.53% of respondents identifying data collection and management as a key challenge. Integration is essential to eliminate silos, improve data accuracy, and streamline workflows.

The Role of Integration Across Industries

Industries with complex operations, such as Chemical, Pharma & Biotech Manufacturing (3.5%) and IT & Consulting (6%), stand to gain significantly from system integration. For example, **integrating ESG platforms with ERP and CRM systems can provide a unified view of data, enabling these industries to track emissions, resource usage, and compliance metrics more efficiently.**

Geographic and Revenue Considerations



In the EU (51%), integration efforts may focus on aligning data across regions to meet standardized reporting requirements.



In the US (49%), organizations can benefit from integrating systems to address state-specific requirements and consolidate data for national-level reporting.

Revenue size also plays a role. While larger organizations in the **\$6–\$10 billion range (13%)** may prioritize integrating legacy systems with modern tools, smaller companies in the **\$0–500 million range (20%)** should focus on affordable, modular solutions that allow incremental improvements without significant upfront costs.



Level of data integration that exists between ESG platforms and other business systems (e.g., ERP, CRM)?



03 Develop a Roadmap for Automation

Automation offers a path to address the inefficiencies and inaccuracies of manual processes, which 28.07% of respondents still rely on for ESG reporting. A well-defined automation roadmap can help organizations transition from manual to automated workflows, reducing resource demands and improving data quality.

Automation Use Cases by Industry

Industries like Food, Beverage & FMCG (3.3%) and Hospitality (2%) can automate data collection for waste management and energy usage, ensuring timely and accurate reporting. For Auto & Transport (2.3%), **automation can streamline the monitoring of fleet emissions, enabling compliance with environmental regulations.**

In Utilities (2.3%) and Oil & Gas (2.3%), automated tools can provide real-time monitoring of emissions, energy consumption, and operational inefficiencies, ensuring compliance while optimizing costs. Automation also reduces the burden of manual data entry and validation, a key concern for Education (5%) institutions managing sustainability initiatives across campuses.

Geographical and Revenue Insights



Organizations in the EU (51%) are likely to benefit from automation in meeting stringent regulatory timelines

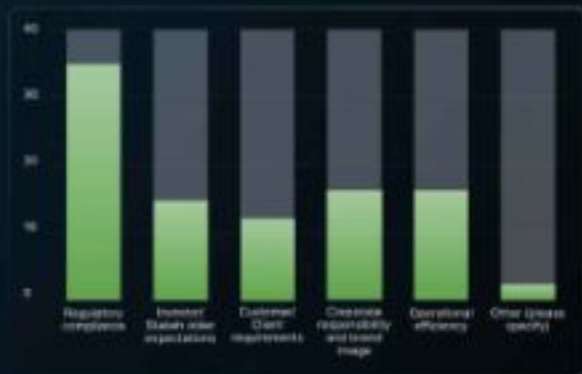


while those in the US (49%) can use automation to improve stakeholder reporting and enhance transparency.

From a revenue perspective, companies in the **\$1-\$5 billion range (42%)** have the resources to invest in comprehensive automation strategies. Smaller organizations in the **\$0-500 million range (20%)** may focus on modular automation solutions that address specific pain points, such as emissions tracking or supplier data collection.



The main factor driving ESG technology adoption in organizations



04 Build Internal Capabilities for ESG Data Management

While technology can address many ESG challenges, it is only as effective as the people who use it. Building internal capabilities is critical for organizations to maximize the value of their ESG investments. This includes training teams, hiring specialized talent, and fostering cross-departmental collaboration.

Capacity Building Across Industries

For industries like BFSI (17%), internal capabilities should focus on integrating ESG metrics into broader risk management frameworks. *Training teams to interpret climate risk data and align it with financial strategies is critical for meeting stakeholder expectations.*

In Manufacturing & Engineering (17%), capacity building should prioritize equipping teams with the skills to analyze and act on supply chain data. Similarly, Real Estate & Infrastructure (7%) companies must train teams to monitor and report on emissions from construction projects and property management.

Tailored Approaches by Geography and Revenue



In the EU (51%), where compliance requirements are well-defined, organizations should focus on regulatory expertise and data validation skills.



In the US (49%), training efforts may emphasize stakeholder engagement and the interpretation of ESG data for investor communications.

Smaller organizations in the **\$0–500 million range (20%)** may benefit from targeted training programs that address specific needs, such as emissions reporting or waste management. Larger organizations in the **\$6–\$10 billion range (13%)** should focus on building cross-functional ESG teams that can manage data at scale and drive organization-wide initiatives.





Long-Term Strategy

While immediate actions address pressing ESG challenges, a robust long-term strategy ensures that organizations remain competitive, compliant, and adaptable in a rapidly evolving ESG landscape. This section outlines strategic recommendations focused on building integrated ESG platforms, leveraging AI and analytics for advanced insights, developing real-time reporting capabilities, and fostering supplier engagement to improve data reliability and visibility. By connecting survey findings and demographic insights, this section highlights tailored strategies for organizations across geographies, industries, and revenue brackets.

01 Invest in Integrated ESG Platforms for Scalability

As ESG requirements grow in scope and complexity, scalability becomes a critical factor. Integrated ESG platforms provide a centralized system for managing, analyzing, and reporting data, eliminating inefficiencies caused by fragmented tools and manual processes. This investment not only enhances operational efficiency but also enables organizations to scale their ESG initiatives as regulatory and stakeholder demands evolve.

The Case for Integration Across Industries

Industries with intricate operations, such as BFSI (37%) and Manufacturing & Engineering (37%), face significant challenges in consolidating data across multiple functions and geographies. Integrated platforms allow BFSI firms to align climate risk disclosures with broader financial reporting, while manufacturers can track emissions, energy usage, and resource optimization across global supply chains.

For Real Estate & Infrastructure (7%), scalability is crucial to meet increasing demands for emissions reporting, particularly Scope 3 emissions from suppliers and tenants. Similarly, Healthcare & Hospitals (5%) can benefit from platforms that integrate energy consumption, waste management, and compliance data across multiple facilities.



Revenue and Geographic Considerations

Larger organizations in the **\$6–\$10 billion revenue range (13%)** are well-positioned to invest in integrated platforms that can handle complex, multi-regional operations. However, smaller organizations in the **\$0–500 million range (20%)** should focus on modular solutions that allow incremental integration as their ESG needs grow.



Geographically, organizations in the EU (51%) are more likely to prioritize integration due to stringent regulations like the Corporate Sustainability Reporting Directive (CSRD).



In the US (46%), the growing emphasis on state-level disclosure requirements and investor expectations drives the need for integrated solutions.

02

Focus on AI and Analytics Capabilities to Enhance Insights

Survey data shows that 37.11% of respondents identified predictive analytics as a priority feature for ESG tools, reflecting a growing demand for actionable insights. Advanced analytics powered by artificial intelligence (AI) enable organizations to identify trends, anticipate risks, and make informed decisions, transforming ESG from a compliance activity to a strategic advantage.

AI Applications Across Industries

In BFSI (17%),

AI and analytics can support climate risk modeling, helping financial institutions assess portfolio vulnerabilities and align investment strategies with ESG goals.

For Manufacturing & Engineering (17%),

AI can optimize resource usage, monitor emissions, and identify opportunities for energy efficiency, driving both cost savings and sustainability.

Industries like Food, Beverage & FMCG (3.5%) and Oil & Gas (2.3%) can use predictive analytics to forecast supply chain disruptions caused by climate change or geopolitical events. Meanwhile, Utilities (2.3%) can leverage AI to optimize grid performance and transition to renewable energy sources more efficiently.

Overcoming Barriers

Despite its potential, the adoption of AI is often hindered by high costs (43.18%) and limited technical expertise (42.31%). Smaller organizations in the \$0-\$50 million range (20%) can address these barriers by partnering with technology providers that offer scalable, cloud-based solutions. Larger organizations in the \$1-\$5 billion range (42%) should focus on building in-house expertise to maximize the value of their AI investments.



03

Develop Real-Time Reporting Infrastructure for Agility

Real-time reporting capabilities, identified as a priority by 43.30% of respondents, are essential for organizations looking to stay agile in an environment where regulatory requirements and stakeholder expectations are constantly evolving. Real-time data enables proactive decision-making, allowing organizations to address risks and opportunities as they arise.

Real-Time Applications Across Industries



Industries with dynamic operations, such as Aerospace & Defence (3%) and Auto & Transport (2.3%), can use real-time data to monitor emissions, track resource usage, and respond to operational inefficiencies immediately.



For Telecom & Communication (1%), real-time reporting can support energy optimization and enhance transparency with regulators and customers.



In Healthcare & Hospitals (8%), real-time dashboards can help administrators monitor sustainability metrics across facilities, enabling quick adjustments to meet compliance targets.



Similarly, Real Estate & Infrastructure (7%) companies can use real-time data to track energy consumption and emissions from buildings, ensuring alignment with green building certifications.

Revenue and Geographic Insights



Organizations in the EU (51%) are early adopters of real-time capabilities, driven by stringent regulatory timelines.

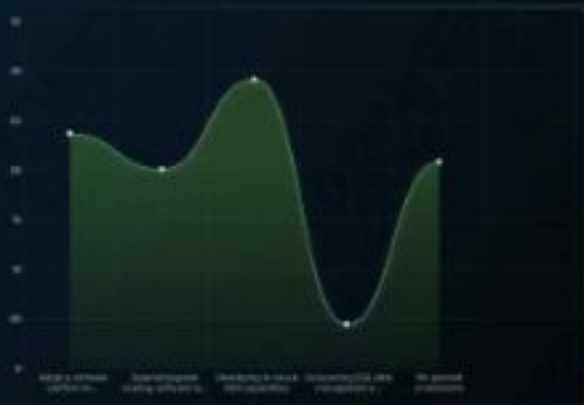


In the US (49%), the push for real-time reporting is largely stakeholder-driven, with investors and customers demanding greater transparency.

Revenue size also influences adoption. Larger organizations in the **\$6–\$10 billion range (13%)** are more likely to implement real-time systems that integrate data across global operations. For smaller companies in the **\$0–500 million range (20%)**, affordable, modular solutions that provide real-time insights for specific metrics can offer a starting point.



ESG technology investments organizations plan to make in the next 12 months?



04

Create Supplier Engagement Programs to Improve Data Reliability and Visibility

Supply chain data remains one of the biggest blind spots in ESG reporting. The survey reveals that 42.31% of respondents struggle with unreliable supplier data, while 55.77% report limited control over supplier practices. **Supplier engagement programs are critical for improving data quality and ensuring alignment with organizational ESG goals.**



Supplier Engagement Across Industries



Industries like Manufacturing & Engineering (17%) and Aerospace & Defence (3%) rely heavily on global supply chains, making supplier engagement essential. Programs that incentivize suppliers to adopt sustainable practices, such as training or financial incentives, can improve data accuracy and reliability.



In Real Estate & Infrastructure (7%), engaging suppliers to provide detailed emissions data is key to meeting Scope 3 reporting requirements. Similarly, Food, Beverage & FMCG (3.5%) companies can work with suppliers to ensure transparency in sourcing and reduce environmental impact.

Strategies for Effective Engagement



Training and Support: Provide suppliers with the tools and knowledge to collect and report data effectively.



Incentives for Sustainability: Offer financial or operational incentives for adopting sustainable practices.



Collaboration on Standards: Work with suppliers to align on reporting frameworks and establish shared goals.

Geographic and Revenue Considerations

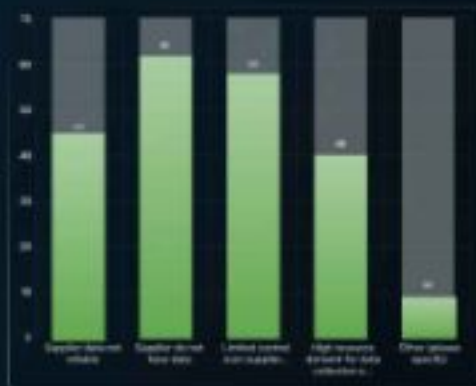


Organizations in the EU (51%) are more likely to adopt supplier engagement programs due to regulatory requirements, while those in the US (46%) may focus on supplier engagement to meet investor and consumer expectations.



Revenue also plays a role. **Larger organizations in the \$6–\$10 billion range (13%)** have the resources to implement comprehensive supplier programs, while **smaller companies in the \$0–500 million range (20%)** can start with targeted initiatives for high-impact suppliers.

The biggest challenge with supplier data for ESG reporting





Methodology and About the Research

Research Approach

This report is based on a comprehensive research study designed to explore the state of Environmental, Social, and Governance (ESG) management and technology adoption. The study aimed to uncover the challenges, opportunities, and strategic priorities faced by organisations across industries, geographies, and revenue brackets. Combining quantitative survey data with qualitative analysis, the research provides actionable insights for businesses navigating the complex ESG landscape.

Research Objectives

The primary goals of the research were:

- To identify critical pain points in ESG management, including integration challenges, data quality issues, and compliance pressures.
- To analyze technology trends, focusing on automation, AI, real-time reporting, and predictive analytics.
- To highlight industry-specific dynamics influencing ESG priorities and investment decisions.
- To deliver actionable insights for organizations looking to enhance their ESG strategies and align with regulatory and stakeholder expectations.

These objectives guided the design and execution of the research, ensuring the findings are relevant and practical for decision-makers across diverse organizational contexts.

Survey Design and Data Collection

The research was conducted through a digital survey consisting of 15 questions, combining multiple-choice, Likert-scale, and open-ended formats to ensure a balanced collection of quantitative and qualitative data. The survey was distributed via email and targeted outreach to professionals actively involved in ESG management, reporting, or technology adoption. It remained open for responses over 30 days to capture a robust and diverse sample.

Validation and Quality Control

To ensure the reliability of the data:

- The survey was pre-tested with a pilot group to refine clarity and structure.
- Responses were reviewed for consistency, and incomplete or contradictory submissions were excluded.
- Quantitative data was cross-referenced with qualitative responses to validate trends and provide richer insights.



Survey Demographics

The study captured responses from 114 participants, representing a wide range of industries, geographies, and organizational sizes. This diversity enriches the findings and ensures their applicability across different contexts.

01

Geographic Distribution



United States (US): 49%

Respondents from the US emphasized the importance of aligning ESG strategies with evolving state and federal regulations and stakeholder demands.



European Union (EU): 51%

EU respondents highlighted the challenges of complying with stringent regulatory frameworks like the Corporate Sustainability Reporting Directive (CSRD) and addressing complex supply chain requirements.

02

Revenue Brackets



\$6–\$10 Billion: 13%

These organizations face unique challenges integrating legacy systems with modern ESG tools and managing multi-regional operations.

\$1–\$5 Billion: 42%

The largest group of respondents came from mid-sized organizations, focusing on scalable ESG solutions.

Other Revenue Brackets ranging from 0 - \$60 Billion: 24% (excluding anonymous)

This group included organizations with varying levels of ESG maturity and technological readiness.

\$0–500 Million: 20%

Smaller organizations often operate with limited resources but are exploring modular ESG solutions to meet foundational requirements.

03

Industry Representation

The survey covered a wide spectrum of industries, highlighting their unique ESG challenges and priorities:



BFSI: 17%

Focused on climate risk modeling and aligning ESG strategies with regulatory compliance.



Manufacturing & Engineering: 17%

Emphasized supply chain sustainability and emissions tracking.



Real Estate & Infrastructure: 7%

Prioritized energy efficiency and emissions reporting.



Other sectors, including Healthcare & Hospitals (5%), Food, Beverage & FMCG (3.5%), and Utilities (3.2%), provided insights into sector-specific ESG needs.



Data Analysis Methods

The collected data was analyzed using a combination of descriptive and inferential statistical methods. Key approaches included:

Descriptive Analysis: Used to identify trends such as the percentage of respondents prioritizing real-time reporting or struggling with data accuracy.

Inferential Techniques: Applied to uncover relationships between variables, such as revenue size and investment in ESG technology.

Qualitative Coding: Open-ended responses were thematically coded to extract insights into emerging priorities and challenges.

These analytical methods provided a comprehensive understanding of the ESG landscape, capturing both macro-level trends and nuanced perspectives.

Research Contributors

The research was conducted with contributions from experts across multiple domains:

ESG Specialists: Provided insights into sustainability frameworks, regulatory compliance, and industry best practices.

Data Analysts: Ensured the accuracy of survey results through rigorous statistical analysis and validation processes.

Industry Experts: Added depth to the findings by sharing real-world experiences and sector-specific challenges.

The collaboration of these contributors ensured the findings are both robust and actionable, reflecting the needs and realities of diverse organizations.

The Organization Behind the Research

The survey was conducted by a global organization dedicated to advancing ESG practices and supporting businesses in their sustainability journeys. With a mission to bridge the gap between ESG ambitions and execution, the organization provides cutting-edge solutions, including:

- Integrated platforms for ESG data management and reporting.
- AI-driven tools for analytics, automation, and predictive insights.
- Real-time reporting capabilities to enhance decision-making and compliance.

The organization combines sustainability expertise with technological innovation to address the most pressing ESG challenges, empowering businesses to achieve their goals while driving long-term value creation.

Scope and Limitations

The research was designed to provide a holistic view of ESG management across industries and regions. While the findings offer valuable insights, certain limitations should be acknowledged:

Sample Size: The survey captured data from 114 respondents, which, while robust, may not fully generalize to all industries or regions.

Geographic Focus: The US (49%) and EU (51%) were the primary regions represented, potentially limiting applicability to other markets.

This appendix provides a summary of the key data points and insights derived from the survey.

01 Key Survey Findings

- **Integration Challenges:** 46.85% of respondents reported minimal or no integration between ESG platforms and other business systems.
- **Manual Processes:** 28.07% of organizations continue to rely on spreadsheets for ESG reporting.
- **Data Quality Issues:** 55.26% of respondents cited data accuracy and verification as a major challenge.
- **Real-Time Reporting:** 43.10% identified real-time data updates as a critical feature for ESG tools.
- **AI and Analytics:** 37.11% highlighted predictive analytics as a priority for future investments.
- **High Costs:** 45.19% of respondents indicated high implementation costs as a barrier to ESG technology adoption.

02 Demographic Breakdown

- **Geography:** 58% of respondents were from the United States, and 42% were from the European Union.

Revenue Brackets:

- \$1-\$5 Billion: 42%
- \$6-\$10 Billion: 13%
- \$0-500 Million: 20%
- Other Revenue Brackets: 24% (excluding anonymous)

Industries Represented:

- BFSI: 17%
- Manufacturing & Engineering: 15%
- Real Estate & Infrastructure: 8%
- Healthcare & Hospitals: 5%
- Others: Diverse industries such as Utilities (2.3%), Oil & Gas (2.3%), and Telecommunications (2%).

Appendix B: Detailed Survey Results

This appendix provides a summary of the key data points and insights derived from the survey.

01 ESG Tools and Platforms Usage

- 63.16% use ESG metrics and reporting platforms.
- 46.49% use carbon accounting/calculation software.
- 24.36% use product carbon footprint assessment tools.
- 17.54% rely on supply chain sustainability software.
- 8.77% reported no ESG tools in use.

02 Challenges in ESG Reporting

- Data collection and management: 60.53%
- Compliance with multiple standards: 32.46%
- Emission calculations: 18.42%
- Supply chain tracking: 55.24%
- Data verification: 55.26%





03 Time Spent on Manual Reporting

- Less than 2 weeks: 13.44%
- 3-6 weeks: 27.08%
- 7-10 weeks: 24.04%
- More than 10 weeks: 34.62%

04 AI-Driven ESG Adoption

- Extensively used: 2.63%
- Partially adopted: 28.95%
- Planning to adopt: 38.60%
- No plans: 29.82%

Appendix C: Glossary of ESG Terms

- **ESG (Environmental, Social, and Governance):** A framework for evaluating a company's sustainability and ethical practices.
- **GRI (Global Reporting Initiative):** A widely used standard for sustainability reporting.
- **SASB (Sustainability Accounting Standards Board):** A framework that identifies sustainability topics likely to impact financial performance.
- **TCFD (Task Force on Climate-related Financial Disclosures):** Recommendations for disclosing climate-related risks and opportunities.
- **Scope 1, 2, 3 Emissions:** Categories of greenhouse gas emissions:
 - **Scope 1:** Direct emissions from owned or controlled sources.
 - **Scope 2:** Indirect emissions from the generation of purchased electricity.
 - **Scope 3:** All other indirect emissions in the value chain, including supplier emissions.
- **CSRD (Corporate Sustainability Reporting Directive):** An EU regulation mandating enhanced sustainability disclosures for companies.

Appendix D: Additional Resources

Key Frameworks and Standards Referenced: GRI, SASB, TCFD, and CSF reporting guidelines.

Links to Further Reading:

[See AI for ESG Data Management](#)

[From Compliance to Competitiveness: The CSO's Journey to Strategic Value](#)