

Breaking Chains, Building Sustainably:

Overcoming supply chain barriers

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Introduction

As global supply chains grow in complexity, companies worldwide increasingly recognize the importance of managing risk and proactively identifying and addressing the issues that are critical for ensuring resilient and effective business operations.

Geopolitical turmoil, rapid regulatory changes, changing stakeholder expectations, and the rise of social issues (e.g., forced labor), among many other issues, are all contributing to a rapidly evolving landscape. Integrating sustainability, building resilience, increasing transparency and accountability will all be key to effectively adapting to this new environment, overcoming challenges, and managing risk.

This briefing provides a firsthand view of how supply chain leaders in the technology industry, including **Dell, Intel, Microsoft, and Sage**, have worked to incorporate sustainability into their supply chains. Through our interviews with these organizations and two additional technology companies, we identified the main barriers they face and the solutions that they and other companies have implemented to drive change and achieve success.

A shortage of available resources, navigating the quickly evolving regulatory and disclosure landscape, managing partnerships with suppliers, and managing stakeholder pressure are among the top challenges that prevent companies from accelerating progress. Although this briefing focuses specifically on the technology sector, the insights and recommendations apply to many other industries.



Barriers to building sustainable supply chains and solutions to overcome them

Companies operating in the technology sector face a myriad of challenges as they seek to establish and maintain environmentally and socially responsible supply chains. Reducing GHG emissions and transitioning to clean energy sources, reducing and eliminating waste and biodiversity impacts (e.g., preventing deforestation and decreasing water usage), and ensuring worker health and safety across all supply chain tiers, are among the most material areas that technology companies are working to address through their sustainability initiatives.

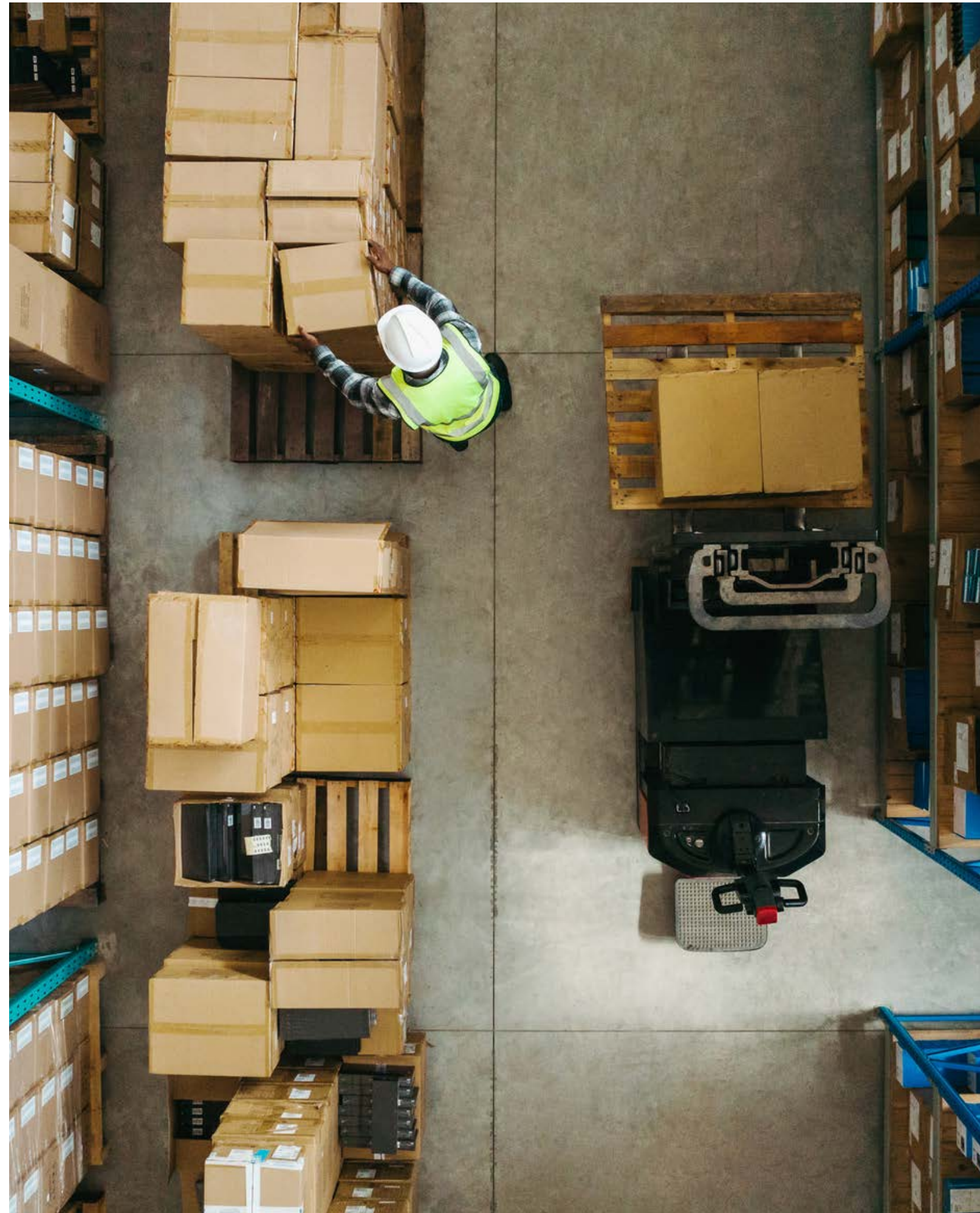
Disclosure on material issues and performance is critical to advancing sustainability. Fortunately, there is a growing body of guidance that companies can turn to for support. For example, the Organisation for Economic Co-operation and Development (OECD) provides Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (CAHRA) to help companies with human rights concerns. Technology companies, like Microsoft, have used these recommendations to develop strong company policies as seen in their Supply Chain Human Rights Policy Statement.¹



50 %

of supply chain leaders described their supply chains as “complex”. The next most frequently used terms were “mature” and “maturing”, “dynamic”, “responsive”, and “multi-tiered”.

Despite the significant progress technology companies have made increasing the sustainability of their supply chains, much more remains to be done. And the pressure is only increasing with heightened awareness of the technology sector’s ecological footprint (e.g., GHG emissions, water and resource usage, etc.) and social impacts (e.g., employee safety, community impacts, etc.).



Based on our discussions with supply chain leaders at six companies, including Dell, Intel, Microsoft, and Sage, **we distilled five areas that present the greatest barriers to improving the sustainability of supply chains:**

- 1  **Keeping pace with regulatory requirements**

- 2  **Navigating the rising pressure of stakeholder demands**

- 3  **Tackling the shortage of skilled supply chain professionals**

- 4  **Overcoming supplier maturity and capability challenges**

- 5  **Eliminating waste and reducing water consumption**

Barrier 1

Riding the wave of the regulatory evolution

Keeping pace with regulatory demands

The proliferation of supply chain transparency and accountability regulations at an international scale has overwhelmed supply chain managers as they navigate compliance requirements that differ across geographies.

Regulations such as the EU’s Corporate Sustainability Due Diligence Directive (CSDDD) and Corporate Sustainability Reporting Directive (CSRD), the German Supply Chain Due Diligence Act, and the EU Conflict Minerals Regulation signify a heightened emphasis on accountability, transparency, and responsible business conduct throughout supply chains.

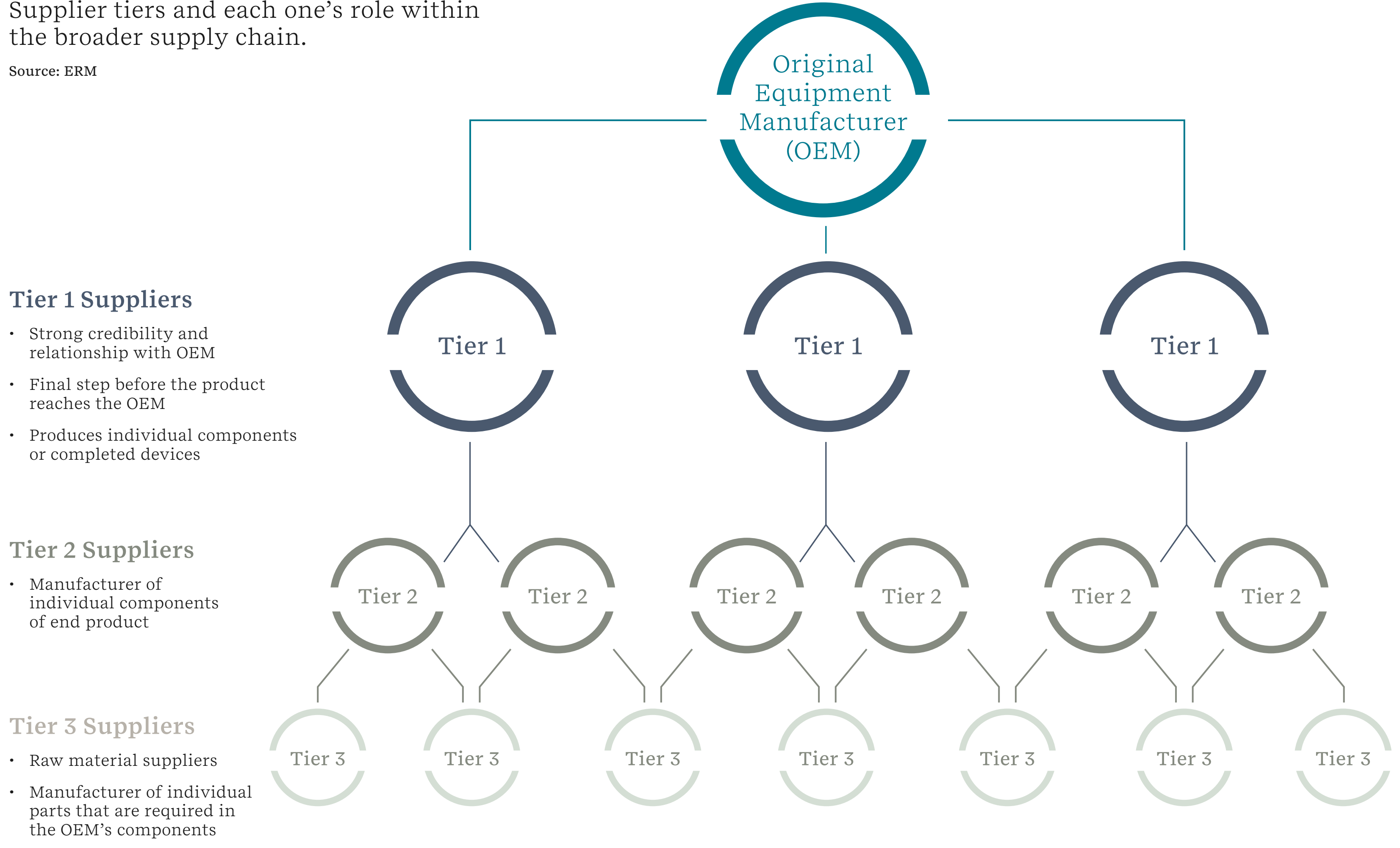
For instance, the German Supply Chain Act requires companies to analyze human rights risks in their supply chain, take preventative and rectifying measures, establish grievance mechanisms, and report on their activities and progress. The EU Conflict Minerals Regulation mandates that companies importing tin, tantalum, tungsten, and gold into the EU must conduct thorough due diligence on their supply chains. This involves extensive risk assessment and mitigation as well as disclosing the countries of origin of the minerals, smelters, and refiners in the supply chain. This is to ensure that these minerals are responsibly sourced and do not support conflict or human rights violations.

While regulations are crucial for promoting transparent and ethical business practices, the broad and binding nature of these requirements has proven difficult to navigate. Compliance often necessitates extensive data collection and a thorough understanding of who a company’s suppliers are as mapping supply chains beyond Tier 1 suppliers is challenging for many companies (see Figure 1 below).²

Figure 1: Supplier Tiers

Supplier tiers and each one’s role within the broader supply chain.

Source: ERM



Evolving regulations often require increased transparency and detailed reporting on sustainability metrics. This places an immense burden, particularly of time and cost, on organizations to collect, manage, and disclose a vast amount of data related to their supply chain activities. The lack of standardized reporting frameworks and the need for comprehensive data can be time-consuming and resource intensive. Adapting to

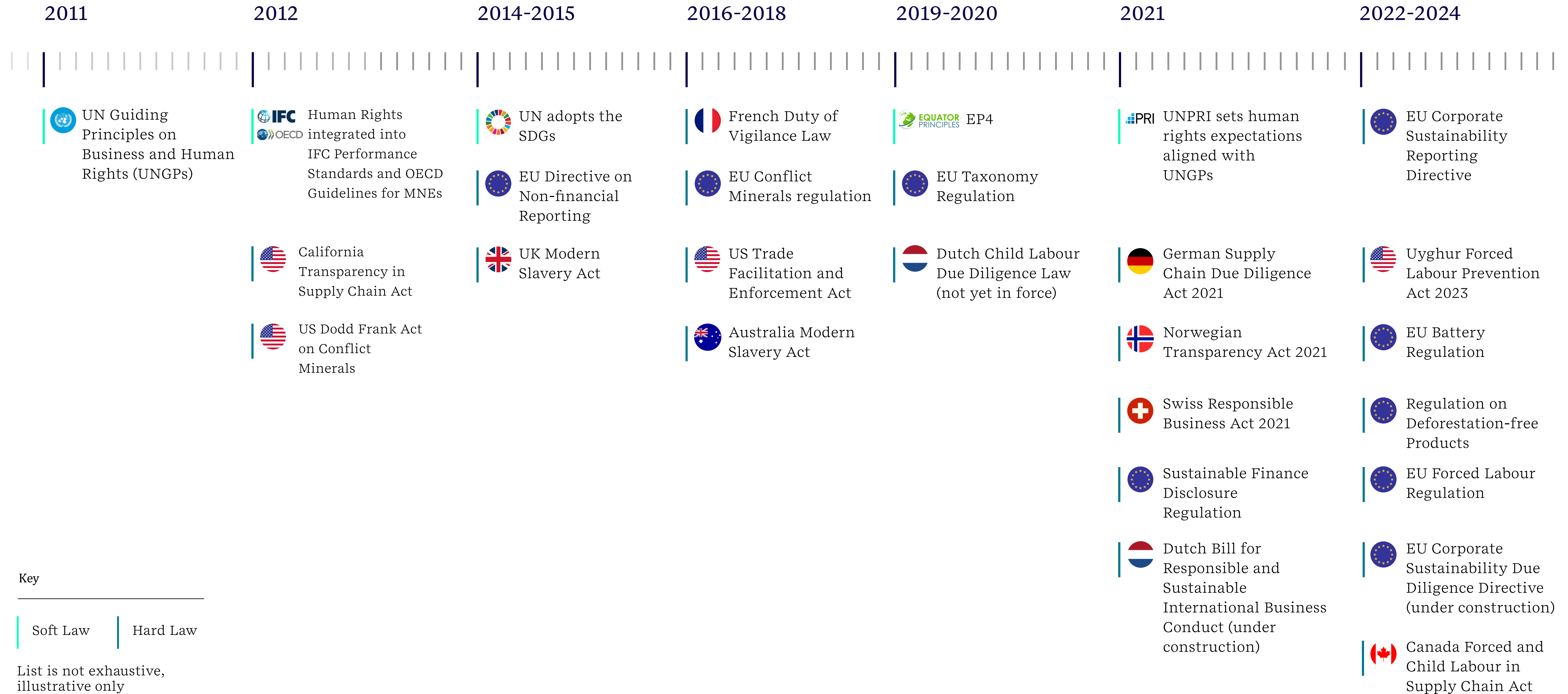
new or updated regulations often requires significant investments in compliance-related activities, such as monitoring, reporting, and auditing. For businesses, especially smaller ones with limited resources, the costs associated with understanding and adhering to evolving sustainability regulations can be a substantial barrier.

Failing to keep up and comply with regulations poses risks such as legal penalties, reputational damage, and loss of market access, which may impact their license to operate.

Figure 2 below illustrates the steady increase in supply chain regulations across many geographies since 2011.

Figure 2:
A steady increase in supply chain regulations across geographies since 2011

Source: ERM



Recommendations

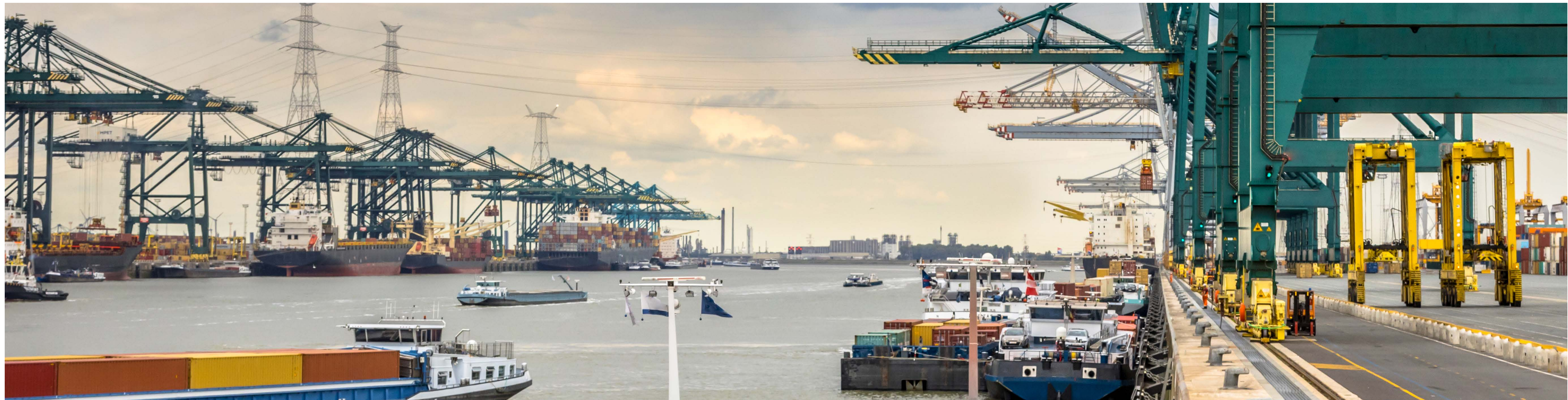
Managing evolving regulations and disclosure requirements is crucial for corporations to ensure compliance, mitigate risks, and create or maintain a sustainable operation.

Developing a robust compliance management system that includes automated tracking, regular audits, and meticulous documentation of detailed records is essential. Continuous monitoring and reporting through environmental management systems (EMS), such as ISO 14001, alongside real-time monitoring and comprehensive reporting tools, will help maintain regulatory compliance.

Also, staying informed on regulatory changes by joining industry associations and subscribing to regulatory update services allows one to stay informed of upcoming changes. Companies can adapt more swiftly by leveraging digital solutions for data management, compliance tracking, and reporting, which will also streamline these regulatory management processes, ensuring efficiency and accuracy.

In addition to compliance, developing a robust corporate sustainability program is imperative. This includes initiatives focused on environmental sustainability and actively engaging employees in these programs. Establishing and publicly committing to sustainability goals that align with or exceed regulatory requirements such as the Global Reporting Initiative (GRI) enhances transparency and accountability.

Further, engaging external stakeholders through partnerships and industry groups fosters collaboration and shared responsibility. Integrating these practices into the corporate strategy not only ensures compliance but also enhances the company's reputation and operational efficiency, positioning the company as a leader in sustainable business practices.



Barrier 2

Facing the heat of stakeholder demands

Navigating expectations from regulators, consumers, and NGOs

Businesses are facing mounting external pressure from a variety of stakeholders. The interviews conducted for this report found that at present, most companies find that the greatest external pressure comes from regulatory bodies, followed by customers and non-governmental organizations (NGOs). Investors and eco-label organizations were also noted for exerting particularly high pressure and for often submitting requests for companies to continuously provide more data and increase transparency.

Eco-labels, such as Fair Trade and Rainforest Alliance, require adherence to stringent environmental and social standards and companies must regularly provide detailed compliance data to maintain certification. Additionally, NGOs, including Greenpeace and WWF, often campaign for greater corporate responsibility and transparency, highlighting lapses and advocating for stricter regulations. Furthermore, a global survey of consumers found that 78 percent of consumers are now more inclined to purchase from companies that demonstrate clear sustainability practices, further driving companies to be more transparent in their ESG efforts.³

As discussed in Barrier 1, evolving regulations have prompted companies to adapt their operations and implement transparency measures to ensure they are meeting requirements. This pressure is set to intensify as new regulations such as the CSRD and CSDDD, both of which have a strong emphasis on traceability and

transparency within the supply chain, take full effect. While the CSDDD is expected to apply to around 5,500 companies, the CSRD covers approximately 50,000 companies.⁴

As a result, corporations are tasked with continually enhancing their data collection and reporting processes to meet these escalating demands ensuring their operations align with the growing expectations of all stakeholders involved.

“ In the future, transparency will be crucial for companies’ success. Many companies are reluctant to reveal their suppliers, and some countries restrict sharing such information. **Supply Chain Leader, Global Technology Company** ”

Recommendations

Supply chain transparency is an indispensable cornerstone for sustainable practices within the technology sector as it serves as the foundation upon which meaningful environmental and social progress can be built. Without comprehensive visibility into their supply chains, companies find themselves navigating blind spots that impede their ability to understand and manage the sustainability implications of their operations. Companies that lack transparency are unable to determine crucial information regarding elements like the origin of raw and critical materials, the conditions under which products are manufactured, and the impact of their supply chain activities on communities and ecosystems. Consequently, the absence of these

vital insights severely constrains companies’ capacity to exert influence or enact meaningful improvements toward sustainability goals. Embracing supply chain transparency not only empowers companies to identify areas for enhancement but also fosters accountability, enabling stakeholders to hold companies to higher standards and driving collective efforts toward a more responsible, ethical, and resilient industrial landscape.

Through various evaluation methods and criteria, OEMs are scrutinizing suppliers and their practices to gain greater transparency and to ensure alignment with sustainability goals and mitigate the risks associated with non-compliance.

One of the most common ways OEMs assess their suppliers is through their Carbon Disclosure Project (CDP) responses and other external scoring platforms; and this approach is most often used after the supplier onboarding process has been completed. OEMs can leverage information that has already been collected and reduce survey fatigue in the process.

Additionally, supply chain leaders at OEMs said that one of the most useful resources for transparency is supplier engagement platforms. The next page highlights the most highly recommended supplier engagement platforms.



Supplier Engagement Platforms for Resource Sharing

Supply chain leaders at Original Equipment Manufacturers (OEMs) said that one of the most useful resources is supplier engagement platforms for resource sharing. The following platforms in particular were recommended:



The Responsible Business Alliance (RBA)

The RBA is a nonprofit comprised of electronics, retail, auto, and toy companies committed to supporting the rights and well-being of workers and communities worldwide affected by global supply chains. The RBA has over 500 members with combined annual revenues of over \$7.7 trillion. RBA members utilize a range of RBA training and assessment tools to support continuous improvement in the social, environmental, and ethical responsibility of their supply chains.

The Responsible Minerals Initiative (RMI)

The RMI provides a variety of tools and resources to support companies in making informed decisions about responsibly sourced minerals in their supply chains. RMI's program areas include the Responsible Minerals Assurance Process (RMAP), Conflict Minerals Reporting Template (CMRT), due diligence guidance, and stakeholder engagement.

SAP Ariba Supply Chain Collaboration (SCC)

SCC is a cloud-base software solution that gives suppliers the ability to collaborate on and automate procurement transactions on a single networked platform, improving visibility, quality control, and management.

E2open

E2open is a supply chain software platform that connects more than 400,000 manufacturing, logistics, channel, and distribution partners as one multi-enterprise network. The platform anticipates disruptions and opportunities to help companies improve efficiency, reduce waste, and operate sustainably.

o9 Solutions

o9 Solutions is a cloud-based business management platform for supply chain visibility, analytics, planning, and collaboration. o9 offers an AI powered planning, analytics and data platform called the Digital Brain that helps companies across industry verticals transform traditionally slow and siloed planning into smart, integrated, and intelligent planning and decision-making across the core supply chain, commercial, and profit and loss functions.

Barrier 3

Addressing the talent crunch

Tackling the shortage of skilled supply chain professionals

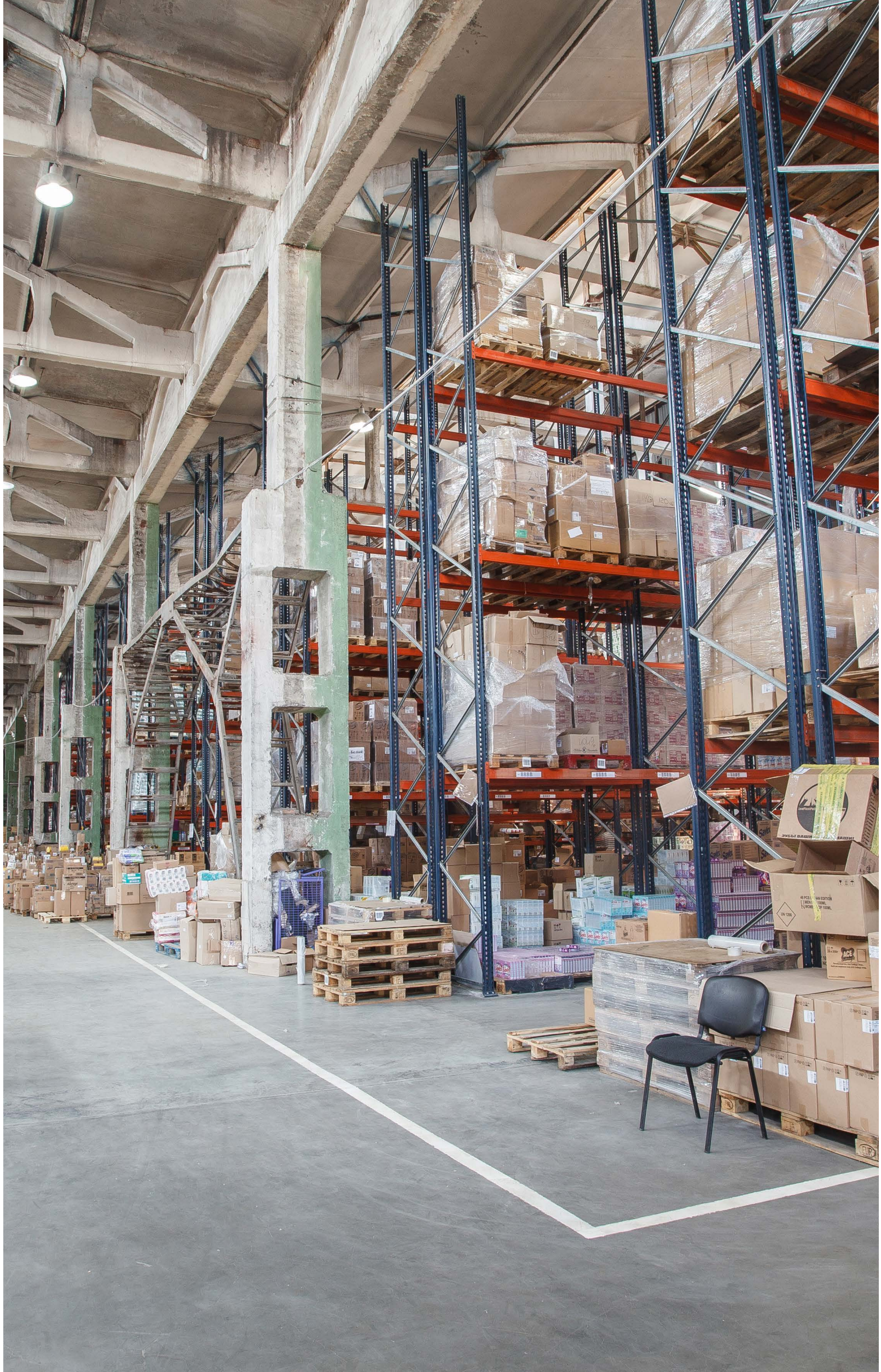
One of the most common barriers that companies encounter is the shortage of available resources and trained employees to work with suppliers on incorporating sustainability into their operations.

In fact, 67 percent of the companies we surveyed noted this resource shortage as their key challenge. Within the past few years, many technology companies have downsized, leading to a shortage of personnel who are experienced in working with original equipment manufacturers (OEMs). A 2023 Descartes survey found 76 percent of supply chain and logistics organizations are experiencing notable workforce shortages within their operations and over half of the organizations are unable to fill critical knowledge worker roles, like analysts, as operations become more technical.⁵ A lack of resources tends to be a greater issue at the supplier level, as suppliers do not always have dedicated staff to work on sustainability initiatives and are overwhelmed with other customer demands.

Supply chain professionals can directly impact an organization’s sustainability efforts only if they receive education and training on how to do so. Limited awareness of how to create a more sustainable supply chain, coupled with traditional education systems that may not prioritize these topics, can contribute to a lack of foundational knowledge in supply chain management.

“Collecting and calculating Scope 3 GHG emissions is a skill that suppliers and their employees may not have. How can we expect our suppliers to reduce their GHG emissions if they don’t even know where to start?”
Supply Chain Leader, Global Technology Company

Additionally, budget constraints within organizations may hinder the implementation of comprehensive training programs, leaving professionals without the necessary tools to integrate sustainability into their roles. Budget constraints may also limit the ability of OEMs to purchase the technology required for traceability initiatives. The dynamic nature of supply chains may also result in a focus on immediate operational needs, leaving sustainability education low on the priority list. The size of the supplier can also correlate with the number of supply chain management personnel and whether they have the time, training, or resources to meet customer sustainability requirements.



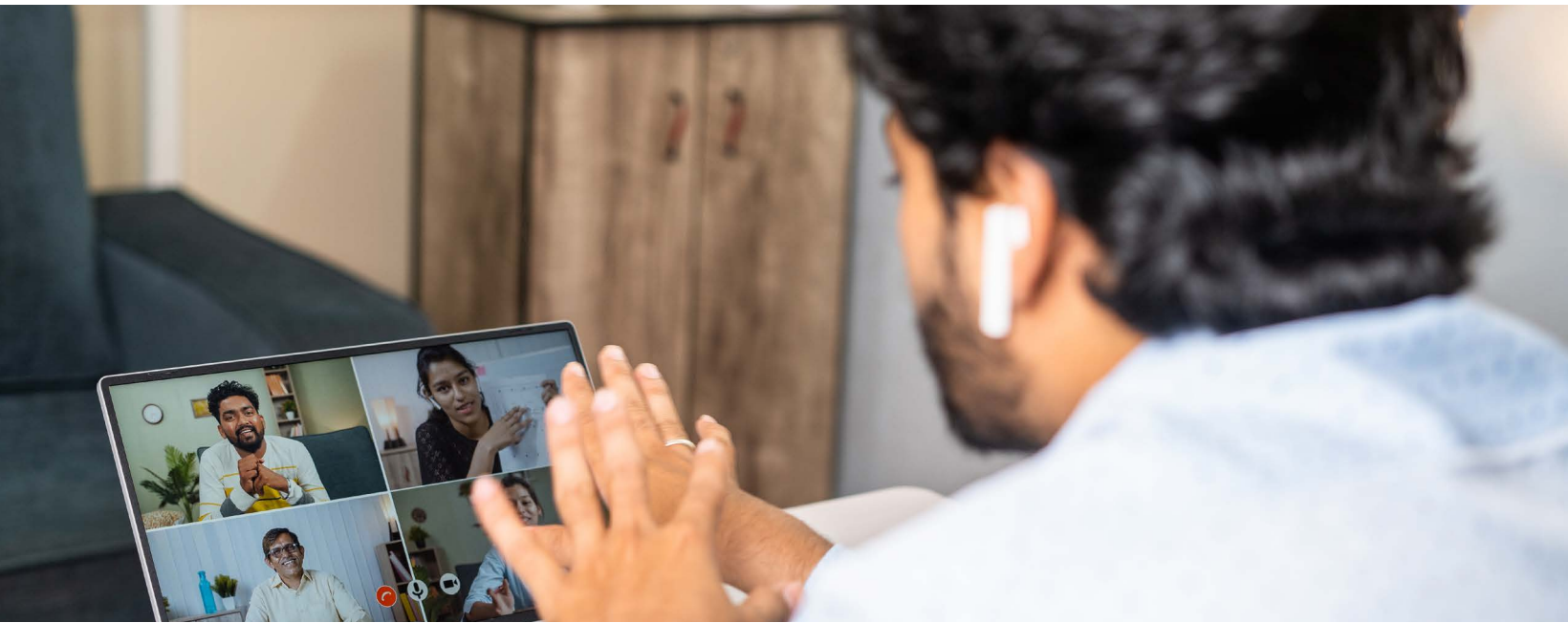
67 %

of companies face a shortage of available resources and trained employees to work with suppliers on incorporating sustainability.

Recommendations

Training suppliers and employees on sustainability initiatives has proven to be a pivotal factor in driving successful supply chain operations and fostering a culture of awareness, accountability, and action. As companies' employees become equipped with better knowledge about sustainable supply chain principles, they not only gain a deeper appreciation for environmental and social sustainability but also feel empowered to contribute more actively toward the company's sustainability goals. Through training, employees are more likely to feel equipped to engage suppliers in sustainability initiatives, fostering partnerships aimed at driving change throughout the supply chain.

This increased emphasis on sustainability not only enhances the company's reputation and competitiveness but also cultivates a sense of purpose among employees. For example, Microsoft has utilized its LinkedIn Learning platform to deliver 11 new courses for members, including their employees, to build in-demand sustainability skills. These courses include topics such as Sustainable and ESG Supply Chains, How Tech Drives Sustainability, and Introduction to ESG, among many others.⁶



Taking sustainability training one step further into the supply chain, technology companies are providing training and resources for their suppliers as well. These knowledge and skills-building efforts are helping companies like Dell proactively address social and environmental risks. For instance, Dell invests in the following efforts:⁷



Factory consultations

Dell specialists collaborate directly with supplier factories to enhance monitoring and mitigate risks, with engagements tailored to facilitate long-term improvements.



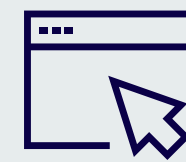
Company-led training and webinars

Dell utilizes its expertise in digital tools to organize training sessions, roundtable discussions, webinars, and virtual networking events tailored to supplier management, fostering connections, exploring sustainability trends and risks, and sharing best practices.



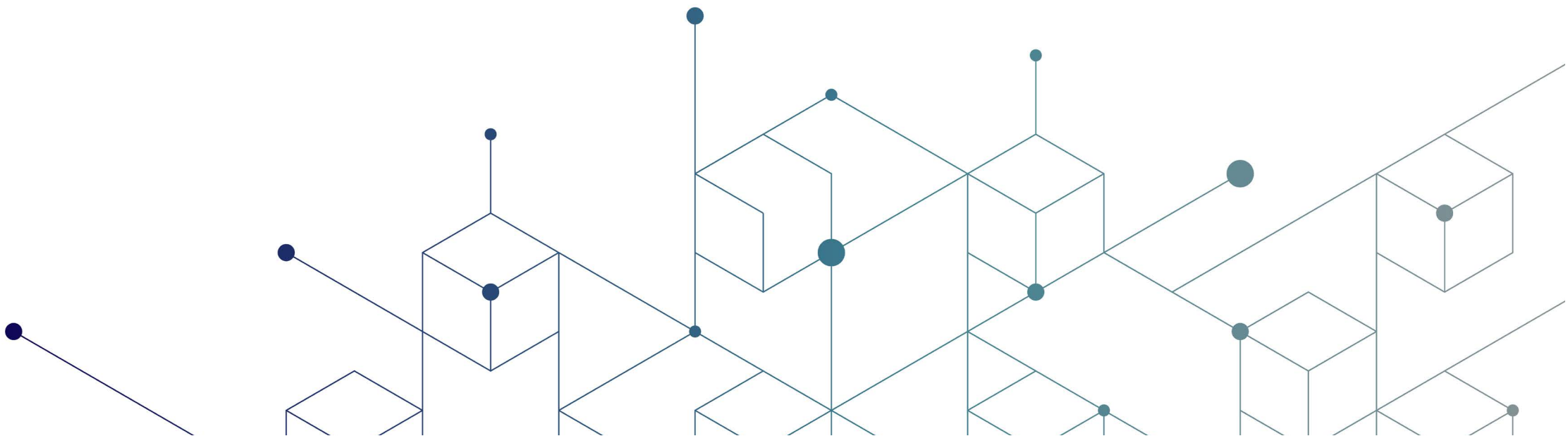
Self-paced online training

The company has created online training programs (offered in multiple languages, including on mobile devices) to promote proactive learning, performance improvement, and corrective action. In Dell's 2023 financial year, 668 factories were able to access over 326 training sessions.



Dell-developed tools and resources

Recognizing that not all suppliers have the resources and experience to develop a strong sustainability management framework, Dell has developed additional tools, such as its online Frequently Asked Questions Library and Q&A for RBA Audits to more seamlessly provide quick and accurate support.



Barrier 4

Bridging the maturity gap

Overcoming supplier maturity and capability challenges

The maturity of suppliers can impact the integration of sustainability into the supply chain in many ways. The most critical capabilities for advancing sustainability initiatives include operational efficiency, quality management, compliance with standards and regulations, technological sophistication, financial stability, the implementation of sustainable practices, and overall effectiveness in meeting a company’s needs and expectations.

Suppliers with limited maturity may lack awareness of the environmental and social issues associated with their operations, and the importance of addressing them. This can make it challenging for OEMs to engage them in sustainable practices or to convince them of the importance of integrating sustainability into the supply chain. Suppliers with lower maturity levels may also be resistant to change, especially if implementing sustainable practices require financial investments or changes to their existing processes. They are more likely to prioritize short-term cost savings over long-term sustainability benefits. Similar to an OEMs shortage of available resources, suppliers may lack the resources, expertise, or capabilities to implement sustainable practices effectively. Most often, Tier 2 suppliers and those further down the supply chain are not staffed to manage sustainability but instead are focused on complying with Environmental Health and Safety (EHS) and International Organization for Standardization (ISO) standards.

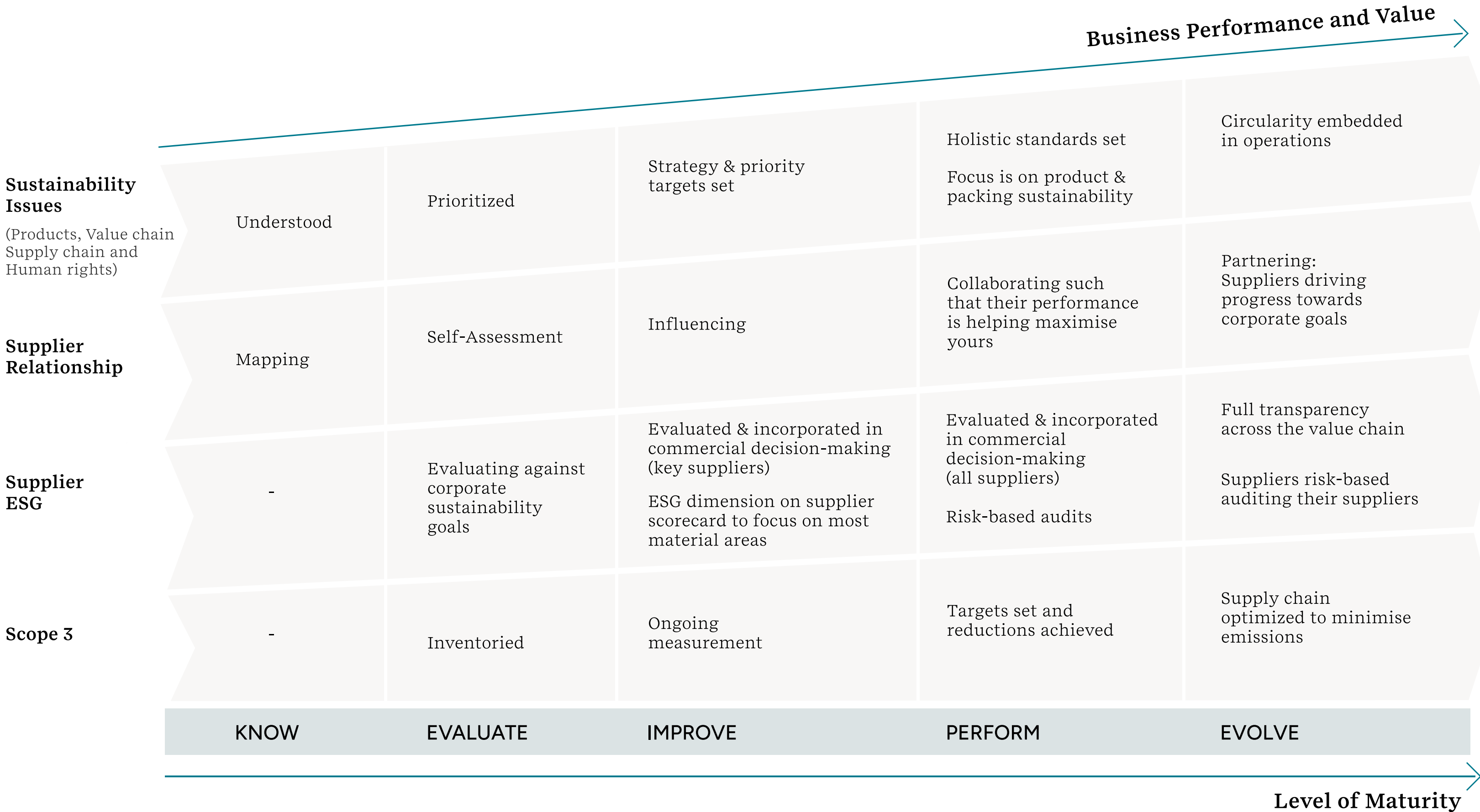
Figure 3 below shows the sustainable supply chain maturity curve which illustrates the evolutionary journey of companies toward achieving sustainability within their supply chains. The curve consists of several stages which each represent increasing levels of sustainability

integration and sophistication. The stages include compliance, risk management, efficiency improvements, maturity of collaboration, innovation, and leadership in sustainability practices.

Figure 3: Sustainable Supply Chain Maturity Curve

The supply chain maturity curve illustrates the evolutionary journey of companies toward achieving sustainability within their supply chains.

Source: ERM



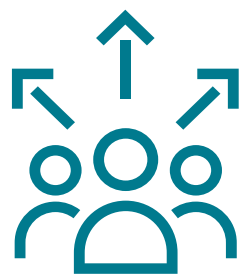
Recommendations

A technology company’s relationship with its suppliers is of utmost importance and has a major impact on the success of its sustainability initiatives. As supply chains grow increasingly complex and interconnected, collaboration with suppliers is essential for driving innovation, mitigating risks, and achieving shared sustainability goals, especially as previously used practices, like auditing, become less effective. The success rate of initiatives is intricately linked to the depth and quality of engagement between companies and their suppliers. By working closely together, companies and suppliers can leverage their combined resources, expertise, and influence to overcome challenges, seize opportunities, and deliver impactful outcomes.

Through collaborative efforts, such as joint research and development, knowledge-sharing, and co-investment in sustainable practices, companies and their suppliers can enhance efficiency and catalyze positive change across the entire supply chain. In this deeply interconnected system, fostering strong, transparent, and mutually beneficial relationships with suppliers is a cornerstone for driving collective successes and advancing the industry toward a more sustainable and resilient future.

One way OEMs have found success in managing and implementing sustainability in their supply chain is by using scorecards for their suppliers. Our survey found that 33 percent of technology companies mentioned scorecards as a recent successful initiative implemented to support their sustainable supply chain goals.

The scorecards enable OEMs to track sustainability initiatives their suppliers are implementing and create accountability for both the supplier and OEM. Scorecards typically fall into one of three categories – categorical, weighted point, or cost-based performance. Most OEMs use a weighted point system that includes a variety of performance categories such as due diligence, sustainable procurement, ESG engagement, and Scope 3 emissions. The following page shares best practices for developing and using scorecards.



33 %

of technology companies mentioned scorecards as a recent successful initiative implemented to support their sustainable supply chain goals.

“ People outside the audit sphere say that auditing suppliers is not effective or no longer trustworthy. We need to start thinking smarter, not harder. Auditing should be meaningful and material to both the OEM and supplier, and not just a ‘tick box’ exercise. That means being able to adapt our auditing processes in real-time with the supplier and making it a collaborative process. **Supply Chain Leader, Global Technology Company** ”

Scorecard best practices

The measurement system should allow scoring flexibility.

Scorecards should be directly aligned with the outcomes sought from doing business with the supplier and the OEM’s goals, and thus will not be a “one size fits all” approach. Allowing adjustments to performance categories and their weights depending on the supplier will help to more accurately measure a supplier’s performance.

Scorecards should be reviewed and acknowledged by suppliers’ executives.

Sharing the scorecards with executive managers ensures they have access to important information that may not always be shared with them and allows them to see firsthand where improvements could be made.

Utilize real-time updates.

Replacing the most common practice of periodic manual data input, which is inefficient, with a system allowing OEMs and suppliers to update and monitor performance in real-time, can make scorecards significantly more effective. For instance, this would involve seamlessly integrating transaction data such as quality audits or accounts payable into the scorecard database for immediate supplier performance updates.

Allow suppliers to view and compare their performance against peers.

Even if OEMs are not willing to share the names of the other suppliers they use, allowing suppliers to view their performance against others in the same commodity group can help create healthy competition and drive growth and innovation.



The figure below shows an example scorecard, including the categories, criteria, and weighted score.

Figure 4: A scorecard example depicting the various categories, criteria, and sample scoring

Level of Maturity	Category	Criteria	Weight	Score	Overall Score
Evolve	Fundamentals	Regularly review policies and continuous improvement	20%	5	2.35
	Supply Chain Due Diligence	Suppliers have risk-based program for their suppliers	20%	3	
	Sustainable Procurement	Annual review and continuous improvement of sustainable procurement strategy	20%	1	
	Supplier ESG	Suppliers are driving progress towards company corporate ESG goals	15%	3	
	Scope 3	Supply chain optimized to minimize emissions; on track to meet reduction targets	10%	1	

Barrier 5

Tackling increasing environmental demands

Eliminating waste and reducing water consumption

Addressing environmental issues is critical for increasing and ensuring sustainability of supply chains. The most material environmental issues for technology companies include the sourcing of critical raw materials, waste management, minimizing emissions, improving water conservation, and ensuring compliance with environmental regulations.

The technology sector faces significant challenges in sourcing critical raw materials for electronics and batteries due to increasing demand and resource scarcity, resulting in price volatility.⁸ A United Nations report states that the extraction of raw materials is expected to increase by 60 percent by 2060.⁹ Efforts to produce products more ethically and sustainably are underway but will come at a cost to consumers. The extraction of raw materials and the expansion of infrastructure by technology companies often lead to significant biodiversity loss and disruption of ecosystems, including deforestation, habitat destruction, and pollution. Waste management is another key concern for technology companies, especially pertaining to products at the end of their life. Electronic waste (or e-waste) often contains hazardous materials like lead, mercury, and cadmium, which can then contaminate soil and water. Properly disposing of and recycling e-waste is difficult due to the complex mix of materials in technology products, with only a small percentage currently being recycled. A report by the United Nations' Global E-waste Statistics Partnership found that by 2022, the world had generated

approximately 136 billion pounds of e-waste, while only 22.3 percent was documented as properly collected and recycled.¹⁰ Additionally, technology companies are significant contributors to greenhouse gas emissions, with their data centers and manufacturing operations accounting for substantial CO₂ output. In particular, AI is a significant contributor to CO₂ emissions due to the substantial energy consumption required for training and operating large-scale models. This high energy demand is a key reason technology companies are struggling to meet their climate targets.

For companies in this sector, a key concern related to resource management includes water usage as manufacturing, especially for semiconductors, requires significant amounts of water, posing urgent challenges in regions with water scarcity issues. Data centers consume vast amounts of water for cooling purposes, which is on the rise given the global demand for data-intensive tools, such as AI. For instance, Google and Microsoft reported significant rises in water usage in 2022 – 20 percent and 34 percent, respectively, which is attributed to the cooling requirements for their AI demands. In 2023, it was reported that data centers using evaporative cooling systems consume between 3 to 5 million gallons of water per day, which is comparable to the daily water usage of a city with 30,000 to 50,000 people.^{11,12,13}

Recommendations

To effectively manage water resources, technology companies should conduct thorough assessments of their water usage patterns and establish clear goals, prioritizing investment in areas with high water stress and high operational water consumption. Drawing from Microsoft's approach, companies can adopt principles to guide their water replenishment strategy such as need-based investment in areas with high water stress and operational water consumption, investing in locally

relevant projects that will benefit the community, prioritizing community needs and impact, and focusing on scalable innovation.¹⁴

For companies navigating the complexities of water stewardship, this entails understanding the water required for direct operational needs and assessing how much is imported or taken from local communities. Many prominent technology companies such as Meta, Microsoft, and Google have pledged to replenish freshwater they have consumed, acknowledging the industry's culpability in depleting one of our world's most scarce resources. Developing a comprehensive strategy for water replenishment is crucial, from both a logistics and community-based approach. Technology companies should embrace circular economy principles by designing products that prioritize longevity, reparability, and recyclability.

One notable example is Fairphone's focus on fair material sourcing and improving working conditions throughout its supply chain, ensuring transparency and accountability.¹⁵ Fairphone's facilitation of its recycling program sets a benchmark for reducing e-waste and circular economy initiatives. The single most important waste management program that can be implemented in a company is a take-back program that closes the loop of its recycling systems (see Figure 5 below). Companies are finally beginning to design with the end in mind and avoid the "take, make, waste" mentality that still dominates the linear supply chain. Finally, companies in the technology sector must prioritize reducing greenhouse gas emissions from data centers and manufacturing operations.¹⁶ This can be achieved through energy efficiency improvements, replacing technology with more carbon efficient options, renewable energy adaptation, and innovative technologies that optimize data center resource use.

“

For companies grappling with the challenge of water stewardship, as with all problems, it is critical to understand what your water goal is. That is, to define water, much like the corporate management approach for carbon.

How much water does your company need for direct operations, how much do you import, and how much are you taking from local populations? What is your strategy for replenishment? Answering these questions to manage key water concerns is essential to ensuring a resilient supply chain.

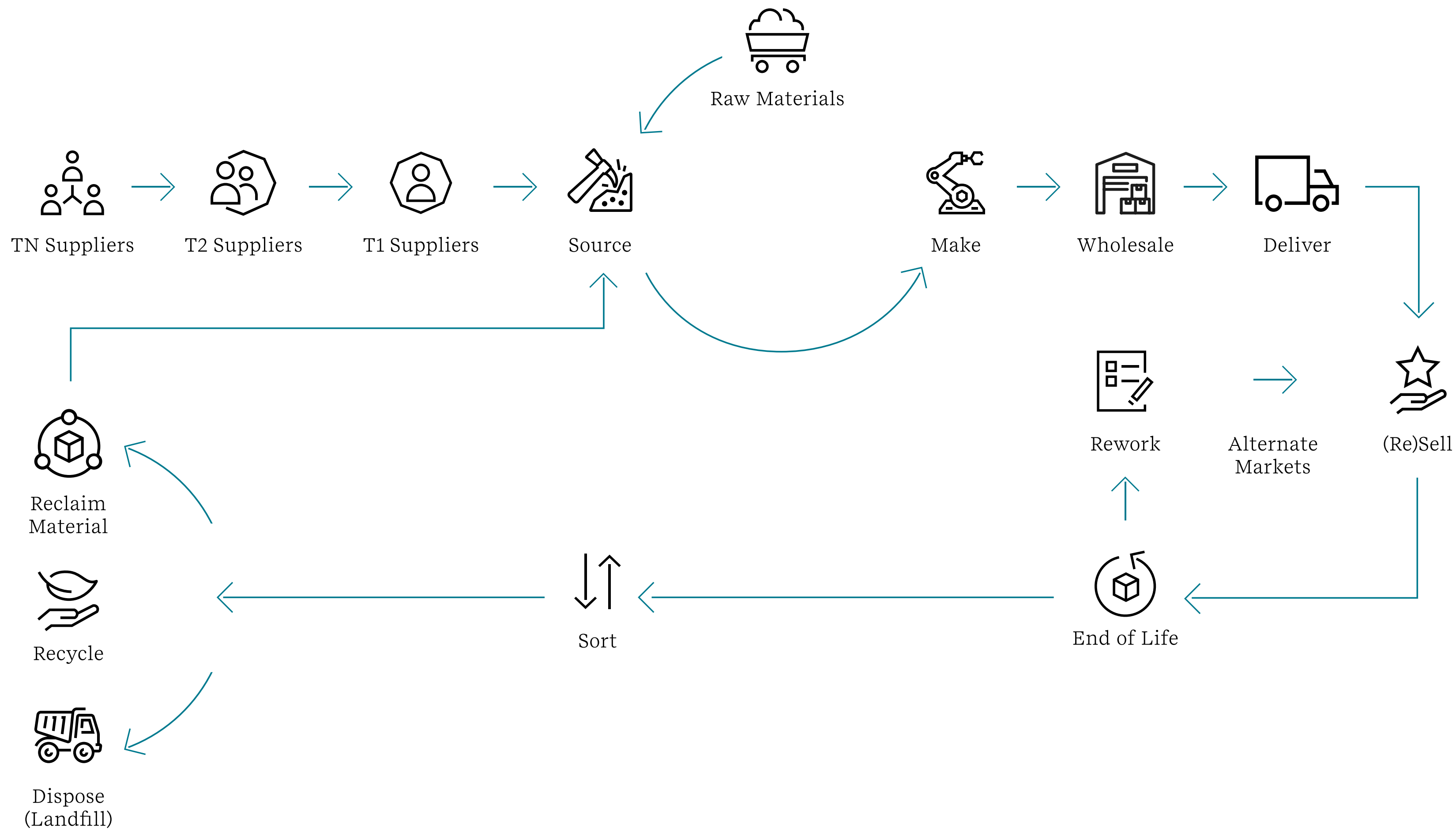
Ed Struzik, CPIM, Partner, Supply Chain, ERM

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Figure 5: Circularity in the supply chain

Sustainable supply chains include end-of-life management and incorporate circular practices.



Source: ERM

Conclusion

The journey toward a sustainable supply chain demands a multifaceted approach to overcome its barriers.

By recognizing and addressing challenges such as resource constraints, complex regulatory landscapes, and increasing stakeholder pressure, while implementing solutions like increased transparency, training, and collaboration across the supply chain, organizations can forge a path toward greater sustainability and resilience. Technology companies should start by developing a robust compliance management system and a comprehensive corporate sustainability program. To support these initiatives, they should embrace supply chain transparency and provide thorough training for suppliers and employees on sustainability practices. Collaboration with suppliers is essential to drive innovation and progress. Additionally, technology companies should incorporate circular economy principles by designing products that prioritize longevity, reparability, and recyclability. Finally, they should conduct thorough assessments of their water usage patterns and establish clear goals, prioritizing investments in areas with high water stress and significant operational water consumption.

It is imperative that stakeholders remain committed to ongoing improvement, transparency, and responsible practices to ensure a balance between economic prosperity, environmental stewardship, and social equity in the global supply chain landscape. After all, a more resilient and sustainable supply chain is also a more profitable supply chain.



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LinkedIn: [linkedin.com/company/sustainabilityinstituteerm](https://www.linkedin.com/company/sustainabilityinstituteerm)

Website: [sustainability.com](https://www.sustainability.com)

Authors

Dia Rizakos, ERM

Ed Struzik, CPIM, ERM

Katie Langemeier, ERM

Contributors

Aiste Brackley, ERM

Alexandra Guaqueta, ERM

Alice Valvoda, ERM

Alison Drury, ERM

Allison Cepukenas, ERM

Arnab Basu, ERM

Justin Nelson, ERM

Katrina Nagle, ERM

Susanne Baker, ERM

Rebecca Green, ERM

Stephanie Baxter, ERM

Trent Collings, ERM

Trishna Koirala, ERM

Alyssa Pineau
(formerly ERM)

Elizabeth Fergus
(formerly ERM)

Interviewees

Claire Brockdorff, Sage

Hyrine Munga, Microsoft

Romi Lessig, Dell

Ted Jeffries, Intel

Supply Chain Leader,
Global Technology
Company

Supply Chain Leader,
Global Technology
Company

Design

Siddhartha Ganguly, ERM