

Supply Chain Sustainability Risk Management & Value Creation

by Tom Teixeira, Thomas Black, Kurt Baes, and Martijn Eikelenboom

Supply chain risk management is a key challenge for many companies and is often plagued by inadequate transparency, difficulty of control, and, in many cases, a lack of trust. Furthermore, with today's urgency to develop and publish sustainability policies, managing the risk of noncompliance against these policies to avoid reputational damage and associated financial losses is receiving senior management attention. Over the past decade, there have been numerous high-profile cases of poor sustainability in supply chain risk management. But the upside, as highlighted in this *Executive Update*, is the potential for true value creation in an increasingly sustainability-aware business environment. Indeed, companies are asking some fundamental questions about why they exist (other than simply for creating wealth for investors) and are looking at sustainability across the entire supply chain. In a global landscape where sustainability is considered by some as an essential part of business but to others as just a second thought, how can a company manage the risks and upsides associated with sustainability across their supply chain?

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Supply chains can be extremely complex. They are often multi-tiered, sometimes spanning multiple geographies, and often requiring highly specialized raw materials and subcomponents that in turn rely on other parties for parts or services. As the complexity of a supply chain increases, so does the potential for a lack of transparency and a weakened level of control and influence. Across the supply chain, organizations struggle to foresee and control risks, such as varying regulatory environments, political landscapes, national cultures and patterns of behavior, and societal expectations.

The Confusion Surrounding Sustainability Risk

A recurring theme surrounding sustainability risk is the idea that companies should focus solely on environmental risk. Supply chain sustainability risk is broad, however, and encompasses a range of different aspects and sources, including:

- **Health and safety** — preserving health and well-being to employees, contractors, and those exposed to supply chain operations
- **Environmental** — minimizing damage to the environment through pollution/resource reduction, waste management, sustainable sourcing, and biodiversity conservation
- **People** — working alongside suppliers to enhance local communities in the form of safe work, fair wages and

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hours, education, infrastructure improvements, and protection from child labor/modern slavery and discrimination

- **Ethics** — effectively governing over poor business conduct that could take the form of bribery, fraud/embezzlement, or misconduct
- **Regulatory** — ensuring compliance with laws and legislation to protect the organization from loss of critical operations/business licenses and legal proceedings
- **Reputation and finance** — providing the organization with a positive brand image and reputation — attracting customers, investors, and employees and enhancing competitiveness; ultimately protecting a company from a damaged reputation and financial loss

Combatting Supply Chain Sustainability Risk

Implementing a supply chain sustainability risk management framework and supplier engagement strategy require collaboration and communication between numerous functions and stakeholders across the supply chain.

Implementing a supply chain sustainability risk management framework (including a defined risk appetite) and supplier engagement strategy require collaboration and communication between numerous functions and stakeholders across the supply chain. A risk appetite and supplier engagement strategy will determine an organization's capability and capacity to engage with suppliers in terms of:

- **Number of suppliers to engage with** — includes direct suppliers as well as Tier 2 and beyond
- **Contract management** — depth of contractual agreements with suppliers (e.g., dedicated contracts for certain types of supplier or individual suppliers, mandatory requirements, termination agreements)
- **Supplier relationship management** — dedication to work alongside suppliers to improve sustainability performance (e.g., incentives, joint activities, joint KPIs)
- **Performance management** — monitoring supplier performance against contractual commitments (e.g., corrective action plans, mandatory training)

- **Internal practices** — establishing internal practices to support sustainability culture across own organization (e.g., setting and adhering to internal targets and KPIs, internal codes of conduct)

Supplier Qualification & Performance Management

Organizations must perform pre-assessment and due diligence before considering a supplier:

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- **Pre-assessment** — usually involves an initial materiality assessment to establish an understanding of any potential sustainability supply chain risks. The pre-assessment includes data gathered from annual reports, websites, news reports, remote interviews, small questionnaires, and so on. It is not focused on sustainability supply chain risk alone but on a supplier's overall ability to be a reliable supplier.
- **Due diligence** — consists of gathering detailed information, usually through a detailed questionnaire, and includes specific company data and records. Questionnaire responses and transparency of data depend on:
 - Procurer/supplier engagement strategy
 - Supplier capability, which depends on product category, company size, location, language, etc.
 - Supplier willingness, which depends on volume, existing relationship, dependency, supplier market dominance, etc.
 - Availability of alternative suppliers

Similar to pre-assessments, due diligence is not entirely focused on sustainability supply chain risk but is related to a supplier's overall ability to be a reliable supplier that fits it with a company's strategic priorities. Questionnaires are commonly used in procurement processes but often omit sustainability aspects, which risks ignoring deal-breaking questions

that could identify key sustainability risk. These initial assessments of potential suppliers can encompass the whole supply chain without requiring much time or effort from an organization and means suppliers deemed too high-risk can be ruled out early, although a large pool of potential suppliers may remain.

Prioritizing Suppliers Based on Risk

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The size of a supply chain varies by organization, based on the type of industry and number of tiers within the supply chain. It is not uncommon for the supply chain to be vast; in such cases, it is not feasible to risk assess each supplier. This creates a dilemma around which suppliers to prioritize for an “intensive care” approach and what type of prioritization would be most effective in capturing the suppliers exposed to the highest level of sustainability risk. Organizations should consider the following dimensions when prioritizing suppliers within a supply chain:

- **Category typology** — selecting suppliers based on strategy such as volume/expenditure, sustainability risks, criticality to operations, policy changes, future operations, etc.
- **Supplier typology** — selecting suppliers based on perceived sustainability risks related to their geo-location, sources of raw materials and labor, historical performance, etc.
- **Sustainability issue typology** — selecting suppliers within specific “high-risk” categories against key sustainability risks (e.g., emissions, child labor, poor cybersecurity) based on key stakeholder consultation.

Organizations can combine multiple dimensions into their prioritization framework to make it robust and tailored to their business environment. This is a better than the “finger in the air” approach that some companies rely on, which heavily

depends on the opinion of internal “experts” to prioritize an entire supply chain. These methods can lack any credible scoring criteria that is backed by data or tool-based assistance and may lead to a lack in clarity on those suppliers that potentially carry the most sustainability risk.

The prioritization process can be optimized using:

- **Data references** — external stakeholder review, expert consultation, peer/competitor opinion, law and regulation review, media coverage analysis, etc.
- **Data-backed tools** — detailed sustainability risk questionnaires for suppliers, geo-location assessments based on sustainability indices, etc.
- **Technology** — performance dashboards (including artificial intelligence/machine learning platforms), heat mapping to enable effective decision making, etc.

Risk Assessment of Prioritized Suppliers

Once an organization has determined a pool of prioritized suppliers, it can identify, assess, evaluate, control, and monitor sustainability supply chain risks.

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- **Identification.** Potential sustainability supply chain risks can be identified based on various sources, including data references and data-backed tools like those used in the prioritization phase, highlighting potential areas of non-compliance, current and emerging industry risk, and historical loss data. Techniques such as cause-and-effect analysis and carefully constructed workshops can be used to identify relevant sustainability supply chain risks.
- **Risk assessment and evaluation.** This stage requires the formulation of likelihood and consequence criteria. Consequence criteria should be formulated by combining the knowledge of internal and industry experts. These criteria can be adjusted by region and business unit to align with local business conditions and regulatory

environments. Likelihood criteria should be based on a combination of historical data and relevant industry expertise. Sustainability supply chain risks can then be mapped against these criteria for each prioritized supplier.

- **Mitigation and control.** The next step is to identify potential mitigation measures. Control and mitigation strategies come in the form of contract management, supplier relationship management, performance management, and internal practice.
- **Monitoring.** An effective escalation and aggregation process ensures that supply chain sustainability risks are escalated appropriately to provide transparency of risk and enable corrective actions to be taken by the appropriate level of management. Organizations can [optimize monitoring](#) by developing effective threshold limits and identifying and monitoring key risk indicators (KRIs), as shown in Figure 1.

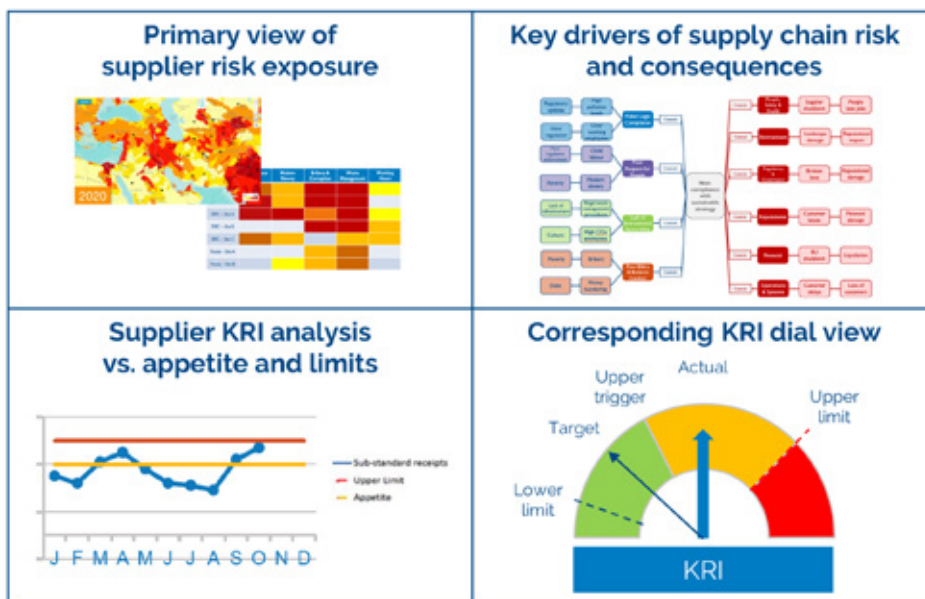


Figure 1. Sustainability KRI dashboard (source: Arthur D. Little)

Being Proactive over Reactive

Those skirting the moral lines on sustainability performance are starting to feel the effects of updated regulation and corporate/public perception. Various existing and emerging markets have been exposed — from fast fashion with its issues with waste management, resource usage, and material toxicity to electric vehicles and its issues with modern slavery and child labor used in the mining of essential elements. With further crackdowns imminent, organizations must be proactive in their response to sustainability risk issues in their supply chain before they become too exposed.

A Business Case for Sustainability

The global sustainability landscape is constantly evolving, with some governments and multinational companies leading the way to generate real business advantage. On the other hand, there is evidence that poor sustainability performance is becoming very costly, and proposed regulations will potentially make it more so (see sidebar “Being Proactive over Reactive”).

In 2020, European Commissioner for [Justice Didier Reynders](#) announced that legislation will be introduced on mandatory sustainability due diligence for companies as part of the Commission’s work plan and the European Green Deal. Moreover, a [report](#) by the European Parliament Committee on Legal Affairs released in late 2020 states unequivocally that there must be the establishment of:

... minimum requirements for undertakings to identify, prevent, cease, mitigate, monitor, disclose, account, address, and remediate the human rights, environmental, and governance risks posed by their own operations and also their value chain, including business relationships.

The report goes on to say state:

Member States should designate national authorities to share best practices as well as to supervise and impose sanctions, including criminal sanctions in severe cases.

This is a significant step in the enforcement of environmental, social, and governance (ESG) requirements as well as punishment for those who do not comply. This will have an impact on companies and suppliers across the world. As suggested in the reports, companies should promptly act to eradicate sustainability risk from their supply chains.

Overall, sustainable investing is becoming a prominent feature across various investment banks and investment management firms. Indeed, John McKinley, director of BlackRock's sustainable investing team, has observed "an increasing positive correlation between effective management of ESG-indicators and the longer-term value creation by a company." This is corroborated by global investment research firm [MSCI](#), which has identified that ESG leaders return significantly greater gross returns than average ESG performers.

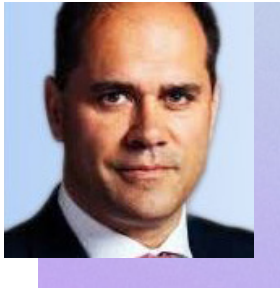
Financial institutions like [Standard Chartered](#) are providing a greater emphasis on sustainability risk by setting specific lending requirements for certain industries. One such case is shipbreaking (ship disposal and recycling), where lending is agreed only if shipyards follow internationally recognized environmental, health, and safety working practices. These practices include providing safety training programs, protective clothing, fair working hours, and regular health checks.

Conclusion

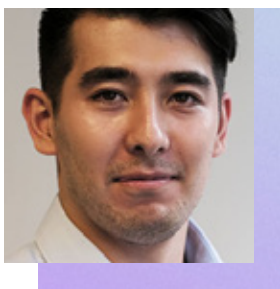
The global sustainability landscape is ever more complex, and sustainability is becoming increasingly important due to an ever-changing regulatory environment, higher societal and shareholder expectations, greater scrutiny, and competitors that gain advantages by exploiting the positive aspects of sustainability in the supply chain. This complexity can lead to a lack of transparency in sustainability risks across the supply chain, putting organizations in danger of unwitting exposure to risks.

Without careful management and control, organizations may be exposed to significant financial and reputational risk that could cause very serious damage. At the same time, organizations with an effective sustainability strategy that covers both internal and external supply chains, combined with effective and proactive risk management systems, will become more competitive and attractive as business partners in the future.

About the Authors



Tom Teixeira is a Cutter Expert and a Partner at Arthur D. Little (ADL), based in London. He has more than 20 years' risk management experience, both in senior consulting and operational roles. Mr. Teixeira's key areas of expertise include risk-based strategic planning and forecasting; risk analysis and quantification; total cost of risk reduction strategies, including insurance and captive management; and governance, risk, and compliance technology platforms. He has held senior positions in the professional services and insurance sectors, including EMEA risk advisory partnerships at Alvarez & Marsal LLP and Willis Towers Watson, where he supported FTSE250 and *Fortune* 500 companies to improve their approach to risk management and drive business performance. Earlier in his career, Mr. Teixeira held the role of Head of Risk Management at Rolls-Royce, the technology company, where he was the recipient of the 2007 European Strategic Risk Discretionary Award for Excellence in Risk Management. He is key author of the AIRMIC's *Risk Appetite Guide and Ensuring Corporate Viability in an Uncertain World*; the Institute of Directors' *Business Risk: A Practical Guide for Board Members*; and contributes regularly to *The Wall Street Journal*, *Financial Times*, and *Commercial Risks Europe*. Mr. Teixeira is a member of British Standards Institute committees for Risk Management and Governance. He is a visiting lecturer on risk management methodologies at Cardiff University, Wales. Mr. Teixeira earned a bachelor of engineering degree in mechanical engineering and energy studies from Cardiff University and a master's of science degree in systems engineering from University College London, UK.



Thomas Black is a Consultant at Arthur D. Little (ADL), based in London, and a member of ADL's Risk and Utilities & Alternate Energy practices. His expertise focuses on the implementation of next-generation risk management solutions across a number of industries, from travel and transportation to pharmaceuticals. Mr. Black earned a master's in engineering degree from Newcastle University, UK.



Kurt Baes is a Cutter Expert and a Partner at Arthur D. Little (ADL), based in Brussels, Belgium, with over 20 years' strategy consulting experience. Mr. Baes is the local leader of various ADL industry (Oil & Gas, Utilities & Alternative Energy, Automotive, Industrial Goods & Services) and functional (Operations Management) practices and heads ADL's Global Competence Center for Energy Transmission. He focuses on growth, innovation, and operations strategy across a broad range of sectors, including energy, automotive, industrial goods, food and beverage, electronics, chemicals, and transport. Mr. Baes holds an MBA from Cornell University and a master of science degree in applied economics from KU Leuven, Belgium.



Martijn Eikelenboom is a Cutter Expert and a Managing Partner at Arthur D. Little (ADL), based in the Netherlands, and the global head of ADL's Sustainability practice. He is also a member of ADL's Strategy & Organization and Technology & Innovation Management global practices. Mr. Eikelenboom focuses on corporate, growth, and innovation strategies, with an emphasis on media, food, energy, clean tech, chemical, private equity, and the services industries. His expertise includes sustainability strategy, digital strategy, data analytics, marketing and sales excellence, and transaction support. Mr. Eikelenboom is former CEO of ECI/Bertelsmann, Benelux's leading media publisher, distributor, retailer, and e-commerce player, where he worked on transforming the company into an online player with award-winning customer service and logistics performances, supported by predictive analytics systems. He is also founder and chairman of a nonprofit timber trading company that helps protect tropical forests. Mr. Eikelenboom earned a BBA from Nyenrode University, the Netherlands, and an MBA from IESE Business School.

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