

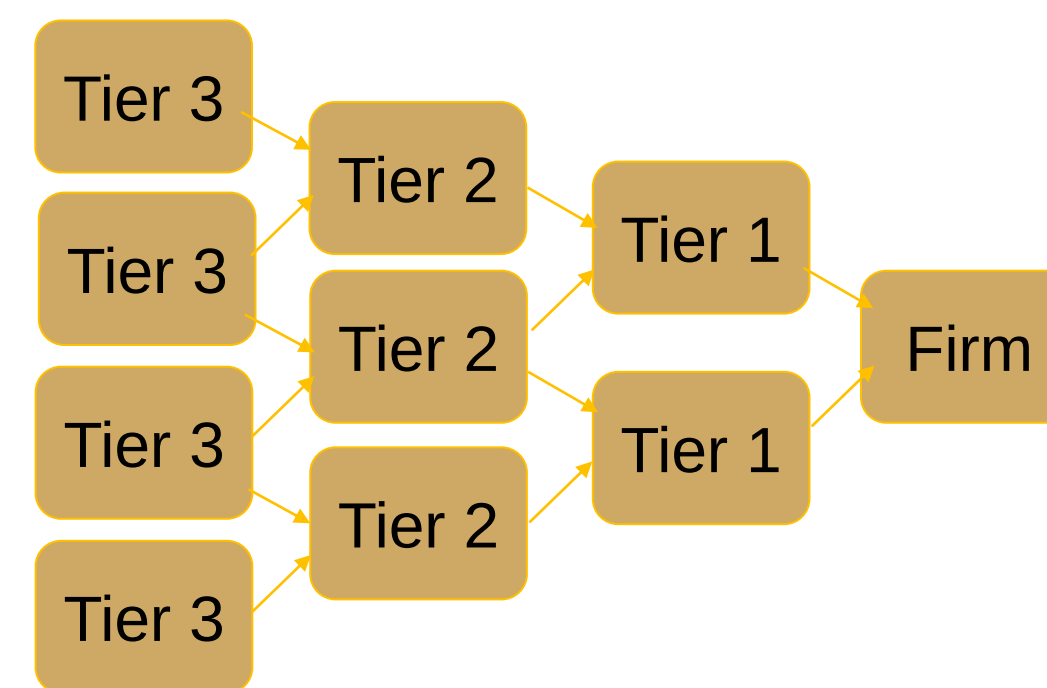
Evaluating Supply Chain Sustainability through Triple Bottom Line

Motivation / Background

Supply chain sustainability is often classified in academic research through the **triple bottom line (TBL)**, which breaks the topic into three main components: **economic**, **environmental**, and **social** (Blackhurst et al., 2012).

Due to increasing external pressure, more and more companies are committing to aggressive sustainability targets and require increased visibility for performance monitoring across their supply chains.

The growth in global, multi-tier supply chains contributes to both the *importance* and *complexity* of evaluating supply chain sustainability.



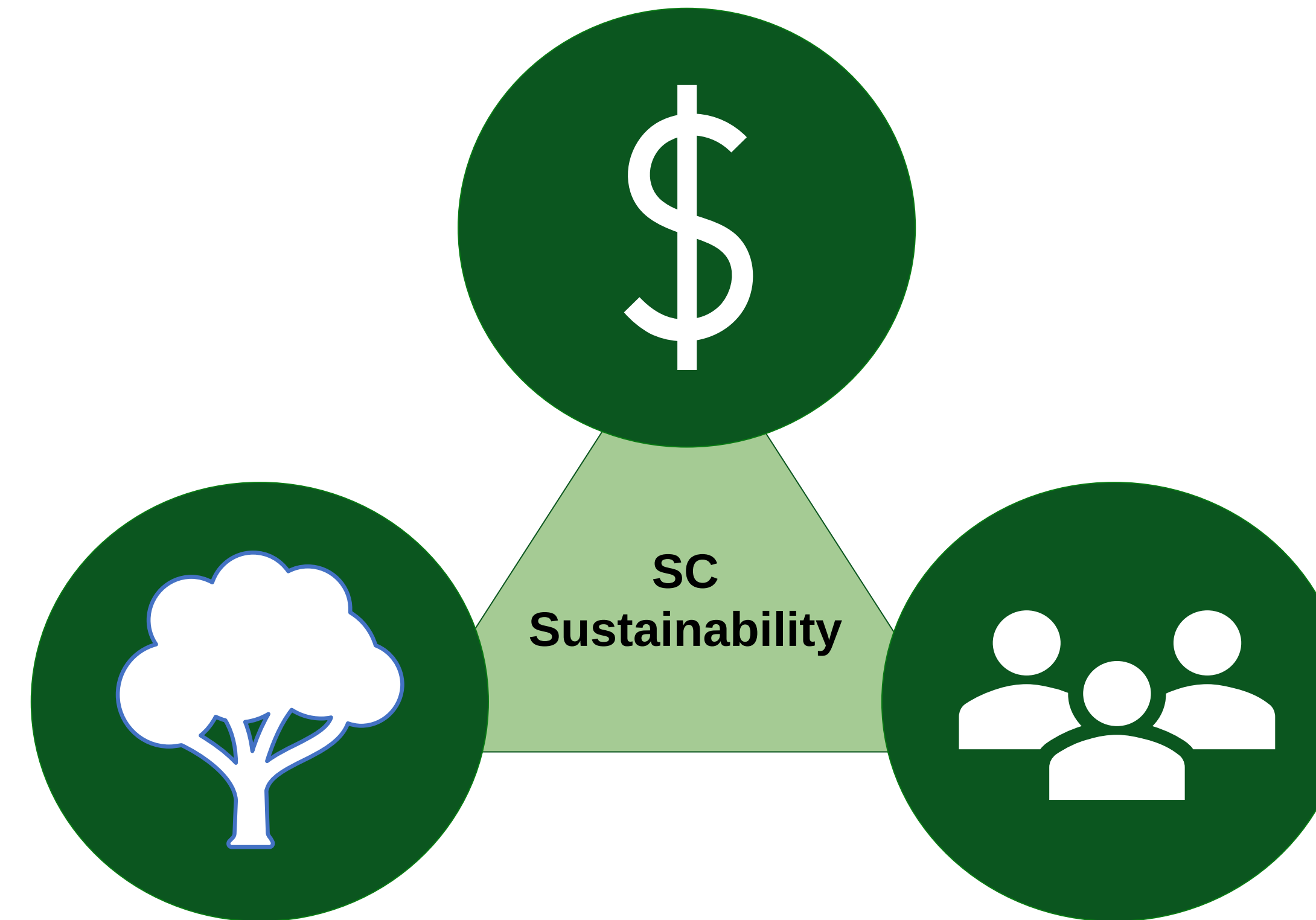
Key Questions

- What are the **critical success factors (CSFs)** of supply chain sustainability, and how do they differ across five key industries (e.g., agriculture, construction, extraction, manufacturing, and retail)?
- How can an organization evaluate and manage supply chain sustainability by looking holistically at **Triple Bottom Line (TBL)** CSFs, such as environment, economic, and social?

Relevant Literature

Govindan, K., Rajendran, S., Sarkis, J., & Murugesan, P. (2015). Multi criteria decision making approaches for green supplier evaluation and selection: A literature review. *Journal of Cleaner Production*, 98, 66–83.

Saaty T L. (1980). *The Analytic Hierarchy Process*, McGraw Hill, New York.

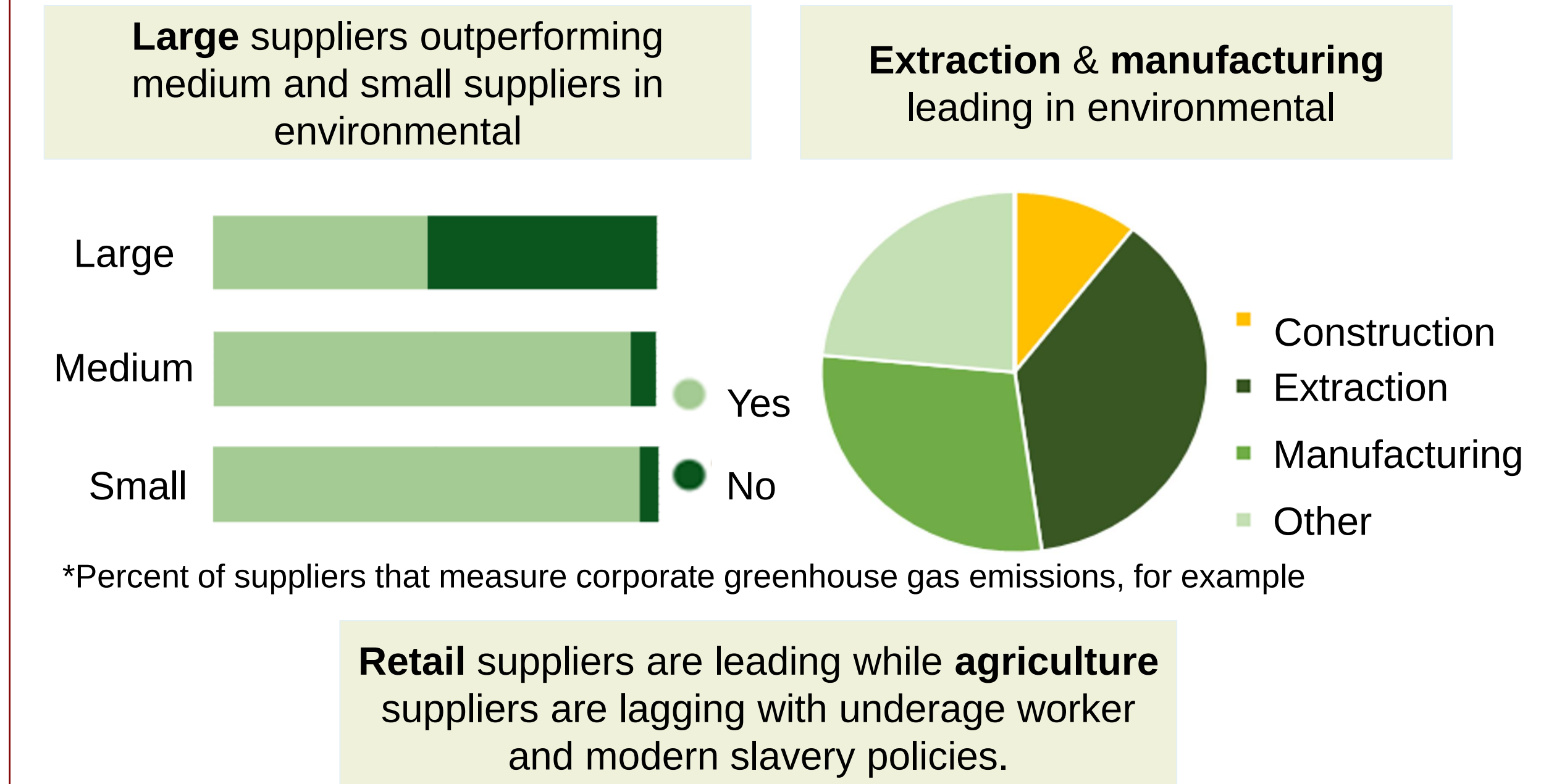


Methodology

Literature review, supplier survey data, and expert opinion are used to identify Critical Success Factors and complete the Analytical Hierarchy Process (AHP).

Data Collection	Data Exploration	Analysis & Findings
Literature Review Avetta Supplier Sustainability Survey Responses 20 environment & social questions 2019-2021 Expert Questionnaire - CSFs - Industries	- Cronbach's Alpha for Consistency Validation of Survey Responses Business Insights - Industry Rankings - Gold Standard Suppliers - ESG Findings	- Identify Critical Success Factors (CSFs) Analytical Hierarchy Process (AHP) - Ranking of CSFs - Final Conclusions

Data Collection & Preparation



Findings

The following CSFs were identified as having the **highest relative importance** for determining supply chain sustainability and should be key areas of focus when evaluating suppliers.

Environment	Social	Economic
- Environmental Management System - Image - Emissions	- Social Code of Conduct - Fair Wages - Work Safety & Labor Health - External Reporting	Financial Stability

Companies should ensure strong baseline policies & programs are in place, and seek to expand beyond traditional supplier evaluation metrics to include the sustainability factors listed above.

